

ANNUAL SCIENTIFIC REPORT

2021



Instituto de Investigación Sanitaria
Gregorio Marañón

Annual Scientific Report 2021



Instituto de Investigación Sanitaria
Gregorio Marañón



Hospital General Universitario
Gregorio Marañón



FUNDACIÓN INVESTIGACIÓN BIOMÉDICA
HOSPITAL GREGORIO MARAÑÓN



CONSEJERÍA DE SANIDAD

Comunidad de Madrid

Dirección General de Investigación,
Formación e Infraestructuras Sanitarias



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This Annual Scientific Report 2021 from IISGM was prepared by the Fundación para la Investigación Biomédica of Hospital Gregorio Marañón and Instituto de Investigación Sanitaria Gregorio Marañón, with additional funding from the European Union via the European Regional Development Fund and the European Social Fund.

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PRESENTATION

1



We present, full of pride, the 2021 Scientific Report of the Institute for **Health Research of the Hospital General Universitario Gregorio Marañón (liSGM)**, with the objective of disseminating the research and innovative activity carried out before institutions and social agents but, moreover, of recognizing **the extraordinary effort made by the researchers** of each Research Group. We wish to highlight and acknowledge the dedication and extraordinary work carried out by all members of the Institute in the complex circumstances derived from the COVID pandemic.

The extraordinary research activity carried out has undergone an outstanding growth (greater than 20% with respect to the previous year) in the scientific production of the Institute, which has meant in 2021 reaching **9,539 impact factor points**. It is important to mention the extreme rigor with which the award of publications to the liSGM is analyzed, which clearly determines the robustness of the indicator. Additionally, it is worth mentioning the significant number of publications (48%) led by liSGM researchers, the degree of international collaboration in the different publications, and the proportion of originals in first decile and quartile journals (45%).

The innovation activity of the liSGM also stands out, with an extensive portfolio of innovation assets, including three "spin-offs", adapted to the current needs of the health system (c.a. 50% of our patents are licensed to the market) and, above all, with great potential for future growth and highly attractive for the productive and industrial sectors.

This research and innovative activity is possible thanks to the excellent capacity of researchers to **successfully attend competitive calls**, both for projects and human resources, the latter being of especial value, as it is the basis for ensuring the generational renewal of the center's researchers. Within this scenario, it is important to highlight the commitment of the liSGM groups with the **training of researchers**, the result of which highlights the significant number of doctoral theses defended throughout 2021 and the ambitious **Training Plan** (with up to 13 courses accredited) developed under the coordination of the liSGM **Training Commission**.

The managing body of the liSGM, the **Foundation for Biomedical Research Hospital Gregorio Marañón (FIBHGM)**, makes a continuous effort to improve

its **internal management processes and continuous quality improvement**. Among the various results, the European Excellence Award in human resources management **Human Resources Strategy For Researchers (HRS4R)** or the fact that liSGM is the first and only Institute for Health Research to be **fully certified under the ISO9001:2015 quality standard**, are worth mentioning.

All these achievements are the result of huge efforts maintained by all liSGM professionals, to which we wish to express our sincere gratitude, in an environment as sensitive as that represented by scientific research in hospitals. Only a coordinated collective effort, aligned with a strategy around improving the health of patients, provides the excellent results that are collected in this report. Interestingly, 3 new groups joined the structure of the liSGM in 2021; Group 1.05. Structural and functional medical image, directed by Jesús de la Torre Fernández y Juan A. Guzmán de Villoria joined Research Area 1 Biomedical Engineering, while Group 7.33. Pathological Anatomy, initially directed by M. Jesús Fernández Aceñero and later by Javier Menárguez Palanca and Group 7.34 Multimorbidity, chronic diseases and health services (Primary Care), directed by Isabel del Cura González and Jesús Martín Fernández joined Research Area 7 Systemic Diseases and Organ Transplantation Research Area. Finally, it is important to express gratitude to all the **Area Coordinators, Group Heads, Research Groups, Research Support Services (SAls), Clinical Services and especially young researchers**, who constitute the basis of the development and activity of the liSGM.

For yet another year, the results presented in this report supports the fact that our Institution maintains its evolution and growth, generating excellent expectations for the future and placing it in an advantageous position to face the enormous future challenges to come and to shed light on the foundations of biomedical research: observation, for generating questions in the clinical practice and multidisciplinary cooperative research to allow answering them.

Thank you very much.

Dr. Ismael Buño Borde
Scientific Director (liSGM)

Dr. Joseba Barroeta Urquiza
Managing Director (Hospital General Universitario Gregorio Marañón)

INTRODUCTION

2



Introduction

MISSION

The IISGM is an institution that develops excellent research and innovation, focused on the patient and aimed at obtaining results with high impact on the clinical practice and the productive sector, generating value for the efficiency of the National Health System and the quality of life of the population as the final recipient.

VISION

The IISGM must maintain its position as a leading center in biomedical research and scientific and technological innovation at a national and international level under quality standards, being a benchmark for the population as a multidisciplinary entity that offers innovative and efficient responses to health needs and challenges of the society.

VALUES

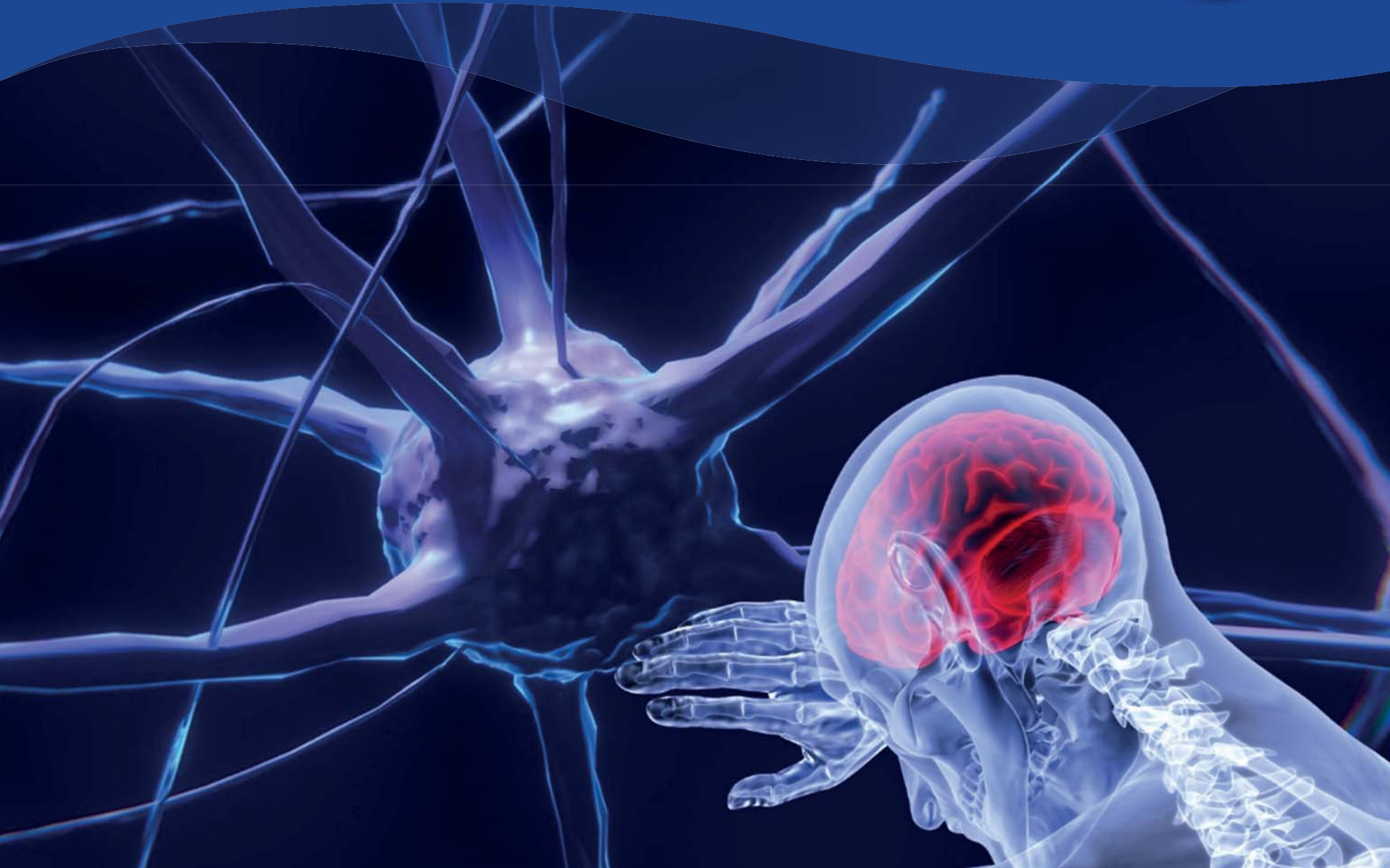
- Excellence and leadership.
- Competitiveness and innovation.
- Internationalization.
- Commitment.

- Ethics and social responsibility.
- Accessibility and transparency.
- Equality.

Bodies that constitute the Institute of Health Research in Hospital Gregorio Marañón (IISGM):



HIGHLIGHTS 3



Highlights



EXECUTIVE SUMMARY

4



Global analysis

Analysis of the scientific production of IISGM and its bibliometric impact is an essential element in the evaluation of the Institute's research activity, given that both factors reflect the competitiveness of its researchers.

In order to prepare this research report, we analyzed journals indexed in the main collection of the Web of Science (WOS) and in PubMed, the most popular open-access database specialized in health sciences.

It is important to note that before being assigned to the different research Areas and Groups, the only publications considered were those in which IISGM, Hospital General Universitario Gregorio Marañón, or both were included in the institutional affiliation data in Web of Science. Nevertheless, as a somewhat novel aspect of this new edition and thanks to the implementation of the scientific management tool Fund@net, the search for publications is made based on the name(s) that the individual researcher at the Institute has pointed out as being his/her own.

As in previous years, the total sum for the impact factor only takes into account information from indexed publications (eg, original articles, reviews, editorials, and proceedings papers) and excludes other types of publication (eg, letters to the editor and case reports). Of note, the impact factor presented in the figures corresponds to the relevant year of publication.

Publications involving different groups or areas of the Institute are counted individually in each group and area, although only once for the calculation of the total impact factor of the Institute.

The objective of the methodology used is none other than to apply internationally validated bibliometric tools for the analysis of scientific production, thus ensuring the robustness of the data contained in this Research Report.

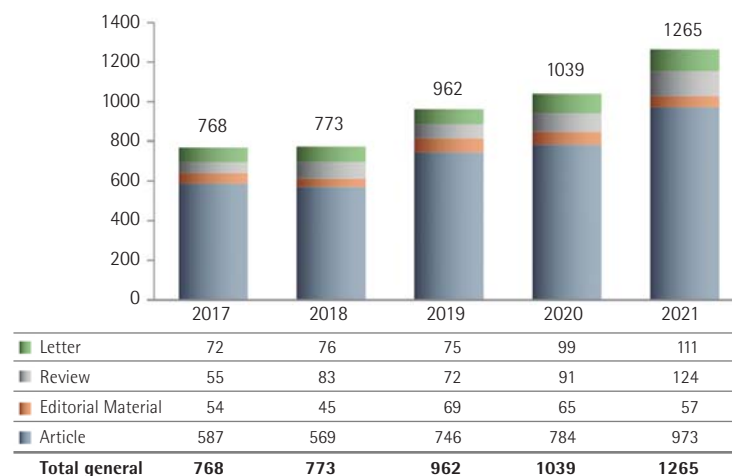
The following graphs provide a quantitative representation of the scientific output of IISGM during the year 2021.

The graphs show strong consolidation of the growth trend observed in recent years, with a total of **1265** indexed publications (1154 excluding letters), which represent a global impact factor over 9539,5 points [8518 excluding letters].

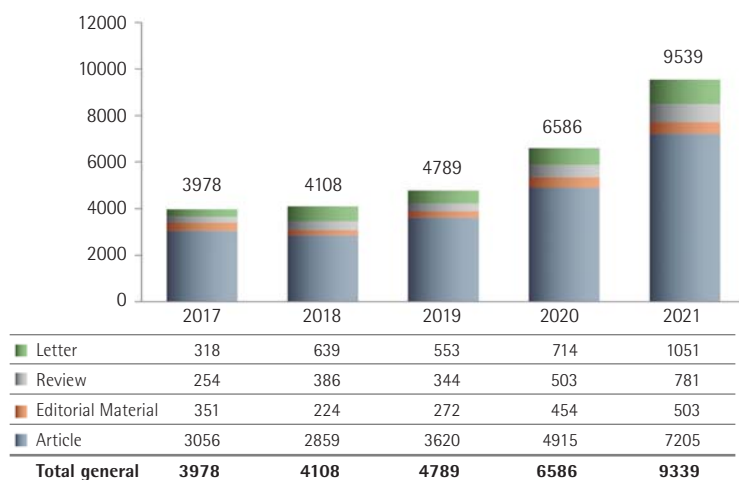
The change in the methodology for calculating the impact factor and the COVID effect have boosted the figures. All areas have risen sharply, especially Neurosciences and, above all, Infectious Diseases.

Although these changes make comparison with previous years very difficult, it is an unquestionable fact that the number of publications has increased from 1039 to 1265, an increase of more than 20%.

**Scientific output of IISGM in indexed journals
with impact factor: number of publications by type of publication**



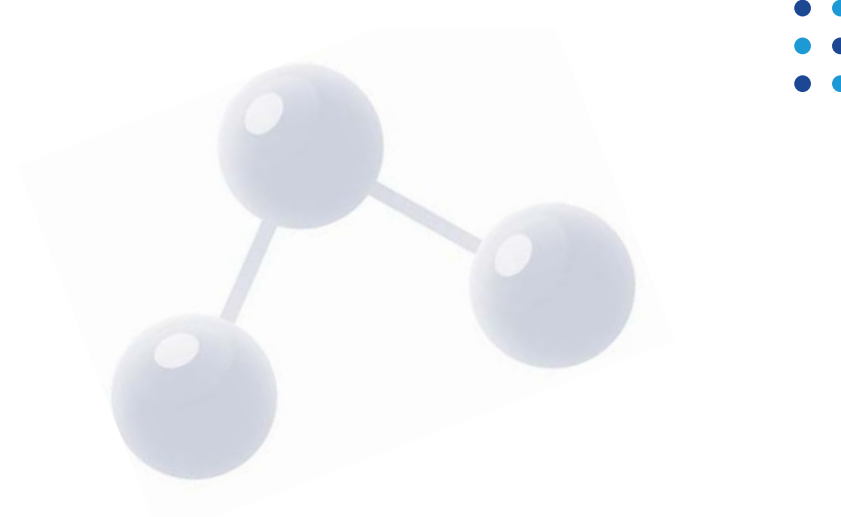
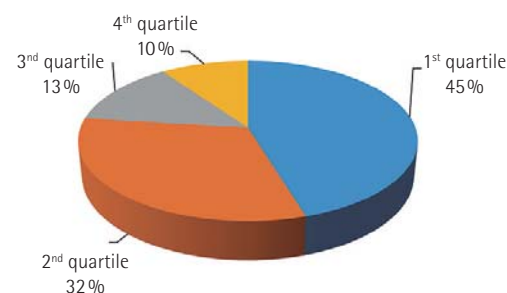
**Scientific output of liSGM:
total impact factor by type of publication**



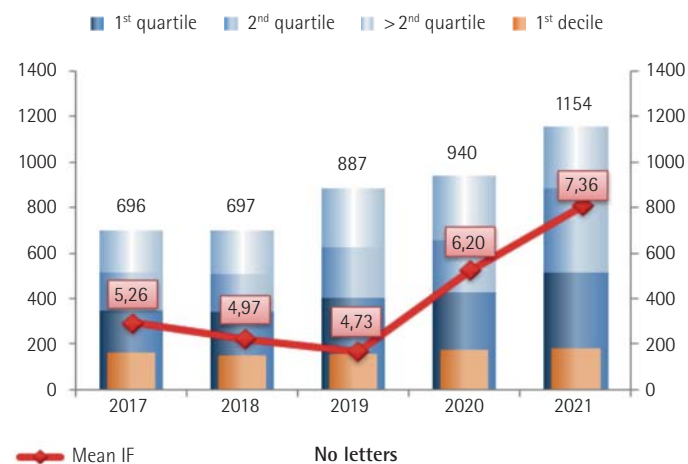
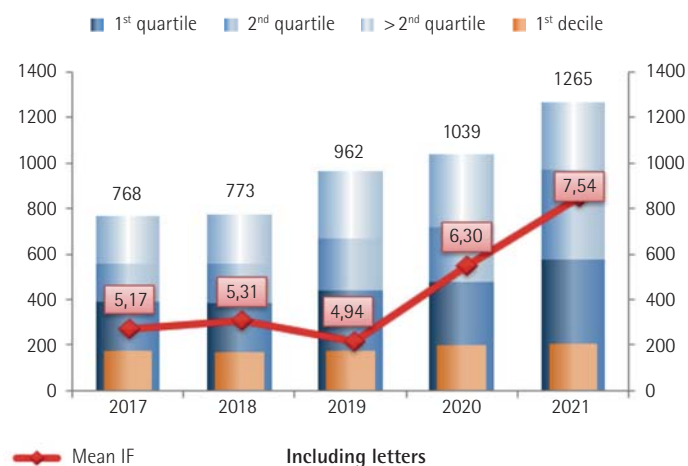
The previous figures summarize the total impact factor corresponding to the scientific production of the liSGM for each of the last 5 years and its distribution according to the different types of publication.

As can be observed, in this year 2021 the highest impact factor corresponds (in order) to: original articles, letters, reviews and editorials. It is important to note that, once again this year and as in the two previous years, the increase in the overall impact factor was mainly due to the significant increase in the number of original articles.

**Scientific output of liSGM in indexed journals with impact factor:
distribution by quartiles (relative to 2021)**



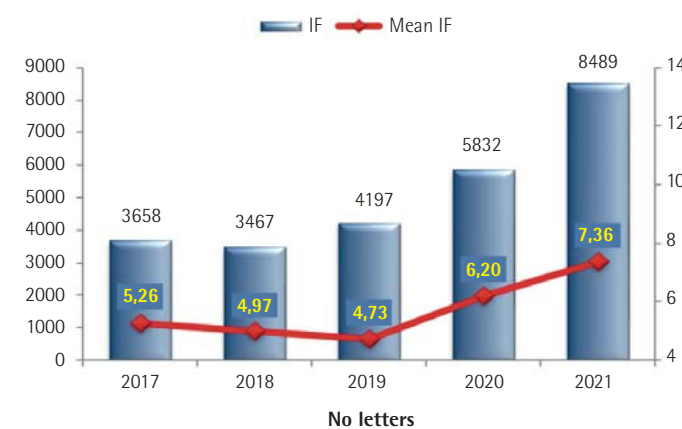
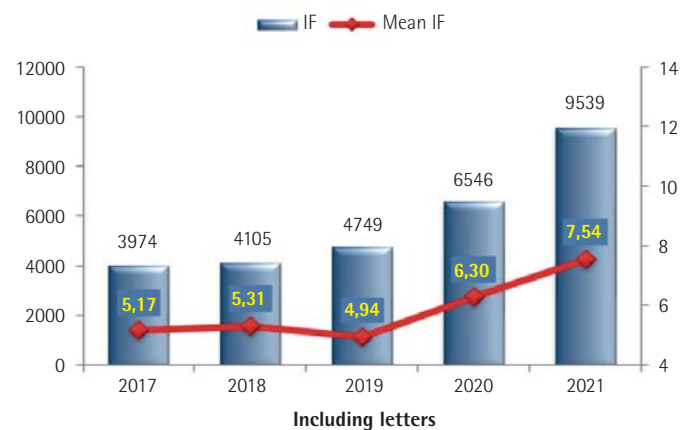
Scientific output of liSGM in indexed journals with impact factor: distribution of publications by deciles and quartiles (absolute values)



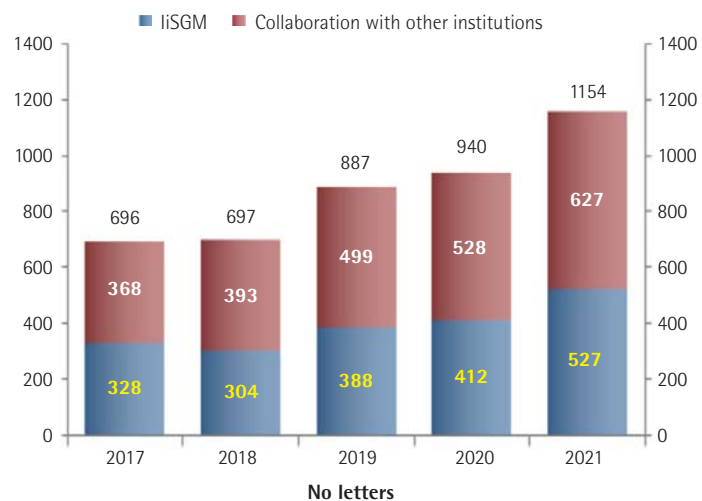
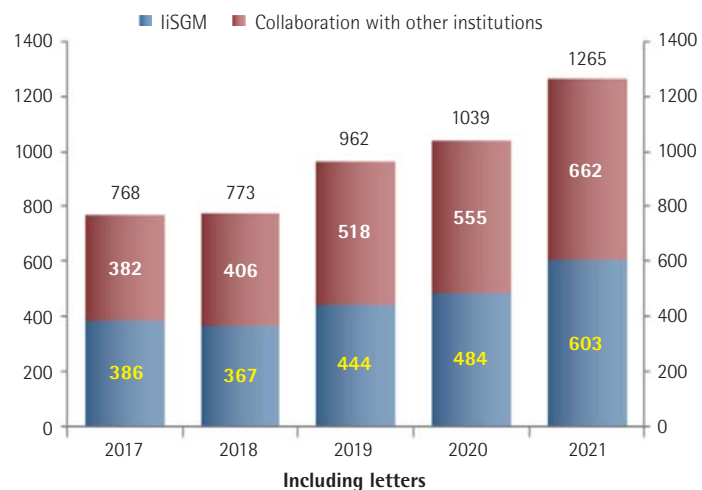
*Only publications in journals indexed in the JCR of the WOS main collection

The distribution of liSGM publications according to quartile and decile is shown in the in the two previous graphs. The absolute number of publications in the first decile and first quartile has increased significantly compared to last year.

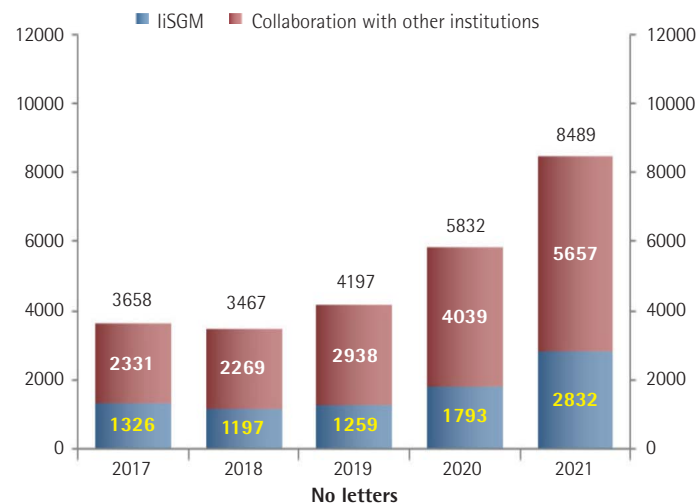
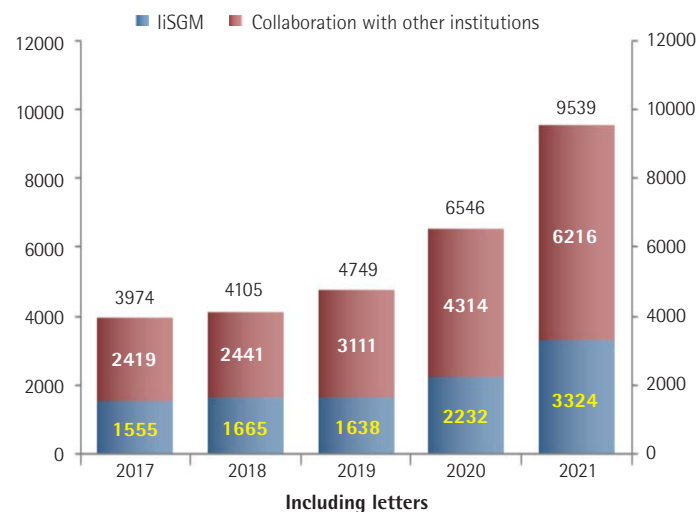
Global impact factor and mean impact factor by publication



Scientific output of liSGM in indexed journals with impact factor: total number of publications



Scientific output of liSGM in indexed journals with impact factor: impact factor



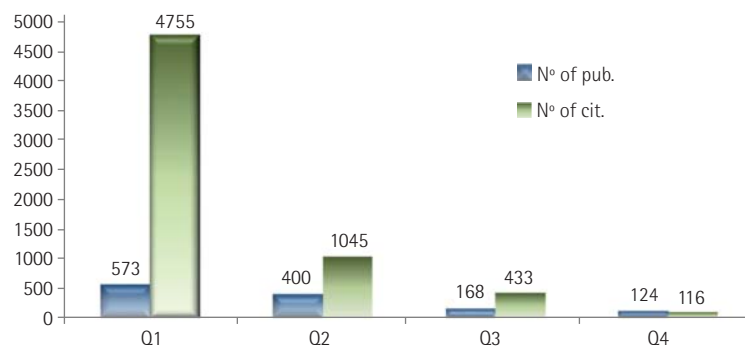
GLOBAL ANALYSIS

Number of publications and citations (no letters)



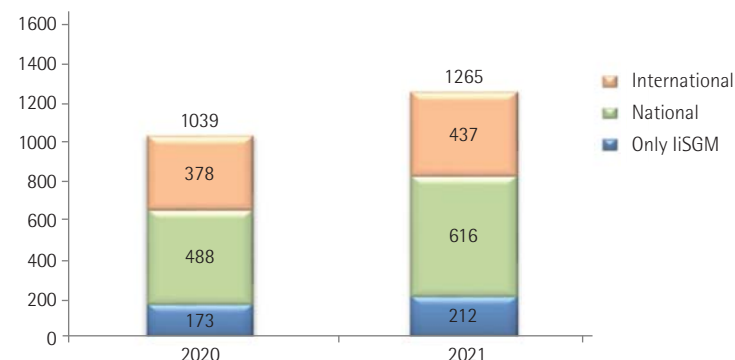
The number of citations for Institute publications over time is logically greater in elder publications, although the number of citations in relatively recent publications (2017–2021) is noteworthy, as is the number of first-quartile citations.

Number of publications and citations by quartile



The analysis of activity specifically includes publications whose principal authors (first, last, or corresponding author) are IISGM researchers.

Scientific production of IISGM in indexed journals with impact factor: number of publications



Finally, one of the most relevant elements within the scientific structure of Health Research Institutes is the grouping of research activity to priority areas, which are characterized by their scientific and social relevance and by their capacity for transferring knowledge to society.

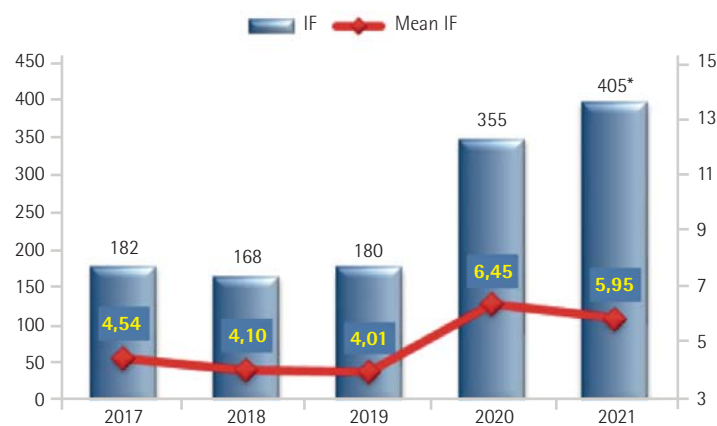
IISGM has **seven priority research areas** whose scientific activity is set out in detail below in 2 figures per Research Area:

- the first (on the left) summarizes the total impact factor together with the mean impact factor by publication
- the second (on the right) summarizes the scientific output of the research area distributed by first decile and quartiles.

Both figures show the scientific output for the last 5 years.

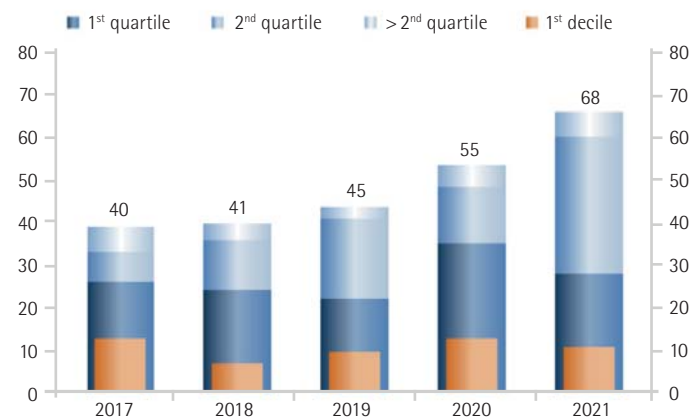
AREA 1: BIOMEDICAL ENGINEERING

Scientific output of Area 1 in indexed journals with impact factor: total and mean impact factor



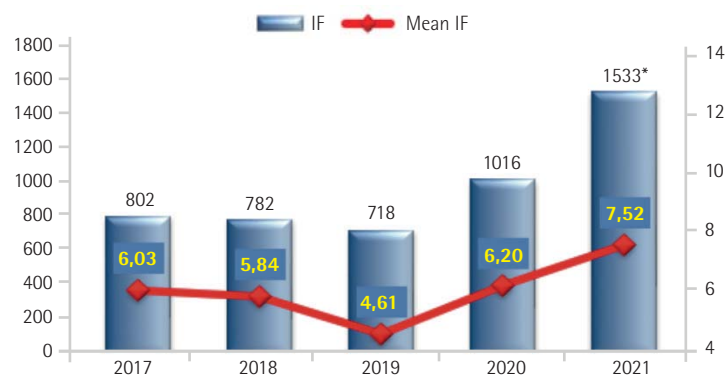
* Excluding letters: 401

Scientific output of Area 1 in indexed journals with impact factor: distribution of publications by decile and quartile (absolute values)



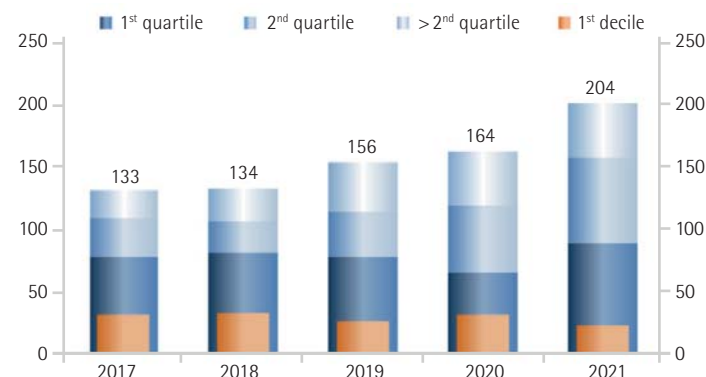
AREA 2: CARDIOVASCULAR DISEASES

Scientific output of Area 2 in indexed journals with impact factor: total and mean impact factor



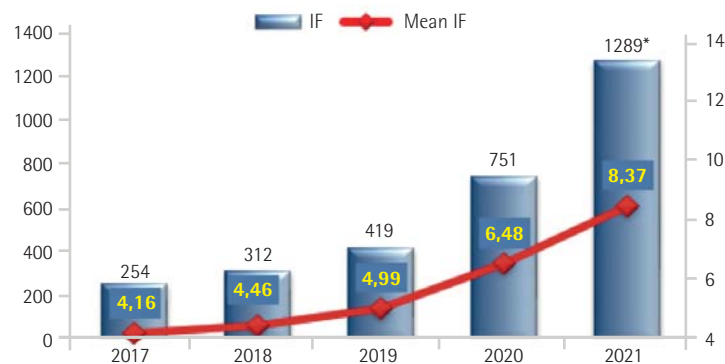
* Excluding letters: 1420

Scientific output of Area 2 in indexed journals with impact factor: distribution of publications by decile and quartile (absolute values)



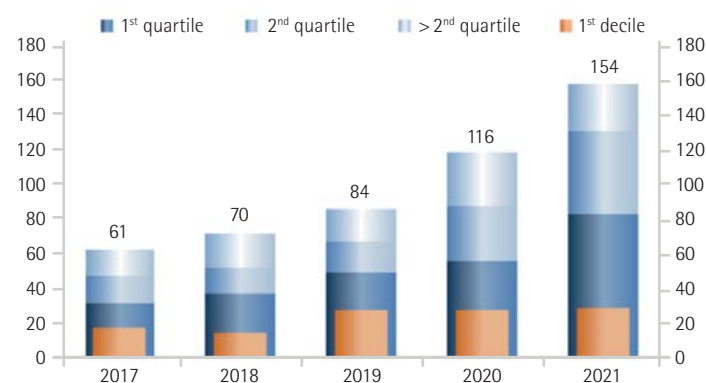
AREA 3: NEUROSCIENCE AND MENTAL HEALTH

Scientific output of Area 3 in indexed journals with impact factor: total and mean impact factor



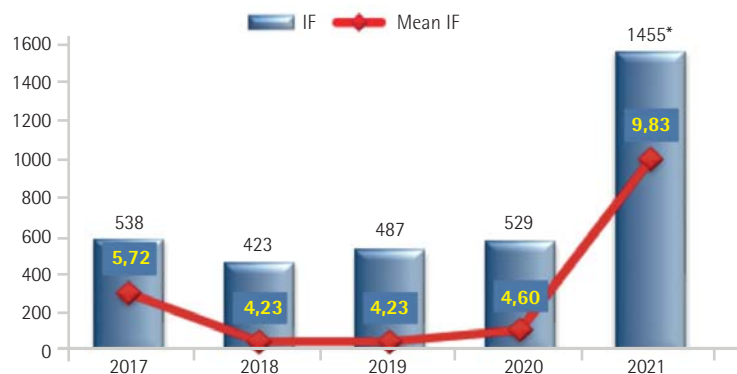
* Excluding letters: 1141

Scientific output of Area 3 in indexed journals with impact factor: distribution of publications by decile and quartile (absolute values)



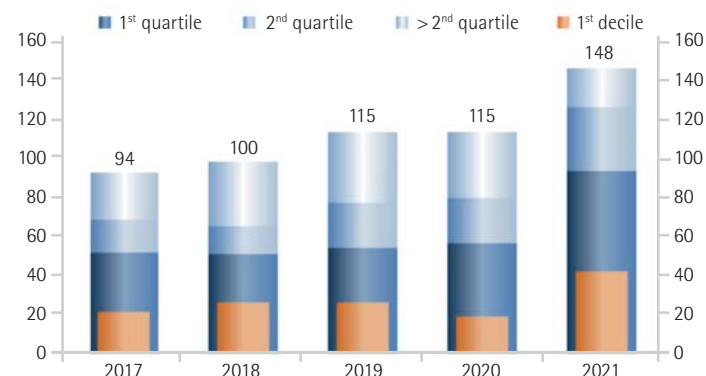
AREA 4: CLINICAL MICROBIOLOGY, INFECTIOUS DISEASES AND AIDS

Scientific output of Area 4 in indexed journals with impact factor: total and mean impact factor



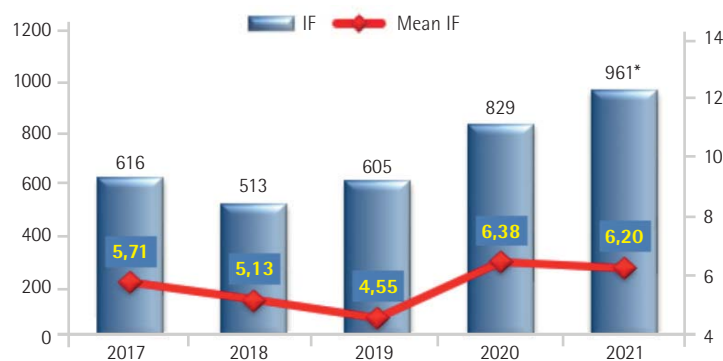
* Excluding letters: 1343

Scientific output of Area 4 in indexed journals with impact factor: distribution of publications by decile and quartile (absolute values)



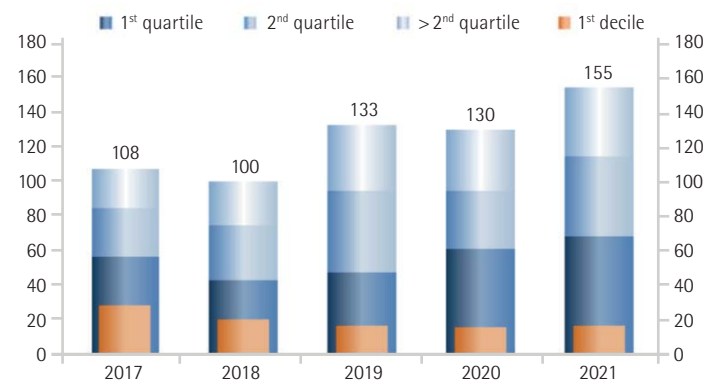
AREA 5: DISEASES OF THE IMMUNE SYSTEM

Scientific output of Area 5 in indexed journals with impact factor: total and mean impact factor



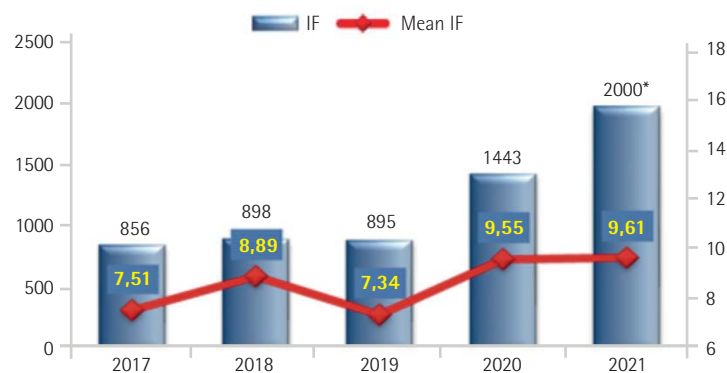
* Excluding letters: 719

Scientific output of Area 5 in indexed journals with impact factor: distribution of publications by decile and quartile (absolute values)



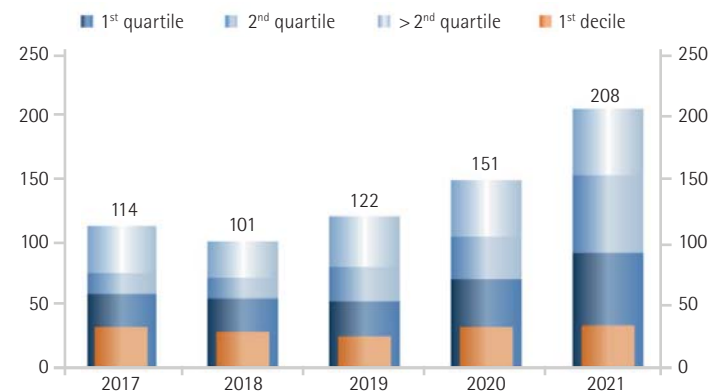
AREA 6: TRANSLATIONAL ONCOLOGY

Scientific output of Area 6 in indexed journals with impact factor: total and mean impact factor



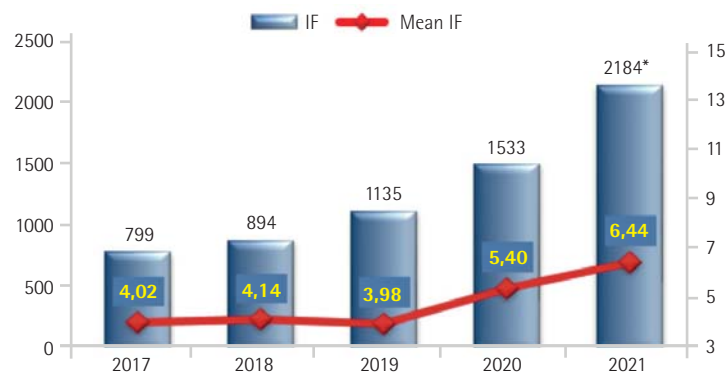
* Excluding letters: 1842

Scientific output of Area 6 in indexed journals with impact factor: distribution of publications by decile and quartile (absolute values)



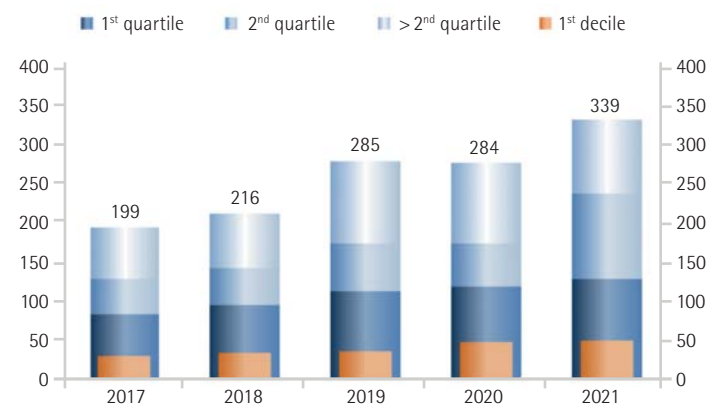
AREA 7: SYSTEMIC DISEASES AND ORGAN TRANSPLANTATION

Scientific output of Area 7 in indexed journals with impact factor: total and mean impact factor



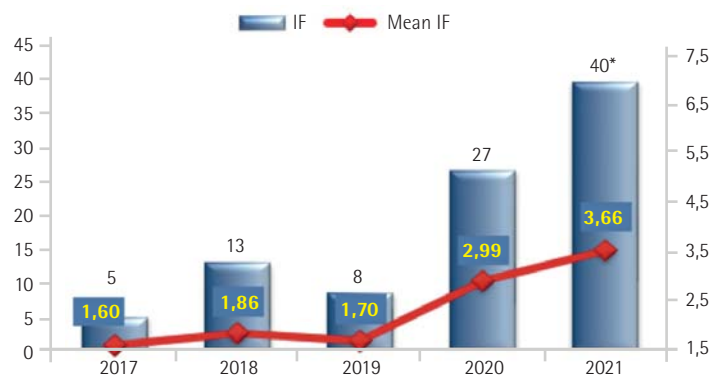
* Excluding letters: 1862

Scientific output of Area 7 in indexed journals with impact factor: distribution of publications by decile and quartile (absolute values)



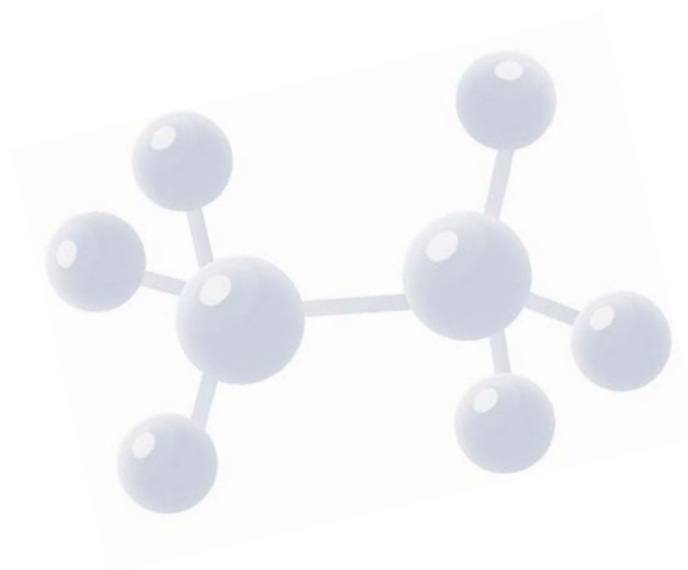
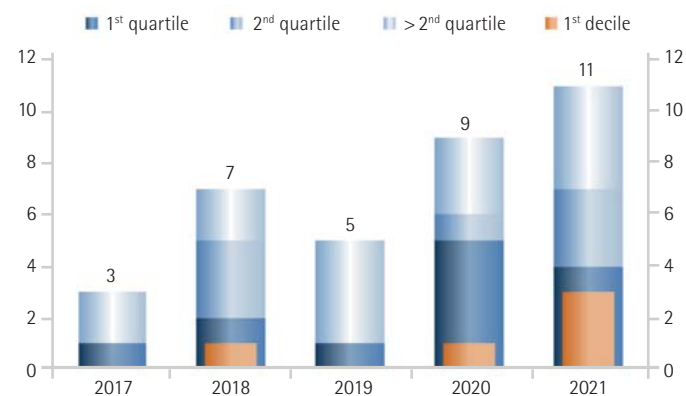
NURSING RESEARCH GROUP

Scientific output of Nursing Group in indexed journals with impact factor: total and mean impact factor



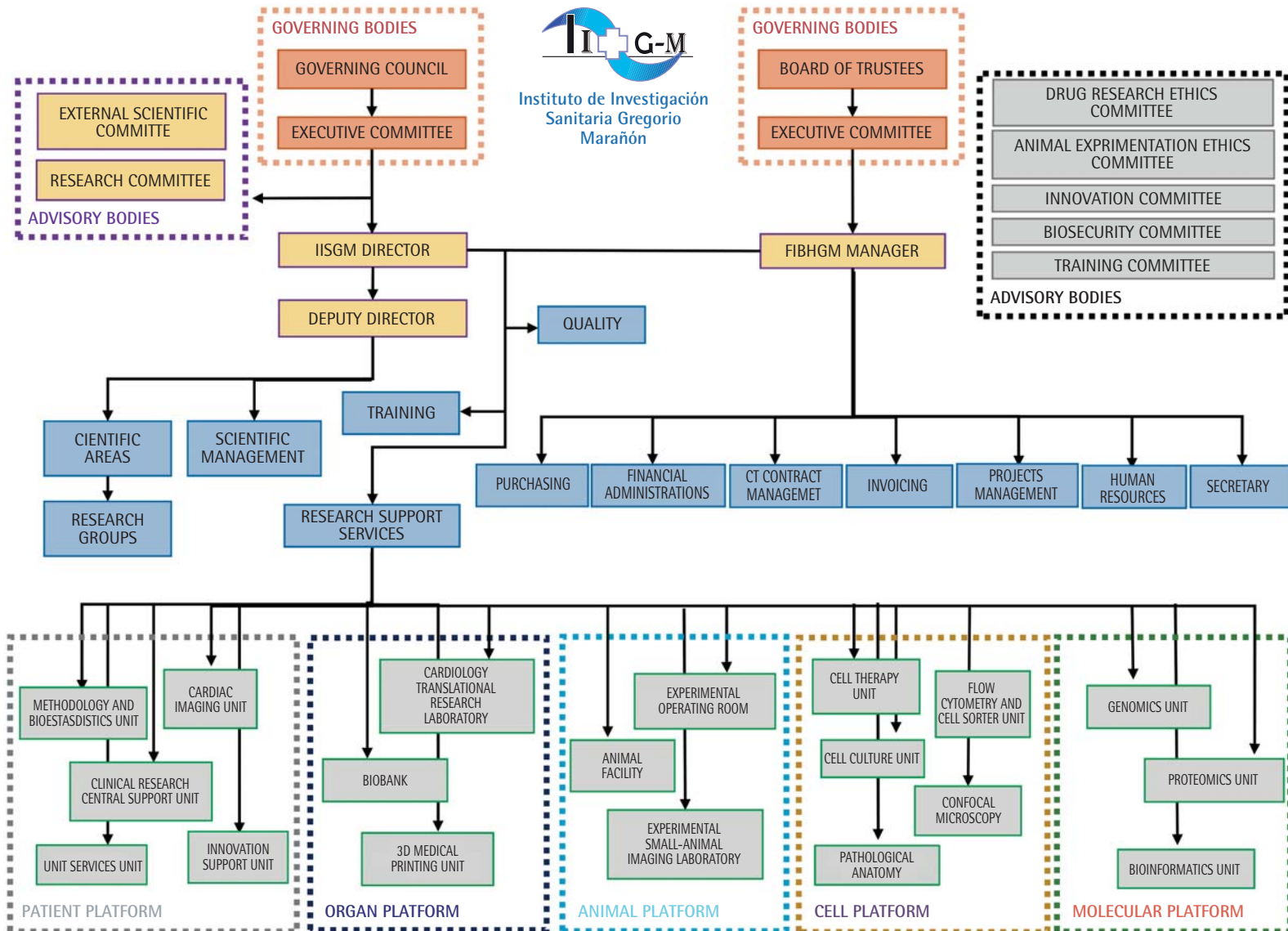
* Excluding letters: 39

Scientific output of Nursing Group in indexed journals with impact factor: distribution of publications by decile and quartile (absolute values)



Organizational structure of IISGM

1. ORGANIZATIONAL CHART



2. GOVERNING BODIES

GOVERNING COUNCIL

- **Chair:** Juan Jorge González Armengol, Vice Councillor of Health care. Comunidad de Madrid.
- **First Deputy chair:** Margarita San Andrés Moya, Vice-Chancellor of Scientific Policy, Research, and Doctorates. UCM.
- **Second Deputy-chair:** Juan Romo Urroz, Chancellor of UC3M.
- **Members at large:** Joseba Barroeta Urquiza (Manager of HGUGM), Ismael Buño Borde (Chair of research Committee Scientific Director of IISGM), Felipe Atienza Fernández (Chair of the Clinical Research Ethics Committee), Juan Francisco del Cañizo López (UCM Vicedean in HGUGM).
- **Members:** Celso Arango López (Trustee of the FIBHGM), Rafael Bañares Cañizares (Trustee of the FIBHGM), Manuel Desco Menéndez (Trustee of the FIBHGM), Francisco Fernández-Avilés Díaz (Trustee of the FIBHGM), Miguel Martín Jiménez (Trustee of the FIBHGM), María Sanjurjo Sáez (Trustee of the FIBHGM), Teresa Chavarria Giménez (Biomedical Research General Director. Comunidad de Madrid), Miguel Ángel Pozo García (UCM), Juan José Vaquero (UC3M. Trustee of the FIBHGM).
- **Secretary:** Thierry Bardinet (Director of the FIBHGM).

EXECUTIVE COMMITTEE OF THE BOARD OF TRUSTEES

- **Chair:** Joseba Barroeta Urquiza (Manager of the HGUGM), Ismael Buño Borde (Scientific Director of IISGM).
- **Members:** Celso Arango López (Trustee of the FIBHGM), Francisco Fernández-Avilés Díaz (Trustee of the FIBHGM), Miguel Martín Jiménez (Trustee of the FIBHGM), Miguel Ángel Pozo García (UCM), Rafael Bañares Cañizares (UCM. Trustee of the FIBHGM), Juan José Vaquero (UC3M. Trustee of the FIBHGM).
- **Secretary:** Thierry Bardinet (Director of the FIBHGM).

3. ADVISORY BODIES

EXTERNAL SCIENTIFIC COMMITTEE

- Agustín Albillos Martínez. Head of Gastroenterology and Hepatology, Hospital Universitario Ramón y Cajal, IRYCIS. Professor of Medicine, Universidad de Alcalá, Madrid.
- Antoni L. Andreu Periz. Scientific Director of EATRIS (European infrastructure for translational medicine) Amsterdam. The Netherlands.
- Deborah Burks. Head of Research Group. Evaluator in different state and international agencies. Centro de Investigación Príncipe Felipe de Valencia.
- Ángel Carracedo Álvarez. Professor of the School of Medicine, Universidad de Santiago de Compostela. Instituto de Ciencias Forenses. Director of Fundación Pública Galega de Medicina Xenómica. IDIS (Instituto de Investigación Sanitaria de Compostela).
- Ana Lluch Hernández. Professor of Medicine at the Faculty of Medicine of the University of Valencia and Head of the Department of Hematology and Medical Oncology at the Hospital Clínico Universitario de Valencia. Head of the Breast Cancer Biology Research Group at the Health Research Institute of the Hospital Clínico Universitario de Valencia (INCLIVA).
- Ángeles Almeida Parra. Deputy Scientific Director of the Health Research Institute of Salamanca (IBSAL). Head of the Molecular Neurobiology Research Group of the IBSAL Institute. Associate Professor, Faculty of Pharmacy, University of Salamanca.
- Paloma Domingo García. General Director of the Spanish Foundation for Science and Technology (FECYT). Until 2018 she was Director of the Entrepreneurship and Innovation Service, Director of the Science Park and responsible for the Office of Research Results Transfer at the Universidad Carlos III de Madrid (UC3M).
- Borja Ibáñez Cabeza. Head of the Translational Laboratory for Cardiovascular Imaging and Therapy and Director of the Department of Clinical Research at the National Center for Cardiovascular Research (CNIC), interventional cardiologist, Coordinator of the Research Unit and the Cardio-Oncology Unit at the Fundación Jiménez Díaz University Hospital.

RESEARCH COMMITTEE

- **Chair:** Ismael Buño Borde (IISGM Scientific Director).
- **Secretary:** Conancio Medrano López (HGUGM).
- **Members:** Luis Álvarez-Sala Walther (HGUGM), Celso Arango López (HGUGM), Antonio Artés Rodríguez (UC3M), Fernando Asensio Rubio (HGUGM), Rafael Bañares Cañizares (HGUGM), José M^a Bellón Cano (HGUGM), Javier Bermejo Thomas (HGUGM), Rafael Correa Rocha (HGUGM), M^a Carmen de la Cruz Arguedas (HGUGM), Juan Francisco del Cañizo López (UCM Vice-dean in HGUGM), Manuel Desco Menéndez (HGUGM), Francisco Fernández-Avilés Díaz (HGUGM), Eduardo Fernández-Cruz (HGUGM), Ana M^a García Pozo (HGUGM), Darío García de Viedma del Álamo (HGUGM), Juana Gil Herrera (HGUGM), Juan Antonio León Luis (HGUGM), Enrique Lledó García (HGUGM), Luis Andrés López Fernández (HGUGM), Miguel Martín Jiménez (HGUGM), Javier de Miguel Díez (Teaching Committee of the HGUGM), Laura Moreno Márquez (Technical Secretary of the FIBHGM), Patricia Muñoz García de Paredes (HGUGM), María Luisa Navarro Gómez (HGUGM), Andrés Muñoz Martín (HGUGM), Cristina Andrés Zayas (HGUGM/R1), Isabel del Cura González (Primary Health Care), Marta Martínez Bonet (HGUGM/R2), Arantazu Miner Vélez (Scientific Management of IISGM/Quality).

4. SUPPORTING BODIES

CLINICAL RESEARCH ETHICS COMMITTEE

- **Chair:** Felipe Atienza Fernández.
- **Vice-chair:** Andrés Jesús Muñoz Martín.
- **Secretary:** Roberto Collado Borrell.
- **Members:** M^a Luisa Baeza Ochoa de Ocariz, Ana M^a Iglesias Mohedano, M^a del Carmen Heras Escobar, Juan Antonio Andueza Lillo, M^a del Carmen de la Cruz Arguedas, Ana Esther López Pérez, Vicente de las Peñas Gil, Pilar Aitana Calvo Ferrandiz, Ana Mur Mur, Carlos Rojas-Marcos Asensi, Javier de Miguel Díez, Patricia Font López, Luis Andrés López Fernández, Antonio Muiño Miguez, María Luisa Navarro Gómez, Isabel Gómez Valbuena, Sara Pérez Ramírez.
- **Administrative:** Santos Puerta Cruz.

ANIMAL EXPERIMENTATION ETHICS COMMITTEE

- **Chair:** Fernando Asensio Rubio.
- **Members:** Laura Moreno Márquez, Begoña Quintana Villamandos, Javier Urbano Villaescusa, M^a Victoria Gómez Gavero, Javier Vaquero Martín, Antonio Martínez Escandell, Ana María Hernández Gamio, Rocío Ramos Medina, María Luisa Soto Montenegro, Ricardo Sanz Ruiz, Pedro Llontop Santisteban.
- **Secretary:** Miguel Relloso Cereceda.

INNOVATION COMMITTEE

- **Chair:** Ismael Buño Borde (IISGM Scientific Director).
- **Vice-chair:** Manuel Desco Menéndez (UAI Director).
- **Members:** Thierry Bardinnet (FIBHGM Manager), Francisco Fernández Avilés Díaz (HGUGM), Rafael Correa Rocha (FIBHGM investigator), Ana Herranz Alonso (HGUGM), Iván Márquez Rodas (HGUGM), Rubén Pérez Mañanes (HGUGM), Guillermo Rodríguez Bernal (HGUGM), Sonia García de San José (HGUGM Vice-Manager), Carlos Blanco Bermejo (UC3M).
- **Secretary:** Antonio Rodríguez Hita (UAI).

TRAINING COMMITTEE

- **Chair:** Conancio Medrano López.
- **Members:** Ismael Buño Borde, Thierry Bardinnet, José María Bellón Cano, Fernando Asensio Rubio, Rafael Correa Rocha, Javier de Miguel Díez, Arantazu Miner Vélez.

BIOSECURITY COMMITTEE

- **Chair:** Ignacio Sánchez-Arcilla.
- **Members:** Ismael Buño Borde, Thierry Bardinnet, Joaquin Barbero, Pilar Álvaro, Julio Soto, Fernando Asensio, M^a Dolores Vigil, José Luis Revuelta, Jesús Guinea, Mi Kwon.
- **Secretary:** María Isabel Clemente Mayoral.



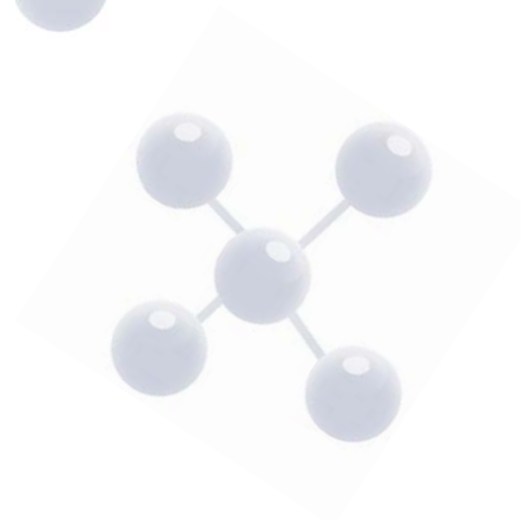
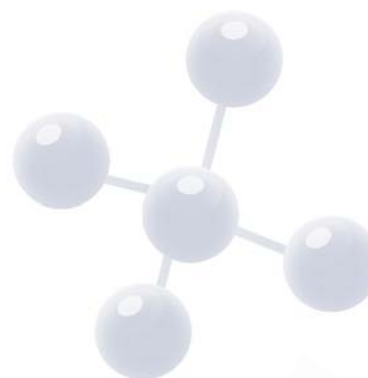
RESEARCH SUPPORT SERVICES

- **Scientific Director:** Ismael Buño Borde.
- **Manager:** Thierry Bardinet.
- **Responsible for the Research Support Services:** José María Bellón Cano, María del C. de la Cruz Arguedas, Antonio Rodríguez Hita, Javier Bermejo Thomas, María Ángeles Muñoz-Fernández, M^a Eugenia Fernández Santos, Rubén Pérez Mañanes, Fernando Asensio Rubio, Manuel Desco Menéndez, Laura Díaz Muñoz, Maribel Clemente Mayoral, Rafael Samaniego, Julia Suárez González, Concha Gil García, Antonio Clemente Picornell Company.

5. MANAGEMENT BODY OF IISGM

HOSPITAL GREGORIO MARAÑÓN BIOMEDICAL RESEARCH FOUNDATION

- **Director:** Thierry Bardinet.
- **Scientific and Quality Management:** Arantzazu Miner Vélez.
- **Project Management:** Montserrat Roura Portillo.
- **Project Managers:** Laura Moreno Márquez, Rosa del Ser Toral, Carlos Arias López, Fran Matarin.
- **Clinical Trial Management:** María del Carmen de la Cruz Arguedas, Miguel Ángel Conejo, Mariana Guillén Muñoz.
- **Human resources:** Alberto Gómez Moreno, María González Rodríguez, María Josefa Martín
- **Accounting:** Estefanía Lavilla Guevara, M^a Isabel Olmedo Andueza.
- **Invoicing:** Marta Martín-Arriscado Arroba.
- **Purchasing:** Miguel Ángel Conejo Martín.
- **Secretary:** Charo Calle Benito.
- **Document archiving:** Mariano Roda Cordero.
- **Administrative:** Blanca González Estables.



Structure of research areas and groups

AREA 1: Biomedical Engineering

Coordinator: Manuel Desco Menéndez

Group	Group leader	Type of Group	Organization
1.01 Advanced technological applications and human health	Manuel Desco Menéndez	CONSOLIDATED	HGUGM-UC3M
1.02 Signal processing	Antonio Artés Rodríguez	CONSOLIDATED (in the process of integration)	UC3M
1.03 Computer architecture, communications, and systems: ARCOS	Jesús Carretero Pérez	CONSOLIDATED (in the process of integration)	UC3M
1.04 Nonparametric statistics and intensive computing	Juan Romo Urróz	ASOCIATED CONSOLIDATED (in the process of integration)	UC3M
1.05 Structural and Functional Medical Imaging	Jesús de la Torre Fernández Juan A. Guzmán de Villoria	EMERGING	HGUGM

AREA 2: Cardiovascular diseases

Coordinator: Francisco Fernández-Avilés Díaz

Group	Group leader	Type of Group	Organization
2.01 Natural history of heart disease	Francisco Fernández-Avilés Díaz	CONSOLIDATED	HGUGM-UCM
2.02 Cardiovascular pathophysiology	Victoria Cachafeiro Ramos	CONSOLIDATED	UCM
2.03 Cardiac cellular electrophysiology	Eva Delpón Mosquera	CONSOLIDATED	UCM
2.05 Cardiology and heart transplantation in infants	Constancio Medrano López	EMERGING	HGUGM
2.06 Blood lipids and cardiovascular risk	Luis Antonio Álvarez-Sala Walther	EMERGING	HGUGM-UCM
2.07 Acute cerebral ischemia. Stroke	Antonio Gil Núñez	EMERGING	HGUGM

AREA 3: Neuroscience and Mental Health

Coordinator: Celso Arango López

Group	Group leader	Type of Group	Organization
3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment	Celso Arango López	CONSOLIDATED	HGUGM-UCM
3.03B Neurological diseases	Francisco Javier Grandas Pérez	EMERGING	HGUGM

AREA 4: Clinical Microbiology, Infectious Diseases and AIDS

Coordinator: Patricia Muñoz García de Paredes

Group	Group leader	Type of Group	Organization
4.01 Infectious diseases	Patricia Muñoz García de Paredes	CONSOLIDATED	HGUGM-UCM
4.02 Clinical and epidemiological aspects of HIV infection and associated conditions	Juan Berenguer Berenguer	CONSOLIDATED	HGUGM

AREA 5: Diseases of the Immune System

Coordinator: Eduardo Fernández-Cruz Pérez

Group	Group leader	Type of Group	Organization
5.01 Pathophysiology and clinical research into chronic inflammatory and immunological diseases	Eduardo Fernández-Cruz Pérez	CONSOLIDATED	HGUGM
5.02 Molecular biology of HIV	M ^a Ángeles Muñoz Fernández	CONSOLIDATED	HGUGM
5.03 Systemic autoimmune diseases	José María Álvaro Gracia	CONSOLIDATED	HGUGM
5.05 Pathogenesis of the immunoallergic response	José Manuel Zubeldia Ortuño	EMERGING	HGUGM
5.06 Immune regulation and homeostasis in diseases of the immune system	Rafael Correa Rocha Marjorie Pion	EMERGING	HGUGM
5.07 Infections in pediatric patients	María Luisa Navarro Gómez	CONSOLIDATED	HGUGM

UCM: Universidad Complutense de Madrid. HGUGM: Hospital General Universitario Gregorio Marañón. UC3M: Universidad Carlos III.

UCM: Universidad Complutense de Madrid. HGUGM: Hospital General Universitario Gregorio Marañón. UC3M: Universidad Carlos III.



AREA 6: Translational Oncology**Coordinator:** Miguel Martín Jiménez

Group	Group leader	Type of Group	Organization
6.01 Interdisciplinary oncology and biotechnology	Ana Álvarez González Mercedes Muñoz Fernandez	CONSOLIDATED	HGUGM-UCM
6.02 Translational medical oncology and personalized cancer therapy	Miguel Martín Jiménez	CONSOLIDATED	HGUGM-UCM
6.03 Genetics and clinical aspects of hematologic malignancies and hematopoietic stem cell transplantation	José Luis Díez Martín Ismael Buño Borde	CONSOLIDATED	HGUGM
6.04 Surgical oncology	Luis González Bayón	EMERGING	HGUGM

AREA 7: Systemic Diseases and Organ Transplantation**Coordinator:** Rafael Bañares Cañizares

Group	Group leader	Type of Group	Organization
7.01 Vascular damage and inflammation in chronic kidney disease, dialysis, and kidney transplantation. Pathophysiology of the kidney	Maria de los Ángeles Goicoechea Diezhandino	CONSOLIDATED	HGUGM
7.02 Pathophysiology and natural history of liver and digestive diseases	Rafael Bañares Cañizares	CONSOLIDATED	HGUGM-UCM
7.04 Diseases of the critically ill child	Jesús López-Herce Cid	CONSOLIDATED	HGUGM
7.05B Pathophysiology, outcome, and therapeutic strategies in chronic respiratory insufficiency and respiratory disorders of sleep	Luis Puente Maestu Ignacio Garutti Martínez	CONSOLIDATED	HGUGM
7.06 Regenerative medicine in plastic surgery	José M ^a Lasso	EMERGING	HGUGM
7.07 Experimental kidney transplantation	Enrique Lledó García	EMERGING	HGUGM
7.08 Pediatric endocrinology	María Dolores Rodríguez Arnao	ASOCIATED	HGUGM

UCM: Universidad Complutense de Madrid. HGUGM: Hospital General Universitario Gregorio Marañón. UC3M: Universidad Carlos III.

Group	Group leader	Type of Group	Organization
7.10 Regeneration and biomaterials in musculoskeletal disease	Francisco Javier Vaquero Martín	ASOCIATED	HGUGM-UCM
7.12 Emergency medicine	Javier Muñoz González	ASOCIATED	HGUGM
7.16 Regenerative medicine and system development: cardiovascular and osteochondral	M ^a Begoña Quintana Villamandos	EMERGING	HGUGM
7.18 Peritransplant evaluation (liver)	José María Pérez Peña	ASOCIADO	HGUGM
7.19 Perianesthetic assessment	Carmen Fernández Riveira	ASOCIATED	HGUGM
7.20 Anesthesia, toxins, and arrhythmias	Matilde Zaballos García	ASOCIATED	HGUGM
7.21 Biopathology of aging	José Antonio Serra Rexach	CONSOLIDATED	HGUGM
7.22 Pathophysiology of the neonate and developing child	Manuel Sánchez Luna	EMERGING	HGUGM
7.25 Artificial circulation laboratory	Juan Francisco del Cañizo López	EMERGING	HGUGM-UCM
7.26 Evaluation of health services and clinical epidemiology	Nieves López Freña	EMERGING	HGUGM
7.27 Hospital pharmacy and pharmacogenomics	María Sanjurjo Sáez	CONSOLIDATED	HGUGM
7.28 Clinical nutrition	M ^a Cristina de la Cuerda Compés	EMERGING	HGUGM
7.29 Vascular pathophysiology and pharmacology	Francisco Pérez Vizcaino	CONSOLIDATED	UCM
7.31 Pathophysiology in women, pregnancy, labor, and puerperium	Santiago Lizarraga Bonelli Juan Antonio de León	EMERGING	HGUGM
7.32 Physical medicine and rehabilitation	Pilar Crespo Cobo Marta Supervía Pola	EMERGING	HGUGM
7.33 Pathological Anatomy	Javier Menarguez Palanca	EMERGING	HGUGM
7.34 Multimorbidity, chronic diseases and health services. Primary Care	Isabel del Cura González Jesús Martín Fernández	CONSOLIDATED (in the process of integration)	HGUGM

GROUP 8: Nursing Research Group**Coordinator:** Ana García Pozo

Group	Group leader	Organization
Research in nursing	Ana María García Pozo	HGUGM

UCM: Universidad Complutense de Madrid. HGUGM: Hospital General Universitario Gregorio Marañón. UC3M: Universidad Carlos III.

Competitive publicly funded research staff contracts

INSTITUTO DE SALUD CARLOS III

	Area	Group
Miguel Servet Tipo I contracts		
Susana Carmona Cañavate	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Miguel Servet Tipo II contracts		
María Guembe Ramírez	4.Infectious diseases and AIDS	4.01 Infectious diseases
Belén Rodríguez Sánchez	4.Infectious diseases and AIDS	4.01 Infectious diseases
Laura Pérez García	4.Infectious diseases and AIDS	4.01 Infectious diseases
Pilar Escribano Martos	4.Infectious diseases and AIDS	4.01 Infectious diseases
Sara Borrell contracts		
Ana Mª Santos Coquillat	1. Biomedical Engineering	1.01 Advanced technological applications and human health
Alloza Romero, Clara	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Gonzalez Peñas, Javier	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Taracón Díez, Laura	5. Diseases of the Immune System	5.02 Molecular biology of HIV
Marta Martínez Bonet	5. Diseases of the Immune System	5.06 immune regulation and homeostasis in diseases of the immune system
Río Hortega contracts		
Manuel Durán Cutilla	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment

	Area	Group
Río Hortega contracts		
Miriam del Valle Ayora Rodríguez	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Maria Olmedo Sanperio	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Ana Mª Álvarez Uriá	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
David Aguilera Alonso	5. Patología del sistema inmune	5.07 Infections in pediatric patients
Ana Clemente Sánchez	7. Systemic Diseases and Organ Transplantation	7.02 Pathophysiology and natural history of liver and digestive diseases
Miriam García San Prudencio	7. Systemic Diseases and Organ Transplantation	7.04 Diseases of the critically ill child
Predoctoral contracts (PFIS)		
Magdalena Martínez García	1.Biomedical Engineering	1.01 Advanced technological applications and human health
Renzo Abregu Crespo	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Mónica Burdeus Olavarrieta	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Judith Díaz García	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Aina Catalina Mesquida Marcos	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Cristina Rodríguez Grande	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases



INSTITUTO DE SALUD CARLOS III (cont.)

	Area	Group
Predoctoral contracts (PFIS)		
Sara Fuentelsaz Romero	5. Diseases of the Immune System	5.01 Pathophysiology and clinical research into chronic inflammatory and immunological diseases
Marta Fernández Castillo	5. Diseases of the Immune System	5.06 Immune regulation and homeostasis in diseases of the immune system
Jorge Gallego Valle	5. Diseases of the Immune System	5.06 Immune regulation and homeostasis in diseases of the immune system
Carlos Velo Higuera	5. Diseases of the Immune System	5.07 Infections in pediatric patients
Research Management Contracts		
Irene Lomba Iriarte		Technical Unit FIBHGM
Bioinformatics Technicians Contracts		
Laura Castro Labrador		Bioinformatic UnitM

MINISTERIO DE CIENCIA E INNOVACIÓN

	Area	Group
Predoctoral Contracts		
Christian Chazo Paz	2. Cardiovascular diseases	2.01 Natural history of heart disease

MINISTERIO DE EDUCACIÓN Y CIENCIA

	Area	Group
FPU Contracts (University Teacher Training Contracts)		
Alejandro José García Díaz	2. Cardiovascular diseases	2.01 Natural history of heart disease
Alicia García Alcón	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment

	Area	Group
FPU Contracts (University Teacher Training Contracts)		
Laura Colomar Molla	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Rocío Panadero Gómez	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Hayford Abrokwa Acheampong	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment

MINISTERIO DE CIENCIA E INNOVACIÓN

	Area	Group
Young employment Program contracts		
Alicia Arévalo García	1. Biomedical Engineering	1.01 Advanced technological applications and human health
Begoña Gallardo Alguacil	1. Biomedical Engineering	1.01 Advanced technological applications and human health
Inés Noguero Soler	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Aina Catalina Mesquida Marcos	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Sergio Mezquita García	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Alba Alarcón Escudero	5. Diseases of the Immune System	5.01 Pathophysiology and clinical research into chronic inflammatory and immunological diseases



COMPETITIVE PUBLICLY FUNDED RESEARCH STAFF CONTRACTS

MINISTERIO DE CIENCIA E INNOVACIÓN (cont.)

	Area	Group
Young employment Program contracts		
Paula Barnese García	7. Systemic Diseases and Organ Transplantation	7.25 Artificial circulation laboratory
Carla Gómez Oro	7. Systemic Diseases and Organ Transplantation	7.31 Pathophysiology in women, pregnancy, labor, and puerperium
Lidia Albadaejo Navarro		Animal Facility

COMUNIDAD AUTÓNOMA DE MADRID

	Area	Group
Young employment Program contracts		
Ana María Santos Coquillat	1. Biomedical Engineering	1.01 Advanced technological applications and human health
Luis Diego Romero Miguel	1. Biomedical Engineering	1.01 Advanced technological applications and human health
Alejandro Del Valle Hidalgo	1. Biomedical Engineering	1.01 Advanced technological applications and human health
Blanca Comitre Mariano	1. Biomedical Engineering	1.01 Advanced technological applications and human health
Isabel Rodríguez Nuñez-Milara	1. Biomedical Engineering	1.01 Advanced technological applications and human health
Mª de la Jara Felipe Maestre	1. Biomedical Engineering	1.01 Advanced technological applications and human health
Elena Fernández Cortés-Navia	1. Biomedical Engineering	1.01 Advanced technological applications and human health
Sara Gómez Aguililla	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment

	Area	Group
Young employment Program contracts		
María del Carmen Paternina Die	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Nuria Martín Martínez	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Noemí González Lois	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
José González Leiva	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Javier Adán Jiménez	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Laura Jiménez Navarro	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Álvaro Otero Sobrio	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Marta Díaz Navarro	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Belén Rodríguez Márquez	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Susana García Miranda	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Andrea Molero Salinas	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Kristofer Miguel Limay Carré	5. Diseases of the Immune System	5.01 Pathophysiology and clinical research into chronic inflammatory and immunological diseases
Rocío Alonso Armendáriz	5. Diseases of the Immune System	5.01 Pathophysiology and clinical research into chronic inflammatory and immunological diseases



COMUNIDAD AUTÓNOMA DE MADRID (cont.)

	Area	Group
Young employment Program contracts		
Mario Alberto Cahuana Perez	5. Diseases of the Immune System	5.01 Pathophysiology and clinical research into chronic inflammatory and immunological diseases
Vanesa Cañadilla Martín	5. Diseases of the Immune System	5.02 Molecular biology of HIV
María de la Sierra Espinar Buitrago	5. Diseases of the Immune System	5.02 Molecular biology of HIV
Cristina García Pérez de la Lastra	5. Diseases of the Immune System	5.02 Molecular biology of HIV
Marta Fernández Castillo	5. Diseases of the Immune System	5.06 Immune regulation and homeostasis in diseases of the immune system
Beatriz Cozar Fernández	5. Diseases of the Immune System	5.06 Immune regulation and homeostasis in diseases of the immune system
Sergio Gil Manso	5. Diseases of the Immune System	5.06 Immune regulation and homeostasis in diseases of the immune system
Celia Fernández Martín	6. Translational Oncology	6.01 Interdisciplinary oncology and biotechnology
Paula Muñoz Sevilla	6. Translational Oncology	6.03 Genetics and clinical aspects of hematologic malignancies and hematopoietic stem cell transplantation
Cristina Andrés Zayas	6. Translational Oncology	6.03 Genetics and clinical aspects of hematologic malignancies and hematopoietic stem cell transplantation

	Area	Group
Young employment Program contracts		
Laura Sanz Villanueva	6. Translational Oncology	6.03 Genetics and clinical aspects of hematologic malignancies and hematopoietic stem cell transplantation
Alejandra Balarezo Saldivar	7. Systemic Diseases and Organ Transplantation	7.01 Vascular damage and inflammation in chronic kidney disease, dialysis, and kidney transplantation. Pathophysiology of the kidney
Beatriz Martín Sánchez	7. Systemic Diseases and Organ Transplantation	7.01 Vascular damage and inflammation in chronic kidney disease, dialysis, and kidney transplantation. Pathophysiology of the kidney
Elena Vázquez Ogando	7. Systemic Diseases and Organ Transplantation	7.02 Pathophysiology and natural history of liver and digestive diseases
Carolina Franco Herrera	7. Systemic Diseases and Organ Transplantation	7.02 Pathophysiology and natural history of liver and digestive diseases
David Blanco Collado	7. Systemic Diseases and Organ Transplantation	7.02 Pathophysiology and natural history of liver and digestive diseases
Alicia Sánchez Martín		Animal Facility
Nuria Hidalgo Herrero		Animal Facility
Alba Gutierrez Seijó		Confocal Microscopy Unit
Celia Barrio Alonso		Confocal Microscopy Unit



COMPETITIVE PUBLICLY FUNDED RESEARCH STAFF CONTRACTS

FUNDACIÓN PARA LA INVESTIGACIÓN BIOMÉDICA DEL IISGM (IINSTITUTO DE INVESTIGACIÓN SANITARIA GREGORIO MARAÑÓN) Intramural Program to Promote Research

	Area	Group
Predoctoral contracts		
Adele Valpreda	1.Biomedical Engineering	1.01 Advanced technological applications and human health
Alexandra Garritz Luis	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Javier Martín Escolano	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
María de la Sierra Espinar Buitrago	5. Diseases of the Immune System	5.02 Molecular biology of HIV
Predoctoral in healthcare innovation Contract		
Laura Castro Labrador	5. Diseases of the Immune System	5.06 immune regulation and homeostasis in diseases of the immune system
Post-specialized Health Training Contracts		
Sara Boi	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Angela Manzanares Casteleiro	5.Patología del sistema inmune	5.07 Infections in pediatric patients
Sara de la Mata Navazo	7. Systemic Diseases and Organ Transplantation	7.04 Diseases of the critically ill child
Intramural Program to Promote Research		
David Rodríguez Temporal	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Intensification of research activity contracts (I+D+I and Nursing care)		
Felipe Atienza Fernández	2. Cardiovascular diseases	2.01 Natural history of heart disease

	Area	Group
Intensification of research activity contracts (I+D+I and Nursing care)		
Javier Olazarán Rodríguez	3. Neuroscience and Mental Health	3.03B Neurological diseases
Juan Berenguer Berenguer	4. Clinical microbiology, infectious diseases and AIDS	4.02 Clinical and epidemiological aspects of HIV infection and associated conditions
Isabel Gutierrez Cuellar	4. Clinical microbiology, infectious diseases and AIDS	4.02 Clinical and epidemiological aspects of HIV infection and associated conditions
Beatriz Vilchez Rodríguez	7. Systemic Diseases and Organ Transplantation	7.04 Diseases of the critically ill child
Researches Stabilization Contracts		
María Luisa Soto Montenegro	1.Biomedical Engineering	1.01 Advanced technological applications and human health
Joost Jansen	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Jesús Vicente Guinea Ortega	4.Infectious diseases and AIDS	4.01 Infectious diseases
M ^a Jesús Serramia Lobera	4. Clinical microbiology, infectious diseases and AIDS	4.02 Clinical and epidemiological aspects of HIV infection and associated conditions
Amaya Rocio Puig Kröger	5. Diseases of the Immune System	5.01 Pathophysiology and clinical research into chronic inflammatory and immunological diseases
José Luis Jiménez Fuentes	5. Diseases of the Immune System	5.02 Molecular biology of HIV
Rafael Correa Rocha	5.Diseases of the Immune System	5.06 immune regulation and homeostasis in diseases of the immune system
Marjorie Pion	5. Diseases of the Immune System	5.06 immune regulation and homeostasis in diseases of the immune system

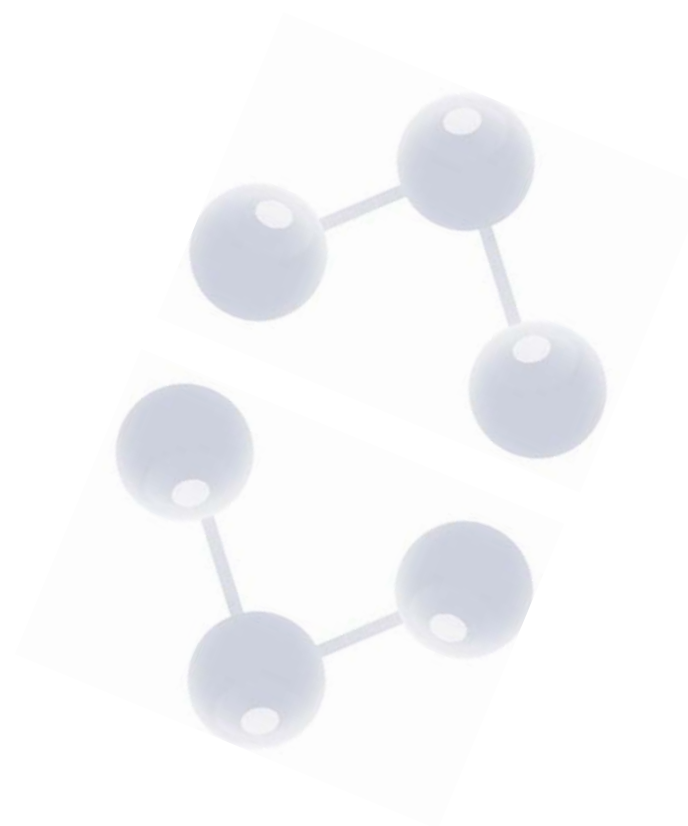


**FUNDACIÓN PARA LA INVESTIGACIÓN BIOMÉDICA DEL IISGM
(IINSTITUTO DE INVESTIGACIÓN SANITARIA GREGORIO MARAÑÓN)**

(cont.)

Intramural Program to Promote Research

	Area	Group
Researches Stabilization Contracts		
Javier Vaquero Martín	7. Systemic Diseases and Organ Transplantation	7.10 Regeneration and biomaterials in musculoskeletal disease
Luis Andrés López Fernández	7. Systemic Diseases and Organ Transplantation	7.27 Hospital pharmacy and pharmacogenomics
Miguel Reloso Cereceda	7. Systemic Diseases and Organ Transplantation	7.30 Pathophysiology in women, pregnancy, labor, and puerperium
Research Support Technician and Technical Staff		
Susana Suárez Sancho	2. Cardiovascular diseases	2.01 Natural history of heart disease
Virginia Plasencia Martín	2. Cardiovascular diseases	2.01 Natural history of heart disease
José María Bellón Cano		Methodology and Biostatistics Unit
Rafael Samaniego García		Confocal Microscopy Unit
María Eugenia Fernández Santos		Cardiology translational research Laboratory
Laura Díaz Muñoz		Flow Cytometry and Cell Sorter Unit
María Isabel Clemente		Cell Culture Unit
Ainhoa Simón Zárate		Genomics Unit



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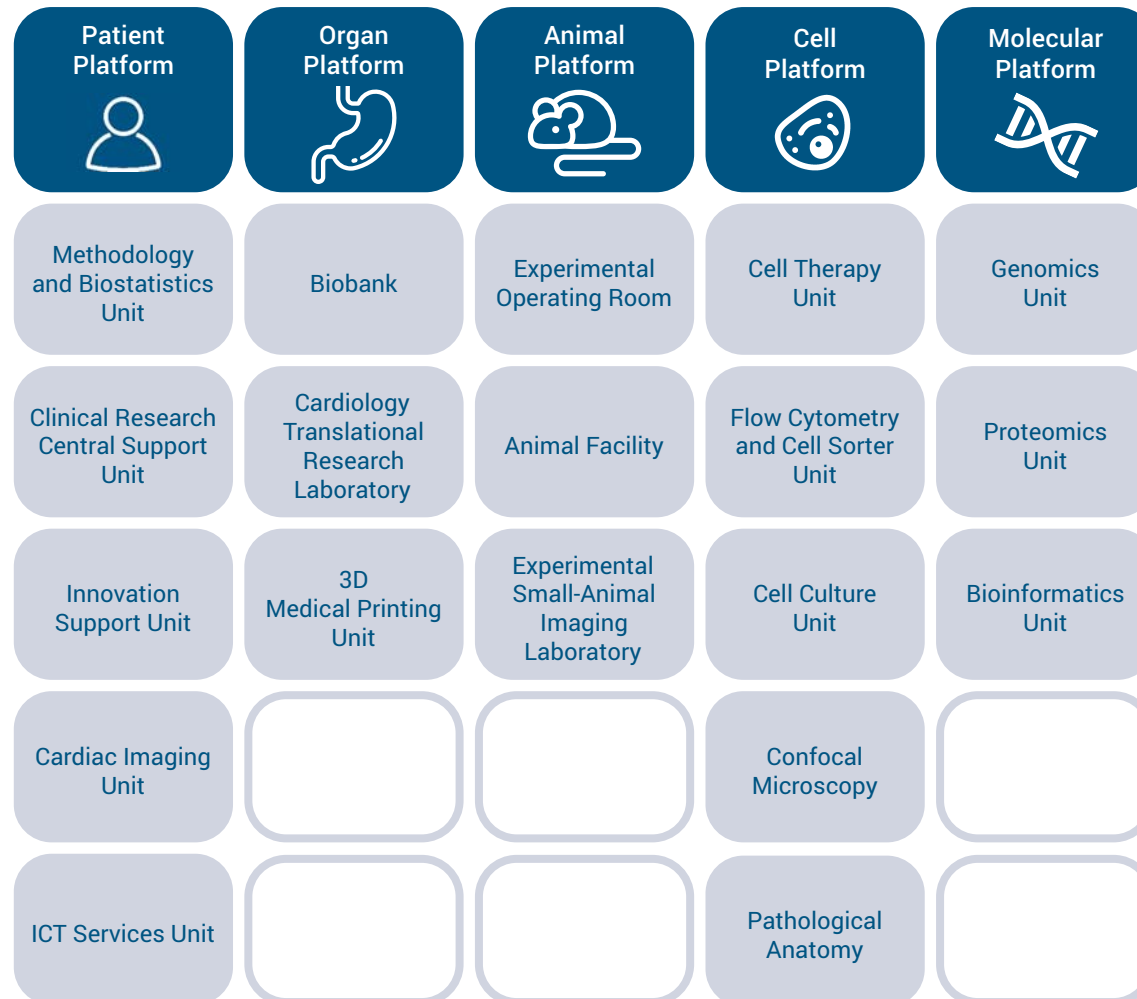
Unión Europea

Research Support Services (RSSs)

liSGM has organized research support services into various technology platforms according to the object of research. Thus, liSGM aims to promote the human and technological interrelationships necessary when investigating the object of biomedical research from different technological perspectives.

Five platforms have been developed, as follows:

1. Patient platform
2. Organ platform
3. Animal platform
4. Cell platform
5. Molecular platform





METHODOLOGY AND BIOSTATISTICS UNIT

To help researchers implement their hypotheses and research proposals and to provide advice on the most appropriate methodology, study design, and statistical techniques.

Description

Methodology and Biostatistics is a Research Support Service (RSS) that provides methodological and statistical advice for all those researchers who need help in any aspect of their research project: study type and design, data collection, sample size, database design, and statistical techniques. The service aims to provide the necessary assistance so that researchers can reach their research objectives.

The Unit also carries out statistical analyses and database operations for those projects where the researcher finds the analysis problematic.

Services provided

Methodological advice:

- Most appropriate study type and design.
- Calculation of sample size.
- Statistical techniques best suited to each type of study.
- Methodological design for research projects.
- Interpretation of statistical results.

Support and follow-up of ongoing projects:

- Scientific articles.
- Communications to scientific meetings, talks.
- Doctoral theses and research proficiency projects.

Application and statistical analysis of databases:

- Design and creation of databases: Excel, Access, SPSS.
- Statistical analysis and application of databases.

The investigator can request an appointment in person, by telephone, or by email depending on the availability of Unit staff.

The results of studies with databases that require a statistical analysis ranges from 1 to 10 days. The variability in delivery time depends on the complexity of the study, the availability of Unit staff, and the workload.

Facility

The *Methodology and Biostatistics Unit* RSS is located in the prefabricated annex of the Experimental Medicine and Surgery building of Hospital General Universitario Gregorio Marañón (HGUGM). It comprises an office and an external workstation for residents in rotation.

Technology

Three networked computers with access to Internet and a shared printer.

The computers run SPSS and open-access statistical software such as EPIDAT 3.1, Granmo 7.1, and R.

Staff

José María Bellón Cano, Head of Unit.

A resident from the Preventive Medicine Department in rotation.

Unit documentation

Procedures manual of the *Methodology and Biostatistics Unit*.

Contact

José María Bellón Cano

Head of Unit

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E-mail: josemaria.bellon@salud.madrid.org

Edificio prefabricado (planta 0)

Hospital General Universitario Gregorio Marañón

C/ Dr. Esquerdo 46, 28007





PLATFORM FOR CLINICAL RESEARCH AND CLINICAL TRIAL UNITS

Mission

To serve society by working to improve the health and wellbeing of citizens through the management of patient-oriented clinical research (both non-commercial and commercial), through continuous improvement, innovation and training, as well as by stimulating the professional and scientific development of all its members.

Description

It is a Research Support Service for all those IISGM researchers who require support in the logistic, operational, and regulatory design of clinical trials and observational studies.

The UCAICEC is conceived as a unit dedicated to the promotion and support of quality Clinical Research and Clinical Trials by means of an integral support to the investigator in the planning, development, processing and execution of the clinical trials and non-commercial research studies.

Among the activities developed by the UCAICEC is the management of SCREN in our center, SCREN is a platform funded by the Carlos III Health Institute (ISCIII) with representation in more than 20 hospitals in Spain (<https://www.scren.es>)

Services provided

- Advice on the preparation and performance of research projects:
- Support in the management of documentation for evaluation by the CREC and regulatory bodies (Spanish Medication Agency [AEMPS] and regional government bodies)
- Advice, management, and support with the preparation and follow-up of administrative documentation linked to the project
- Coordination and follow-up of approvals and implementation of the study (logistics and operations).
- Advice on management of medication and on performance of the trial (selection of CRO).

- Advice on the management of supplier contracts
- Monitoring clinical studies

Facilities

The office of UCAICEC is located in the ground floor of the Pabellón de Gobierno of HGUGM

Technology

The unit has two computer systems and access to a shared printer and shared photocopier and scanner of the FIBHGM.

Fireproof cupboard.

Documentation filling.

Unit documentation

ISO 9001: 2015.

PR-IPE-02: Procedure for the identification, document processing, and approval of commercial and non-commercial clinical trials.

IT-IPE-01: Technical instruction (TI) criteria for the evaluation of a noncommercial clinical trial by the FIBHGM as sponsor.

IT-IPE-02: Authorizations by competent authorities.

IT-IPE-03: Medication management.

IT-IPE-04: CRO budget.

IT-IPE-05: Selection of CRO.

PR-SPE-03: Procedure for follow-up clinical trials.

PR-AMI-01: Procedure for identification of needs in methodological support and preparation of working program (clinical trials).

PR-AMI-02: Procedure for evaluation of working program for methodological support (clinical trials).

Contact

María del C. de la Cruz Arguedas

Head of Unit

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Pabellón de Gobierno (planta baja)

Hospital General Universitario Gregorio Marañón

Calle Dr. Esquerdo, 46 28007 Madrid





INNOVATION SUPPORT UNIT

Mission

The Innovation Support Unit (UAI) of IISGM was created in 2013 within the framework of the ITEMAS Platform financed by Instituto de Salud Carlos III. Its goal is to transform inventions and scientific outcomes into new products, services and research spin-offs that benefit society.

The UAI has a multidisciplinary team of professionals that provide support and advice in all that relates to the identification, management, protection, transfer, marketing and dissemination of their research results.

Technological Offer Portfolio

The UAI has built a large health ecosystem network, that can help companies to commercialize as well as scale-up new products and solutions.

Please see the following link to view our current technological offer.

<https://www.iisgm.com/innovacion/propiedad-intelectual-e-industrial/propiedad-intelectual-e-industrial/>

Services provided

The UAI offers the following services:

- Ideas evaluation Commercialization of research results.
- Search for business or technological partners.
- Contract drafting and negotiation (patent license agreements, NDAs, etc.).
- Protect industrial and intellectual property.
- Help researchers to access funding or grants to support projects, Advice on technology transfer and creation of spin-offs.
- Advice on contracts (drafting of collaboration agreements, licencing contracts, etc.).
- Training in innovation management issues.

Location

The Unit is located in the ground floor of Pabellón de Gobierno of HGUGM.

Organization

- Head of unit: Manuel Desco.
- Project manager: Antonio Rodríguez.

- Innovation manager: Daniel Sanchez.
- Innovation manager: Eva Caravilla.
- Quality control technician: Elena Rodríguez.

In 2012, the Innovation Committee was set up to supervise and provide assistance in all areas associated with innovation. It provides regular analyses, studies, and follow-up of IISGM innovation projects and provides criteria and support to ensure appropriate implementation and development.

The members of the Innovation Committee covers different profiles of the organization: researchers, physicians, managers, and personnel from other areas such as nursing, management/administration, and technical staff. The Innovation Committee is made up of the following members:

Steering Committee:

- Presidente: Ismael Buño Borde (Scientific Director).
- Vicepresidente: Manuel Desco Menéndez (Innovation Support Unit Director).
- D. Thierry Bardinnet (Foundation Director).

Members:

- Francisco Fernández-Avilés Díaz (Head of Cardiology Service).
- Rubén Pérez-Mañanes (Head of Orthopedic and Traumatic Surgery Section).
- Ana Herranz (Head of Hospital Pharmacy Section).
- Rafael Correa (Head of Group of the Immunoregulation Laboratory).
- Iván Márquez (Coordinator of the Hereditary-Familial Cancer Unit).
- Guillermo Rodríguez (Area Specialist in the Anesthesia and Resuscitation Service).
- Carlos Blanco (Vice-president of Research and Transfer of the UC3M).
- Sonia García de San José (Deputy Manager of HGUGM).
- Secretaria: Antonio Rodríguez Hita (Innovation Support Unit Project Manager).

Contact

Antonio Rodríguez

Tel: 91 426 92 79

E-mail: innovacion@iisgm.com

Pabellón de Gobierno (ground floor)

Hospital General Universitario Gregorio Marañón

Calle Doctor Esquerdo 46, 28007 Madrid





CARDIAC IMAGING UNIT

Rationale

Measurement of heart function is a key objective in the evaluation of the effect of cardiovascular therapy. Given their close correlation with long-term diagnosis, the scientific evidence generated during the last 50 years has consolidated the use of measures based on cardiovascular imaging techniques as surrogate objectives in clinical trials on cardiovascular medicine. In addition, the criteria for inclusion of patients in clinical trials are usually established depending on the cut-off points in various heart function indexes.

Furthermore, studies aimed at evaluating the safety of drugs used in other disciplines more frequently require evaluations of potential cardiotoxicity. Therefore, the development of biologics, mainly in the field of oncology, has led to an increase in demand for the evaluation of heart function as part of many clinical research protocols.

Given its availability, portability, and low cost, echocardiography is the initial technique of choice for assessment of heart function and monitoring of progress after a specific therapeutic measure. Nevertheless, at present, cardiac magnetic resonance provides more accurate and reproducible parameters for obtaining data on ventricular function and size. Since the variability in measurement decreases compared with other techniques, magnetic resonance has shown that it is possible to significantly reduce the sample size in studies based on measurement of ventricular function. Stratification of cardiovascular risk based only on clinical criteria has proven insufficient in a large number of patients, mainly those in the "intermediate risk" group. Moreover, pharmacologic intervention in chronic inflammation in clinical practice may have a direct effect on cardiovascular risk. In this context, the noninvasive measurement of atherosclerotic load and intima-media thickness using carotid ultrasound provides a well-validated surrogate index of cardiovascular risk in a specific patient.

On this basis, the mission of the Cardiac Imaging Unit is to provide a service to research groups both within and outside the IISGM that can benefit from evaluation of heart function with echocardiography or magnetic resonance and evaluation of the risk of atherosclerosis using carotid ultrasound.

Facilities

Echocardiography and carotid ultrasound are performed to support researchers in the Echocardiography Laboratory, which is situated on the Ground Floor of the Ambulatory Care Pavilion, HGUGM. The laboratory has 2 cutting edge machines that were acquired by the IISGM for research studies.

Magnetic resonance is performed using specific equipment purchased by IISGM and is used preferentially for cardiac magnetic resonance. The system is a Philips Achieva with a 1.5 T magnet in the magnetic resonance area situated in the basement of the Oncology Pavilion. The equipment has complete software for cardiovascular examinations and is integrated with the hospital's computer system.

The Cardiac Imaging Analysis Unit of the Cardiology Service is situated on the ground floor of the IPMQ building in Hospital Gregorio Marañón. It covers 40 m² and has a latest-generation computer system with high storage capacity. It also has validated systems for quantitative evaluation of cardiovascular parameters (see below).

Services provided

Echocardiography

Image acquisition: 2D, 3D, tissue Doppler, color Doppler, continuous wave Doppler, and pulse Doppler of heart valves in parasternal, apical, subcostal, and suprasternal planes. Images are acquired using a 2.0 to 4.0 MHz transducer and a volumetric probe in a high-end device. The definitive model can be selected depending on the needs of the researcher.

Carotid ultrasound

Acquisition of images using B mode and Doppler ultrasound of the common carotid artery, carotid sinus, and internal carotid artery with a linear probe.

Functional cardiac MRI without contrast

Acquisition of sequences to evaluate biventricular function in cine mode in short axes with complete coverage from base to apex of the LV:





2 cameras, 4 cameras, 3 cameras. 1.5 T device (Philips Achieva, software package release 9).

Functional cardiac MRI with and without contrast

After administration of a bolus of gadolinium contrast medium (0.2 mmol/kg), a multiplane perfusion sequence is run in an initial stage, followed by a 3D delayed enhancement sequence using inversion-recovery. Inversion time is adjusted using the Look-Locker tool. The images are acquired 15 minutes after administration of contrast. 1.5 T device (Philips Achieva, software package release 9).

Standard echocardiography (as per request)

Assessment of biventricular function using 2D images, assessment of mitral filling Doppler flow velocity, LV outflow tract, estimation of lung pressure, and tissue Doppler at the level of the mitral and tricuspid valves (EchoPac v.110.1.2, GE).

Advanced echocardiography (as per request)

Measurement of biventricular function using 3D images of the LV (EchoPac v.110.1.2, GE) and 3D imaging of the RV (4D-RV function; TomTec Imaging Systems). Measurement of longitudinal and circumferential strain of the LV. Measurement of 3D strain in LV (EchoPac v.110.1.2, GE).

Carotid ultrasound (as per request)

Measurement of the intima-medial thickness at the level of the common carotid artery, carotid sinus, and internal carotid artery (software IMT, EchoPac v.110.1.2, GE, software Q-Lab, Philips or ImageJ, which is adaptable according to the manufacturer).

Cardiac MR (as per request)

Biventricular function, quantification of segmental contraction ("Wall Motion Analysis"), evaluation of intracardiac flow, quantification of delayed uptake (Medis® Cardiac MR QMass® and QFlow®). System can be adapted for quantification of clinical and preclinical imaging in large or small animals.

Procedure for requesting a specific service

The order form to be used is liSGM IM-SPE-7.

The order form has 5 sections:

1. Name of the ISS.
2. Name of the person requesting the service.
3. Data on the service required and budget*.
4. Remarks: Indicate whether the invoice is a self-invoice**.
5. Signatures.

NOTE: Sample transport is the responsibility of the Imaging Unit. The procedure is as follows:

- Issue the study protocol whose parameters are to be analyzed.
- Once the protocol is studied by IU staff, the custom designed CRFs are sent to the center performing the study.
- The persons performing the study send the imaging studies to be analyzed to the IU with their corresponding CRFs.
- Performance of the analysis.
- The results are sent to the center performing the study.
- Imaging studies are filed in the IU for 1 year for re-analysis or to analyze other parameters if necessary.

Contacts

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Cardiology Department

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28007 Madrid

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Tel.: 91 426 58 82

* Data on the services provided: Quantitative MR analysis. Quantitative echocardiography analysis. Quantitative carotid ultrasound analysis.

** If justification is required for public projects, the SOP for self-invoicing liSGM (PR-SPE-06) will be applied.



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Ana Fernandez Baza

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INFORMATION AND COMMUNICATION TECHNOLOGIES UNIT

The HGUGM has enormous research potential and generates a great deal of information related to the clinical trials being conducted. With the aim of developing this potential, the Information and Communication Technologies Unit was established as an IAS, as a platform to help research in the HGUGM, which promotes information technologies to facilitate the generation of ICT solutions.

The Sai is formed by a multidisciplinary team with wide experience both in the technology sector and in the health sector

Objective

To offer specialized advice in the implementation of technological solutions.

Data representation: generation of dashboards and executive reports.

Data mining: Database data download, processing downloads, normalization, filtering and processing of large amounts of data.

Microinformatics: advice on user's position.

Communications: video services.

Team

All staff have at least five years of experience in implementing ICT projects in the health field and fit the profile of

Senior Information Systems and Technology Technician with responsibilities in:

1. IT and telecommunications project management.
2. Design, development and operation of computer systems, including requirements analysis and specification, technical design, user relations, technical support and administration of systems, data, communication networks and security.

Competences and skills

- Messaging and data management standards (4 HL7).
- Document exchange standards (2CDA).
- Terminology standards or controlled vocabularies (4 SNOMED CT).
- Security standards (1 ISO 27001).
- Project Management (2 PMP).





BIOBANK

Mission

To contribute to the advancement of scientific knowledge in various diseases and to provide patients' biological samples for purposes of research. The samples are received, registered, processed, coded, and cryopreserved in the HIV Biobank of Hospital Gregorio Marañón (HGM HIV Biobank). They are then provided to research projects after approval by an external ethics committee and scientific committee.

Description

The objectives of HGM HIV Biobank are met thanks to support from the bodies and people who collaborate with it:

- Cohorts with well-defined characteristics comprising patients with various diseases. The coordinators of the cohorts collect and store clinical information associated with the samples. HGM HIV Biobank currently holds samples from 9 cohorts: the HIV cohort, respiratory disease cohort, endocrinology cohort, neonatology cohort, oncology cohort, rare diseases cohort, infectious diseases cohort, nephrology cohort, and intensive care cohort.
- The various hospitals that deposit samples in HGM HIV Biobank, after signature of an agreement on the conditions of the deposit. At present, 57 Spanish hospitals deposit biological material. The departments of Hospital General Universitario Gregorio Marañón that currently deposit samples are Pediatrics, Neonatology, Anesthesia, Nephrology, and Pediatric Intensive Care.
- HGM HIV Biobank staff in charge of management, reception, processing, cryopreservation, and lending of samples.
- Other collaborating bodies include external ethics committee and scientific committee, which participate in decision making and evaluate the projects for which biological material is requested from HGM HIV Biobank.
- Lastly, researchers who are loaned samples for projects of excellence after previous approval by the appropriate committees.

- All the processes carried out in HGM HIV Biobank are subject to a strict quality control system based on standard UNE-EN ISO 9001, for which HGM HIV Biobank is certified and which guarantees the quality of the samples and the fulfilment of ethical and legal rules.

Services offered

HGM HIV Bioank offers the following services:

- Management, preparation, distribution, and follow-up of all the documentation necessary for depositing samples in HGM HIV Biobank and their subsequent reception, processing, registration, cryopreservation, and provision.
- Reception, processing, and cryopreservation of biological material from the various cohorts after signature of the corresponding deposit agreement.
- Ensuring the quality, traceability, and maximum viability of the biological material stored in HGM HIV Biobank.
- Recording of basic sample information.
- Adaptation of the HGM HIV Biobank database so that the coordinators of the different cohorts can register clinical and laboratory data of donors.
- Advice to the cohort coordinators on the use of the HGM HIV Biobank database.
- Consolidation of data associated with samples available in HGM HIV Biobank with the cohort coordinators and services that deposit biological material.
- Provision, for research purposes, of samples for projects, after approval by the corresponding committees.
- Creation and management of new sample collections for research projects and clinical trials and studies.
- Centralization and management of samples for the development of multicentre studies.





ORGAN PLATFORM BIOBANK

- Processing of samples for the development of research projects and clinical trials and studies.
- Advice on ethical and legal matters associated with the use of human samples for research.
- Advice on and analysis of economic sustainability.
- Advice on design of and application for projects.
- Regulated teaching (processing techniques, biosafety, quality management quality control for biological samples), personalized training in technical and legal aspects of biobanks.
- Organization of events.
- Writing of scientific articles.
- The laboratory platform/HGM HIV Biobank also offers standardization of techniques between different groups or hospitals. Techniques such as ELISPOT and miRNA extraction are also offered for research projects and clinical studies and trials.

Technology

HGM HIV Biobank currently has 2 cryopreservation rooms and a sample processing laboratory equipped with:

- 3 laminar flow cabinets.
- 3 microscopes.
- 2 centrifuges with swinging bucket rotors.
- 2 microcentrifuges.
- 1 incubator.
- 1 thermostatic bath.
- 1 thermocycler.
- 1 thermomixer.
- 5 pipette controllers.

- 28 micropipettes.
- 1 refrigerator (4°).
- 1 freezer (-20°C).
- 11 freezers (-80°C).
- 6 nitrogen tanks.
- Telephonic alarms.
- Computer material.
- Air conditioning equipment.

Facility

The Innovation Support Unit HGM HIV Biobank is located in the Maternity Building of IISGM.

It covers 93 m2 and has its own electricity supply and air conditioning system in order to meet the quality requirements necessary for the services offered.

Contact

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Elba Mauleón

Coordinator, Head of Management and Quality, Head of Records

Tel: 91 529 05 09

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HGM HIV Biobank

Hospital GU Gregorio Marañón.

Edificio Materno Infantil. Planta -1. Puerta-1 D04

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CARDIOLOGY TRANSLATIONAL RESEARCH LABORATORY

Mission

The Translational Research Laboratory in Cardiology, the former Bioartificial Organs and Matrices, is an infrastructure of the Research Institute of the Gregorio Marañón Hospital that is part of the Organ Platform focused on the field of Regenerative Medicine, of which Prof. Fernández-Avilés is the Scientific Director. The Cardiology Translational Research Laboratory is an infrastructure of the IISGM that forms part of the Regenerative Medicine and Bioartificial Organs Platform and is led by Professor Fernández-Avilés.

Description

The laboratory started its activity focused on obtaining decellularized matrices, from animal and human organs, in order to recellularize them later with different cell types, thus achieving viable matrices that serve as replacement constructions for the sick organs that are not rejected in the transplant. Throughout its trajectory, it has reinforced these lines of research in Advanced Therapies with others linked to research in cardiology.

It is currently a Research Support Service that combines basic, preclinical and clinical research focused on understanding the specific processes at the molecular, cellular and organ level that underlie the broad spectrum of cardiovascular diseases.

The laboratory has implemented different technologies that support translational research in Cardiology and other disciplines at our hospital, as well as other research groups of national and international prestige.

Among them: Recellularization with bioreactors, 3D Bioimpression, Basic Electrophysiology, Genomics, Transcriptomics, Metagenomics, etc.

The RSS is managed by the IISGM's ISO 9001: 2015 quality system: which makes it possible to develop all projects in a reproducible manner and with proven traceability, in order to accelerate clinical translation. The objective is to obtain decellularized matrices and organs from animal and human organs in order to accelerate clinical translation.

Services provided

- Organ decellularization.
- Study of ventricular mechanics in the intact heart and decellularized matrices.
- Histology of the samples obtained from the different matrices.
- Tissue and cell electrophysiology program.
- Recellularization of decellularized matrices by co-culture.
- Recellularization program using bioreactors.
- Human cell culture:
 - Vascular fat fraction or «fresh cells» from liposuction.
 - Bone marrow mononuclear cells.
 - Bone marrow mesenchymal cells.
 - Fatty tissue mesenchymal cells.
 - Obtaining iPS cells.
 - Differentiation of iPS cells into cardiomyocytes.
- Culture of cells from animal tissue, eg, mesenchymal cells, iPS cells, cardiomyocytes, and resident cardiac cells.
- Maintenance of different cell lines.
- Studies on variants and gene expression.
- Academic and training platform.

Technology

Histology program

- Cryostat: Thermo Scientific Microm HM525-U.
- Carousel-type automatic tissue processor: Thermo Scientific Microm STP120-2.
- Modular embedding center: Thermo Scientific Microm EC350.
- Histology bath: Termofin 3000459, Selecta.
- Microtome: Thermo Scientific Microm HM325.
- Culture oven: INCUBAT, Selecta.
- Leica BOND III for automatic IHC and ISH staining.





- Leica DMD108 Histology Station.
- Leica ICC50 HD Direct Light Microscope.

Culture and cryopreservation program

- CO₂ incubators: Nuaire, Nu-4850-E, and with control of CO₂ and O₂ Nuaire, Nu-4950-E.
- Laminar flow biosafety cabinets: Nuaire, Nu-437-400-E.
- Safety cabinet: Safefast Elite.
- Ovens: 37 °C (TherMark) and 22 °C (Memmert).
- Toxic substance extraction cabinet: Captair Flex AM321.
- Inverted fluorescence microscope with camera: DMI3000.
- Liquid nitrogen tank: Taylor-Wharton, Cryocon M505K.
- Liquid nitrogen supply tank: Taylor-Wharton, L5750.
- Freezers (−80°C): Profi line and Innova U-360.

Tissue and cell electrophysiology program

- Medium-size Langendorf heart system (pig-human).
- Electric mapping system on Langendorf and cultures.
- Optical mapping system on Langendorf.
- Optical mapping system on tissue and culture.
- Electrical stimulation system.
- Decellularization program.
- Peristaltic pump: Masterflex 7524-45.
- Patch-Clamp set.

Genetics, genomics, and transcriptomics program

- Basic molecular biology equipment.
- Quantitative real-time PCR (RT-PCR) (CFX BioRad).
- Imaging equipment and gel analysis software.
- Gel-membrane transfer equipment: Trans Blot Turbo (BioRad).

- ImageQuant LAS 500 (GE Healthcare).
- Server for edition and analysis of massive sequencing data.

Specific techniques

- Flow cytometry with MacsQuant 3-laser cytometer.
- Cell purification with separator: AutoMACS Pro.
- Rokit 3D in vivo bioprinter (Palex Medical)

Bioreactor/recellularization programs

- Bioreactors for human and animal organs.
- Bioreactors with electromechanical stimulation.
- Static and dynamic cell seeding systems.

Facility

The laboratory is located on floor −1 of the Maternity Hospital. It covers 275 m² and is home to several work areas: the histology area, culture area, electrophysiology area, and genetics, genomics, and transcriptomics area.

Contact

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Scientific Director

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3D MEDICAL PRINTING UNIT

Justification

3D printing is a type of additive manufacturing that allows a digital model to be transformed into a real three-dimensional object. The objects are built layer by layer, using different technologies, such as stereolithography (SLA) or deposition of molten thermoplastic material, the latter being the most popular desktop technology in in-house 3D printing environments.

Limited for a long time to the industrial field, 3D printing has evolved to reach the professional user

In the medical 4.0 the manufacture of biomodels and custom devices through 3D printing allows:

- Personalized medical care: patient-centered precision medicine, improved perceived quality thanks to improved medical communication, and objective quality allowing the optimization of therapeutic times.
- Education and clinical training: medical training and procedure simulation.
- Pre-clinical testing: improving device design by testing on simulation models.
- Innovation in customized medical devices: advanced rapid prototyping reducing verification and validation times.

HGUGM has pioneered the introduction of 3D printing as a working tool in clinical practice and research. In 2014, the first surgery was performed using patient-specific surgical guides manufactured on site for an intervention in Orthopedic Surgery and Traumatology. Since then, the interaction with different specialties has allowed us to gather the knowledge and experience necessary to offer a cost-effective medical 3D printing service.

Description

It is a research support service (SAI) that helps health professionals and researchers who have a need in which 3D printing can contribute to the development of a specific and individualized application in the health area.

The aim of these activities is that innovative projects in these areas have more potential to be transferred to society in general and to the patient in particular.

Services offered

- 3D Modeling
- Customized CAD/CAM solutions
- Rapid prototyping: functional analysis, technical evaluation, design and manufacturing
- 3D printing of biomodels from 3D model (STL, OBJ)
- 3D printing of patient-specific devices from medical image segmentation (CT, CBCT, MR, PET)
- Final product development: medical training, surgical simulation, positioning guides, customized instruments and electromedical components.
- Advice on integrating 3D printing technology into the clinical process

Resources

Material Resources

- 3D printing laboratory room (FabLab) with air conditioning, humidity control and filtration system
- ISO13485 certified quality management system
- Multistation of work composed of computer equipment of last generation with high capacity of file and data processing
- Post-processing tools
- FDM (thermoplastic), SLA (resin), SLS (polyamide), MultiJet and metal printing technology 3D printers
- 3D Surface Scanner
- Polymers and thermoplastic materials
- Bioprinting room
- Coworking space

Human Resources

- Multidisciplinary team of medical specialists, medical imaging experts, biomedical engineers and pharmacists.
- Support team by means of pre and post grade students





Location

Medical 3D printing laboratory is located on the second floor of the pharmacy annex building . C/ Ibiza, 43. 28009. Madrid

Contact

Advanced Planning and 3D Manufacturing Unit (UPAM3D)

www.upam3d.com

3dlab.hgugm@salud.madrid.org

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EXPERIMENTAL OPERATING ROOM

Mission

To provide appropriate surgical facilities and equipment for experiments with animals.

Description

The experimental operating room is a Research Support Service (RSS) with the appropriate fittings, material, and instruments for the most common surgical procedures.

The main operating room (A) has 2 tables that are custom-designed for animals. One table is radiotransparent to enable x-ray techniques to be performed. A third table can be installed when necessary.

Equipment is also available for more specific procedures such as laparoscopic surgery and extracorporeal circulation.

There are also 3 rooms equipped for microsurgery in small-animal procedures. Two are within the clean area of the animal facility (B and C) and 1 is outside the area (outer room D). The rooms are used for microsurgery training courses and for experiments with small animals.

The RSS Experimental Operating Room of IISGM makes up the Surgical Area of the Experimental Medicine and Surgery Unit (MCE).

Services provided

The basic unit for providing services in the Surgical Area is the so-called Surgical Session, which implies the use of 1 operating table or microsurgery station for at least 1 morning or 1 afternoon.

- Morning: 8:30 h to 14:00 h (5.5 h).
- Afternoon/evening: 15:30 h to 21:00 h (5'5 h).

In addition to the Surgical Session, requests can be made for animals, support staff, and other equipment (see rates).

The small-animal rooms can be used for a half-session.

If the procedure to be performed requires an operating table (eg, for x-ray) and this prevents the other table from being used, then an exclusivity supplement will be applied.

Research

- Procedures associated with a funded research project.
- Procedures associated with a research project authorized by IISGM but which is pending funding.
- Procedures associated with research projects from bodies outside the hospital.

Teaching/training

- Practical sessions for undergraduate students from Universidad Complutense.
- Practical sessions for undergraduate students from Universidad Carlos III.
- Practical sessions enabling hospital staff to perfect surgical techniques.
- Practical sessions enabling staff from other centers to perfect surgical techniques.
- Training courses organized by HGUGM services.
- Training courses organized by other bodies.

Dissemination

- Demonstrations or presentations of equipment or procedures organized by companies.

Technology

Standard operating room

Equipped with the following:

- Multipurpose tables.
- Monitoring equipment.
- Conventional surgical instruments.
- Electric scalpel.
- X-ray equipment.
- Extracorporeal circulation equipment.
- Basic laparoscopic surgery equipment.





ANIMAL PLATFORM I EXPERIMENTAL OPERATING ROOM

Procedure rooms

Equipped with 4 work tables with stereoscopic microscopes (Nikon SMZ-1 and Zeiss OPMI 99) and basic surgical instruments.

Facilities

The RSU Experimental Operating Room is located in the Experimental Medicine and Surgery building of IiSGM. It covers 97 m2 divided into an operating room, pre-operating room, clean area for storing material with an autoclave for sterilizing, a dirty area for washing instruments with a chest freezer for animal cadavers, microsurgery laboratories, an office, and changing rooms.

Contact

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Experimental Medicine and Surgery Unit

Hospital General Universitario Gregorio Marañón





ANIMAL FACILITY

Mission

To support translational research based on animal models. Biomedical research requires the use of small experimental animals that fulfil, as do biologic reagents, all the necessary requirements for the performance of high-quality research in a setting with measures that guarantee the health and well-being of the animals.

Description

The Animal Facility is a Research Support Unit (RSU) whose priority objective is to supply researchers with the best animals for their research projects and to maintain the appropriate environmental and clinical conditions for research to be carried out while ensuring animal health and well-being.

This service is aimed at all investigators from the IISGM and from other centers. All users must have appropriate certification for the handling of experimental animals; therefore, they must have the appropriate professional credentials (Royal Decree 53/2013 and Order ECC/566/2015).

The RSU Animal Facility of IISGM is part of the Experimental Medicine and Surgery Unit (MCE).

Services provided

Breeding, housing, and supply of different races and strains of rats, mice, and pigs under different housing conditions. Various options are available for experimental procedures in the animal facility with(out) the participation of inhouse personnel. The rates include accessory services such as administration of treatment, performance of procedures, and animal transport. Other experimental techniques can be requested (embryo transfer, freezing/thawing of embryos, etc).

Facilities

The Animal Facility is located on the ground floor of the Experimental Medicine and Surgery Unit (MCE). It covers a 170-m² area divided into communal areas and animal housing areas.

The facility comprises 2 clearly differentiated areas: one for work with animals under standard conditions and another barrier area for work with animals under specific-pathogen-free conditions.

In the first area, animals can be housed in quarantine. The area is used for animals in transit or animals that, given the particular characteristics of a study, must leave the barrier area. This area also has a special containment room for biological risk 2 animals, as well as rooms to house pigs and for postoperative care.

Rodents are bred, housed, and undergo experimental procedures in the barrier area.

Hospital General Universitario Gregorio Marañón (HGUGM) figures on the Registry of Facilities for the Breeders, Suppliers, and Users of Animals for Experimentation and Other Scientific Purposes (Registro de Establecimientos de Cría, Suministradores y Usuarios de Animales para la Experimentación u otros fines científicos) of the Autonomous Community of Madrid as a User Center (code: ES280790000087).

Structure and distribution

- Standard animal facility:
 - Store.
 - Cleaning area.
 - Mouse quarantine room.
 - Rat quarantine room.
 - Pig quarantine room.
 - Postoperative room: pigs.
 - Room for housing biologic risk 2 rodents (infected animals).
- Barrier area:
 - Rat room.
 - Mouse room.
 - Sterile material store.
 - Clean store.
 - Procedure room 1.
 - Procedure room 2.





Technology

The animal facility is equipped with the following:

- Ventilated isolation cabinets with HEPA-ULPA filters for housing rodents.
- Laminar flow cabinets for animal transfer.
- Storage cabinet for rodents used in metabolic studies.
- 2 type II biosafety cabinets.
- Double-door sterilizer with a liquid program.
- Miniclave sterilizer with liquid program.
- Tray washer.
- Stretcher for animal transfer.
- Scale for large animals.
- Scales for rodents.
- Vaporized hydrogen peroxide sterilization equipment.
- Hydrocleaner.
- "Safety Access System" – SAS with a window format.
- Type 1000 and type 500 standard cages, with dividing grill.
- Feeding bottles: 1000 and 300 ml.
- Cages with grills and filters for mice and rats.
- Equipment, devices, and diverse material for experimental procedures, including induction chambers, respirators, and accessories for anesthesia and analgesia of rodents.

Staff

Clinicians

- **Fernando Asensio**, Doctor of Veterinary Medicine, Head of the Animal Facility.
- **Pedro Llontop** Doctor of Veterinary Medicine.
- **Paula Barnese**, Graduate in Veterinary Medicine.
- **Silvia Rivero**, Graduate in Veterinary Medicine.

Technicians

- **Francisco Sánchez Cobos**, Animal Experimentation Technician.
- **Alicia Sánchez Martín**, Animal Experimentation Technician.
- **Lidia Albadalejo Navarro**, Animal Experimentation Technician.

Contact

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Veterinarian

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Francisco Sánchez Cobos.

Animal Experimentation Technician

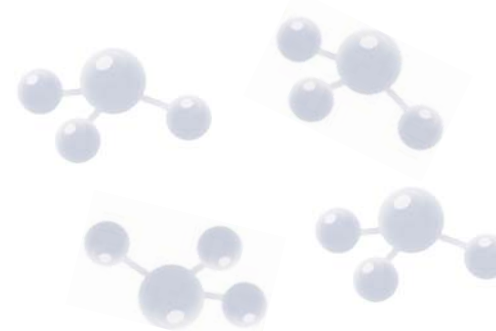
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Unidad de Medicina y Cirugía Experimental - UMCE

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EXPERIMENTAL SMALL-ANIMAL IMAGING LABORATORY

Mission

The main objectives of the Small Experimental Animal Imaging Laboratory are to research on advanced biomedical imaging technologies and to provide imaging services to researchers from the hospital and from other centers.

The Laboratory participates in several research networks, such as «Red Madrileña de Nanomedicina en Imagen Molecular» (S2017/BMD-3867 RENIM-CM) and «Modelos animales e imagen biomédica» (Plataformas ISCIII, PT20/00044). It has recently obtained funds from the Agencia Estatal de Investigación (EQC2019-006674-P) and the Instituto de Salud Carlos III (IFEQ21/00045) for the renovation of the radiopharmacy unit and the imaging equipment.

Description

The Small Experimental Animal Imaging Laboratory has an instrument platform for molecular imaging of small animals. It is clearly multidisciplinary character enables it to address problems from different perspectives, thus facilitating rapid translation of research results to clinical practice and industry.

Services provided

The types of study that can be performed cover a range of possibilities:

- Magnetic resonance: high-resolution «standard» anatomic imaging, spectroscopy (1-H, 31-P, 13-C), angiography (MRA), tissue perfusion, diffusion imaging (DWI, DTI), magnetization transfer, functional magnetic resonance imaging (fMRI), dynamic cardiac studies, cell tracking, etc.
- Nuclear imaging (PET and SPECT): cell metabolism studies based on glucose (18F-FDG) or palmitic acid (18F-FTHA), with applications in oncology, neurology, cardiology, and inflammatory and infectious diseases. In vivo follow-up of biomolecules (antibodies/peptides) and cells, etc.
- Computed tomography imaging: studies of bone and biomaterials, morphometric studies, pulmonary studies, etc.
- Molecular probes: synthesis of nanoparticles, optic and/or radioactive labeling of biomolecules (antibodies, peptides, microvesicles, etc.)
- In vivo optic imaging: candida bacteremia (genetically modified strains), tumor metabolism (genetically modified strains), cell tracking, etc.

- SPIM: 3D immunohistochemical studies of whole or semiwhole organs.
- Animal procedures: the technical team of the laboratory has wide experience on basic methods (administration of substances, blood sampling, perfusions, necropsy, etc.) and advanced methods (stroke, stereotactic surgery, cardiac infarction, etc.)
- Other services provided by the laboratory include consultancy on the optimal techniques for specific problems and postprocessing of data (including quantification, coregistration of modalities, statistical parametric mapping (SPM), etc.).
- Rates can be obtained from www.iisgm.com (Research Support Services).

Facilities

The laboratory covers some 500 m² in the hospital. Slightly less than half of this space houses offices for staff; the remainder houses working laboratories (magnetic resonance rooms, radiopharmacy, PET, SPECT, hot laboratory for cell culture, optical imaging room).

Technology

- High-resolution PET/CT (SuperArgus, SEDECAL)
- High-resolution SPECT (U-SPECT-II, MILabs)
- Small animal magnetic resonance scanner (7 Tesla) (Bruker Biospec 70/20 USR)
- Sistema IVIS Lumina Serie III (PerkinElmer) 3D Single plane illumination microscopy (SPIM) with 5 lasers (405, 488, 532, 590, 649)
- Laboratory animal monitoring system (SA models 1025 and 1030) compatible with the resonance system (temperature, respiration, heart rate, and pulse oximetry)
- Laboratory animal monitoring systems (RGB) compatible with PET and SPECT (respiration and heart rate)
- Radiopharmacy Unit for in situ production of radiotracers

Contact

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Head of Small Experimental Animal Imaging Laboratory

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CELL THERAPY UNIT

Mission

The Advanced Therapy Medicinal Products Production Unit gives support to basic-clinical research in the field of Advanced Therapies and Regenerative Medicine.

Description

The Unit is a Research Support Service aimed at researchers in our and other hospitals who wish to carry out preclinical and clinical studies in the field of regenerative medicine. The Unit comprises the following:

- Cell Therapy Laboratory: Laboratory whose environment is controlled based on the norms of Good Clinical Practice and Good Laboratory Practice for clinical cell production that does not require cell expansion or, therefore, production based on Good Manufacturing Practice. Also produces cells for preclinical trials in vitro. For example, trials have been developed in fields such as cardiology, gynecology, maxillofacial surgery, orthopedic surgery, dermatology, and general surgery.
- ATMPs Production Unit: Infrastructure that provides support to clinical research in regenerative medicine and advanced therapies. The Unit has been certified by the Spanish Agency for Medications and Medical Devices (AEMPS) since February 2009, re-accredited for the fourth time in July 2018 (ES/037/21) for the production of 10 ATMPs and 1 medicament: bone marrow mononuclear cells, bone marrow mesenchymal cells, vascular Stromal Fraction of fat (VSF), mesenchymal cells from fat tissue, periodontal ligament cells, NK cells and Treg cells, and decellularized human donor corneal laminas /LChD). The cells have been applied in more than 20 clinical trials in our hospital and in other hospitals both in and outside the Community of Madrid.

Services provided

- Preclinical studies in cell therapy and regenerative medicine.
- Production of various cell types used in clinical trials under an infrastructure certified according to Good Manufacturing Practice and investigational products approved by the AEMPS for the production of various types of cell, with the following authorizations for investigational products (IP) approved by the AEMPS:

- Mononuclear bone marrow cells (IMP Nos. 05-042 and 13-037).
- Stromal vascular fraction (fresh fat cells) (IMP No. 11-027).
- Autologous bone marrow mesenchymal stromal cells (IMP No. 09-065 and 10-148).
- Allogenic bone marrow mesenchymal stromal cells (IMP No.12-088 and 14/094).
- Autologous adipose tissue mesenchymal stromal cells (IMP No. 09-019 and 11-164).
- Allogenic adipose tissue mesenchymal stromal cells (IMP No. 15-103 and 21-113).
- Periodontal ligament cells (IMP No. 13-143).
- Stimulated and nonexpanded NK cells (IMP No: 17-025).
- Treg lymphocytic cells, differentiated, autologous, thymic tissue, expanded and stimulated with IL-2 (thyTreg) (IMP No. 19-083).
- Autologous adipose tissue quiescent mesenchymal stromal cells (IMP No: 21/113).
- Decellularized human donor corneal laminas (LChD) (IMP No: 21/114).
- Preparation of Investigational Medicinal Product Dossiers (IMPD) and standardized operating procedures (SOPs). Validation and reporting of new cellular products, to request their approval by the AEMPS.
- Histology, immunohistochemistry, and immunofluorescence of organs and tissues.
- All work is carried out within the framework of Good Laboratory Practice, Good Clinical Practice, and Good Manufacturing Practice, ie, a rigid quality assurance system ensures robust results that can be easily transferred to clinical practice.

Technology

- Cell Therapy Laboratory:
 - BIO II-A de TELSTAR laminar flow cabinet.
 - Thermo CO₂ incubator.
 - AXIOVER40 fluorescence microscope.
 - SEPAX system. EPPENDORF 5810R Biosafe for cell separation and refrigerated centrifuge.
 - Barnstead MAXQ Mini 4450 shaker.



CELL PLATFORM CELL THERAPY UNIT

- Cell Production Unit (GMP):
 - TELSTAR BIO II-A and II-A-P laminar flow cabinet equipped with continuous particle counters.
 - Thermo 371 and STERI-CULT CO2 incubators, with sterilization routine MODEL 3308 S/N THERMO.
 - AXIOVER40 CFL microscope.
 - EPPENDORF 5810R refrigerated centrifuge.
 - Portable particle counter.
 - Mechanical tissue digester.
 - Automatic lyophilization vial capper and bag sealer.
 - Barnstead MAXQ Mini 4450 orbital shaker.
 - Bag thawing unit.
 - Freezers with temperature ramp
- Quality Control:
 - MacsQuant flow cytometer.
 - BioRad thermocycler.
 - PCR gel analyzer. Gel Logic
 - Luminometer.
 - Safefast ELITE isolation box.
 - Microbiological culture oven (37°C and 22°C).
 - Endosafe® nexgen-PTS™.

Facility

The facilities of the Cell Therapy Unit meet the criteria for Good Manufacturing Practice in medication. It is located on Floor -1 of the Clinical Building.

Documentation

Quality guarantee system, GMP formal guidelines with certification from the AEMPS (last certification was for 3 years [ES/037/21; July de 2018]. At the present time there are several new products under review for authorization by the AEMPS.

Contact

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Calle O'Donell, 48 Madrid 28009





FLOW CYTOMETRY AND CELL SORTER UNIT

Mission

The Flow Cytometry and Sorter Unit is a Research Support Service (RRS) of the IISGM. The Unit's mission is to provide flow cytometry support to researchers, both from the IISGM and external or private companies. The Unit offers scientific-technical support to researchers ranging from experimental design advice, data interpretation, to the use of computer software for multiparametric analysis. This will allow the discovery, identification and tracking of cell markers, also facilitating the separation of different identified cell populations.

Description

Flow cytometry is an analytical/quantitative technique by which multiple characteristics can be measured in cells or particles of interest contained in a fluid, through marking with antibodies or fluorescent probes. The interaction with a laser will result in a scattering of light and fluorescence that will translate into obtaining detailed information on the structural and functional characteristics of the cells or particles under study. The application of the Cell Separator (Sorter) allows to separate cell populations in sterile conditions according to the characteristics analyzed by flow cytometry.

With this technique, multiple applications can be realized at the same time in a reduced sample volume. It is important to emphasize that this technique performs measurements particle by particle, beyond the descriptive population measures. The identification of cellular markers is of application in the investigation, diagnosis, follow-up and treatment of very diverse pathologies, reason why the Flow Cytometry and Cell Separation is a technology implied in the translational investigation.

The Flow Cytometry Unit has been certified since 2016 according to the guidelines of the Quality Management System (ISO 9001:2008) and since 2019 meets the requirements of the updating of the standard (ISO 9001:2015).

Services provided

Flow cytometry analyser

- Phenotyping different lymphocyte markers on surface or intracellular.

- Analysis of cell viability through propidium iodide, annexin V or 7-AAD marking.
- Cell cycle analysis by propidium iodide.
- Transfection efficiency analysis.
- Quantification of cytokines soluble in plasma, serum, or culture supernatants through a multiplex assay (up to 11 cytokines in 25ul sample).
- Intracellular cytokine analysis.
- Analysis of intracellular calcium movement by Fluo-4 marking.
- Analysis of apoptosis activation through several markers. Ex: Caspasa-3.
- Analysis of DNA fragmentation by TUNEL technique.
- *Detection of microparticles and exosomes in the supernatant of cultures, plasma, serums.*

Cell separator by flow cytometry

- Cloning.
- Separation of cell populations of interest.
- Separation of living cells for cell culture.
- Separation of fixed cells for later genetic analysis.

Support to the researcher

- Advice and optimization of study protocols or design of experiments.
- On-demand training and study of researchers' needs.
- Personalised advice on experimental approach, fluorochromes, markers available.
- Standardized procedures for the best possible processing of samples.
- Analysis by means of various computer applications.

Technology

- FLOW CITOMETER 10 COLORS, 12 parameters. Gallios Model (Beckman Coulter):



- Detection of 10 colors, 12 parameters. Three lasers (blue-488nm, red-638nm and violet-405nm), controlled from the computer, with ignition system and quick stabilization.
- State-of-the-art photomultiplier tubes, with high sensitivity for the red range and excellent linearity throughout the range.
- Possibility of analysis of rare events due to the high speed of acquisition as well as the possibility of volume of acquired sample.
- 14 COLOUR FLOW CITOMETER, 16 PARAMETERS. Model MAQSquant 16 (Miltenyi Biotec)
 - Detection of 14 colors, 16 parameters. Three lasers: blue-488nm (6 detectors), red-640nm (3 detectors) and violet-405nm (5 detectors).
 - Possibility of selecting the FSC with the violet laser to increase the resolution against small particles.
 - Sample acquisition in several containers: tubes, eppendorf and 96-well plates (possibility of refrigeration).
 - Acquisition of small volumes.
- FLOW CITOMETER 13 COLORS, 15 parameters. Cytoflex S Model (Beckman Coulter)
 - The CytoFLEX S model configured with three lasers (out of six options (488 nm, 638 nm, 405 nm, 561 nm, 808 nm, 375 nm). The different configurations support from four up to 13 colors.
 - Program mixing and backflush duration for each well within Plate Loader mode
 - The CytoFLEX Flow Cytometer has the resolution to detect particles smaller than 200 nm using violet side scatter.
 - Fluorescence and side scatter light delivered by fiber optics to Avalanche Photo Diode detector arrays. Proprietary design ensures high performance, high efficiency, low-noise signal detection. Emission profiles are collected using reflective optics and single transmission band pass filters.
 - Fixed Flow Rates: 10, 30 and 60 $\mu\text{L}/\text{min}$
 - Custom Flow Rate Control mode from 10 to 240 $\mu\text{L}/\text{min}$ in 1 μL increments.
- Maximum acquisition rate: 30,000 events per second.
- Software capability to modify window extension parameter and to control abort rate during high event rate signal processing.
- FLOW CITOMETER SEPARATOR model MoFlo Astrios, (Beckman- Coulter)
 - Integration in type II biological safety cabin.
 - Aerosol evacuation and sample agitation system.
 - Controlled temperature of the sample (cooling or heating).
 - Possibility of up to 6 solid state lasers (640 nm, 592 nm, 561 nm, 532 nm, 488nm, 405 nm) and 7 pinholes. It currently has 2 lasers (488 nm and 640 nm).
 - Depending on the application, the acquisition speed can be up to 100,000 cel/sec; self-recognition by photomultipliers (PMT) and PODs that allows different configurations depending on the target.
 - Various collection systems: multiwell plates, propylene tubes, etc.
- FLUORESCENCE MICROSCOPE model Eclipse 50i with Nikon CFI60 optical system.

Facility

The Flow Cytometry and Cell Sorter RSU is located in the Experimental Medicine and Surgery Unit. The room has its own electricity supply, air conditioning, and temperature regulation and fulfils the necessary quality requirements for the services provided.

Staff

Laura Díaz Muñoz, Head of Unit and Head Technician

Contact

Laura Díaz Muñoz *Head Technician*

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Experimental Medicine and Surgery Unit (prefabricated building). Floor FLUORESCENCE MICROSCOPE model Eclipse 50i with Nikon CFI60 optical system.





CELL CULTURE UNIT

Mission

The Cell Culture Unit is part of the Health Research Institute of the Gregorio Marañón Hospital (IiSGM) as a Research Support Service (RRS) aimed at providing scientific, technical and instrumental support to the centre's research groups and other public and private institutions in activities related to cell culture.

The development of in vitro cell cultures is an essential tool for the study of the molecular and cellular mechanisms that occur in any biological process. Cell cultures consist of the growth and maintenance in vitro of cells from normal or tumour organs or tissues. For this, it is essential to preserve the metabolic functions that cells have in vivo through the use of culture media of defined chemical composition and controlled conditions of temperature, pH, CO₂ concentration and humidity.

Description

The Cell Culture Unit is an essential base for the implementation and development of research projects that use cell cultures as an experimental tool in the field of Biomedical Research. It integrates infrastructures, laboratories, equipment and highly qualified personnel, with the aim of providing advice and scientific-technical support to the users of the Unit. It is made up of the Cell Culture Laboratory (Biosafety Level 2), the Microbiology Laboratory (Biosafety Level 2), the Radioactive Culture Laboratory (Biosafety Level 2) and the cryogenic facility.

The Cell Culture Unit has been certified since 2016 according to the guidelines of the Quality Management System (ISO 9001:2008) and since 2019 meets the requirements of the updating of the standard (ISO 9001:2015).

Services provided

- Management of the use of the facilities available to the Unit.
- Periodic control of the installations and preventive maintenance of your equipment.
- Surveillance for compliance with the work rules and cleanliness of the Cell Culture Unit, demanding the practice of good work habits from all users of these dependencies.

- Elaboration and adaptation of work protocols, cleaning/disinfection programs and use records of the equipment located in the Unit.
- Maintenance of adequate documentation for the correct management of the Unit.
- Scientific-technical advice to the users of the Unit.
- Detection of Mycoplasma Contamination.
- Defrosting of cells.

Technology

Cell Culture Laboratory

- 4 Class II Biological Safety booths; Model: Bio II Advance Brand: Telstar.
- 2 Incubators of water jacket with temperature control, CO₂; and in environment of humidity saturation; Model: Model 3100 Series. Forma Series II water jacket CO₂ Incubator Brand: Thermo Scientific.
- 1 CO₂ Incubators with temperature control; Model: Galaxy 48R; Eppendorf.
- 1 Inverted microscope; Model: Labovet Brand: Leitz.
- 1 Vacuum pump; Model: Vacusafe Confort Eco Brand: Integra Bioscience.
- 1 Thermostatic bath; Model: IsoTemp FisherBrand analogue (10 litres) Make: Fisherbrand.
- 1 Sorvall ST40R series refrigerated centrifuge. Brand Thermo Scientific.
- 1 centrifuge Sorvall ST16 series.
- 1 refrigerated mini-flute Sorvall legend 21R.
- 3 devices to freeze the cells at Coolcell® LX viability.

Microbiology Laboratory

- 1 Class II biological safety cabinet; Model: Cabina Gelaire BSB-3.
- 1 Class II Biological Safety booths; Model: Bio II Advance Brand: Telstar.
- 3 bacteriological stoves; 2 of Haraeus brand and 1 Selecta Incudigit.
- 1 centrifuge; Model: Digitor 21 Make: Orthoaresa.
- 1 CO₂ Incubators with temperature control; model: INCO₂ 153, Memmert.





CELL PLATFORM CELL CULTURE UNIT

Cryogenic plant

- 1 «Taylor Wharton» Liquid Nitrogen Container LS 4800 Laboratory Systems of 130 Liters
- 1 50 litre liquid nitrogen extractor system

Facility

The Cell Culture Unit is located on the first floor of the Experimental Medicine and Surgery Pavilion of the IISGM. It has 60 m2 distributed in three rooms and equipped with its own specifications of electrical network and biological safety to meet the quality requirements of the services offered.

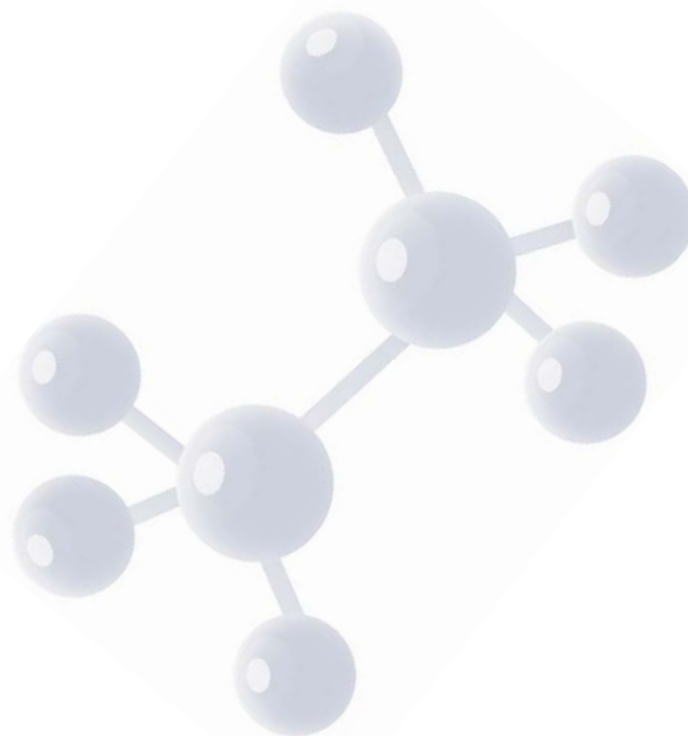
Contact

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CONFOCAL MICROSCOPY

Mission

The Confocal Microscopy Unit is a research support service that assists researchers who require confocal fluorescence microscopy or video microscopy.

Description

The unit has a confocal microscope and a digital camera at its disposal. This makes it possible to acquire fluorescence images of fixed and live samples. The confocal microscope takes optical sections of a fluorescence-labeled sample without the need to invade it, thus providing information on the expression and location of molecules both in 3D (xyz) and in 4D (3D+time).

The most commonly used applications are as follows: 3D reconstruction of subcellular structures, cells, or tissues; marker colocalization studies; quantification of parameters of interest (eg, intensity of fluorescence, area, morphology, cell density, etc).

The Confocal Microscopy Unit has its own financed lines of research focusing on the design and development of experimental approaches, image processing, and data analysis. In recent years, the unit has specialized in *in vivo* cell phenotyping using either paraffin or cryo-preserved tissue sections. This service is aimed at research groups from the Institute and from other institutions that request it. Thus, the unit has contributed in different ways to 78 research articles (8 of them as self-research) and over 90 Doctoral Thesis or Masters, in the last 10 years.

Services provided

- Spectral confocal microscopy of fixed samples: cells, tissues, and organs
- Video microscopy (time-lapse) of live samples in a CO₂- and temperature-controlled environment using a digital camera.

Rates can be obtained from www.iisgm.com (Research Support Services).

Technology

1. SPECTRAL CONFOCAL FLUORESCENCE INVERTED MICROSCOPE (LEICA-SPE, INSTALLED IN 2015)

Spectral confocal model:

- AOTF.
- Internal fluorescence detector (PMT) and detector for clear fields.
- Digitalization of images: 2048 x 2048 pixels, 8 and 12 bits per channel.
- Sweep rate of 400, 600, and 800 Hz (bidirectional optional); K-scanner.

Laser module: 4 solid-state lasers: 405, 488, 561, and 635 nm.

Inverted motorized microscope (DMi8)

- APO chromatic lenses:
 - ACS APO 10x/numerical aperture of 0.30 (dry).
 - ACS APO 20x/0.60 for immersion in water, glycerol, and oil; corrected for 405 nm.
 - ACS APO 40x/1.30 oil immersion.
 - ACS APO 63x/1.30 oil immersion.

Illumination with EL6000 (halide lamp) and white LED for transmitted light Galvanometric stage.

Four fluorescence filter blocks: DAPI, FITC, Rhodamine, and Cy5.

Environmental monitoring (temperature and CO₂) for experiments with cells and live tissue.

Computer equipment

Computer running Windows 7 Software: LAS-X with quantification tools and an additional LAS-AF 3D model (reconstructions, projections, and 3D rendering).

2. DIGITAL CAMERA

sCMOS Orca Flash 4.0 LT coupled to the DMi8 microscope.





Facility

The Confocal Microscopy Unit is located in the Experimental Medicine and Surgery Unit. It covers 19.2 m² and has its own electricity supply and air conditioning to fulfil the necessary quality requirements for the services provided.

Contact

Rafael Samaniego

Head of Unit

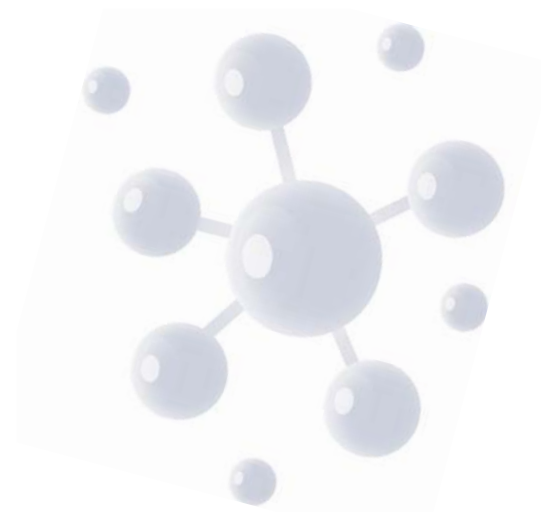
Tel. 91 426 9256 (*office*)

E-mail: confocal@hggm.es

Paellón de Medicina y Cirugía Experimental (first floor)

Hospital General Universitario Gregorio Marañón

c/ Doctor Esquerdo, 46; Madrid 28007





GENOMICS UNIT

Mission

To provide support to research studies based on the study of the genome and or expression products with the aim of contributing to diagnosis, risk assessment, follow-up, prevention, and therapy in genetic diseases.

Description

The Genomics Unit is a Research Support Unit (RSU) that performs sequencing of DNA from PCR products, measurement of fluorescence-labeled fragments, analysis of copy number variations, preparation of libraries, massive sequencing of gene panels, primer design, and design of gene panels for massive sequencing.

Similarly, it provides methodological support for sample preparation, depending on the application of interest, and personalized assessment in the preparation of projects.

The Genomics Unit also provides on-site services as part of the hospital medical services. The service is aimed at all Institute research services and research centers, companies, and other institutions that request it.

Services provided

- **Sample quantification**
 - Fluorescence-based quantification of nucleic acid samples.
- **Analysis of DNA by capillary electrophoresis**
 1. Sanger sequencing of DNA from purified PCR products and DNA cloned in vectors using capillary electrophoresis and BigDye Terminator v3.1 chemistry. Resolution of up to 600 bp. All samples are purified in order to avoid background noise and the remaining terminators. The primers used for the sequencing reaction are specific to the region to be studied.
 2. Analysis of the size and quantity of fluorescence-labeled DNA fragments using an in-house or commercial kit and analysis of fragments of a single nucleotide polymorphism (SNP) using capillary electrophoresis. Software: GeneMapper. Filters: D, F, E_s, G_s. Size: Up to 500, 600, and 1200 bp.

3. Multiplex ligation probe amplification (MLPA). Ligation-binding reaction using probes with the homologous area of interest and subsequent amplification by PCR to study copy number variations (CNVs). Fragment analysis by capillary electrophoresis.

- **Analysis of DNA by massive sequencing**

1. Preparation of the library: Preparation of DNA libraries (enrichment, indexing, and quality control).
2. Massive sequencing: Sequencing by synthesis (MiSeq, Illumina). Preparation of the specific application library. The library can be delivered providing it is compatible with the Illumina sequencing system.

- **Researcher support**

- Design of primers: Advice on the design of primers and probes for PCR studies.
- Design of gene panels for massive sequencing analysis: Design of gene panels for the study of one or more genotypes.
- Personalized assessment of the experimental approach.
- Analysis of researcher's needs.

Facilities

The Genomics Unit is situated on the first floor of the HGUGM Maternity Hospital. It occupies 85 m² and has a high-capacity filing and data processing computer system.

Technology

For sequencing studies, the Unit has 4 high-end systems for clinical practice and research studies, which were acquired by IISGM. Two massive sequencer (MiSeq, NextSeq (Illumina)) and two genetic analyzer (ABI 3130xl –16 capillary tubes– and ABI3730xl –96 capillary– Applied Biosystem). The Genomics Unit also has 3 conventional thermocyclers with a 96-well block (GeneAmp 9700 PCR System, Touchgene gradient, and Touch ThermoCycler C1000), a Qubit fluorimeter (Invitrogen, Thermo Fisher Scientific), refrigerated plate centrifuge, refrigerated Eppendorf centrifuge, Eppendorf Thermal shaker (Thermomixer C), speed-vac concentrator





Savant DNA 120 (Thermo Fisher Scientific), fragment size analyser LabChip (Perkim-Elmer), vortex, mini-spin and ice machine

Staff

- **Ismael Buño Borde**, Scientific Head.
- **Julia Suárez González**, Technical Head.
- **M^a José Delmas González**, Laboratory technician.
- **Ainhoa Simón Zárate**, Laboratory technician.
- **María Lozano**, Laboratory technician.

Contact

Julia Suárez González

Head Technician

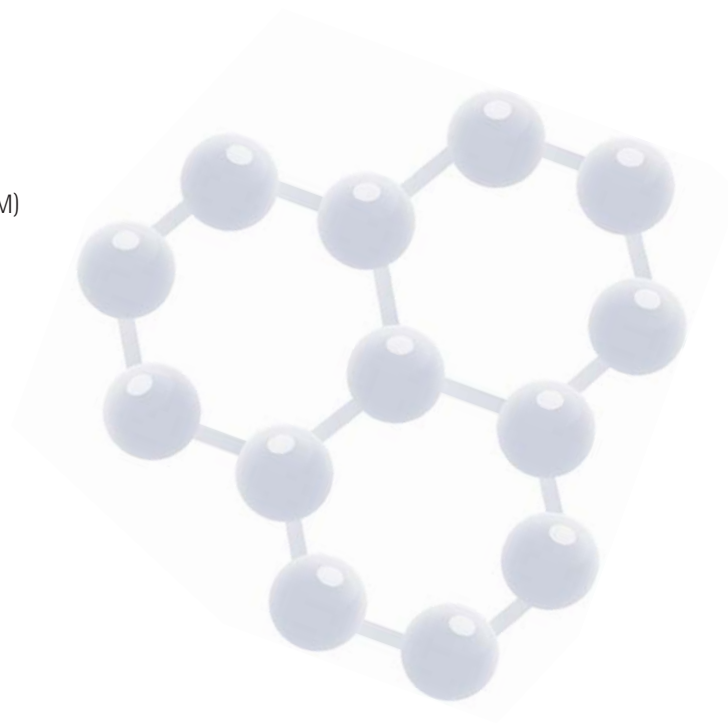
Instituto de Investigación Sanitario Gregorio Marañón (IiSGM)

Calle Doctor Esquerdo 46

28007 Madrid

E-mail: julia.suarez@iisgm.com

Tf. 915290151





PROTEOMICS UNIT

Mission

The principal objective of the Proteomics Unit is to promote scientific research and technological development in the field of proteomics by offering research groups, hospitals, and companies a range of proteomics services, advice on projects, and training courses and seminars.

Description

The Proteomics Unit provides services other than identification of specific proteins. The techniques offered enable large-scale identification of the proteins that make up the proteome and the option of quantitative proteomics studies for comparison of the relative abundance of proteins in various samples. It is also possible to perform studies of protein-protein interactions and studies of post-translational modifications such as phosphorylation.

In addition, the unit provides targeted proteomics services that make it possible to identify and validate biomarkers in biological and clinical samples.

Services provided

- **Mass spectrometry:**
 - Determination of protein molecular mass.
 - 2D electrophoresis (2D-PAGE).
 - Preparative liquid phase isoelectric focusing.
 - Protein complex separation (Blue-Native).
 - Immunoproteomic analysis.
- **Peptide separation:**
 - Reverse phase chromatography.
 - isotope labeling, SILAC metabolic labeling.
 - Label-free quantitative proteomics (label free).
- **Study of post-translational modifications:**
 - Phosphoproteomics.
 - Other modifications: acetylation, ubiquitination...

- **Targeted proteomics studies:**
 - MRM analysis
- **Other:**
 - Transfer to PVDF membranes.
 - Mass spectrometry.
 - Ionic exchange chromatography.
 - Preparative liquid phase isoelectric focusing.
- **Differential expression study:**
 - Gel-based quantitative proteomics: DIGE fluorochrome labeling.
 - Gel-free quantitative proteomics: iTRAQ.
 - Identification of proteins using peptide fingerprinting (MS).
 - Identification of proteins using peptide fragmentation (MS/MS).
 - Peptide sequencing.
- **Liquid chromatography-mass spectrometry:**
 - Analysis of highly complex samples.
- **Subproteome analysis:**
 - Analysis of cell surface proteins (surform).
- **Protein separation:**
 - Monodimensional electrophoresis, SDS-PAGE.

Facilities

The proteomics unit is part of the Centro de Asistencia a la Investigación (CAI) de Genómica y Proteómica (Center for Aid to Research in Genomics and Proteomics) of Universidad Complutense de Madrid. It is located at the Faculty of Pharmacy, Universidad Complutense de Madrid (UCM) and belongs to the network of Laboratories of the Autonomous Community of Madrid (LAB.185).

Technology

- Q-exactive HF mass spectrometer (Thermo Finnigan).
- QTRAP 5500 mass spectrometer (AB SCIEX).
- 4800 Proteomics Analyzer mass spectrometer with TOF/TOF (AB SCIEX).





- LTQ Segmented linear ion trap mass spectrometer (Thermo Finnigan).
- Capillary liquid nano-chromatography system ETTAN LC (GE).
- Typhoon 9400 fluorescences scanner (GE).
- EttanTM system for 2D electrophoresis (GE).
- Liquid isoelectric focus fractionator, OFFGEL (Agilent).

Staff

- Professor of Microbiology, Universidad Complutense de Madrid.
- Researcher, Department of Microbiology, and Scientific Director of the Proteomics Unit, UCM-Parque Científico, Madrid.
- Vice-President, Spanish Proteomics Society.

Technical staff:

- **María Luisa Hernández Sánchez.** Graduate in Pharmacy, Universidad Complutense de Madrid, Master's in Biotechnology, Universidad Complutense de Madrid, and Technical Director, Proteomics Unit.
- **Lola Gutiérrez Blázquez.** Graduate in Biological Sciences, Universidad Complutense de Madrid, Master's in Biotechnology, Universidad Complutense de Madrid.
- **Felipe Clemente Velarde.** Doctor of Biochemistry, Universidad Autónoma de Madrid.

- **Inés Zapico.** Graduate in Chemical Sciences, Universidad de Oviedo.
- **Enrique Pérez.** Master of Bioinformatics, Universidad de Murcia.

Unit documentation

The unit has all the procedures, technical instructions, and registers in line with ISO UNE-EN ISO 9001:2008, awarded in 2010.

Contact

Concha Gil García

Scientific Director

e-mail: conchagil@ucm.es

María Luisa Hernández Sánchez

Tecnitian Head

e-mail: mlhernae@ucm.es

Proteomics Unit

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BIOINFORMATICS UNIT

Mission

The Bioinformatics Unit was set up to provide support for the design and analysis of genomic data from funded projects by research groups from the IISGM and from external organizations.

Description

Bioinformatics and application of this approach in data processing and analysis has not only become an essential pillar of basic research focused on processing of large volumes of biologic data, but it has also become a tool to help decision making in translational medicine and research. For almost 2 decades, molecular biology and bioinformatics have developed and expanded in the health care field as tools for diagnosis and prognosis of diseases with a genetic component, in stratification of patients according to their genetic background, in disease follow-up, and in the potential identification of therapeutic targets in personalized medicine.

With this background, the Research Support Service (SAI) of the Bioinformatics Unit was established with the mission of offering support for the design and analysis of genomic data from projects financed by research groups inside and outside the Gregorio Marañón Health Research Institute (IISGM). Finally, it should be mentioned that the Bioinformatics Unit operates under ISO 9001:2015 certification.

Services provided

1. Genome Analysis

- Assembly and alignment of DNA sequences. After a step involving control of both the quality of the sample and the potential presence of cross contamination, assembly and alignment are undertaken using raw data from sequencing platforms.
- Analysis of the human exome. Variant calling and annotation and CNVs.
- Genotyping. Applied at all levels, with the possibility of simple GWAS. In the case of GWAS, with samples from various populations, we can add an analysis step for characterization and

correction of the potential presence of populational stratification in the samples.

2. Transcriptome analysis

- Assembly and alignment of mRNA sequences. After a step involving control of both the quality of the sample and the potential presence of cross-contamination, assembly and alignment are undertaken using raw data from sequencing platforms.
- Microarray analysis. These are performed using both commercial and custom platforms, followed by a simple analysis of differences in expression between sample groups.
- Functional analysis of biomarkers. The potential biological function of a set of differentially expressed biomarkers is established using approaches based on Gene Ontology and pathway enrichment analysis.
- Quantification of mRNA-Seq transcripts. Various algorithms can be used according to the objective of the study. Depending on the end use of the analysis, data are normalized using the most appropriate procedure, and differences in expression between groups of samples are analyzed.
- Studies on alternative splicing and isoforms using mRNA-Seq data.
- Studies of expression using the platform nCounter from NanoString.

3. Programming and Statistical Support

- Statistical analysis. Based mainly on R/Bioconductor, analysis includes the development of scripts in R, descriptive statistics, association analysis, clustering and principal components analysis (PCA), and the calculation of sample sizes and statistical power.
- Evaluation of batch effects. Evaluation of batch effects in experimental data using clustering, PCA, multidimensional scaling (MDS), and special programs.
- Assistance for preparation of manuscripts (methods and results) and application to calls for competitive funding (experimental design/study bioinformatics, material and methods, preliminary results, and pilot studies).





Facilities and technology

The core area of the Bioinformatics Unit is located on the ground floor of the Experimental Medicine and Surgery Department of IiSGM. Studies with large computational requirements—such as next-generation sequencing or advanced statistical modeling—can be performed using HP Proliant DL380 G9 servers, an HP Z820 workstation, and 2 NAS servers, as well as desktop devices and the necessary network infrastructure. These were purchased by the IiSGM and the Medical Oncology Service.

These devices are housed at two locations: the desktop devices, workstation, and one of the NAS servers are in the Experimental Medicine and Surgery building; the computing servers and the other NAS server is in the Data Processing Center of Hospital General Universitario Gregorio Marañón (HGUGM).

The Bioinformatics Unit works together with the Translational Oncology Laboratory of the Medical Oncology Service, actively cooperates with the ISS of the Genomics Unit, often carries out processing of data from the NanoString and Illumina MiSeq quantification platforms.

Staff

- **Antonio Clemente Picornell Company**, Head of the ISS and Bioinformatics Coordinator.
- **Enrique Luis Álvarez Castillo**, Predoctoral Master's student of the Bioinformatics ISS and of the Medical Oncology Service.

Contact

Antonio Clemente Picornell Company

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Tel.: (+34) 915 290 724



Innovation, knowledge transfer, and translation to practice

INNOVATION SUPPORT UNIT

Intellectual Property KPIs

liSGM activity in innovation during 2021 is summarized in the following:

- a) **Copyright** (computer software, database, scientific publications, etc)
 - 6 copyright applications filed in 2021.
 - 8 copyright registered in 2021.
 - Portfolio of 45 copyrights at 31th December 2021.
- b) **Patents (it includes utility models)**
 - 7 patents applications.
 - 8 patents granted.
 - Portfolio of 70 patents (41 granted and 29 applications) at 31th December 2021.
 - 39 patents licensed (29 granted y 10 applications) at 31th December 2021.

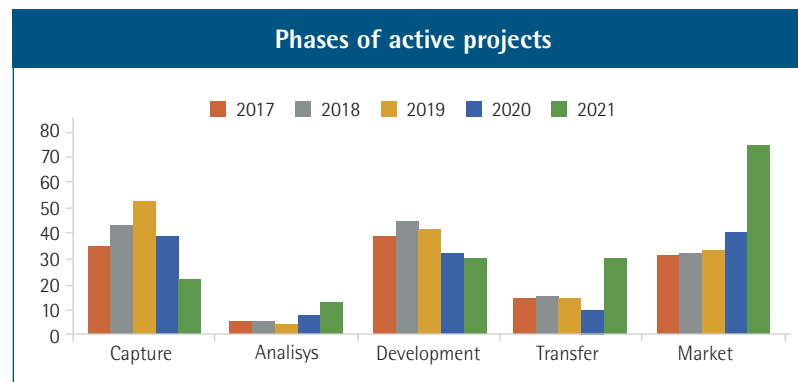
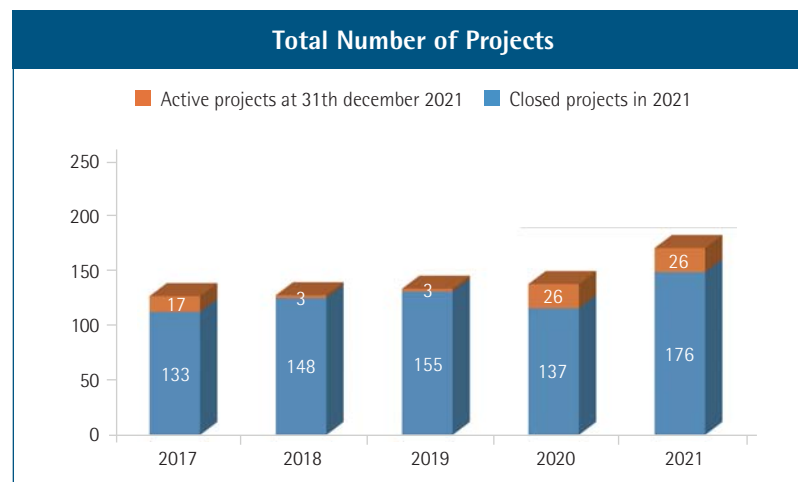
Technology Transfer KPIs

- a) **Technology transfer agreements**
 - 2 license agreements signed in 2021.
 - 1 assignment agreement.
- b) **Others research & innovation agreements (NDAs, collaboration agreement, etc)**
 - 17 agreements.
- c) **Research-based spin-off creation**
 - 1 company incorporated (ThyTech SL).

Innovation projects KPIs

During 2021, 17 new innovation projects were supported in the unit. The UAI managed a portfolio of 176 innovation projects at 31th December 2021. The following figures show the distribution of projects classified by development phase over the last 5 years.

liSGM has received € 2.372.535,6 from innovation funding programmes.



Other initiatives and achievements of the Unit during 2021:

- Re-accreditation of R&D&I management system according to UNE 166002: 2014 standard.
 - Formalization of the first service contract.
 - One project granted from FIPSE call proposal. 131 meetings have been held with companies, collaborators and internal researchers.
- 176 innovation projects managed at 31th December 2021.

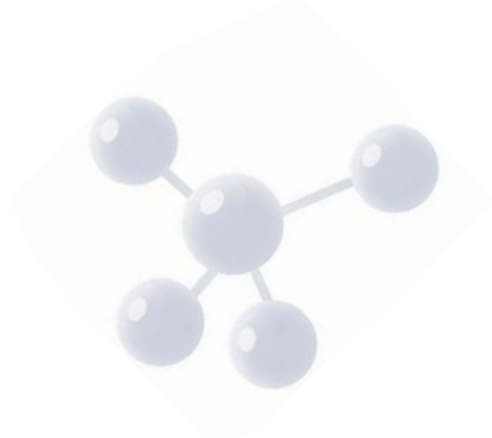
INNOVATION PORTFOLIO

Below, we show the project portfolio, or «innovation funnel». The UAI managed a portfolio of 176 innovation projects at 31th December 2021.

	ICTs Health	Material and devices	Medicines and pharmaceutical products	Biotechnology and molecular diagnosis	Imaging	Care organization
Ideas proposed (not developed)	1	10	1	4	2	6
Ideas under assessment	1	7	1	3	0	2
Ideas under development	7	7	1	8	6	2
Ideas under transfer	5	8	3	9	5	1
Ideas in the market	19	10	5	5	13	24

Commercialization status at 31 December 2021 (Licenced/Available for licensing).

Patent family (it included utility models) **A patent family is "a set of patents taken in various countries to protect a single invention.



Industrial property registrations

Area	Group	Title	Reference*	Owner	Inventors
1	Group 1.01 Advanced technological applications and human health	Aparato de tomografía multimodal	P 2005 02612 (10 patents)	FIBHGM - Sociedad Española de Electromedicina y Calidad, S.A.	Juan José Vaquero, Manuel Desco
1	Group 1.01 Advanced technological applications and human health	Ciclotrón clásico superconductor compacto	P 2013 30626	UC3M - CIEMAT	Luis García-Tabarés, Concepción Oliver, Fernando Toral, Daniel Gavela, Diego Obradors, Cristina Vázquez, Iván Podadera, Javier Munilla, Jesús Calero, José M. Pérez, Friederich Haug
1	Group 1.01 Advanced technological applications and human health	TomoX3D - Reconstrucción avanzada para sistemas de tomosíntesis	Nº Asiento Registral: 16/2021/8484	FIBHGM-UC3M	Manuel Desco, Mónica Abella, Francisco Javier García Blas, Jesús Carretero
1	Group 1.01 Advanced technological applications and human health	STRAY - Plataforma de simulación para sistemas de radiología	Nº Asiento Registral: 16/2021/8485	FIBHGM-UC3M	Manuel Desco, Mónica Abella, Francisco Javier García Blas, Jesús Carretero
1	Group 1.01 Advanced technological applications and human health	REXCT: Algoritmo rápido de reconstrucción de imagen tomográfica	Nº Asiento Registral: 16/2021/8486	FIBHGM-UC3M	Manuel Desco, Mónica Abella, Francisco Javier García Blas, Jesús Carretero
1	Group 1.01 Advanced technological applications and human health	Equipo y método de generación de tomografías	P 2017 30341 (3 patents)	FIBHGM - UC3M	Manuel Desco, Mónica Abella
1	Group 1.01 Advanced technological applications and human health	Light Sheet Microscope and procedure for extended samples	P 2018 30912	UC3M	Jorge Ripoll Lorenzo

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Area	Group	Title	Reference*	Owner	Inventors
1	Group 1.01 Advanced technological applications and human health	Mobile 3D imaging system based on light sheet microscopy	P 2018 30913	UC3M	Jorge Ripoll Lorenzo
1	Group 1.01 Advanced technological applications and human health	Celda centelleadora	PCT/ES 2017 070623	UC3M	Georgios Konstantinou, Juan José Vaquero, Rigoberto Chil, Manuel Desco
1 7	Group 1.01 Advanced technological applications and human health Group 7.25 Artificial circulation laboratory	Equipo y simulación para control de hemorragias	P 2017 30568	FIBHGM – Medical Simulator	Manuel Desco, Juan Francisco del Cañizo
1 4	Group 1.01 Advanced technological applications and human health Group 4.01 Infectious diseases	Compuestos radiactivos basados en proteínas selectivas de bacteriemias para la detección no invasiva de focos infecciosos	P 202030838 (2 patents)	FIBHGM - UC3M	Beatriz Salinas, Manuel Desco, Patricia Muñoz, Emilio Bouza
1 2	Group 1.02: Signal processing Group 2.01 Natural history of heart disease	Sistema y método para la detección automática de patrones electrofisiológicos anómalos	P 2017 31161	FIBHGM - UC3M	Gonzalo Ricardo Ríos Muñoz, Antonio Artés Rodríguez, Ángel Arenal Maiz, Francisco Jesús, Fernández-Avilés Díaz
2	Group 2.01 Natural history of heart disease	Catéter y método para la detección de actividad eléctrica en un órgano	P 2014 31315	FIBHGM – Universidad Politécnica de Valencia – Universidad de Michigan	Andreu Martínez, Felipe Atienza, Miguel Rodrigo, M ^a Salud Guillem, Omer Berenfeld

Area	Group	Title	Reference*	Owner	Inventors
2	Group o 2.01 Natural history of heart disease	Dispositivo de localización de arritmias cardíacas	P 2014 31597 (3 patents)	FIBHGM – Universidad Politécnica de Valencia	Andreu Martínez, Felipe Atienza, Ángel Arenal, Francisco Fernández-Avilés, M ^a Salud Guillem
2	Group 2.01 Natural history of heart disease	Mapping and quantifying blood status and thrombus risk in the heart	US 62259494 (3 patents)	FIBHGM – University of California	Juan Carlos del Álamo, Andrew Kahn, Lorenzo Rossini, Javier Bermejo, Pablo Martínez-Legazpi, Raquel Yotti
3	Group 3.03B Neurological diseases	Control method for a neuroprosthetic device for the reduction of pathological tremors	EP20382416.4 (2 patents)	FIBHGM – CSIC – ICL	Francisco Grandas, José Luis Pons, Filipe André Oliveira, Alejandro Pascual Valdunciel, Darío Farina
4 7	Group 4.01 Infectious diseases Group 7.25 Artificial circulation laboratory.	Dispositivo para prevenir la neumonía asociada a ventilación mecánica	U 2014 30814	FIBHGM	Juan Francisco del Cañizo, Emilio Bouza, M ^a Jesús Pérez
5	Group 5.02 Molecular biology of HIV	Nanopartículas metálicas estabilizadas con dendrones carbosilano y sus usos	P 2015 00669	Universidad de Alcalá de Henares – FIBHGM	Francisco Javier de la Mata, Rafael Gómez, Javier Sánchez-Nieves, Cornelia Peña, José Luis Copa, Juan Soliveri, Jorge Pérez, M ^a Ángeles Muñoz, José Luis Jiménez, Pilar García

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Area	Group	Title	Reference*	Owner	Inventors
5	Group 5.02 Molecular biology of HIV	Dendrones carbosilano funcionalizados con ácidos grasos: formación de micelas y usos	P 2016 00726	Universidad de Alcalá de Henares - FIBHGM	M ^a Ángeles Muñoz, José Luis Jiménez, Carlos Guerrero, Daniel Sepúlveda, Rafael Ceña, Francisco Javier de la Mata, Rafael Gómez, Javier Sánchez-Nieves, Gabriel Mencía, Jesús Cano, José Luis Copa, Juan Soliveri, Jorge Pérez, Mercedes Valiente, Carlos Emilio Gutiérrez
5	Group 5.02 Group Molecular biology of HIV	Dendrímeros carbosilanos catiónicos obtenidos mediante "click chemistry", su preparación y sus usos	P 2011 30804	FIBHGM – Universidad de Alcalá de Henares - Universidad de Navarra	Francisco Javier de la Mata, Rafael Gómez, Eduardo Arnaiz, Sandra García, José Luis Copa, Juan Soliveri, José Manuel Hernández, M ^a Ángeles Muñoz-Fernández, Verónica Briz, M ^a Jesús Serramia, Conchita Tros
5	Group 5.02 Molecular biology of HIV	Dendrímeros carbosilanos con un núcleo polifenólico y su uso como antivirales	P 20103 0450	Universidad de Alcalá de Henares - HGUGM	Francisco Javier de la Mata, Rafael Gómez, Javier Sánchez-Nieves, Paula Ortega, M ^a Ángeles Muñoz-Fernández, Louis Chonco, M ^a Jesús Serramia

Area	Group	Title	Reference*	Owner	Inventors
5	Group 5.02 Molecular biology of HIV	Dendrímeros carbosilanos y su uso como antivirales	P 20103 0233	Universidad de Alcalá de Henares - HGUGM	Francisco Javier de la Mata, Rafael Gómez, M ^a Ángeles Muñoz-Fernández, Javier Sánchez-Nieves, Beatriz Rasines, Louis Chonco, Eduardo Arnaiz, M ^a Jesús Serramia
5	Group 5.02 Molecular biology of HIV	Compuestos dendríticos carbosilanos homo y hetero-funcionalizados	P 2012 31187	Universidad de Alcalá de Henares - FIBHGM	Francisco Javier de la Mata, Rafael Gómez, M ^a Ángeles Muñoz-Fernández, Javier Sánchez-Nieves, José Luis Jiménez, Silvia Fernández, Marta Galán, Raquel Lorente, Elena Fuentes, Javier Sánchez, Cornelia Peña, M ^a Jesús Serramia, Rosa Reguera
6	Group 6.02 Translational medical oncology and personalized cancer therapy	Cancer-associated venous thromboembolic events	EP3631016	FIBHGM IIB Sant Pau	Andrés Muñoz, Eduardo Salas, José Manuel Soria
7	Group 7.01 Inflamación y daño vascular en la enfermedad renal crónica, diálisis y trasplante renal. Fisiopatología renal	Uso de la Cilastatina para reducir la nefrotoxicidad en distintos compuestos	PCT/ES 2008 070137 (8 patents)	FIBHGM	Alberto Tejedor, Alberto Lázaro, Sonia Camaño, Ana María Torres, José Antonio Lázaro, Manuela Castilla, María del Carmen de Lucas

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Area	Group	Title	Reference*	Owner	Inventors
7	Group 7.01 Inflamación y daño vascular en la Enfermedad Renal Crónica, Diálisis y Trasplante Renal. Fisiopatología renal	Cilastatin for use in the treatment of sepsis	EP 16382299.2 (12 patents)	FIBHGM	Alberto Tejedor, Alberto Lázaro, Blanca Humanes, M ^a Ángeles González-Nicolás
7	Group 7.02 Fisiopatología e historia natural de las enfermedades hepáticas y gastroenterológicas	Method for predicting response to beta blockers	EP 19382971.0	FIBHGM - IDIBAPS - CICBIOGUNE - FIBloHRC-UAH - CIBERHED	Rafael Bañares, Jorge Gracia, Juan Manuel Falcón, Agustín Albillos
7	Group 7.04 Diseases of the critically ill child	Dispositivo, sistema y procedimiento simulador para entrenamiento de profesionales sanitarios en el manejo de pacientes críticamente enfermos que precisen procedimientos de depuración extrarrenal venovenosa continua	P 2013 30340	FIBHGM - SERGAS - Universidad de Santiago de Compostela	Jesús López-Herce, Santiago Mencía, Antonio Rodríguez
7	Group 7.06 Regenerative medicine in plastic surgery	Matriz artificial de gel de fibrina endotelizada superproductora de factores proangiogénicos	P 2005 01182	FIBHGM	José María Lasso, Paola Nava
7	Group 7.16 Regenerative medicine and system development: cardiovascular and osteochondral	Dispositivo protector bucal con depresor lingual	P 2015 31508 (2 patents)	FIBHGM	Guillermo Juan Rodríguez, Javier Casanova

7	Group 7.27 Hospital pharmacy and pharmacogenomics	Manual de Atención farmacéutica al paciente oncohematológico	Nº Asiento Registral: 16/2021/7894	FIBHGM	José Luis Revuelta, Belén Marzal, Irene Taladriz, Eva González-Haba, Roberto Collado, Vicente Escudero, María Norberta Sánchez, Ana Herranz, María Sanjurjo
7	Group 7.27 Hospital pharmacy and pharmacogenomics	e-MIDCARE: aplicación de la e-Salud en la comunicación y seguimiento de los pacientes diagnosticados de enfermedades inflamatorias inmunomediadas (IMID)	Nº Asiento Registral: 16/2022/660	FIBHGM	Vicente Escudero, Rosa María Romero, Eshter Chamorro, María Aranzazu Ais, María Elena Lobato, Ana María Herranz, María Sanjurjo
7	Group 7.31 Pathophysiology in women, pregnancy, labor, and puerperium	Maqueta didáctica armable	U 2015 30218	FIBHGM	Juan Antonio León
	Obstetrics and Gynaecology Service	Simulador de sutura uterina	U 2012 30998	FIBHGM	Óscar Martínez, Ignacio Cueto, Blanca González
	Medical Oncology	In vitro method for predicting mortality in covid-19 patients	EP 20 383 140.9 (2 patents)	FIBHGM - IECSCYL-IBSAL - David J. Kelvin - SACYL - Univ Valladolid - CIBER - IDIBAPS - UBC - Hospital Clinic	Milagros González, José Manuel Gómez, Dariela Micheloud, Jesús Francisco Bermejo, Raquel Almansa, Ana S. Santos, Elena Bustamante, Luis Mariano Tamayo, César Aldecoa, Marta Domínguez, José María Eiros, David J. Kelvin, Ferrán Barbé, Antoni Torres

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INNOVATION, KNOWLEDGE TRANSFER, AND TRANSLATION TO PRACTICE

Area	Group	Title	Reference*	Owner	Inventors
	Animal Facility	Conjunto de retención y anestesia para el acceso venoso de roedores	U202031736 (2 patents)	FIBHGM	Pedro Rolando Llontop
	Animal Facility	Conjunto de retención y anestesia para el acceso venoso de roedores	U202230047	FIBHGM	Pedro Rolando Llontop

Transferred Industrial Property.

* Reference: P (Patent), PCT (international patent), EP (European patent), US (USA patent), U (Utility model), M (Trade mark).



Copyright

Area	Group	Title	Reference	Owner	Inventors
1	Group 1.01 Advanced technological applications and human health	MANGOOSE	Nº Asiento Registral: 02/2010/4412	FIBHGM	Javier Pascau, Manuel Desco, Mónica Abellá, Alejandro Sisniega, Juan José Vaquero
1	Group 1.01 Advanced technological applications and human health	CUSQ: CARDIO US/ Quantification	Nº Asiento Registral: 16/2010/303	FIBHGM - UPM	Manuel Desco, María Jesús Ledesma, Andrés de Santos
1	Group 1.01 Advanced technological applications and human health	FIRST (Fast Iterative Reconstruction Software for Tomography)	Nº Depósito Notarial: 3806	FIBHGM	José Manuel Udías, Joaquín López, Samuel España, Manuel Desco, Juan José Vaquero
1	Group 1.01 Advanced technological applications and human health	QuTIS (Quantification Tool for in vivo Spectroscopy)	Nº Depósito Notarial: 5095	FIBHGM	Manuel Desco, Juan José Vaquero
1	Group 1.01 Advanced technological applications and human health	MMWKS	Sin número registro	FIBHGM	Manuel Desco, Juan José Vaquero
1	Group 1.01 Advanced technological applications and human health	MRSITool - software para la cuantificación de estudios de imagen estroscópica	Sin número registro	FIBHGM	Manuel Desco
1	Group 1.01 Advanced technological applications and human health	RapTor	Nº Asiento Registral: 16/2017/7104	FIBHGM-UC3M	Manuel Desco, Mónica Abella, Claudia de Molina, Estefanía Serrano, Fco. Javier García, Jesús Carretero
1	Group 1.03 Computer architecture, communications, and systems: ARCOS				

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Area	Group	Title	Reference	Owner	Inventors
1	Group 1.01 Advanced technological applications and human health	XAP-LAB	Nº Asiento Registral: 16/2017/7106	FIBHGM-UC3M	Manuel Desco, Mónica Abella, Álvaro Martínez, Alba García
1	Group 1.01 Advanced technological applications and human health	FUX-SIM	Nº Asiento Registral: 16/2017/7105	FIBHGM-UC3M	Manuel Desco, Mónica Abella, Inés García, Claudia de Molina, Estefanía Serrano, Fco. Javier García, Jesús Carretero
4	Group 4.01 Infectious diseases	Estudio de impacto clínico de un plan docente de formación continuada sobre las infecciones asociadas a dispositivos intravasculares	Nº Asiento Registral: 16/2013/4798	FIBHGM	Emilio Bouza, María Gueembe, Patricia Muñoz, Mª Jesús Pérez, Mª del Mar San Segundo
4 7	Group 4.01 Infectious diseases Group 7.27 Hospital pharmacy and pharmacogenomics	Recomendaciones sobre el manejo de Infecciones Fúngicas Invasoras (IFIs)	Nº Asiento Registral: 16/2014/5265	FIBHGM	Patricia Muñoz, Emilio Bouza, María Sanjurjo, Carmen Rodríguez, Maricela Valerio
4	Group 4.01 Infectious diseases	Material docente para la infección relacionada con el catéter	Nº Asiento Registral: 16/2014/6113	FIBHGM	María Gueembe, Emilio Bouza, María Jesús Pérez
4	Group 4.01 Infectious diseases	Optimización en el Diagnóstico Microbiológico de los Reservorios Totalmente Implantables	Nº Asiento Registral: 16/2015/2094	FIBHGM	María Gueembe, Pablo Martín-Rabadán, Emilio Bouza, Mª Luisa Rivera, Teresa Vicente

4	Group 4.01 Infectious diseases	Tolerancia cero a la bacteriemia relacionada con el catéter: optimización de la prevención con nuevos sistemas de vigilancia de las vías endovasculares	Nº Asiento Registral: 16/2015/2983	FIBHGM	María Gueembe, Emilio Bouza, Mª Jesús Pérez Granda
4	Group 4.01 Infectious diseases	Documento de registro para vigilancia durante la inserción y el mantenimiento de los catéteres intravasculares	Nº Asiento Registral: 16/2015/2984	FIBHGM	María Gueembe, Emilio Bouza, Mª Jesús Pérez Granda
4	Group 4.01 Infectious diseases	Cultivo de conectores cerrados. Nueva alternativa de diagnóstico conservador de infección relacionada con el catéter	Nº Asiento Registral: 16/2017/517	FIBHGM	Emilio Bouza, María Gueembe, Mª Jesús Pérez, Pablo Martín-Rabadán
4	Group 4.01 Infectious diseases	Base de datos de perfiles de proteínas correspondientes a distintas especies de hongos filamentosos para mejorar su identificación mediante la técnica de espectrometría de masas MALDI-TOF	Nº Asiento Registral: 16/2019/6180	FIBHGM	Belén Rodríguez, Estreya Zvezdanova, Pilar Escribano, Patricia Muñoz

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INNOVATION, KNOWLEDGE TRANSFER, AND TRANSLATION TO PRACTICE

Area	Group	Title	Reference	Owner	Inventors
4	Group 4.01 Infectious diseases	Preparación de muestras de hongos filamentosos para identificación mediante MALDITOF. Vídeo con instrucciones	Nº Asiento Registral: 16/2021/2779	FIBHGM	Belén Rodríguez, Estreya Zvezdanova, Patricia Muñoz
5	Group 5.03 Systemic autoimmune diseases	Manual para la creación de una unidad funcional de terapias biológicas en pacientes con artritis crónicas	Nº Asiento Registral: 16/2013/5179	FIBHGM	Luis Carreño, Inmaculada de la Torre, Larissa Valor, Tamara del Río, Vicente Escudero, Diana Hernández, Carmen Rodríguez
7	Group 7.27 Hospital pharmacy and pharmacogenomics	Taller práctico de Técnicas de Laboratorio de Inmunología e interpretación clínica para médicos	Nº Asiento Registral: 16/2014/6111	FIBHGM	Larissa Valor, Luis Carreño, Diana Hernández
5	Group 5.03 Systemic autoimmune diseases	Taller práctico de Técnicas de Laboratorio de Inmunofluorescencia indirecta (IFI "Live") para médicos	Nº Asiento Registral: 16/2014/6112	FIBHGM	Larissa Valor, Fco. Javier López, Diana Hernández
5	Group 5.03 Systemic autoimmune diseases	Infiltraciones guiadas por ecografía en reumatología	Nº Asiento Registral: 16/2018/7393	FIBHGM	Juan Carlos Nieto González
6	Group 6.02 Translational medical oncology and personalized cancer therapy	SMART, application for cancer genetic counseling	Nº Asiento Registral: 16/2015/5724	FIBHGM, UNED, URJC	Iván Márquez, Juan Martínez Romo, Cristina Rodríguez, Susana Borromeo

Area	Group	Title	Reference	Owner	Inventors
6	Group 6.03 Genetics and clinical aspects of hematologic malignancies and hematopoietic stem cell transplantation	Herramienta informática para la Gestión Electrónica de la Agenda de Transplante Hematopoyético "gesThrónica"	Nº Asiento Registral: 16/2008/7735	FIBHGM	Pascual Balsalobre, Ismael Buño, José Luis Díez
6	Group 6.03 Genetics and clinical aspects of hematologic malignancies and hematopoietic stem cell transplantation	Panel alloGENOMICS v1.13 – Panel de genes y regiones de interés para su aplicación en el estudio de la influencia de los polimorfismos genéticos en el desarrollo de complicaciones post-trasplante alogénico de progenitores hematopoyéticos (alo-TPH)	Nº Asiento Registral: 16/2014/7306	FIBHGM	Ismael Buño, Milagros González, José Luis Díez, Jorge Gayoso, Carolina Martínez, Elena Buces, David Serrano, Pascual Balsalobre, Mi Kwon
7	Group 7.04 Diseases of the critically ill child.	Biblioteca de fármacos para bombas de infusión inteligentes en las unidades de cuidados intensivos pediátricos	Nº Asiento Registral: 16/2011/7360	FIBHGM	Amelia Caridad Sánchez, Silvia Manrique Rodríguez
7	Group 7.27 Hospital pharmacy and pharmacogenomics	Recomendaciones sobre el manejo de Infecciones Fúngicas Invasoras (IFIs)	Nº Asiento Registral: 16/2014/5265	FIBHGM	Patricia Muñoz, Emilio Bouza, María Sanjurjo, Carmen Rodríguez, Maricela Valerio
4	Group 4.01 Infectious diseases				

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Area	Group	Title	Reference	Owner	Inventors
7	Group 7.27 Hospital pharmacy and pharmacogenomics	Curso sobre el manejo seguro de los sistemas automatizados de dispensación por el personal de enfermería de planta y evaluación de su competencia	Nº Asiento Registral: 16/2015/503	FIBHGM	Elena Lobato, María Sanjurjo, Ana Herranz, Carmen Rodríguez
7	Group 7.27 Hospital pharmacy and pharmacogenomics	E-OncoSalud: Programa de Telemedicina aplicado al tratamiento ambulatorio del paciente onco-hematológico	Nº Asiento Registral: 16/2016/987	FIBHGM	María Sanjurjo, Ana Mª Herranz, Vicente Escudero, Almudena Ribed, Roberto Collado, Sara Ibáñez
7	Group 7.27 Hospital pharmacy and pharmacogenomics	NefroRules: Reglas clínicas para aumentar la seguridad del tratamiento en pacientes con insuficiencia renal	Nº Asiento Registral: 16/2016/989	FIBHGM	Sara Ibáñez, María Sanjurjo, Ana Herranz, Carmen Rodríguez, Mª Luisa Martín, Mª Ángeles Goicoechea, Eduardo Verde, José Luño
7	Group 7.27 Hospital pharmacy and pharmacogenomics	Inflamación y daño vascular en la Enfermedad Renal Crónica, Diálisis y Trasplante Renal. Fisiopatología renal			
7	Group 7.27 Hospital pharmacy and pharmacogenomics	Thromborules: reglas clínicas para aumentar la seguridad del tratamiento en pacientes anticoagulantes O / antiagregados	Nº Asiento Registral: 16/2017/507	FIBHGM	Sara Ibáñez, Ana de Lorenzo, Ana Herranz, María Sanjurjo, Ana María Rodríguez

Area	Group	Title	Reference	Owner	Inventors
7	Group 7.27 Hospital pharmacy and pharmacogenomics	Control-Sugar24: calculadora para la insulinización subcutánea del paciente diabético durante las primeras 24 horas de atención hospitalaria	Nº Asiento Registral: 16/2017/6705	FIBHGM	Ana de Lorenzo, María Sanjurjo, Raquel García, Rogelio García
7	Group 7.27 Hospital pharmacy and pharmacogenomics	PK-GUIDE: Guía para monitorización clínica de fármacos	Nº Asiento Registral: 16/2017/6956	FIBHGM	Xandra García, Sara Ibáñez, Ana Herranz, Gema Sánchez, Gabriela Rodríguez, Mª Luisa Galiano, Margarita Ganzo, María Sanjurjo, Mª Teresa Vidán
7	Group 7.27 Hospital pharmacy and pharmacogenomics	PK-RULES: Reglas clínicas para aumentar la seguridad y eficacia de los tratamientos mediante monitorización farmacocinética	Nº Asiento Registral: 16/2017/6957	FIBHGM	Xandra García, Sara Ibáñez, Ana Herranz, Gema Sánchez, Gabriela Rodríguez, Mª Luisa Galiano, Margarita Ganzo, María Sanjurjo, Mª Teresa Vidán
7	Group 7.27 Hospital pharmacy and pharmacogenomics	Parto vaginal en 3d	Nº Asiento Registral: 16/2019/2823	FIBHGM	Juan Antonio de León
8	Group 8 Research in nursing & Pediatric Emergency Department & Press Department	Nos vamos de excursión a las Urgencias del Gregorio Marañón	Nº Asiento Registral: 16/2016/3799	FIBHGM	Laura Cervantes, Paula Vázquez, David García

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INNOVATION, KNOWLEDGE TRANSFER, AND TRANSLATION TO PRACTICE

Area	Group	Title	Reference	Owner	Inventors
8	Group 8 Research in nursing	App para la gestión eficiente del gasto sanitario	Nº Asiento Registral: 16/2021 /1641	FIBHGM	Mª del Pilar Álvaro, Mª de las Nieves Moro
	IiSGM Technical Unit	GESTEO	Nº Asiento Registral: 16/2014/3806	FIBHGM	Rafal Bañares, Mª Carmen Olmedo, José Mª Bellón, Miriam Arriaga, Luis Fernández, Mª Isabel Ballesteros, Maite Fontans, Xoan Barreiro, Alejandro López
	Innovation Support Unit IiSGM Technical Unit	Herramienta de Gestión y Cuadro de Mando de Innovación	Nº Asiento Registral: 16/2015/3255	FIBHGM	Anna Riera, Manuel Desco, Eva Carravilla, Eva Talve, Marco Rivas, Isabel Ballesteros, Thierry Bardinet, Rafael Bañares, Carmen Olmedo
	Pediatric Emergency Department	Sistema de triage del paciente pediátrico en Urgencias-Gregorio Marañón (TRIPED-GM)	Nº Asiento Registral: 16/2015/5530	FIBHGM	Maria Concepción Miguez Gloria, Margarita Guerrero, María del Carmen Ignacio Cerro

 Transferred Industrial Property.

EXECUTIVE SUMMARY



Interventional and non interventional clinical studies

During the year **2021**, a total of **1045** clinical trials were active in our hospital. A total of 223 studies were implemented.

Approximately 95% of the clinical trials with medicines started during **2021** were Phase I, II, and III studies.

As for the distribution by research areas, almost **54%** of the clinical trials were led by the Translational Oncology Area (Area 6).

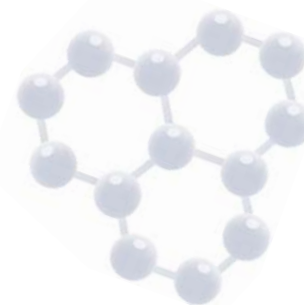
ACTIVE CLINICAL STUDIES	
2017	1226
2018	1190
2019	1115
2020	1038
2021	1145

NEW CLINICAL STUDIES			
	Clinical Trials	Observational studies	Total
2017	148	83	231
2018	136	74	210
2019	140	68	208
2020	162	81	251
2021	176	47	223

DISTRIBUTION OF CLINICAL TRIALS SIGNED BY PHASE (%)					
	2017	2018	2019	2020	2021
Phase I	6.8	11.7	7.28	5.29	20.7
Phase II	30.8	34.5	37.1	40.00	33.9
Phase III	52.5	48	43.7	45.88	42.5
Phase IV	6.3	3.6	4.6	4.11	2.3
Others (Medical device, etc.)	3.6	2.2	7.29	4.70	0,57

DISTRIBUTION OF CLINICAL STUDIES SIGNED IN 2021 (National/International)		
	Nº	%
National	66	29.6
International	157	70.4

DISTRIBUTION OF CLINICAL STUDIES SIGNED IN 2021 BY RESEARCH AREA OF IISGM		
	Nº	%
Area 1	0	0
Area 2	12	5.38
Area 3	11	4.9
Area 4	14	6.2
Area 5	18	8.08
Area 6	119	53.43
Area 7	41	18.4
Nursing group	1	0.44
Associated clinicians	7	3.1



Funding of liSGM

The global analysis of Institute funding was performed by collecting all income obtained by research groups both from competitive/non-competitive projects and from clinical trials, agreements with various entities, and donations.

The objective of this methodology is to be able to provide information on the capacity of liSGM groups to generate income.

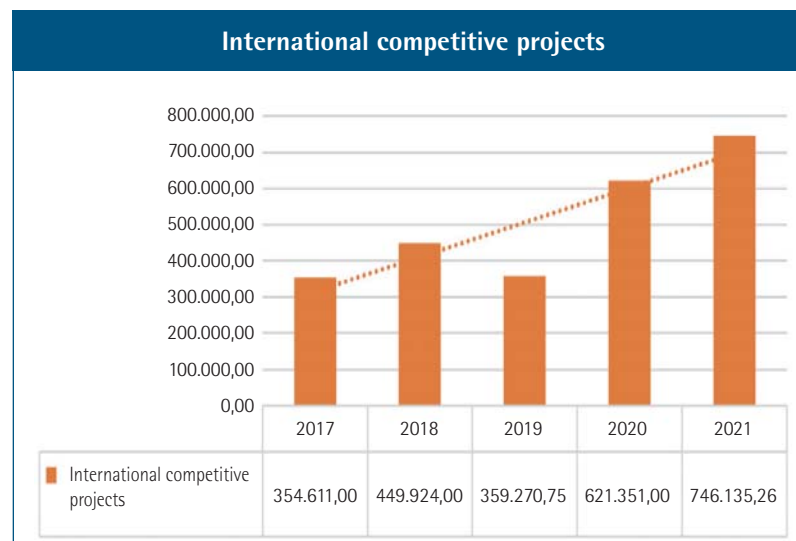
The total income generated by liSGM researchers own activity in 2021 came to 17.699.418 €. To these revenues we must add, for the 4th year in a row, the nominative subsidy of 622.220 € granted to this foundation by the Consejería of Health of the Community of Madrid, which would raise total revenues of the Foundation to **18.321.638 €**.

The revenues generated by researchers in 2021 is 8% less than in 2020, due to various funding received in 2020, specifically, 850.000 € received from the Comunidad de Madrid, for the support of Covid-19 research activities.

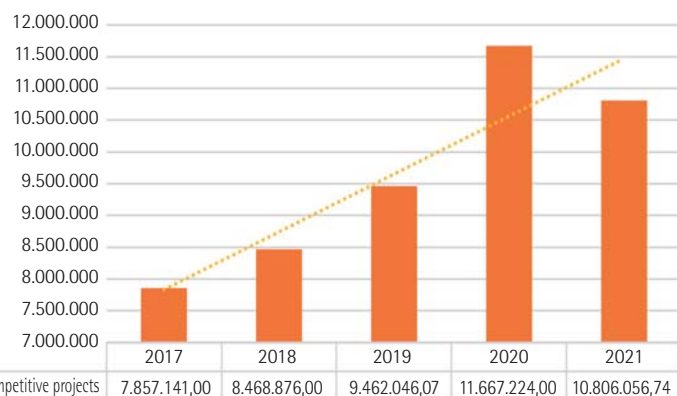
	2016	2017	2018	2019	2020	2021
Total income generated by researchers	14,219,400€	14,431,258€	15,503,687€	16,476,182€	19,183,609€	17,699,418 €
Nominative subsidy Madrid Community	—	—	612,220€	622,220€	622,220€ + 850,000 €	622,220€

As in previous years, this income is earmarked for the support and development of research activities in the groups.

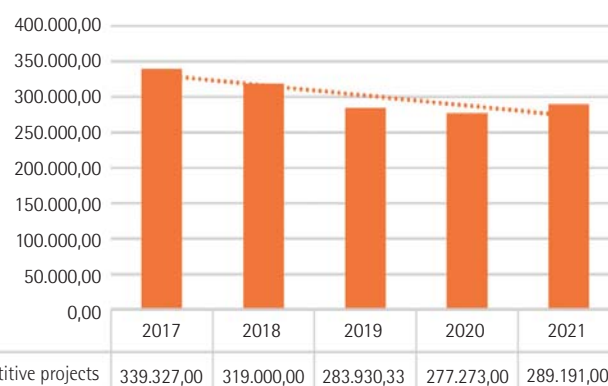
EVOLUTION OF INCOME GENERATED BY RESEARCHERS BY CATEGORY



Non competitive projects



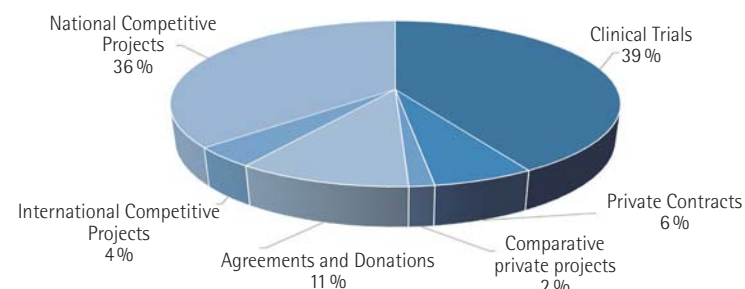
Private competitive projects



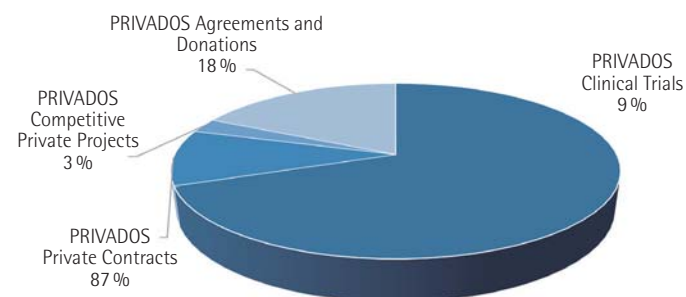
DISTRIBUTION OF INCOME GENERATED BY RESEARCHERS

As far as the distribution of income is concerned, in 2021, the income from Clinical Studies exceeded, for the first time the income generated by national competitive projects:

Distribution of total funding (2021)



Distribution of Private funding (2020)



As in previous years, in the case of individual information provided by each group in this report, only projects obtained by groups in **competitive calls (public and private)** where the principal investigator was a group researcher are reported.

Therefore, other sources of funding have not been taken into account.

The objective of this premise is to provide information on the capacity of each of the groups to obtain funding in a competitive environment.

List of active projects in 2021 by area of research

AREA 1: BIOMEDICAL ENGINEERING

Group 1.01: Advanced technology applications and human health

Competitive projects

- Title: **Becoming a mother: An integrative model of adaptations for motherhood during pregnancy and the postpartum period.** H2020 BEMOTHER
Director: Carmona Cañabate, Susana
Project Type: European research project
Funding body: European Commission (Framework Program)
Start date: 01/10/2020
End date: 30/10/2022
- Title: **ASPIDE: exAScale Programming models for extreme Data processing**
H2020 ASPIDE
Director: Desco Menéndez, Manuel
Project Type: European research project
Funding body: European Commission (Framework Program)
Start date: 15/06/2018
End date: 30/06/2021
- Title: **Monitorización de tratamiento y respuesta a infecciones estafilocócicas mediante imagen inmunoPET empleando trazadores específicos.** PI20/01632
Director: Salinas Rodríguez, Beatriz
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Contribución funcional de los microquimerismos maternos a la respuesta al daño cardíaco** PI18/00462
Director: Gómez Gavio, María Victoria
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Entrenamiento y navegación quirúrgica para una medicina de precisión** PI18/01625
Director: Pascau González-Garzón, Javier
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Evolución y bases hormonales de la remodelación cerebral gestacional en mujeres y sin riesgo de trastorno mental posparto** PI17/00064
Director: Carmona Cañabate, Susana
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2018
End date: 31/12/2021
- Title: **¿Es posible prevenir el riesgo de aparición de la esquizofrenia durante la gestación? Estudios en un modelo animal de esquizofrenia?** PI17/01766
Director: Soto Montenegro, María Luisa
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2018
End date: 31/12/2021
- Title: **Imagen molecular de la infección por clostridium difficile.** FRA20/02
Director: Salinas Rodríguez, Beatriz
Project Type: Research project
Funding body: Fundación Ramón Areces
Start date: 12/05/2021
End date: 12/05/2024
- Title: **Nuevo sistema de diagnóstico radiológico pulmonar para covid-19-radcov19 .convocatoria fondo supera.-banco de santander.-crue.-y csic universidades.** RADCOV19
Director: Desco Menéndez, Manuel
Project Type: Research project
Funding body: Santander Central Hispano (BSCH)
Start date: 14/07/2020
End date: 30/09/2021



- Title: **Sara Borrel**. CD19/00136
Director: Santos Coquillat, Ana María
Project Type: Human Resources
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Predoxal contract** FI18/00255
Director: Martínez García, Magdalena
Project Type: Human Resources
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Cannabidiol como estrategia preventiva en la aparición de psicosis** DR02017/085
Director: Soto Montenegro, María Luisa
Project Type: Research project
Funding body: Ministerio de Sanidad, Servicios Sociales e Igualdad
Start date: 01/01/2018
End date: 31/12/2021
- Title: **Nuevas aplicaciones de la nanotecnología en la enfermedad hepática crónica**. Y2018/NMT-4949
Director: Desco Menéndez, Manuel
Project Type: Research project
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2019
End date: 30/06/2022
- Title: **Diagnosis and treatment follow-up of severe Staphylococcal Infections with Anthi-Staphylococcal antibodies and Immune-PET**. FBBVA18/01
Director: Desco Menéndez, Manuel
Project Type: Research project
Funding body: Fundación BBVA
Start date: 30/04/2019
End date: 29/04/2022
- Title: **Red Madrileña de Nanomedicina en Imagen Molecular**. S2017/BMD-3867
Director: Desco Menéndez, Manuel
Project Type: Research network
Funding body: Consejería Educación de la Comunidad de Madrid
Start date: 01/01/2018
End date: 31/12/2021
- Title: **Técnico de imagen óptica (confocal y spim)** PEJ2018-003117-A
Director: Calle Hernández, Daniel
Project Type: Human Resources
Funding body: MICINN
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Gestión y procesamiento de datos de neuroimagen en entorno cloud** PEJ2018-003141-A
Director: Carmona Cañabate, Susana
Project Type: Human Resources
Funding body: MICINN
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Nuevas sondas moleculares en imagen preclínica** PEJ2018-004151-A
Director: Desco Menéndez, Manuel
Project Type: Human Resources
Funding body: MICINN
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Contratación de investigadores Posdoctorales cofinanciadas por Fondo Social Europeo, a través del Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI)** PEJD-2018-POST/BMD-9592
Director: Salinas Rodríguez, Beatriz
Project Type: Human Resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Contratación de investigadores Predoxales cofinanciadas por Fondo Social Europeo, a través del Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI)** PEJD-2019-PRE/BMD-16977
Director: Carmona Cañabate, Susana
Project Type: Human Resources

LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2020
End date: 31/12/2022

- Title: **Contratación de investigadores Predoctorales cofinanciadas por Fondo Social Europeo, a través del Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI)** PEJD-2019-PRE/TIC-17061
Director: Desco Menéndez, Manuel
Project Type: Human Resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/02/2020
End date: 31/01/2023
- Title: **Contratación de investigadores Predoctorales cofinanciadas por Fondo Social Europeo, a través del Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI)** PEJD-2018-PRE/BMD-7899
Director: Soto Montenegro, María Luisa
Project Type: Human Resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Contratación de investigadores Predoctorales cofinanciadas por Fondo Social Europeo, a través del Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI)** PEJD-2018-PRE/BMD-9077
Director: Desco Menéndez, Manuel
Project Type: Human Resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Contratación de investigadores Predoctorales cofinanciadas por Fondo Social Europeo, a través del Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI)** PEJD-2018-PRE/BMD-9401
Director: Carmona Cañabate, Susana
Project Type: Human Resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2019
End date: 31/12/2021

Not managed by the FIBHGM

- Title: **Sensitive: Early Detection of cancer onset based on sensing field cancerization at the organ level.**
Director: Ripoll, Jorge
Project Type: Research project
Funding body: European Commission
Start date: 01/01/2018
End date: 31/12/2021
- Title: **Desarrollo de una plataforma de terapia génica para enfermedades genéticas renales.** RTC-2017- 6600-1
Director: Muñoz Barrutia, Arrate
Project Type: Research project
Funding body: MICINN
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Realidad aumentada para entornos de planificación, simulación, entrenamiento y navegación quirúrgica: HoloMed.** IND2018/TIC-9753.
Director: Pascau González-Garzón, Javier
Project Type: Research project
Funding body: Comunidad De Madrid
Start date: 01/01/2019
End date: 31/12/2022
- Title: **Programa Garantía Juvenil** PEJ2018-001759-A
Director: Pascau González-Garzón, Javier (Anxela Caldera Fernández)
Project Type: Human Resources
Funding body: MICINN
Start date: 01/10/2019
End date: 31/10/2021
- Title: **Programa para Personal Investigador Predoctoral en Formación (PIPF UC3M)**
Director: Desco Menendez, Manuel (Marcos Vidal, Luis)
Project Type: Human Resources
Funding body: UC3M
Start date: 01/11/2018
End date: 31/10/2022



- Title: **Programa para Personal Investigador Predoctoral en Formación (PIPF UC3M)**
Director: Abella García, Mónica (Nikolaos Sakaltras)
Project Type: Human Resources
Funding body: UC3M
Start date: 03/09/2018
End date: 02/09/2022
- Title: **Programa para Personal Investigador Postdoctoral**
Director: Pascau González-Garzón, Javier (Fernández Fernández, Roberto)
Project Type: Human Resources
Funding body: Comunidad de Valencia
Start date: 01/09/2018
End date: 31/08/2021
- Title: **Programa para Personal Investigador Predoctoral en Formación (PIPF UC3M)**
Director: Abella García, Mónica (Mónica García Sevilla)
Project Type: Human Resources
Funding body: UC3M
Start date: 17/08/2018
End date: 17/08/2022
- Title: **Programa para Personal Investigador Predoctoral en Formación (PIPF UC3M)**
Director: Muñoz Barrutia, Arrate (Estíbaliz Gómez de Mariscal)
Project Type: Human Resources
Funding body: UC3M
Start date: 18/09/2017
End date: 17/09/2021
- Title: **Programa para Personal Investigador Predoctoral en Formación (PIPF UC3M)**
Director: Pascau González-Garzón, Javier (David García Mato)
Project Type: Human Resources
Funding body: UC3M
Start date: 07/09/2017
End date: 06/09/2021

- Title: **Programa para Personal Investigador Predoctoral en Formación (PIPF UC3M)**
Director: Vaquero López, Juan José (David Pérez Benito)
Project Type: Human Resources
Funding body: UC3M
Start date: 01/09/2017
End date: 31/08/2021
- Title: **Programa para Personal Investigador Predoctoral en Formación (PIPF UC3M)**
Director: Abella García, Mónica (Cristóbal Martínez Sánchez)
Project Type: Human Resources
Funding body: UC3M
Start date: 01/02/2017
End date: 31/01/2021

GROUP 1.02: Signal processing

Competitive projects

Not managed by the FIBHGM

- Title: **Advanced Bayesian computation methods for modelling and inference in complex dynamical networks** N00014-19-1-2226
Director: Míguez Arenas, Joaquín
Project Type: European research project
Funding body: Comisión Europea
Start date: 01/03/2017
End date: 28/02/2022
- Title: **Uncertainty Propagation Meeting Space Debris Needs** T711-501GR N°Contr.4000126151/19/D/SR
Director: Míguez Arenas, Joaquín
Project Type: European research project
Funding body: European Space Agency
Start date: 04/03/2019
End date: 31/03/2021
- Title: **LOLITA: Information Theory for Low-Latency Wireless Communications** ERC-2016-StG Nr. 714161



LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

Director: Artés Rodríguez, Antonio
 Project Type: European research project
 Funding body: Comisión Europea
 Start date: 01/03/2017
 End date: 28/02/2022

- Title: **Aprendizaje máquina y computación masiva para medicina personalizada y análisis cuantitativo del clima** RTI2018-099655-B-I00
 Director: Artés Rodríguez, Antonio
 Project Type: Research project
 Funding body: MICINN
 Start date: 01/01/2019
 End date: 31/12/2021
- Title: **Domain Alignment and Data Wrangling with Deep Generative Models**
 Director: Artés Rodríguez, Antonio
 Project Type: Research project
 Funding body: Fundación BBVA
 Start date: 30/04/2019
 End date: 06/08/2021
- Title: **Investigación fundamental en teoría de la señal, aprendizaje máquina y tecnologías de telecomunicaciones** EPUC3M
 Director: Ramírez García, David
 Project Type: Research project
 Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
 Start date: 01/01/2020
 End date: 31/12/2022
- Title: **Sistema de atención domiciliaria inteligente e interactivo para la mitigación de la pandemia del COVID-19** IntCARE-CM
 Director: Artés Rodríguez, Antonio
 Project Type: Research project
 Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
 Start date: 01/02/2020
 End date: 31/12/2022
- Title: **PRACTICO-CM Psiquiatría Computacional y Modelos Integrales de Comportamiento** Y2018/TCS-4705
 Director: Artés Rodríguez, Antonio

Project Type: Research project
 Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
 Start date: 01/01/2019
 End date: 30/06/2022

- Title: **Change-point Management (CAIMAN)** TEC2017-86921-C2-2-R
 Director: Ramírez García, David
 Project Type: Research project
 Funding body: MINECO
 Start date: 01/01/2018
 End date: 30/09/2021
- Title: **Servicios de asesoramiento en el área de soluciones de tratamiento de señal y aprendizaje automático en el ámbito de la salud**
 Director: Míguez Arenas, Joaquín
 Project Type: Research project
 Funding body: Evidence Based Behaviour S.L.
 Start date: 01/01/2018
 End date: 31/12/2021
- Title: **Proyecto de desarrollo de las capacidades de medición de competencias de candidatos a través de la gamificación y la inteligencia artificial** Convocatoria RIS3
 Director: Artés Rodríguez, Antonio
 Project Type: Research project
 Funding body: Job Search Technologies
 Start date: 21/01/2020
 End date: 21/01/2021
- Title: **Machine Learning Frontiers in Precision Medicine** H2020-MSCA-ITN-2018 Grant Agreement N°813533
 Director: Artés Rodríguez, Antonio
 Project Type: Human Resources
 Funding body: Comisión Europea
 Start date: 01/01/2019
 End date: 31/12/2022
- Title: **Autonomous Spectrum Management In Collaborative Wireless Networks (AuCoNet)** H2020-MSCA-COFUND-2017-UE
 Director: Artés Rodríguez, Antonio



Project Type: Human Resources
Funding body: Comisión Europea
Start date: 30/09/2020
End date: 29/09/2021

- Title: **Metodologías de aprendizaje automático en neuroimagen** PEJ2018-001757-A
Director: Martínez Olmos, Pablo
Project Type: Human Resources
Funding body: MICINN
Start date: 01/10/2019
End date: 28/06/2021
- Title: **Young employment contract: Research Assistant** PEJ-2018-AI/TIC-11059
Director: Artés Rodríguez, Antonio
Project Type: Human Resources
Funding body: MICINN
Start date: 15/01/2019
End date: 15/02/2021
- Title: **Caracterización automática de comportamiento mediante modelos latentes basados en redes profundas** IND2017/TIC-7618
Director: Martínez Olmos, Pablo
Project Type: Human Resources
Funding body: Dirección General de Investigación e Innovación. Comunidad de Madrid
Start date: 16/02/2018
End date: 16/08/2021
- Title: **Detection of behavioral changes and its application in psychiatry** IND2018/TIC-9574
Director: Ramírez García, David
Project Type: Human Resources
Funding body: Dirección General de Investigación e Innovación. Comunidad de Madrid
Start date: 04/02/2019
End date: 03/02/2022

- Title: **Domain Alignment and Data Wrangling with Deep Generative Models** IND2018/TIC-9649
Director: Martínez Olmos, Pablo
Project Type: Human Resources
Funding body: Dirección General de Investigación e Innovación. Comunidad de Madrid
Start date: 25/02/2019
End date: 24/02/2022
- Title: **Domain Alignment and Data Wrangling with Deep Generative Models** IND2020/TIC-17372
Director: Martínez Olmos, Pablo
Project Type: Human Resources
Funding body: Dirección General de Investigación e Innovación. Comunidad de Madrid
Start date: 16/02/2021
End date: 23/01/2022

AREA 2: CARDIOVASCULAR DISEASE

GROUP 2.01: Natural history of heart disease

Competitive projects

- Title: **Regenerative medicine: from new insights to new applications. 874827.** H2020 BRAV3.
Director: Fernández-Avilés Díaz, Francisco Jesús
Project Type: European research project
Funding body: Unión Europea. Programa Marco
Start date: 01/01/2020
End date: 31/12/2024
- Title: **Personalized Therapies for Atrial Fibrillation. A Translational Approach.** H2020 PersonalizeAFF N° 860974.
Director: Atienza Fernández, Felipe
Project Type: European research project
Funding body: Unión Europea. Programa Marco
Start date: 01/02/2020
End date: 16/11/2021

LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

- Title: **CARDIATEAM-IMI2-821508** H2020-JTI-IMI2-2017.
Director: Bermejo Thomas, Javier
Project Type: European research project
Funding body: Unión Europea. Programa Marco
Start date: 01/03/2019
End date: 28/02/2024
- Title: **Clinical development and proof of principle testing of new regenerative VEGF-D therapy for cost-effective treatment of refractory angina "A phase II randomized, double-blinded, placebo-controlled study"** H2020 ReGenHeart.
Director: Fernández-Avilés Díaz, Francisco Jesús
Project Type: European research project
Funding body: Unión Europea. Programa Marco
Start date: 01/01/2017
End date: 30/06/2021
- Title: **Secondary Prevention of Cardiovascular Disease in the Elderly Trial (Secure).** H2020 SECURE
Director: Fernández-Avilés Díaz, Francisco Jesús
Project Type: European research project
Funding body: Unión Europea.dg.sanco
Start date: 06/10/2017
End date: 06/10/2022
- Title: **Artificial intelligence drive platform for atrial fibrillation stratification** EIT HEALTH AF-FINE:
Director: Atienza Fernández, Felipe
Project Type: European research project
Funding body: Union Europea.
Start date: 01/07/2019
End date: 01/01/2021
- Title: **Advanced multifunction 3D biofabrication for the generation of computationally modelled human-scale therapeutic cardiac tissues – CARDIOPRINT** PLEC2021-008127
Director: Fernández-Avilés Díaz, Francisco Jesús
Project Type: Research project
Funding body: Ministerio de Ciencia, Innovación y Universidades
Start date: 01/12/2021
End date: 30/11/2024
- Title: **Safety and Efficacy of the Intracoronary administration of Allogeneic human Cardiac Stem Cells in Patients with Ischemic Chronic Heart Failure at High Risk for Sudden Cardiac Death (CaSeC-HF)** PIC18/00024
Director: Fernández-Avilés Díaz, Francisco Jesús
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2022
- Title: **Inteligencia artificial para la caracterización hemodinámica no invasiva. AI4NHEM.** PI20/00587
Director: Martínez-Legazpi Aguilo, Pablo
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Caracterización del sustrato electrofisiológico en pacientes con fibrilación auricular persistente y paroxística. Estudio PAPER AF.** PI20/01618
Director: Atienza Fernández, Felipe
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Personalización del riesgo de accidente cerebrovascular y de infarto cerebral silencioso en la enfermedad cardiovascular. ISBI-FLOW.** DTS19/00063
Director: Bermejo Thomas, Javier
Project Type: Technological development project in health
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Validación prospectiva de un índice pronóstico de muerte súbita o arritmias ventriculares malignas en adultos con cardiopatías congénitas** PI17/01327
Director: Datino Romaniega, Tomás



Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2018

End date: 31/12/2021

- Title: **Técnicas avanzadas de procesamiento de resonancia magnética para caracterizar el sustrato arritmogénico y el riesgo arritmico en la miocardiopatía dilatada** PI18/01117

Director: Pérez David, Esther

Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2019

End date: 31/12/2021

- Title: **Ablación radial para control de la Fibrilación auricular persistente (Artist Trial)** PI18/01895

Director: Arenal Maíz, Ángel

Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2019

End date: 31/12/2021

- Title: **OCTOPUS-CHF Optical Coherence Tomography Observation of Pulmonary Ultra-Structural Changes in Heart Failure Tomografía de Coherencia óptica observación de los cambios ultra-estructurales pulmonares en insuficiencia** PI18/00254

Director: Martínez-Selles D'Oliveira Soares, Manuel

Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2019

End date: 31/12/2021

- Title: **Efectos de la inhibición del cotransportador sodio-glucosa-2 sobre los mecanismos de la insuficiencia cardiaca con fracción de eyección preservada del paciente diabético** PI18/01595

Director: Bermejo Thomas, Javier

Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2019

End date: 31/12/2021

- Title: **Reparación cardíaca inducida por vesículas extracelulares cardíacas integradas en hidrogeles de matriz mioárdica descelularizada en un modelo de infarto porcino crónico.** PI19/00161

Director: Fernández-Avilés Díaz, Francisco Jesús

Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2020

End date: 31/12/2022

- Title: **Caracterización de la fisiología cardiovascular con el Ejercicio en pacientes adultos con circulación de Fontan.** PI19/01604

Director: Prieto Arevalo, Raquel

Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2020

End date: 31/12/2022

- Title: **ITACA-CM. "Investigación Traslacional en arritmias cardíacas hereditarias"** S2017/BMD-3738

Director: Atienza Fernández, Felipe

Project Type: Research project

Funding body: Consejería de Educación e Investigación. Comunidad de Madrid

Start date: 01/01/2018

End date: 31/12/2021

- Title: **AvanCell-CM. Terapias avanzadas de precisión en regeneración y reparación celular y tisular** S2017/BMD-3692

Director: Fernández-Avilés Díaz, Francisco Jesús

Project Type: Research project

Funding body: Consejería de Educación e Investigación. Comunidad de Madrid

Start date: 01/01/2018

End date: 31/12/2021

- Title: **Río Hortega contract** CM20/00054

Director: Tamargo Delpón, Maria Amalia

Funding body: Instituto de Salud Carlos III

Project Type: Human resources

Start date: 04/01/2021

End date: 03/01/2022

LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

- Title: **Intesification contract** INT19000/12
Director: Bermejo Thomas, Javier
Funding body: Instituto de Salud Carlos III
Project Type: Human resources
Start date: 01/01/2020
End date: 31/12/2021
- Title: **Predoctoral contract** BES-2017-079924
Director: Chazo Paz, Christian
Funding body: Ministerio de Ciencia, Innovación y Universidades
Project Type: Human resources
Start date: 01/07/2018
End date: 31/10/2022

GROUP 2.02: Cardiovascular pathophysiology

Competitive projects

Not managed by the FIBHGM

- Title: **Papel del estrés del retículo endoplásmico y sus moduladores en el fibrosis miocárdica asociada a la isquemia miocárdica en el contexto de la obesidad. Relevancia de los miRNAs.** PI18/00257
Director: Cachofeiro Ramos, Victoria
Funding body: Instituto de Salud Carlos III
Project Type: Research project
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Efecto del suplemento alimenticio pectina cítrica modificada en las consecuencias cardiacas de una dieta aterogénica en el contexto de la isquemia cardiaca. Papel de las interacciones del estrés del retículo endoplásmico y la autofagia.**
Director: Cachofeiro Ramos, Victoria
Funding body: Fundación Española de Arteriosclerosis (FEA)
Project Type: Research project
Start date: 01/11/2020
End date: 31/12/2021

- Title: **Predoctoral contract.** FI19/00277
Director: Cachofeiro Ramos, Victoria (Beatriz Delgado Valero)
Funding body: Instituto de Salud Carlos III
Project Type: Human resources
Start date: 01/01/2020
End date: 31/12/2023
- Title: **Becas predoctorales UCM**
Director: Cachofeiro Ramos, Victoria (Francisco das Chagas Vasconcelos Neto)
Project Type: Human Resources
Funding body: UCM
Start date: 01/06/2019
End date: 31/05/2022
- Title: **Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI), 2020"**
Director: Cachofeiro Ramos, Victoria (Alexandra Castro Soplin)
Project Type: Human Resources
Funding body: Comunidad de Madrid
Start date: 01/04/2021
End date: 30/03/2023
- Title: **Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI), 2018"**
Director: Martínez, Ernesto (Ana Romero Miranda)
Project Type: Human Resources
Funding body: Comunidad de Madrid
Start date: 01/04/2019
End date: 30/03/2021

GROUP 2.03: Cardiac celular electrophysiology

Competitive projects

Not managed by the FIBHGM

- Title: **Papel de los factores de transcripción específicos cardiacos en el control de la actividad eléctrica miocárdica.** SAF2017-88116-P
Director: Delpón, Eva/Caballero, Ricardo



Funding body: MICINN/MINECO

Project Type: Research project

Start date: 01/01/2018

End date: 30/09/2021

- Title: **Determinantes moleculares del aumento de canales de sodio y potasio producido por el dominio N-terminal del canal de Nav1.5.** PID2020-118694RB-I00
Director: Caballero, Ricardo/Delpón, Eva
Funding body: MICINN
Project Type: Research project
Start date: 01/09/2021
End date: 30/09/2023
- Title: **Investigación Traslacional en Arritmias Cardiacas hereditarias.** ITACA-CM B017/BMD3738
Director: Delpón, Eva
Project Type: Research project
Funding body: Comunidad de Madrid. Programa de Biomedicina
Start date: 01/01/2018
End date: 31/12/2021

Human Resources

Not managed by the FIBHGM

- Title: **Programa Biomedicina. ITACA-CM. Investigación Traslacional en Arritmias Cardiacas Hereditarias.** B2017/BMD-3738
Director: Delpón Mosquera, Eva
Payee Name: Rubio Alarcón, Marcos
Project Type: Human Resources
Funding body: UCM
Start date: 26/10/2018
- Title: **Programa Biomedicina. ITACA-CM. Investigación Traslacional en Arritmias Cardiacas Hereditarias.** B2017/BMD-3738
Director: Delpón Mosquera, Eva
Payee Name: Vaquero Lopez, Paloma
Project Type: Human Resources
Funding body: UCM
Start date: 15/03/2019

- Title: **Contratos Ayudas Atracción Talento. Convocatoria 2018 2018-T2/** BMD-10724
Director: Delpón Mosquera, Eva
Payee Name: Cebrián Castillo, Jorge
Project Type: Human Resources
Funding body: UCM
Start date: 08/04/2019
- Title: **Contratos Predoctorales de personal investigador en formación de la UCM 2018.** Contrato FPU – UCM
Director: Delpón Mosquera, Eva
Payee Name: Nieto Marín, Paloma
Project Type: Human Resources
Funding body: UCM
Start date: 01/06/2019
- Title: **Ayudas para contratos predoctorales para la formación de doctores.** PRE2018-086155
Director: Delpón Mosquera, Eva
Payee Name: Cámara Checa, Anabel
Project Type: Human Resources
Funding body: UCM
Start date: 01/08/2019
- Title: **CIBERCV. Centro de Investigación Biomédica en Red – Enfermedades Cardiovasculares.** CB16/11/00303
Director: Delpón Mosquera, Eva
Payee Name: Marín García, María
Project Type: Human Resources
Funding body: UCM
Start date: 05/11/2020

GROUP 2.05: Cardiología y trasplante cardiaco infantil

Competitive projects

- Title: **Estudio previo a la aprobación de la válvula pulmonar transcáteter (VPT) PULSTATM TWTPV-E1001**
Director: Zunzunegui Martínez, José Luis

LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

Funding body: Taewoong Medical
Type of Project: International project
Start date: 01/01/2020
End date:

- Title: **Estudio multicéntrico, abierto, de dosis única, para evaluar la seguridad, tolerabilidad y farmacocinética de LCZ696, seguido de un estudio de 52 semanas, aleatorizado, doble ciego, paralelo controlado con fármaco activo para evaluar la eficacia y seguridad de LCZ696 comparado con enalapril en pacientes pediátricos con edades desde 1 mes hasta < 18 años, con insuficiencia cardiaca debida a disfunción sistólica del ventrículo izquierdo sistémico.** CLCZ696B2319

Director: Gil Villanueva, Nuria
Funding body: Novartis
Type of Project: International project
Start date: 22/09/2020
End date:

- Title: **Estudio en fase II/III aleatorizado, doble ciego, controlado con palivizumab para evaluar la seguridad de MEDI8897, un anticuerpo monoclonal con una semivida prolongada frente al virus respiratorio sincitial, en niños de alto riesgo (MEDLEY).** D5290C00005

Director: Medrano López, Constancio
Funding body: MedImmune
Type of Project: International project
Start date: 01/10/2020
End date:

- Title: **Trasplante de células thyTreg autólogas para prevenir el rechazo en niños trapiantados de corazón. Un nuevo paradigma en el tratamiento de enfermedades inmunológicas.** FIBHGM-CCA001-2019

Director: Correa Rocha, Rafael
Funding body: Fundación Familia Alonso
Type of Project: Research project
Start date: 02/01/2019
End date: 31/12/2022

- Title: **Estudio epidemiológico de la infección y enfermedad COVID-19 en pacientes pediátricos con cardiopatía, y de la cardiopatía asociada**

al síndrome inflamatorio multisistémico en relación con la enfermedad COVID-19 en pacientes pediátricos. Estudio CORONA-CIVIC. CORONACIVIC

Director: Medrano López, Constancio
Funding body: Junta Castilla y León
Type of Project: Research project
Start date: 21/10/2020
End date:

GROUP 2.07: Acute cerebral ischemia: Stroke

Competitive projects

- Title: **"REgenerative Stem cell therapy for STroke in Europe"** H2020-RES-STORE

Director: Gil Nuñez, Antonio
Funding body: European Commission
Project Type: European project
Start date: 01/10/2015
End date: 01/10/2020

AREA 3: NEUROSCIENCE AND MENTAL HEALTH

GROUP 3.01: Neurobiological and psychological bases of mental disorders. Neurodevelopmental disorders

Competitive projects

- TITLE: **ProNET: Psychosis-Risk Outcomes Network.** NIH-2020/4040-0001

Director: Arango López, Celso
Funding body: National Institutes Of Health (NIH)
Type of Project: Observational study
Start date: 01/09/2020
End date: 30/09/2025

- Title: **H2020 Autism Innovative Medicine Studies – 2 – Trials.** H2020 AIMS-2-TRIALS

Director: Arango López, Celso
Funding body: European Union
Type of Project: H2020 European research project



Start date: 01/05/2018

End date: 01/05/2022

- Title: **Conect4children (Collaborative Network for European Clinical Trials for Children)**. H2020 c4c-777389

Director: Moreno Ruíz, Carmen

Funding body: European Union

Type of Project: H2020 European research project

Start date: 01/05/2019

End date: 01/05/2024

- Title: **Estudio longitudinal de una cohorte representativa: superando la heterogeneidad clínica y biológica en primeros episodios psicóticos"** PI20/00721

Director: Martínez Díaz-Caneja, María Covadonga

Funding body: Instituto de Salud Carlos III

Type of Project: Research project

Start date: 01/01/2021

End date: 31/12/2023

- Title: **Mecanismos epigénicos implicados en la génesis y curso de trastornos del neurodesarrollo en prematuros extremos: estudio de seguimiento a 4 años"** PI20/01342

Director: Pina Camacho, Laura

Funding body: Instituto de Salud Carlos III

Type of Project: Research project

Start date: 01/01/2021

End date: 31/12/2023

- Title: **Bases neurobiológicas de las trayectorias diferenciales de los Trastornos del Espectro Autista"** PI20/01382

Director: Parellada Redondo, Mª Jose

Funding body: Instituto de Salud Carlos III

Type of Project: Research project

Start date: 01/01/2021

End date: 31/12/2023

- Title: **Enfoque integral y traslacional para el diagnóstico genético de TEA. Caracterización clínica.** PI19/01024

Director: Arango López, Celso

Funding body: Instituto de Salud Carlos III

Type of Project: Research project

Start date: 01/01/2020

End date: 01/01/2022

- Title: **Estudio de seguimiento de niños y adolescentes con diabetes mellitus tipo 1 : mecanismos epigenéticos y comorbilidad afectiva** PI18/01819

Director: Carballo Belloso, Juan José

Funding body: Instituto de Salud Carlos III

Type of Project: Research project

Start date: 01/01/2019

End date: 31/12/2021

- Title: **Características comunes y diferenciales en hijos de pacientes con esquizofrenia diagnosticados de TDAH, hijos de padres sanos diagnosticados de TDAH y controles.** PI18/01119

Director: Moreno Pardillo, Mª Dolores

Funding body: Instituto de Salud Carlos III

Type of Project: Research project

Start date: 01/01/2019

End date: 31/12/2021

- Title: **Estudio longitudinal de marcadores oxidativos y neuroinflamatorios de la función cognitiva en primeros episodios de psicosis adolescente.** PI18/00753

Director: Rapado Castro, Marta

Funding body: Instituto de Salud Carlos III

Type of Project: Research project

Start date: 01/01/2019

End date: 31/12/2021

- Title: **Factores pronósticos y trayectorias de desarrollo del trastorno bipolar de inicio en la infancia y la adolescencia. Estudio longitudinal de seguimiento a 5 año.** PI17/02227

Director: Moreno Ruiz, Carmen

Funding body: Instituto de Salud Carlos III

Type of Project: Research project

Start date: 01/01/2018

End date: 30/06/2022



LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

- Title: **Estudio de seguimiento de prematuros extremos: mecanismos epigenéticos implicados en la génesis de trastornos del espectro autista.** PI17/01997
 Director: Pina Camacho, Laura
 Funding body: Instituto de Salud Carlos III
 Type of Project: Research project
 Start date: 01/01/2018
 End date: 30/06/2022
- Title: **La relación entre cambios estructurales cerebrales y medicación antipsicótica en una muestra nacional y longitudinal de pacientes con primer episodio de psicosis.** PI17/01249
 Director: Janssen Jeucken, Joost
 Funding body: Instituto de Salud Carlos III
 Type of Project: Research project
 Start date: 01/01/2018
 End date: 30/06/2022
- Title: **Estudio observacional en jóvenes con estados mentales de alto riesgo. Perfiles diferenciales e influencia de experiencias traumáticas y variables biológicas en el desarrollo de la psicosis.** PI17/00997
 Director: Mayoral Aragón, María
 Funding body: Instituto de Salud Carlos III
 Type of Project: Research project
 Start date: 01/01/2018
 End date: 30/06/2022
- Title: **Biotipos en Trastornos del Espectro Autista: relación con evolución clínica y respuesta a fármacos** PI17/00819
 Director: Parellada Redondo, M^a José
 Funding body: Instituto de Salud Carlos III
 Type of Project: Research project
 Start date: 01/01/2018
 End date: 30/06/2022
- Title: **Envejecimiento celular asociado con exposición temprana a acontecimientos estresantes den el síndrome de delección 22q11.2** PI17/00481
 Director: Fraguas Herraiz, David
 Funding body: Instituto de Salud Carlos III
 Type of Project: Research project
- Start date: 01/01/2018
 End date: 30/06/2022
- Title: **Ambiente y Genes en Esquizofrenia (AGES-CM 2)** S2017/BMD-3740
 Director: Arango López, Celso
 Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
 Type of Project: Research project
 Start date: 01/01/2018
 End date: 30/06/2022
- Title: **First Steps: estudio piloto aleatorizado para la implementación del programa de parentalidad Incredible Years® en preescolares con autismo y retraso del lenguaje en España** FAK20/01
 Director: Valencia Agudo, Fátima
 Funding body: Fundación Alicia Koplowitz
 Type of Project: Research project
 Start date: 01/01/2020
 End date: 31/12/2021
- Title: **Biomarcadores de estrés oxidativo e inflamación en orina de recién nacidos prematuros extremos** FAK19/01
 Director: Pina Camacho, Laura
 Funding body: Fundación Alicia Koplowitz
 Type of Project: Research project
 Start date: 01/11/2019
 End date: 31/10/2021
- Title: **Combinación de tratamiento con N-acetil Cisteína (NAC) y entrenamiento cognitivo para promover cambios en los patrones de activación conductuales y neurales que subyacen al déficit cognitivo en psicosis adolescente** FAK18/01
 Director: Rapado Castro, Marta
 Funding body: Fundación Alicia Koplowitz
 Type of Project: Research project
 Start date: 01/11/2018
 End date: 31/11/2021
- Title: **Estudio de caracterización fenotípica y su relación con las alteraciones genéticas mediadoras del fenotipo en el síndrome de Phelan-McDermid (PMS o delección 22q13)** FIBHGM-CCA027-2020



Director: Parellada Redondo, M^a José
 Funding body: Fundación Alicia Koplowitz
 Type of Project: Research project
 Start date: 20/09/2020
 End date: 31/05/2023

- Title: **Convocatoria beca predoctoral en Neurociencias 2016** FTPGB16/01
 Director: Arango López, Celso
 Funding body: Fundación Tatiana Perez de Guzmán El Bueno
 Type of Project: Research project
 Start date: 12/12/2016
 End date: 01/03/2021
- Title: **Intesification contract** INT20/00043
 Director: Bermejo Thomas, Javier
 Funding body: Instituto de Salud Carlos III
 Project Type: Human resources
 Start date: 01/01/2021
 End date: 31/12/2022
- Title: **Ramón y Cajal Contract** RYC-2017-23144
 Director: Rapado Castro, Marta
 Funding body: MICINN
 Type of Project: Human resources
 Start date: 01/09/2018
 End date: 28/02/2022
- Title: **Beca de doctorado Fundación Bancaria La Caixa- INPHINIT2018-CS**
 Director: Arango López, Celso (Carol Stella)
 Funding body: La Caixa
 Type of Project: Human resources
 Start date: 29/10/2018
 End date: 28/10/2021
- Title: **Sara Borrell Contract** CD20/00082
 Director: Alloza Romero, Clara
 Funding body: Instituto de Salud Carlos III
 Type of Project: Human resources
 Start date: 01/01/2021
 End date: 31/12/2023

- Title: **Sara Borrell Contract** CD20/00118
 Director: González Peñas, Javier
 Funding body: Instituto de Salud Carlos III
 Type of Project: Human resources
 Start date: 01/01/2021
 End date: 31/12/2023
- Title: **Río Hortega Contract** CM20/00114
 Director: ANDREU BERNABEU, ÁLVARO
 Funding body: Instituto de Salud Carlos III
 Type of Project: Human resources
 Start date: 29/01/2021
 End date: 28/01/2023
- Title: **Predoctoral Contract** FI18/00233
 Director: Burdeus Olavarrieta, Mónica
 Funding body: Instituto de Salud Carlos III (Ayudas Predoctorales de Formación en Investigación en Salud)
 Type of Project: Human resources
 Start date: 01/01/2019
 End date: 31/12/2022
- Title: **PREDOCTORAL Contract** FI17/00230
 Director: Abregu Crespo, Renzo
 Funding body: Instituto de Salud Carlos III (Ayudas Predoctorales de Formación en Investigación en Salud)
 Type of Project: Human resources
 Start date: 02/04/2018
 End date: 01/04/2022
- Title: **Juan Rodés Contract** JR19/00024
 Director: Martínez Díaz-Caneja, María Covadonga
 Funding body: Instituto de Salud Carlos III
 Type of Project: Human resources
 Start date: 29/01/2020
 End date: 28/01/2024
- Title: **Formación profesorado universitario** FPU20/07486
 Director: Abrokwa Acheampong, Hayford



LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

Funding body: MICINN/MINECO
Type of Project: Human resources
Start date: 13/12/2021
End date: 12/12/2025

- Title: **Formación profesorado universitario** FPU19/06877
Director: Martín Martínez, Nuria
Funding body: MICINN/MINECO
Type of Project: Human resources
Start date: 31/10/2020
End date: 31/10/2024
- Title: **Formación profesorado universitario** FPU19/06752
Director: Panadero Gomez, Rocio
Funding body: MICINN/MINECO
Type of Project: Human resources
Start date: 01/12/2021
End date: 30/11/2025
- Title: **Formación profesorado universitario** FPU18/06550
Director: Rubio Fernández, Patricia
Funding body: MICINN
Type of Project: Human resources
Start date: 29/10/2019
End date: 28/10/2023
- Title: **Formación profesorado universitario** FPU17/06467
Director: Colomar Molla, Laura
Funding body: MICINN
Type of Project: Human resources
Start date: 26/10/2018
End date: 25/10/2022
- Title: **Formación profesorado universitario** FPU16/01740
Director: García Alcón, Alicia
Funding body: MICINN/MINECO
Type of Project: Human resources
Start date: 24/10/2017
End date: 23/10/2021

- Title: **Contratación de investigadores Predoctorales cofinanciadas por Fondo Social Europeo, a través del Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI)** PEJD-2018-PRE/BMD-8487
Director: Arango López, Celso
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Type of Project: Human resources
Start date: 02/02/2019
End date: 01/02/2021
- Title: **Young employment contract. Ayudante investigación** PEJ-2020-AI/BMD-18635
Director: Janssen Jeucken, Joost
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Type of Project: Human resources
Start date 01/03/2021
End date: 28/02/2023
- Title: **Young employment contract. Ayudante investigación** PEJ-2019-AI/SAL-15702
Director: Moreno Ruiz, Carmen
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Type of Project: Human resources
Start date 01/02/2020
End date: 31/01/2022

GROUP 3.03B: Neurologic diseases

- Title: **BRinging Artificial INTElligence home for a better cAre of amyotrophic lateral sclerosis and multiple Sclerosis (BRAINTEASER)** H2020 BRAINTEASER 101017598
Director: Muñoz Blanco, José Luis
Funding body: EU/PRG. Marco
Project Type: European Research project
Start date: 01/01/2021
End date: 31/12/2024



- Title: **H2020 EXTEND 779982. Bidirectional Hyer-Connected Neural System** H2020 EXTEND 779982
Director: Grandas Pérez, Francisco Javier
Funding body: EU/PRG. Marco
Project Type: European Research project
Start date: 01/01/2018
End date: 31/12/2021
- Title: **Evaluación objetiva de la marcha y de la postura mediante sensores inerciales en pacientes con enfermedad de Parkinson. Desarrollo de un índice global de locomoción y equilibrio** PI17/02007
Director: Grandas Pérez, Francisco Javier
Funding body: EU/PRG. Marco
Project Type: Research project
Start date: 01/01/2018
End date: 31/12/2021

AREA 4: INFECTIOUS DISEASES AND AIDS

GROUP 4.01: Infectious diseases

Competitive projects

- Title **Enhancing Whole Genome Sequencing (WGS) and/or Reverse Transcription Polymerase Chain Reaction (RT-PCR) national infrastructures and capacities to respond to the COVID-19 pandemic in the EU and EEA)** ECDC/HERA/2021/024
Director: García de Viedma del Alamo, Darío
Project Type: Research project
Funding body: European Commission
Start date: 01/09/2021
End date: 30/09/2022
- Title: **Tratamiento preventivo del CMV en pacientes inmunocompetentes de alto riesgo con cirugía cardíaca mayor. Ensayo clínico multicéntrico, doble ciego, aleatorizado, fase III (gan-car)** ICI19/00079
Director: Muñoz García-Paredes, Patricia
Project Type: Research project
Funding body: Instituto de Salud Carlos III

Start date: 01/01/2020
End date: 31/12/2023

- Title: **Nuevos métodos diagnósticos para identificar la candidemia relacionada a catéter en pacientes con catéter in situ.¿ Es posible personalizar el manejo de la candidemia? Estudio CANDICATH.** PI20/00575
Director: Muñoz García-Paredes, Patricia
Funding body: Instituto de Salud Carlos III
Project Type: Research project
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Nuevos métodos diagnósticos para identificar la candidemia relacionada a catéter en pacientes con catéter in situ.¿ Es posible personalizar el manejo de la candidemia? Estudio CANDICATH.** PI20/01201
Director: Burillo Albizua, Almudena
Funding body: Instituto de Salud Carlos III
Project Type: Research project
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Proyecto de Alerta en Neumonía Grave (PANG). Impacto de un bundle multidisciplinar de intervención diagnóstica y terapéutica.** PI20/01350
Director: Galar Recalde, Alicia
Funding body: Instituto de Salud Carlos III
Project Type: Research project
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Proyecto de Alerta en Neumonía Grave (PANG). Impacto de un bundle multidisciplinar de intervención diagnóstica y terapéutica.** PI20/01381
Director: Reigadas Ramirez, Elena Manuela
Funding body: Instituto de Salud Carlos III
Project Type: Research project
Start date: 01/01/2021
End date: 31/12/2023

LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

- Title: **El papel de la nueva tecnología de diagnóstico microbiológico e imagen en el diagnóstico de la infección de dispositivos electrocardíacos. Proyecto mirada.** PI20/01438
 Director: Valerio Minero, Maricela
 Funding body: Instituto de Salud Carlos III
 Project Type: Research project
 Start date: 01/01/2021
 End date: 31/12/2023
- Title: **La cavidad abdominal como reservorio de cepas de Candida spp causantes de candidemia : aplicación del genotipado como herramienta de detección de genotipos capaces de alcanzar el torrente circulatorio.** PI19/00074
 Director: Escribano Martos, Pilar
 Funding body: Instituto de Salud Carlos III
 Project Type: Research project
 Start date: 01/01/2020
 End date: 31/12/2022
- Title: **Aplicación de estrategias basadas en tecnologías de secuenciación de nueva generación para solucionar problemas derivados de la globalización de la tuberculosis.** PI19/00331
 Director: Pérez García, Laura
 Funding body: Instituto de Salud Carlos III
 Project Type: Research project
 Start date: 01/01/2020
 End date: 31/12/2022
- Title: **Impacto del uso de 3 apósitos en la prevención de infección de herida quirúrgica en pacientes de Cirugía Cardíaca: estudio clínico, prospectivo y randomizado** PI18/01741
 Director: Pérez Granda, María Jesús
 Funding body: Instituto de Salud Carlos III
 Project Type: Research project
 Start date: 01/01/2019
 End date: 31/12/2022
- Title: **Estudio CANDIMAD, una perspectiva microbiológica de la candidiasis invasora diagnosticada en Madrid: etiología causal, sensibilidad a antifúngicos y clones circulantes** PI18/01155
 Director: Guinea Ortega, Jesús Vicente
 Funding body: Instituto de Salud Carlos III
 Project Type: Research project
 Start date: 01/01/2019
 End date: 31/12/2021
- Title: **Optimización de la técnica de Espectrometría de Masas MALDI-TOF como Herramienta de Identificación Rápida de Hongos Filamentosos** PI18/00997
 Director: Rodríguez Sánchez, María Belén
 Funding body: Instituto de Salud Carlos III
 Project Type: Research project
 Start date: 01/01/2019
 End date: 31/12/2022
- Title: **Plataforma avanzada para optimizar el diagnóstico y vigilancia epidemiológica de la tuberculosis** PI18/00599
 Director: García de Viedma del Alamo, Darío
 Funding body: Instituto de Salud Carlos III
 Project Type: Research project
 Start date: 01/01/2019
 End date: 31/12/2021
- Title: **Impacto de la implementación de un "bundle" para disminuir complicaciones asociadas al uso de catéteres venosos periféricos en pacientes ingresados en Medicina Interna** PI18/00045
 Director: Guembe Ramirez, María
 Funding body: Instituto de Salud Carlos III
 Project Type: Research project
 Start date: 01/01/2019
 End date: 31/12/2021
- Title: **Influencia de la gripe en los eventos cardíacos agudos y búsqueda de virus gripales cardiotrópicos. Estudio INFLUCAR** PI17/00061
 Director: Muñoz García-Paredes, Patricia
 Funding body: Instituto de Salud Carlos III
 Project Type: Research project
 Start date: 01/01/2018
 End date: 30/06/2022



- Title: **Dalbavancina como tratamiento local para las complicaciones infecciosas tras fracturas de alta energía ¿fake o esperanza?** FMM21/01
Director: Guembe Ramírez, María
Project Type: Research project
Funding body: Mutua Madrileña Foundation
Start date: 01/07/2021
End date: 30/06/2024
- Title: **Predoctoral contract.** FI20/00089
Director: Mesquida Marcos, Aina Catalina
Funding body: Instituto de Salud Carlos III
Project Type: Human resources
Start date: 01/01/2021
End date: 31/12/2024
- Title: **Predoctoral contract.** FI20/00129
Director: Rodríguez Grande, Cristina
Funding body: Instituto de Salud Carlos III
Project Type: Human resources
Start date: 01/01/2021
End date: 31/12/2024
- Title: **Predoctoral contract.** FI19/00021
Director: Díaz García, Judith
Funding body: Instituto de Salud Carlos III
Project Type: Human resources
Start date: 01/01/2020
End date: 31/12/2023
- Title: **Juan Rodes Contract** JR18/00030
Director: Galar Recalde, Alicia
Funding body: Instituto de Salud Carlos III
Project Type: Human resources
Start date: 01/12/2018
End date: 31/12/2021
- Title: **Miguel Servet II Contract** CPII20/00015
Director: Escribano Martos, Pilar
Funding body: Instituto de Salud Carlos III
Project Type: Human resources
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Miguel Servet II Contract** CP20/00001
Director: Pérez García, Laura
Funding body: Instituto de Salud Carlos III
Project Type: Human resources
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Miguel Servet II Contract** CPII19/00002
Director: Rodríguez Sánchez, María Belén
Funding body: Instituto de Salud Carlos III
Project Type: Human resources
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Young employment contract** PEJ-2020-AI/BMD-17971
Director: Guembe Ramírez, María
Funding body: Comunidad Autónoma de Madrid
Project Type: Human resources
Start date: 01/01/2021
End date: 31/12/2022
- Title: **Young employment contract** PEJ-2020-AI/BMD-18120
Director: García de Viedma del Alamo, Darío
Funding body: Comunidad Autónoma de Madrid
Project Type: Human resources
Start date: 01/01/2021
End date: 31/12/2022
- Title: **Young employment contract** PEJ-2020-AI/BMD-19547
Director: Muñoz García-Paredes, Patricia
Funding body: Comunidad Autónoma de Madrid
Project Type: Human resources
Start date: 01/01/2021
End date: 31/12/2022
- Title: **Young employment contract** PEJ-2020-TL/BMD-19052
Director: Pérez García, Laura



LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

Funding body: Comunidad Autónoma de Madrid

Project Type: Human resources

Start date: 01/01/2021

End date: 31/12/2022

- Title: **Young employment contract** PEJ-2020-TL/BMD-18351
Director: Escribano Martos, Pilar
Funding body: Comunidad Autónoma de Madrid
Project Type: Human resources
Start date: 01/01/2021
End date: 31/12/2022
- Title: **Young employment contract** . PEJ-2019-TL/BMD-13146
Director: García de Viedma del Alamo, Darío
Funding body: Comunidad Autónoma de Madrid
Project Type: Human resources
Start date: 01/01/2020
End date: 30/04/2022
- Title: **Young employment contract** . PEJ-2019-TL/BMD-15599
Director: Marín Arriaza, María de las Mercedes
Funding body: Comunidad Autónoma de Madrid
Project Type: Human resources
Start date: 01/01/2020
End date: 30/06/2022
- Title: **Young employment contract**. PEJ2018-004613-A
Director: Escribano Martos, Pilar
Funding body: MICINN
Project Type: Human resources
Start date: 01/01/2019
End date: 31/10/2021
- Title: **Young employment contract: Laboratory technician**. PEJ-2018-TL/BMD-10671
Director: Escribano Martos, Pilar
Funding body: Conserjería de Educación Comunidad de Madrid
Project Type: Human resources
Start date: 04/03/2019
End date: 02/04/2021

- Title: **Young employment contract: Postdoctoral contract**. PEJD-2018-POST/BMD-8664
Director: García de Viedma del Alamo, Darío
Funding body: Conserjería de Educación Comunidad de Madrid
Project Type: Human resources
Start date: 01/01/2019
End date: 31/12/2021

GROUP 4.02: Clinical and epidemiological aspects of HIV and associated conditions

Competitive projects

- Title: **Infección por COVID-19 en pacientes infectados por VIH incluidos en CoRIS**. COV20/00108
Director: Berenguer Berenguer, Juan
Funding body: Instituto de Salud Carlos III
Project Type: Research project
Start date: 25/03/2020
End date: 30/06/2021
- Title: **Infecciones agudas/recientes y reinfecciones por VHC en hombres que tienen sexo con hombres con y sin VIH**. PI20/00474
Director: Berenguer Berenguer, Juan
Funding body: Instituto de Salud Carlos III
Project Type: Research project
Start date: 25/03/2021
End date: 31/12/2023
- Title: **Morbilidad y mortalidad a largo plazo tras la erradicación del VHC en pacientes coinfectados por VIH/VHC con fibrosis hepática avanzada/cirrosis**. PI17/00657
Director: Berenguer Berenguer, Juan
Funding body: Instituto de Salud Carlos III
Project Type: Research project
Start date: 01/01/2018
End date: 30/06/2021
- Title: **Juan Rodés contract**. JR19/00021
Director: Perez Latorre, Leire
Funding body: Instituto de Salud Carlos III

Project Type: Human resources

Start date: 01/01/2018

End date: 31/12/2021

- Title: **Río Hortega contract**. CM20/00086
Director: Fanciulli, Chiara
Funding body: Instituto de Salud Carlos III
Project Type: Human resources
Start date: 01/01/2021
End date: 31/12/2022

AREA 5: DISEASES OF THE IMMUNE SYSTEM

GROUP 5.01: Pathophysiology and clinical investigation of chronic inflammatory and immune diseases

Competitive projects

- Title: **Local immunoradiotherapy (LIRT)**. CCA001-2020 (C18915/A29362)
Director: Sánchez-Mateos Rubio, Paloma
Project Type: Research project
Funding body: Accelerator Award. Cancer Research UK
Start date: 01/01/2020
End date: 31/12/2024
- Title: **Estudio piloto multicéntrico, aleatorizado, abierto y con grupos paralelos para evaluar la seguridad y eficacia de la inmunoglobulina intravenosa (IGIV) a altas dosis junto con tratamiento médico estándar (TME) en comparación con el TME sólo en sujetos hospitalizados con COVID-19**. EC-GC2004
Director: Carbone Campoverde, Javier Alberto
Project Type: Clinical research project
Funding body: GRIFOLS
Start date: 18/05/2020
End date: 18/03/2021
- Title: **Ensayo en fase II aleatorizado, controlado con placebo, doble ciego, multicéntrico en el que se investiga la eficacia y la seguridad de la trimodulina (BT588) como complemento al tratamiento de referencia en sujetos adultos con COVID-19 grave**. EC 998
Director: Carbone Campoverde, Javier Alberto
Project Type: Clinical research project
Funding body: BIOTEST
Start date: 31/08/2020
End date: 30/06/2021
- Title: **Variantes genéticas en HLA-G y niveles solubles de HLA-G asociados a los fallos reproductivos** PI20/00316
Director: Puig Kröger, Amaya Rocío
Funding body: Instituto de Salud Carlos III
Project Type: Research project
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Variantes genéticas en HLA-G y niveles solubles de HLA-G asociados a los fallos reproductivos** PI18/01695
Director: Fernández-Cruz Pérez, Eduardo
Funding body: Instituto de Salud Carlos III
Project Type: Research project
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Metotrexato en artritis reumatoide: inducción de tolerancia como mecanismo de su efecto anti-inflamatorio** PI17/00037
Director: Puig Kröger, Amaya Rocío
Funding body: Instituto de Salud Carlos III
Project Type: Research project
Start date: 01/01/2018
End date: 30/06/2021
- Title: **Significado pronóstico de la heterogeneidad del contexto inmune innato en melanoma primario cutáneo** PI17/01324
Director: Sánchez-Mateos Rubio, Paloma
Funding body: Instituto de Salud Carlos III
Project Type: Research project
Start date: 01/01/2018
End date: 30/06/2022



LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

- Title: **Predoctoral contract.** FI18/00109
Director: Fuentelsaz Romero, Sara
Funding body: Instituto de Salud Carlos III
Project Type: Human resources
Start date: 01/01/2019
End date: 31/10/2021
 - Title: **Young employment contract: Predoctoral.** PEJD-2019PR-PRE/BMD-20190
Director: Samaniego García, Rafael
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project Type: Human resources
Start date: 01/01/2021
End date: 31/07/2021
 - Title: **Young employment contract: Predoctoral.** PEJD-2019-PRE/BMD-16143
Director: Samaniego García, Rafael
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project Type: Human resources
Start date: 01/02/2020
End date: 31/07/2021
 - Title: **Young employment contract: Technical researcher.** PEJ-2020-TL/BMD-19098
Director: Rodríguez Sainz, María Carmen
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project Type: Human resources
Start date: 01/01/2011
End date: 31/12/2022
 - Title: **Young employment contract: Ayudante de Investigación.** PEJ-2020-AI/BMD-19682
Director: Carbone Campoverde, Javier Alberto
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project Type: Human resources
Start date: 01/01/2021
End date: 31/12/2022
 - Title: **Ayudante de Investigación** PEJ-2019-AI/BMD-15479
Director: Carbone Campoverde, Javier Alberto
Project Type: Human resources
Funding body: CONSEJERÍA DE EDUCACIÓN E INVESTIGACION. COMUNIDAD DE MADRID
Start date: 01/01/2020
End date: 30/06/2022
 - Title: **Young employment Contract** PEJ2018-004617-A
Director: Carbone Campoverde, Javier Alberto
Project Type: Human Resources
Funding body: MICINN
Start date: 01/10/2019
End date: 26/08/2022
- Not managed by the FIBHGM**
- Title: **HLA-G: cáncer gástrico y su evolución** PI18/00626
Director: Martín Villa, José Manuel
Funding body: Instituto de Salud Carlos III
Project Type: Research project
Start date: 01/01/2019
End date: 31/12/2021
 - Title: **HLA-G: Su importancia en epidemiología, medicina evolutiva y patología.** PI18/00721
Director: Arnaiz Villena, Antonio
Funding body: Instituto de Salud Carlos III
Project Type: Research project
Start date: 01/01/2019
End date: 31/12/2021
 - Title: **Nuevo mecanismo inhibidor de la polimerización de actina.** SAF 2017-82967-R
Director: Martínez Quilés, Narcisa
Funding body: MICINN



Project Type: Research project

Start date: 01/01/2018

End date: 31/09/2021

GROUP 5.02: Molecular biology of HIV

Competitive projects

- Title: **Aspectos clínicos e inmunoviológicos de la infección por SARS-CoV2 en una cohorte de gestantes y recién nacidos.** COV20/00808
Director: Navarro Gómez, María Luisa
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 30/04/2020
End date: 30/04/2021
- Title: **Dendrimers as candidates for a microbicide to prevent HIV and/or HSV-2 infections in women and men.** PI20/01314
Director: Muñoz Fernandez, M^a Angeles
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Dendrimers as candidates for a microbicide to prevent HIV and/or HSV-2 infections in women and men.** PI19/01638
Director: Muñoz Fernández, M^a Ángeles
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Papel de la Nanomedicina en el desarrollo de una cura funcional para el VIH** PI17/01115
Director: Jiménez Fuentes, José Luis
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2018
End date: 31/03/2021
- Title: **NANODENDMED II-CM) Nanosistemas dendríticos como agentes y vectores terapéuticos en distintas aplicaciones biomédicas (II).** S2017/BMD-3703
Director: Jiménez Fuentes, José Luis
Project Type: Research project
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/10/2018
End date: 31/06/2022
- Title: **SARA BORREL Contract.** CD20/00025
Director: Tarancón Díez, Laura
Project Type: Human Resources
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Young employment contract: Laboratory Technician.** PEJ-2020-TL/BMD-19695
Director: Muñoz Fernández, M^a Ángeles
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project Type: Human resources
Start date: 01/03/2021
End date: 31/12/2022
- Title: **Young employment contract: Research assistant.** PEJD-2019-PRE/IND-16567
Director: Jiménez Fuentes, José Luis
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project Type: Human resources
Start date: 01/02/2020
End date: 31/01/2021
- Title: **Young employment contract: Laboratory Technician.** PEJ-2018-TL/BMD-11529
Director: Jiménez Fuentes, José Luis
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project Type: Human resources



LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

Start date: 01/03/2019

End date: 28/02/2021

GROUP 5.03: Systemic autoimmune diseases

Competitive projects

- Title: **Consulta de Alta Resolución en Reumatología (Reu-CAR): Una iniciativa coordinada entre Atención Primaria/Reumatología para el diagnóstico precoz y mejor manejo de los pacientes con artritis inflamatoria.** PI20/00847
Director: Castrejón Fernández, Isabel
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Susceptibilidad y agresividad de la infección por SARS-CoV-2 en enfermedades reumáticas inmunomediadas.** COV20/01311-BIS
Director: Álvaro-Gracia Álvaro, José María
Funding body: Instituto de Salud Carlos III
Project Type: Research project
Start date: 05/10/2020
End date: 31/12/2021

GROUP 5.06: Immune homeostasis and regulation in diseases associated with the immune system

Competitive projects

- Title: **Caracterización y manejo terapéutico de la hiperactivación inmunológica asociada a mortalidad en COVID-19.** COV20/00668
Director: Correa Rocha, Rafael
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 20/04/2020
End date: 30/01/2021
- Title: **Ensayo clínico para evaluar la eficacia de una terapia celular con células Treg obtenidas de tejido tímico (thyTreg) en la prevención de rechazo en niños trasplantados de corazón.** PI18/00495
Director: Correa Rocha, Rafael

Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2019

End date: 31/12/2021

- Title: **Generación de células Treg con receptor de Antígeno Quimérico (CAR-Treg) a partir de tejido tímico humano. Un nuevo arsenal terapéutico en Inmunoterapia Celular.** PI18/00506
Director: Pion, Marjorie
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2022
- Title: **Ensayo clínico para determinar la eficacia de una terapia con células thyTreg en la prevención de rechazo en niños trasplantados de corazón y de la enfermedad injerto contra receptor en adultos.** ICI20/00063
Director: Correa Rocha, Rafael
Project Type: Clinical Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2024
- Title: **Desarrollo de una tecnología pionera basada en el uso terapéutico de células thyTreg como terapia avanzada en el tratamiento de diversas enfermedades inflamatorias.** FIPSE/3804-21
Director: Correa Rocha, Rafael
Project Type: Research project
Funding body: Fundación para la Investigación y la Prospectiva en Salud en España (FIPSE)
Start date: 03/04/2021
End date: 02/04/2022
- Title: **Comunicación por exosomas y otras vesículas extracelulares en la fisiología y fisiopatología hepática (EXOHEP-CM).** S2017/BMD-3727-1
Director: Pion, Marjorie
Project Type: Research project
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid



Start date: 01/10/2018

End date: 31/12/2021

- Title: **Sara Borrell contract** CD18/00105
Director: Martínez Bonet, Marta
Project Type: Human resources
Funding body: Instituto de Salud Carlos III
Start date: 29/01/2019
End date: 17/08/2022
- Title: **Predoctoral contract**. FI19/00120
Director: Fernández Castillo, Marta
Funding body: Instituto de Salud Carlos III
Project Type: Human resources
Start date: 01/01/2020
End date: 31/12/2023
- Title: **Predoctoral contract**. FI19/00173
Director: Gallego Valle, Jorge
Funding body: Instituto de Salud Carlos III
Project Type: Human resources
Start date: 01/07/2020
End date: 09/11/2022
- Title: **Ayudante de Investigación (Comunidad de Madrid)** PEJ-2020-AI/BMD-19507
Director: Correa Rocha, Rafael
Project Type: Human Resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2021
End date: 31/12/2022
- Title: **Ayudante de Investigación (Comunidad de Madrid)** PEJ-2020-AI/BMD-17954
Director: Pion, Marjorie
Project Type: Human Resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2021
End date: 31/12/2022

GROUP 5.07: Infections in the pediatric population

Competitive projects

- Title: **Aspectos clínicos e inmunoviológicos de la infección por SARS-CoV2 en una cohorte de gestantes y recién nacidos**. COV20/00808
Director: Navarro Gómez, María Luisa
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 30/04/2020
End date: 29/04/2021
- Title: **Child-TB-Omics: Aplicación de técnicas ómicas para el diagnóstico de tuberculosis en niños y adolescentes**. PI20/01607
Director: Santiago García, Begoña
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Caracterización de las nuevas infecciones VIH en adolescentes en España**. PI19/01530
Director: Navarro Gómez, María Luisa
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Utilidad de nuevos biomarcadores en sangre para el diagnóstico de la tuberculosis pediátrica**. PI17/00711
Director: Santiago García, Begoña
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2018
End date: 30/06/2021
- Title: **Juan Rodés contract** JR16/00036
Director: Santiago García, Begoña
Project Type: Human resources
Funding body: Instituto de Salud Carlos III



LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

Start date: 01/01/2017

End date: 07/01/2021

- Title: **Río Hortega contract** CM20/00128
Director: Hernanz Lobo, Alicia
Project Type: Human resources
Funding body: Instituto de Salud Carlos III
Start date: 27/11/2020
End date: 31/12/2022

- Title: **Río Hortega contract** CM18/00100
Director: Aguilera Alonso, David
Project Type: Human resources
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/05/2021

AREA 6: TRANSLATIONAL ONCOLOGY

GROUP 6.01: Interdisciplinary oncology and biotechnology

Competitive projects

- Title: **Young employment contract: Laboratory Technician.** PEJ-2020-TL/BMD-19427
Director: Muñoz Fernández, Mercedes
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project Type: Human resources
Start date: 01/03/2021
End date: 28/02/2023

GROUP 6.02: Translational medical oncology and personalized cancer therapy

Competitive projects

- Title: **FAITH: Federated Artificial Intelligence solution for monitoring mental Health status after cancer treatment.** H2020 FAITH 875358
Director: Martín Jiménez, Miguel
Project Type: Research project

Funding body: UE

Start date: 01/01/2020

End date: 31/12/2022

- Title: **Valor predictivo de la carga mutacional en tejido tumoral, plasma y CTCs en la respuesta a docetaxel-carboplatino neoadyuvante en pacientes con cáncer de mama triple negativo.** PI18/01775
Director: Martín Jiménez, Miguel
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Detección de neoantígenos en exosomas tumorales obtenidos de sangre periférica de pacientes con cáncer microcítico de pulmón metastásico.** ASEICA/18-01
Director: Calles Blanco, Antonio
Project Type: Research project
Funding body: Asociación Española de Investigación sobre el Cáncer ASEICA
Start date: 01/03/2019
End date: 28/02/2021

GROUP 6.03: Genetics and clinical aspects of hematologic malignancies and hematopoietic stem cell transplantation

Competitive projects

- Title: **Búsqueda de biomarcadores relacionados con genes del sistema inmune para predecir la eficacia y la toxicidad en pacientes con neoplasias hematológicas tratadas con inmunoterapia basada en el receptor de células T antigénicas quiméricas (CA).** PI20/00521
Director: Buño Borde, Ismael
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Biomarcadores genómicos y transcriptómicos del sistema inmune para la elaboración de modelos de riesgo de desarrollo de complicaciones post-trasplante hematopoyético.** PI17/01880
Director: Buño Borde, Ismael



Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2018

End date: 30/06/2021

- Title: **Registro de la infección por SARS-CoV-2 en pacientes con hemoglobinopatías y/o esplenectomizados: vigilancia epidemiológica y estudio de la morbilidad y mortalidad en grupos de riesgo.** COV20/00675
Director: Cela De Julián, Elena
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 30/04/2020
End date: 30/09/2021
- Title: **Predotoral CM.** PEJD-2019-PRE/BMD-15626
Director: Bastos Oreiro, Mariana Beatriz
Project Type: Human resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid.
Start date: 01/02/2020
End date: 31/01/2021
- Title: **Bioinformatic contract** CA18/00040
Director: Laura Castro Labrador
Project Type: Human resources
Funding body: Fundación Española Hematología u Hemoterapia (F:E:H:H.)
Start date: 01/01/2019
End date: 12/05/2021

AREA 7: SYSTEMIC DISEASES AND ORGAN TRANSPLANTATION

GROUP 7.01: Inflammation and vascular damage in chronic kidney disease. Renal pathophysiology

Competitive projects

- Title: **El control de la apoptosis renal bloquea el inflammasoma y evita el daño orgánico a distancia.** PI20/01577
Director: Lázaro Fernández, Alberto
Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2021

End date: 31/12/2023

- Title: **Intervenciones sobre las balsas de colesterol epiteliales derivadas a evitar la fase de amplificación del daño orgánico agudo.** PI17/00276
Director: Lázaro Fernández, Alberto
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2018
End date: 30/06/2021
- Title: **Proteccion renal en el paciente politraumatizado.** FMM20/03
Director: Lázaro Fernández, Alberto
Project Type: Research project
Funding body: Fundación Mutua Madrileña
Start date: 05/08/2020
End date: 04/08/2022
- Title: **Bloquear las balsas de colesterol del borde en cepillo del túbulo proximal previene el fallo renal inducido por nefropatías pigmentosas. paludismo y rabdomiolisis** SENEfro18/01
Director: Lázaro Fernández, Alberto
Project Type: Research project
Funding body: Fundación Senefro
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Predotoral CM.** PEJD-2019-PRE/BMD-16978
Director: Lázaro Fernández, Alberto
Project Type: Human resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid.
Start date: 01/02/2020
End date: 11/03/2022

GROUP 7.02: Pathophysiology and natural history of liver and digestive diseases

Competitive projects

- Title: **Development of dialive, a novel Liver Dialysis Device for the treatment of patients with Acute on Chronic Liver Failure (ACLF).** H2020 ALIVER

LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

Director: Bañares Cañizares, Rafael
Project Type: European research project
Funding body: European Union
Start date: 01/01/2017
End date: 31/01/2021

- Title: **Proliferación fibroadiposa del mesenterio en la enfermedad de Crohn: relevancia clínica y patogénica.** PI19/01746
Director: Menchén Viso, Luis Alberto
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Caracterización de la función cardiaca en la cirrosis: Valor pronóstico e interrelación con la respuesta inflamatoria sistémica.** PI18/01901
Director: Bañares Cañizares, Rafael
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 30/06/2022
- Title: **Fusión celular y comunicación celular por exomas en la enfermedad y regeneración hepática.** PI18/01833
Director: Vaquero Martín, Javier
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2022
- Title: **Papel de la deficiencia de la vitamina D en los eventos claves de la cirrosis hepática e impacto de su suplementación.** PI16/00920
Director: García Martínez, Rita
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2017
End date: 30/06/2021
- Title: **Comunicación por exomas y otras vesículas extracelulares en la fisiología y fisiopatología hepática (EXOHEP-CM).** S2017/BMD-3727
Director: Bañares Cañizares, Rafael

Project Type: Research project
Funding body: Consejería de Educación. Comunidad de Madrid
Start date: 01/01/2018
End date: 30/06/2022

- Title: **La perfusión normotérmica de órgano aislado como sistema de recuperación de órganos subóptimos para aumentar el pool de donantes. Biomarcadores de viabilidad y trasplantabilidad.** FMM21/02
Director: Bañares Cañizares, Rafael
Project Type: Research project
Funding body: Fundación Mutua Madrileña
Start date: 16/06/2021
End date: 16/06/2024
- Title: **Río Hortega Contract.** CM19/00247
Director: Caballero Marcos, Aránzazu
Project Type: Human Resources
Funding body: Instituto de Salud Carlos III
Start date: 01/12/2019
End date: 31/11/2021
- Title: **Young employment Contract: Laboratory Technician** PEJ-2018-TL/BMD-12024
Director: Vaquero Martín, Javier
Project Type: Human Resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/03/2019
End date: 20/02/2021
- Title: **Young employment Contract** PEJ2018-003826-A
Director: Bañares Cañizares, Rafael
Project Type: Human Resources
Funding body: MICINN
Start date: 01/11/2019
End date: 31/03/2022

Not managed by the FIBHGM

- Title: **A Novel Therapy Against Cholangiocarcinoma.** PR2018/17
Director: Cubero, Francisco Javier



Project Type: Research project

Funding body: AMMF

Start date: 01/10/2018

End date: 31/12/2021

- Title: **Biomedical and Societal effects of alcohol.** ERAB 14/18
Director: Cubero, Francisco Javier
Project Type: Research project
Funding body: ERAB
Start date: 01/10/2019
End date: 31/12/2021
- Title: **Interdependence of oxidative stress and inflammation during chronic liver injury: a novel tool for theranostics.** 201801
Director: Cubero, Francisco Javier
Project Type: Research project
Funding body: Gilead
Start date: 21/06/2018
End date: 31/12/2021

GROUP 7.04: Diseases of the critically ill child

Competitive projects

- Title: **ASCEND (ARDS in Children and ECMO initiation strategies impact).** NIH-2020/PAF01099
Director: Butragueño Laiseca, Laura
Project Type: Research project
Funding body: National Institutes of Health (NIH)
Start date: 05/09/2020
End date: 30/06/2025
- Title: **Registro Observacional Multicentrico de pacientes con Infección por SARS-COV2. En UCIP Españolas (SECIP-COVIC).** COV20/00944
Director: González Cortes, Rafael
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/05/2020
End date: 30/01/2022

- Title: **Ensayo clínico controlado aleatorizado sobre el tratamiento profiláctico del estreñimiento con polietilenglicol con electrolitos en el niño crítico.** PI20/01339
Director: López González, Jorge
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Comparación de la eficacia en sepsis de las técnicas de depuración sanguínea para niños críticos: estudio clínico y experimental.** PI20/01428
Director: Santiago Lozano, María José
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Utilidad de las nuevas modalidades de imagen en ecografía y videomicroscopia para la evaluación microcirculatoria y tisular a pie de cama en niños sometidos a cirugía cardíaca.** PI20/01491
Director: González Cortes, Rafael
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Efectos de la resucitación con albumina hipertónica y nuevas drogas vasoactivas en un modelo animal infantil de shock hemorrágico.** PI20/01706
Director: Urbano Villaescusa, Javier
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Estudio clínico y experimental de parada cardíaca y reanimación cardiopulmonar en pediatría.** PI18/01632
Director: López-Herce Cid, Jesús
Project Type: Research project



LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2019

End date: 30/06/2022

- Title: **Farmacocinética y farmacodinamia de los antibióticos en niños críticamente enfermos tratados con técnicas de depuración extrarenal continua.** PI17/00248

Director: Santiago Lozano, María José

Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2018

End date: 30/06/2021

- Title: **Río Hortega Contract.** CM19/00203

Director: Manrique Martín, Gema

Project Type: Human Resources

Funding body: Instituto de Salud Carlos III

Start date: 01/12/2019

End date: 31/12/2021

- Title: **JUAN RODÉS Contract** JR19/00023

Director: Gonzalez Cortés, Rafael

Funding body: Instituto de Salud Carlos III

Type of Project: Human resources

Start date: 29/01/2020

End date: 28/01/2024

GROUP 7.05B Pathophysiology, outcome, and therapeutic strategies in chronic respiratory insufficiency and respiratory disorders of sleep

Competitive projects

- Title: **Impacto de la administración de lidocaína intravenosa o paravertebral durante el intraoperatorio de la cirugía de resección pulmonar.** PI18/01305
- Director: Garutti Martínez, Ignacio
- Project Type: Research project
- Funding body: Instituto de Salud Carlos III
- Start date: 01/01/2019
- End date: 31/12/2022

- Title: **Reducción de complicaciones post-operatorias pulmonares mediante una estrategia ventilatoria perioperatoria de apertura pulmonar.** PI18/01611

Director: Piñeiro Otero, Patricia

Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2019

End date: 31/12/2021

- Title: **Diseño mediante inteligencia artificial de algoritmos predictivos para la identificación de individuos en riesgo de desarrollar sobrepeso/obesidad y sus patologías asociadas: Aportación del análisis genético (GENOBIA-CM)** S2017/BMD-3773

Director: Puente Maestu, Luis

Project Type: Research project

Funding body: Consejería de Educación e Investigación. Comunidad de Madrid

Start date: 01/01/2018

End date: 31/12/2021

GROUP 7.16: Regenerative medicine and system development: cardiovascular and osteochondral

Competitive projects

- Title: **SHORT-TERM Esmolol confers cardioprotection persistent after treatment withdrawal. Future therapeutic targets in cardiac remodeling.** PI16/02069

Director: Quintana Villamandos, Begoña

Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2017

End date: 30/06/2021

Not managed by the FIBHGM

- Title: **Innovación en la docencia del grado de medicina: aerotransporte de pacientes con alto riesgo de contaminación por enfermedad infecciosa en un escenario real.** PIMCD-333
- Director: Quintana Villamandos, Begoña



Project Type: Innovation project

Funding body: UCM

Start date: 01/01/2019

End date: 31/12/2021

- Title: **Inteligencia artificial en el aula frente al escenario real de aero-evacuación sanitaria. futuro de la enseñanza virtual.** PIMCD-359
Director: Quintana Villamandos, Begoña
Project Type: Innovation project
Funding body: UCM
Start date: 01/01/2020
End date: 31/12/2021

GROUP 7.21 Biopathology of aging

Competitive projects

- Title: **Entrenamiento físico y educación sanitaria en la prevención del deterioro funcional asociado a la hospitalización en ancianos.** PI17/02021
Director: Serra Rexach, José Antonio
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2018
End date: 30/06/2022

GROUP 7.22 Pathophysiology of the neonate and developing child

Competitive projects

- Title: **Ventilación de alta frecuencia oscilatoria con volumen garantizado en la prevención del daño pulmonar inducido por ventilación en un modelo animal neonatal.** PI17/00838
Director: Sánchez Luna, Manuel
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2018
End date: 30/06/2021
- Title: **Surfactante aerosolizado combinado con ventilación de alta frecuencia oscilatoria con volumen garantizado en la prevención del daño**

pulmonar inducido por ventilación en un modelo animal neonatal.

PI20/01331

Director: Sánchez Luna, Manuel

Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2021

End date: 31/12/2023

- Title: **Aspectos clínicos e inmunoviroológicos de la infección por SARS-CoV2 en una cohorte de gestantes y recién nacidos. Proyecto prospectivo multicéntrico 12 hospitales.** COV20/00808
Director: Navarro, María Luisa
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/04/2020
End date:
- Title: **Mecanismos epigenéticos implicados en la génesis y curso de trastornos del neurodesarrollo en prematuros extremos. Estudio de seguimiento a 4 años.** PI20/01342
Director: Blanco, Dorotea; Pina, Laura
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022

GROUP 7.25: Artificial circulation laboratory

Competitive projects

- Title: **Efectos del tipo de flujo sanguíneo (continuo o pulsátil) sobre la microcirculación en un modelo animal de asistencia ventricular.** PI17/01319
Director: Ruiz Fernández, Manuel
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2018
End date: 30/06/2021



LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

- Title: **Nuevas Tecnologías de Fabricación y Optimización de Tejidos : La Piel como sistema Modelo S2018/BAA-4480**
Director: Del Cañizo López, Juan Francisco
Project Type: Programa de Actividades de I+D en Biomedicina
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 06/03/2019
End date: 06/03/2022
- Title: **Mejora de las prestaciones del area quirurgica del servicio de medicina y cirugía experimental para el apoyo a los investigadores del Instituto de Investigacion Sanitaria del Hospital Gregorio Marañón** PEJ2018-004026-A
Director: Del Cañizo López, Juan Francisco
Project Type: Human Resources
Funding body: MICINN
Start date: 01/01/2019
End date: 31/10/2021

GROUP 7.27: Hospital pharmacy and pharmacogenomics

Competitive projects

- Title: **Proyecto de Alerta en Neumonía Grave (PANG). Impacto de un bundle multidisciplinar de intervención diagnóstica y terapéutica.** PI20/01350
Director: Galar Recalde, Alicia
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Marcadores genéticos, transcriptómicos y celulares de respuesta a terapia biológica en enfermedad inflamatoria intestinal pediátrica.** PI19/00792
Director: López Fernández, Luis Andrés
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022

- Title: **Patient-reported Outcomes in Lung cancer: Estudio PeOpLe.**
Director: Escudero Vilaplana, Vicente
Project Type: Research project
Funding body: Fundación Española de Farmacia Hospitalaria
Start date: 01/01/2018
End date:
- Title: **Aprendizaje máquina y computación masiva para medicina personalizada y análisis cuantitativo del clima (CLARA).** RTI2018-099655-B-I00
Director: Artés Rodríguez, Antonio
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date:
- Title: **Tratamiento preventivo del CMV en pacientes inmunocompetentes de alto riesgo con cirugía cardiaca mayor. Un ensayo clínico multicéntrico, doble ciego, aleatorizado, fase III (GAN-CAR).** ICI19/00079
Director: Muñoz, Patricia
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2021
- Title: **Registro Español de Resultados de Farmacoterapia frente a COVID-19.** SEF-LOP-2020-02
Director: Rodríguez González, Carmen
Project Type: Research project
Funding body: SEFH
Start date: 01/01/2020
End date:
- Title: **Estudio multicéntrico de conciliación de la medicación al ingreso en pacientes crónicos pediátricos: en busca de un algoritmo.** CONCIMED-PED
Director: Cuervas Mons, Margarita; Martínez Fernández-Llamazares, Cecilia
Project Type: Research project
Funding body: Fundación Española de Farmacia Hospitalaria
Start date: 01/01/2019
End date:



- Title: **Estandarización y caracterización de la terapia intravenosa en pediatría: un paso más en materia de seguridad**

Director: Manrique Rodríguez, Silvia

Project Type: Research project

Funding body: Fundación Española de Farmacia Hospitalaria

Start date: 01/01/2020

End date:

GROUP 7.28: Nutrición clínica

Competitive projects

- Title: **Utilidad de la realidad virtual y uso de una app para la enseñanza y monitorización de los cuidados de catéter en pacientes con nutrición parenteral domiciliaria.** PI19/01275

Director: De la Cuerda Compés, M^a Cristina

Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2020

End date: 31/12/2022

GROUP 7.29: Pharmacology and vascular pathophysiology

Competitive projects

Not managed by the FIBHGM

- Title: **Coinfection of HIV and schistosomiasis on the pulmonary vascular bed.** FIBHGM-CCA028-2017

Director: Cogolludo Torralba, Ángel

Project Type: Research project

Funding body: Cardiovascular Medical Research and Education Fund.

Start date: 01/01/2017

End date:

- Title: **Canales Kv como dianas farmacológicas en la hipertensión arterial pulmonar y la disfunción eréctil.** PID2020-117939RB-I00

Director: Cogolludo Torralba, Ángel

Project Type: Research project

Funding body: Plan Nacional de I+D (CICYT)

Start date: 01/09/2021

End date:

- Title: **Papel de la hipoxia y la inflamación en la disfunción de células endoteliales progenitoras en hipertensión pulmonar pediátrica.** PI19/01616

Director: Moreno Gutiérrez, Laura

Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2020

End date: 31/12/2023

- Title: **Papel fisiopatológico de la vitamina D y la microbiota en la hipertensión pulmonar y en la disfunción eréctil VIMIPHEd.** PID2019-107363RB-I00

Director: Pérez Vizcaino, Francisco

Project Type: Research project

Funding body: Plan Nacional de I+D (CICYT)

Start date: 01/01/2020

End date: 31/12/2023

- Title: **Ensayo clínico de Fase IIb-III para evaluar la eficacia de las MSCs en recién nacidos prematuros como estrategia preventiva para reducir la incidencia y severidad de la Displasia Broncopulmonar.** ICI19/00092

Director: Del Cerro, M^a Jesús

Project Type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2020

End date: 31/12/2023

- Title: **Contratos predoctorales Miguel Servet II** CPII17/00020

Director: Olivencia Plaza, Miguel Ángel

Project Type: Human resources

Funding body: Instituto de Salud Carlos III

Start date: 16/11/2018

End date: 31/12/2022

- Title: **Ayudante de Investigación** PEJ-2020-AI/BMD-19249

Director: Jerónimo Albaladejo, Marta

Project Type: Human resources

Funding body: Consejería de Educación e Investigación. Comunidad de Madrid

Start date: 03/01/2021

End date:

LIST OF ACTIVE PROJECTS IN 2021 BY AREA OF RESEARCH

- Title: **Ayudante de Investigación** PEJ-2019-AI/BMD-13475
Director: Sánchez Sánchez, Cristina
Project Type: Human resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2020
End date:
- Title: **Contratos predoctorales de personal investigador en formación** CT63/19-CT64/19
Director: Olivencia Plaza, Miguel Ángel
Project Type: Human resources
Funding body: UCM
Start date: 16/11/2020
End date:

GROUP 7.31 Pathophysiology in women, pregnancy, labor, and puerperium

Competitive projects

- Title: **La respuesta inflamatoria anti-espermatozoide para evitar la diseminación de infecciones de transmisión sexual como causa de infertilidad.** PI19/00078

Director: Reloso Cereceda, Miguel
Project Type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2023

- Title: **Estudio del impacto del factor género en el pronóstico del melanoma cutáneo: Análisis epidemiológico y búsqueda de patrones pronósticos.** FMM20/04
Director: Mercader Cidoncha, Enrique
Project Type: Research project
Funding body: Fundación Mutua Madrileña
Start date: 19/10/2020
End date: 18/10/2023
- Title: **Relación del fallo de implantación embrionaria con la dosis de progesterona sérica** PEJ2018-003326-A
Director: Pérez Milán, Federico
Project Type: Research project
Funding body: MICINN
Start date: 01/01/2019
End date: 28/02/2022



Scientific publications

The list presented below shows all the referenced publications in which investigators from the liSGM participated in during 2021.

Publications with an impact factor greater than **10 points** are highlighted.

In order to obtain the total impact factor, only information from publications indexed as original articles, reviews, editorials and letters in the main collection of the Web of Science (WOS) have been taken into account.

It is important to note that publications involving different groups or areas of the Institute are computed individually in each group and area, although only once for purposes of the calculation of the Institute's total impact factor.

Journal	IF	Nº	Amount IF
ACS Infectious Diseases	1	5,578	5,578
ACTA DERMATO-VENEREOLOGICA	2	3,875	7,75
ACTA OPHTHALMOLOGICA	1	3,988	3,988
Acta Orthopaedica et Traumatologica Turcica	1	1,557	1,557
ACTA PAEDIATRICA	2	4,056	8,112
ACTA PSYCHIATRICA SCANDINAVICA	2	7,734	15,468
ACTAS ESPANOLAS DE PSIQUIATRIA	3	1,667	5,001
Actas Urologicas Espanolas	12	0,887	10,644
Adicciones	1	4,102	4,102
ADVANCED MATERIALS	1	32,086	32,086
ADVANCES IN THERAPY	1	4,07	4,07
AGING & MENTAL HEALTH	1	3,514	3,514
Aging and Disease	1	9,968	9,968
AGRONOMY-BASEL	1	3,949	3,949
AIDS	3	4,632	13,896
ALIMENTARY PHARMACOLOGY & THERAPEUTICS	1	9,524	9,524
ALLERGOLOGIA ET IMMUNOPATHOLOGIA	2	2,094	4,188
Allergy Asthma and Clinical Immunology	1	3,373	3,373
AMERICAN HEART JOURNAL	2	5,099	10,198
AMERICAN JOURNAL OF CLINICAL ONCOLOGY-CANCER CLINICAL TRIALS	1	2,787	2,787
AMERICAN JOURNAL OF EMERGENCY MEDICINE	1	4,093	4,093

Journal	IF	Nº	Amount IF
AMERICAN JOURNAL OF GASTROENTEROLOGY	1	12,045	12,045
AMERICAN JOURNAL OF HEMATOLOGY	1	13,265	13,265
AMERICAN JOURNAL OF KIDNEY DISEASES	1	11,072	11,072
AMERICAN JOURNAL OF PHYSIOLOGY-GASTROINTESTINAL AND LIVER PHYSIOLOGY	1	4,871	4,871
AMERICAN JOURNAL OF PHYSIOLOGY-HEART AND CIRCULATORY PHYSIOLOGY	1	5,125	5,125
AMERICAN JOURNAL OF TRANSPLANTATION	4	9,369	37,476
ANAIS BRASILEIROS DE DERMATOLOGIA	3	2,113	6,339
ANALES DE PEDIATRIA	16	2,377	38,032
ANESTHESIOLOGY	1	8,986	8,986
ANNALS OF ALLERGY ASTHMA & IMMUNOLOGY	5	6,248	31,24
ANNALS OF DIAGNOSTIC PATHOLOGY	3	2,134	6,402
ANNALS OF HEMATOLOGY	4	4,03	16,12
Annals of Intensive Care	1	10,318	10,318
ANNALS OF ONCOLOGY	3	51,769	155,307
ANNALS OF PLASTIC SURGERY	2	1,763	3,526
ANNALS OF TRANSPLANTATION	1	1,479	1,479
Antibiotics-Basel	3	5,222	15,666
ANTIMICROBIAL AGENTS AND CHEMOTHERAPY	7	5,938	41,566
Antioxidants	5	7,675	38,375
Apl Bioengineering	1	6,586	6,586
Applied Sciences-Basel	2	2,838	5,676
ARCHIVES OF DISEASE IN CHILDHOOD	3	4,92	14,76
ARCHIVES OF GYNECOLOGY AND OBSTETRICS	1	2,493	2,493
ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION	1	4,06	4,06
ARCHIVOS DE BRONCONEUMOLOGIA	10	6,333	63,33
ARCHIVOS ESPANOLAS DE UROLOGIA	2	0,43	0,86
ARTHRITIS CARE & RESEARCH	1	5,178	5,178
ARTHRITIS RESEARCH & THERAPY	1	5,606	5,606
ASAO JOURNAL	3	3,826	11,478

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SCIENTIFIC PUBLICATIONS

Journal	IF	Nº	Amount IF
ATENCION PRIMARIA	3	2,206	6,618
AUSTRALASIAN JOURNAL OF DERMATOLOGY	2	2,481	4,962
AUTISM	1	6,684	6,684
BASIC RESEARCH IN CARDIOLOGY	1	12,416	12,416
Behavioral Sleep Medicine	1	3,492	3,492
Best Practice & Research-Clinical Anaesthesiology	1	3,813	3,813
BIOCHEMICAL PHARMACOLOGY	1	6,1	6,1
BIOLOGICAL PSYCHIATRY	1	12,81	12,81
BIOLOGY-BASEL	3	5,168	15,504
Biomed Research International	1	3,246	3,246
BIOMEDICAL SIGNAL PROCESSING AND CONTROL	1	5,076	5,076
BIOMEDICINE & PHARMACOTHERAPY	1	7,419	7,419
Biomedicines	4	4,757	19,028
Biomolecules	1	6,064	6,064
BJPsych Open	1	5,165	5,165
BJS Open	2	3,875	7,75
BJU INTERNATIONAL	1	5,969	5,969
BLOOD	1	25,476	25,476
Blood Cancer Journal	3	9,812	29,436
BLOOD COAGULATION & FIBRINOLYSIS	2	1,061	2,122
Blood Transfusion	1	5,752	5,752
BMC Cardiovascular Disorders	1	2,174	2,174
BMC FAMILY PRACTICE	1	2,634	2,634
BMC GASTROENTEROLOGY	1	2,847	2,847
BMC INFECTIOUS DISEASES	3	3,667	11,001
BMC MEDICAL EDUCATION	1	3,263	3,263
BMC MEDICAL GENOMICS	1	3,622	3,622
BMC MEDICAL RESEARCH METHODOLOGY	1	4,612	4,612
BMC MUSCULOSKELETAL DISORDERS	1	2,562	2,562
BMC Nephrology	2	2,585	5,17

Journal	IF	Nº	Amount IF
BMC Pediatrics	1	2,567	2,567
BMC Pulmonary Medicine	1	3,32	3,32
BMC Womens Health	1	2,742	2,742
BMJ Open	5	3,006	15,03
BONE MARROW TRANSPLANTATION	9	5,174	46,566
BRAIN	1	15,255	15,255
Brain and Behavior	1	3,405	3,405
Brain Sciences	4	3,333	13,332
BRAIN STRUCTURE & FUNCTION	1	3,748	3,748
BREAST CANCER RESEARCH AND TREATMENT	3	4,624	13,872
Breast Care	1	2,268	2,268
BRIEFINGS IN BIOINFORMATICS	1	13,994	13,994
BRITISH JOURNAL OF CANCER	1	9,075	9,075
BRITISH JOURNAL OF CLINICAL PHARMACOLOGY	1	3,716	3,716
BRITISH JOURNAL OF DEVELOPMENTAL PSYCHOLOGY	1	2,148	2,148
BRITISH JOURNAL OF HAEMATOLOGY	1	8,615	8,615
BRITISH JOURNAL OF PHARMACOLOGY	1	9,473	9,473
BRITISH JOURNAL OF SURGERY	3	11,122	33,366
CANADIAN JOURNAL OF PSYCHIATRY-REVUE CANADIENNE DE PSYCHIATRIE	1	5,321	5,321
CANCER	1	6,921	6,921
Cancer Medicine	4	4,711	18,844
CANCER RADIOThERAPIE	1	1,217	1,217
CANCER TREATMENT REVIEWS	2	13,608	27,216
Cancers	16	6,575	105,2
CARDIOLOGY	1	2,342	2,342
CARDIOLOGY IN THE YOUNG	1	1,023	1,023
CARDIOVASCULAR DIABETOLOGY	2	8,949	17,898
CARDIOVASCULAR DRUGS AND THERAPY	1	3,947	3,947
Cardiovascular Journal of Africa	1	0,802	0,802

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Journal	IF	Nº	Amount IF
CARDIOVASCULAR RESEARCH	2	13,081	26,162
Cell Reports	1	9,995	9,995
Cells	4	7,666	30,664
CEREBRAL CORTEX	1	4,861	4,861
CEREBROVASCULAR DISEASES	1	3,104	3,104
ChemMedChem	1	3,54	3,54
CHEST	1	10,262	10,262
Children-Basel	1	2,835	2,835
CIN-COMPUTERS INFORMATICS NURSING	1	2,146	2,146
CIRCULATION	1	39,918	39,918
CIRCULATION-ARRHYTHMIA AND ELECTROPHYSIOLOGY	1	7,718	7,718
Circulation-Cardiovascular Interventions	1	7,514	7,514
CIRUGIA ESPANOLA	2	2,242	4,484
CIRUGIA Y CIRUJANOS	2	0,416	0,832
CLINICAL & TRANSLATIONAL ONCOLOGY	15	3,34	50,1
CLINICAL AND EXPERIMENTAL ALLERGY	1	5,401	5,401
CLINICAL AND EXPERIMENTAL DERMATOLOGY	1	4,481	4,481
CLINICAL AND EXPERIMENTAL IMMUNOLOGY	1	5,732	5,732
CLINICAL AND EXPERIMENTAL OBSTETRICS & GYNECOLOGY	1	0,192	0,192
CLINICAL AND EXPERIMENTAL RHEUMATOLOGY	3	4,862	14,586
Clinical and Translational Allergy	1	5,657	5,657
CLINICAL BREAST CANCER	2	3,078	6,156
CLINICAL CANCER RESEARCH	1	13,801	13,801
CLINICAL CARDIOLOGY	1	3,287	3,287
CLINICAL COLORECTAL CANCER	1	4,035	4,035
CLINICAL GENETICS	3	4,296	12,888
CLINICAL IMPLANT DENTISTRY AND RELATED RESEARCH	1	4,259	4,259
CLINICAL INFECTIOUS DISEASES	7	20,999	146,993
CLINICAL KIDNEY JOURNAL	5	5,86	29,3
CLINICAL LUNG CANCER	2	4,84	9,68

Journal	IF	Nº	Amount IF
Clinical Lymphoma Myeloma & Leukemia	3	2,822	8,466
CLINICAL MICROBIOLOGY AND INFECTION	14	13,31	186,34
CLINICAL NUTRITION	5	7,643	38,215
CLINICAL PHARMACOLOGY & THERAPEUTICS	1	6,903	6,903
CLINICAL RESEARCH IN CARDIOLOGY	1	6,138	6,138
CLINICAL RHEUMATOLOGY	2	3,65	7,3
CLINICAL SCIENCE	1	6,876	6,876
CLINICAL TRANSPLANTATION	3	3,456	10,368
CLINICS IN PERINATOLOGY	2	2,642	5,284
CLUSTER COMPUTING-THE JOURNAL OF NETWORKS SOFTWARE TOOLS AND APPLICATIONS	1	2,303	2,303
COLORECTAL DISEASE	2	3,917	7,834
COMPOSITES PART B-ENGINEERING	1	11,322	11,322
COMPUTERS IN BIOLOGY AND MEDICINE	1	6,698	6,698
CORONARY ARTERY DISEASE	1	1,717	1,717
Cost Effectiveness and Resource Allocation	1	2,803	2,803
CRITICAL CARE	1	19,334	19,334
CURRENT OPINION IN INFECTIOUS DISEASES	2	4,968	9,936
CURRENT PROBLEMS IN CARDIOLOGY	1	16,464	16,464
CYTOKINE	1	3,926	3,926
DEPRESSION AND ANXIETY	1	8,128	8,128
DERMATOLOGIC THERAPY	1	3,858	3,858
Dermatology and Therapy	1	3,661	3,661
Dermatology Practical & Conceptual	1	2,753	2,753
DIABETES RESEARCH AND CLINICAL PRACTICE	1	8,18	8,18
DIAGNOSTIC MICROBIOLOGY AND INFECTIOUS DISEASE	3	2,983	8,949
Diagnostics	4	3,992	15,968
DIGESTIVE DISEASES AND SCIENCES	1	3,487	3,487
DRUGS & AGING	1	4,271	4,271
DRUGS IN R&D	1	3,203	3,203

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SCIENTIFIC PUBLICATIONS

Journal	IF	Nº	Amount IF
EARLY HUMAN DEVELOPMENT	1	2,699	2,699
Eclinicalmedicine	2	17,033	34,066
Emergencias	3	5,345	16,035
EMERGING INFECTIOUS DISEASES	2	16,126	32,252
ENDOCRINE	1	3,925	3,925
ENDOCRINE-RELATED CANCER	1	5,9	5,9
Endocrinología Diabetes Y Nutrición	6	1,833	10,998
ENDOSCOPY	1	9,776	9,776
ENFERMEDADES INFECCIOSAS Y MICROBIOLOGÍA CLÍNICA	8	1,994	15,952
Entropy	1	2,738	2,738
EPILEPSY & BEHAVIOR	1	3,337	3,337
ERJ Open Research	1	4,239	4,239
ESC heart failure	3	3,612	10,836
Esmo Open	5	6,883	34,415
EUROPACE	1	5,486	5,486
EUROPEAN ARCHIVES OF PSYCHIATRY AND CLINICAL NEUROSCIENCE	1	5,76	5,76
EUROPEAN CHILD & ADOLESCENT PSYCHIATRY	3	5,349	16,047
European Geriatric Medicine	1	3,269	3,269
EUROPEAN HEART JOURNAL	2	35,855	71,71
EUROPEAN HEART JOURNAL-ACUTE CARDIOVASCULAR CARE	2	4,766	9,532
EUROPEAN HEART JOURNAL-QUALITY OF CARE AND CLINICAL OUTCOMES	1	7,064	7,064
EUROPEAN JOURNAL OF ANAESTHESIOLOGY	1	4,183	4,183
EUROPEAN JOURNAL OF CANCER	4	10,002	40,008
EUROPEAN JOURNAL OF CLINICAL INVESTIGATION	2	5,722	11,444
EUROPEAN JOURNAL OF CLINICAL MICROBIOLOGY & INFECTIOUS DISEASES	1	5,103	5,103
EUROPEAN JOURNAL OF CLINICAL NUTRITION	1	4,884	4,884
EUROPEAN JOURNAL OF CLINICAL PHARMACOLOGY	1	3,064	3,064

Journal	IF	Nº	Amount IF
EUROPEAN JOURNAL OF DERMATOLOGY	9	2,805	25,245
EUROPEAN JOURNAL OF GASTROENTEROLOGY & HEPATOLOGY	2	2,586	5,172
European Journal of General Practice	1	3,636	3,636
EUROPEAN JOURNAL OF HAEMATOLOGY	3	3,674	11,022
EUROPEAN JOURNAL OF HOSPITAL PHARMACY	1	2,537	2,537
EUROPEAN JOURNAL OF IMMUNOLOGY	1	6,688	6,688
EUROPEAN JOURNAL OF INTERNAL MEDICINE	4	7,749	30,996
EUROPEAN JOURNAL OF NEUROLOGY	4	6,288	25,152
EUROPEAN JOURNAL OF PEDIATRICS	4	3,86	15,44
EUROPEAN JOURNAL OF PLASTIC SURGERY	2	0,24	0,48
European Journal of Preventive Cardiology	1	8,526	8,526
EUROPEAN JOURNAL OF PSYCHIATRY	1	1,288	1,288
EUROPEAN JOURNAL OF RADIOLOGY	1	4,531	4,531
EUROPEAN JOURNAL OF TRAUMA AND EMERGENCY SURGERY	2	2,374	4,748
EUROPEAN NEUROLOGY	1	2,292	2,292
EUROPEAN NEUROPSYCHOPHARMACOLOGY	10	5,415	54,15
EUROPEAN PSYCHIATRY	8	7,156	57,248
EUROPEAN RESPIRATORY JOURNAL	2	33,795	67,59
EUROPEAN UROLOGY	1	24,267	24,267
European Urology Oncology	1	8,208	8,208
Eurosurveillance	1	21,286	21,286
EXPERIMENTAL DERMATOLOGY	2	4,511	9,022
EXPERT OPINION ON PHARMACOTHERAPY	1	4,103	4,103
EXPERT REVIEW OF ANTICANCER THERAPY	1	3,627	3,627
Expert Review of Clinical Immunology	1	5,124	5,124
Expert Review of Clinical Pharmacology	1	4,108	4,108
Expert Review of Hematology	1	2,819	2,819
EXPERT REVIEW OF MOLECULAR DIAGNOSTICS	1	5,67	5,67
FERTILITY AND STERILITY	1	7,49	7,49

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Journal	IF	Nº	Amount IF
FETAL DIAGNOSIS AND THERAPY	1	2,208	2,208
Foods	1	5,561	5,561
Foot and Ankle Surgery	1	2,84	2,84
Frontiers In Bioscience-Landmark	1	3,115	3,115
Frontiers in Cardiovascular Medicine	4	5,846	23,384
Frontiers in Cellular and Infection Microbiology	1	6,073	6,073
Frontiers in Immunology	9	8,786	79,074
Frontiers In Medicine	4	5,058	20,232
Frontiers in Microbiology	3	6,064	18,192
Frontiers in Neurology	2	4,086	8,172
Frontiers in Oncology	3	5,738	17,214
Frontiers In Pediatrics	7	3,569	24,983
Frontiers in Pharmacology	2	5,988	11,976
Frontiers in Physiology	7	4,755	33,285
Frontiers in Psychiatry	6	5,435	32,61
FRONTIERS IN PSYCHOLOGY	1	4,232	4,232
Frontiers in Public Health	1	6,461	6,461
GACETA SANITARIA	1	2,479	2,479
Gastric Cancer	2	7,701	15,402
Gastroenterologia y Hepatologia	3	5,867	17,601
GASTROENTEROLOGY	2	33,883	67,766
GENETICS	1	4,402	4,402
Genome Medicine	1	15,266	15,266
GUT	2	31,793	63,586
HARVARD REVIEW OF PSYCHIATRY	1	3,868	3,868
HEAD AND NECK-JOURNAL FOR THE SCIENCES AND SPECIALTIES OF THE HEAD AND NECK	1	3,821	3,821
HEALTH & PLACE	1	4,931	4,931
HEALTH EXPECTATIONS	1	3,318	3,318
Healthcare	1	3,16	3,16

Journal	IF	Nº	Amount IF
HEART	2	7,365	14,73
Heart Lung and Circulation	1	2,838	2,838
HEART RHYTHM	1	6,779	6,779
Hemasphere	2	8,3	16,6
HEMATOLOGICAL ONCOLOGY	2	4,85	9,7
Hepatology Communications	2	5,701	11,402
HIP INTERNATIONAL	1	1,756	1,756
HISTOLOGY AND HISTOPATHOLOGY	1	2,13	2,13
HIV MEDICINE	1	3,094	3,094
HIV Research & Clinical Practice	1	1,676	1,676
Hormone and Metabolic Research	1	2,788	2,788
Hormones-International Journal of Endocrinology and Metabolism	1	3,419	3,419
Human Vaccines & Immunotherapeutics	2	4,526	9,052
IEEE Access	3	3,476	10,428
IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING	1	4,756	4,756
IEEE Transactions on Computational Imaging	1	4,708	4,708
IEEE TRANSACTIONS ON INFORMATION THEORY	1	2,978	2,978
Immunity & Ageing	1	9,701	9,701
IMMUNOTHERAPY	1	4,04	4,04
INFECTION	2	7,455	14,91
Infectious Diseases and Therapy	4	6,119	24,476
Infectious Diseases of Poverty	1	10,485	10,485
INFLAMMATORY BOWEL DISEASES	1	7,29	7,29
INJURY-INTERNATIONAL JOURNAL OF THE CARE OF THE INJURED	1	2,687	2,687
INTERNAL MEDICINE JOURNAL	2	2,611	5,222
INTERNATIONAL JOURNAL OF ANTIMICROBIAL AGENTS	2	15,441	30,882
INTERNATIONAL JOURNAL OF ARTIFICIAL ORGANS	1	1,631	1,631
INTERNATIONAL JOURNAL OF CARDIOLOGY	3	4,039	12,117

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SCIENTIFIC PUBLICATIONS

Journal	IF	Nº	Amount IF
International Journal of Chronic Obstructive Pulmonary Disease	3	2,893	8,679
International Journal of Clinical Pharmacy	1	2,305	2,305
INTERNATIONAL JOURNAL OF CLINICAL PRACTICE	4	3,149	12,596
International Journal of Computer Assisted Radiology and Surgery	2	3,421	6,842
INTERNATIONAL JOURNAL OF DERMATOLOGY	1	3,204	3,204
INTERNATIONAL JOURNAL OF DRUG POLICY	2	5,931	11,862
International Journal of Environmental Research and Public Health	11	4,614	50,754
INTERNATIONAL JOURNAL OF GERIATRIC PSYCHIATRY	1	3,85	3,85
International Journal of Immunogenetics	1	2,385	2,385
INTERNATIONAL JOURNAL OF INFECTIOUS DISEASES	2	12,074	24,148
INTERNATIONAL JOURNAL OF LABORATORY HEMATOLOGY	1	3,45	3,45
International Journal of Medical Sciences	1	3,642	3,642
INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES	11	6,208	68,288
INTERNATIONAL JOURNAL OF NEUROPSYCHOPHARMACOLOGY	1	5,678	5,678
INTERNATIONAL JOURNAL OF NURSING PRACTICE	1	2,226	2,226
INTERNATIONAL JOURNAL OF NURSING STUDIES	1	6,612	6,612
INTERNATIONAL JOURNAL OF POLYMERIC MATERIALS AND POLYMERIC BIOMATERIALS	1	3,221	3,221
INTERNATIONAL JOURNAL OF RADIATION BIOLOGY	2	3,352	6,704
International Journal of Rheumatic Diseases	1	2,558	2,558
International Journal of Surgery	1	13,4	13,4
INTERNATIONAL JOURNAL OF TUBERCULOSIS AND LUNG DISEASE	1	3,427	3,427
INTERNATIONAL NURSING REVIEW	1	3,384	3,384
JACC-Cardiovascular Interventions	3	11,075	33,225
JAIDS-JOURNAL OF ACQUIRED IMMUNE DEFICIENCY SYNDROMES	1	3,771	3,771
Jama Cardiology	1	30,154	30,154

Journal	IF	Nº	Amount IF
JAMA Pediatrics	3	26,796	80,388
JAMA PSYCHIATRY	3	25,911	77,733
JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION	2	157,335	314,67
JCR-JOURNAL OF CLINICAL RHEUMATOLOGY	1	3,902	3,902
Jhep Reports	1	9,917	9,917
JMIR Mental Health	2	6,332	12,664
JMIR mHealth and uHealth	1	4,947	4,947
JOINT BONE SPINE	2	5,263	10,526
Journal for ImmunoTherapy of Cancer	3	12,469	37,407
Journal of Affective Disorders	3	6,533	19,599
JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY	1	14,29	14,29
Journal of Allergy and Clinical Immunology-In Practice	5	11,022	55,11
JOURNAL OF ALZHEIMERS DISEASE	1	4,16	4,16
JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY	7	5,758	40,306
JOURNAL OF AUTISM AND DEVELOPMENTAL DISORDERS	1	4,345	4,345
JOURNAL OF BIOMEDICAL SCIENCE	1	12,771	12,771
JOURNAL OF CARDIOPULMONARY REHABILITATION AND PREVENTION	2	3,646	7,292
Journal of Cardiovascular Translational Research	1	3,216	3,216
JOURNAL OF CATARACT AND REFRACTIVE SURGERY	1	3,528	3,528
JOURNAL OF CELL SCIENCE	1	5,235	5,235
JOURNAL OF CELLULAR AND MOLECULAR MEDICINE	1	5,295	5,295
JOURNAL OF CHILD PSYCHOLOGY AND PSYCHIATRY	2	8,265	16,53
JOURNAL OF CLASSIFICATION	1	1,333	1,333
JOURNAL OF CLINICAL ANESTHESIA	1	9,375	9,375
JOURNAL OF CLINICAL APHERESIS	2	2,605	5,21
JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM	1	6,134	6,134
JOURNAL OF CLINICAL INVESTIGATION	1	19,456	19,456
Journal of Clinical Medicine	50	4,964	248,2
JOURNAL OF CLINICAL MICROBIOLOGY	3	11,677	35,031

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Journal	IF	Nº	Amount IF
JOURNAL OF CLINICAL MONITORING AND COMPUTING	1	1,977	1,977
JOURNAL OF CLINICAL ONCOLOGY	5	50,717	253,585
JOURNAL OF CLINICAL PERIODONTOLOGY	1	7,478	7,478
JOURNAL OF CLINICAL PSYCHIATRY	1	5,906	5,906
JOURNAL OF CRANIOFACIAL SURGERY	2	1,172	2,344
JOURNAL OF DERMATOLOGICAL TREATMENT	1	3,23	3,23
JOURNAL OF DUAL DIAGNOSIS	1	2,324	2,324
JOURNAL OF ELECTROCARDIOLOGY	3	1,38	4,14
JOURNAL OF ENDOCRINOLOGICAL INVESTIGATION	1	5,467	5,467
Journal of Foot & Ankle Surgery	1	1,345	1,345
Journal of Fungi	3	5,724	17,172
JOURNAL OF GASTROENTEROLOGY AND HEPATOLOGY	1	4,369	4,369
JOURNAL OF GASTROINTESTINAL SURGERY	1	3,267	3,267
JOURNAL OF GENERAL INTERNAL MEDICINE	3	6,473	19,419
Journal of Global Antimicrobial Resistance	1	4,349	4,349
JOURNAL OF HEART AND LUNG TRANSPLANTATION	1	13,569	13,569
JOURNAL OF HEMATOLOGY & ONCOLOGY	3	23,168	69,504
JOURNAL OF HEPATOLOGY	10	30,083	300,83
JOURNAL OF INFECTION	4	38,637	154,548
JOURNAL OF INFECTIOUS DISEASES	2	7,759	15,518
JOURNAL OF INHERITED METABOLIC DISEASE	1	4,75	4,75
JOURNAL OF INVESTIGATIONAL ALLERGOLOGY AND CLINICAL IMMUNOLOGY	6	8,185	49,11
JOURNAL OF INVESTIGATIVE DERMATOLOGY	1	7,59	7,59
JOURNAL OF LEUKOCYTE BIOLOGY	1	6,011	6,011
JOURNAL OF MATERNAL-FETAL & NEONATAL MEDICINE	1	2,323	2,323
JOURNAL OF MEDICAL INTERNET RESEARCH	1	7,076	7,076
Journal of Multidisciplinary Healthcare	1	2,919	2,919
JOURNAL OF NANOBIOTECHNOLOGY	2	9,429	18,858
JOURNAL OF NEPHROLOGY	1	4,393	4,393

Journal	IF	Nº	Amount IF
JOURNAL OF NEURODEVELOPMENTAL DISORDERS	1	4,074	4,074
Journal of Neurological Surgery Part A-Central European Neurosurgery	1	0,984	0,984
JOURNAL OF NEUROLOGY	2	6,682	13,364
JOURNAL OF NUCLEAR MEDICINE	1	11,082	11,082
JOURNAL OF ONCOLOGY PHARMACY PRACTICE	4	1,416	5,664
JOURNAL OF ORAL AND MAXILLOFACIAL SURGERY	1	2,136	2,136
JOURNAL OF ORTHOPAEDIC RESEARCH	1	3,102	3,102
Journal of Orthopaedic Surgery and Research	2	2,677	5,354
JOURNAL OF PEDIATRIC HEMATOLOGY ONCOLOGY	2	1,17	2,34
JOURNAL OF PEDIATRIC SURGERY	1	2,549	2,549
Journal of Pediatric Urology	1	1,921	1,921
JOURNAL OF PEDIATRICS	1	6,314	6,314
JOURNAL OF PERINATAL MEDICINE	1	2,716	2,716
Journal Of Personalized Medicine	5	3,508	17,54
JOURNAL OF PHARMACEUTICAL AND BIOMEDICAL ANALYSIS	1	3,571	3,571
JOURNAL OF PLASTIC RECONSTRUCTIVE AND AESTHETIC SURGERY	2	3,022	6,044
JOURNAL OF PSYCHIATRIC RESEARCH	1	5,25	5,25
JOURNAL OF PSYCHIATRY & NEUROSCIENCE	1	5,699	5,699
JOURNAL OF PSYCHOSOMATIC RESEARCH	1	4,62	4,62
JOURNAL OF RENAL NUTRITION	1	4,354	4,354
JOURNAL OF THE AMERICAN ACADEMY OF DERMATOLOGY	2	15,487	30,974
JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY	5	27,203	136,015
Journal of the American Heart Association	4	6,106	24,424
JOURNAL OF THE AMERICAN MEDICAL DIRECTORS ASSOCIATION	1	7,802	7,802
JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY	2	9,228	18,456
JOURNAL OF THE HISTORY OF THE NEUROSCIENCES	1	0,644	0,644
Journal of the International AIDS Society	2	6,707	13,414

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SCIENTIFIC PUBLICATIONS

Journal	IF	Nº	Amount IF
JOURNAL OF THE NEUROLOGICAL SCIENCES	1	4,553	4,553
Journal of the Pediatric Infectious Diseases Society	1	5,235	5,235
JOURNAL OF THROMBOSIS AND HAEMOSTASIS	3	16,036	48,108
JOURNAL OF TRAVEL MEDICINE	2	39,194	78,388
JOURNAL OF VIRAL HEPATITIS	1	3,517	3,517
JOURNALS OF GERONTOLOGY SERIES A-BIOLOGICAL SCIENCES AND MEDICAL SCIENCES	2	6,591	13,182
Jove-Journal of Visualized Experiments	1	1,424	1,424
KIDNEY INTERNATIONAL	2	18,998	37,996
Kidney International Reports	1	6,234	6,234
Kidney Research and Clinical Practice	1	4,172	4,172
KNEE	1	2,423	2,423
LANCET CHILD & ADOLESCENT HEALTH	1	37,746	37,746
LANCET INFECTIOUS DISEASES	2	71,421	142,842
LANCET ONCOLOGY	1	54,433	54,433
Lancet Psychiatry	1	77,056	77,056
Lancet Respiratory Medicine	1	102,642	102,642
Lancet Rheumatology	1	35,482	35,482
LEUKEMIA	6	12,883	77,298
LEUKEMIA & LYMPHOMA	2	2,996	5,992
LEUKEMIA RESEARCH	2	3,715	7,43
LIFE-BASEL	1	3,251	3,251
Linguistic Approaches to Bilingualism	1	1,815	1,815
LIVER INTERNATIONAL	1	8,754	8,754
LIVER TRANSPLANTATION	1	6,112	6,112
LUNG	1	3,777	3,777
LUNG CANCER	1	6,081	6,081
LUPUS	1	2,858	2,858
Materials	1	3,748	3,748
MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS	1	8,457	8,457

Journal	IF	Nº	Amount IF
Mathematics	2	2,592	5,184
MAYO CLINIC PROCEEDINGS	2	11,104	22,208
MEDICAL MYCOLOGY	2	3,747	7,494
MEDICAL PHYSICS	2	4,506	9,012
MEDICINA CLINICA	12	3,2	38,4
Medicina Intensiva	3	2,799	8,397
MEDICINA-BUENOS AIRES	1	0,96	0,96
MEDICINA-LITHUANIA	2	2,948	5,896
MEDICINE	3	1,817	5,451
Metabolites	1	5,581	5,581
Microbiology spectrum	3	9,043	27,129
MINERVA ANESTESIOLOGICA	1	3,396	3,396
Molecular Autism	1	6,476	6,476
MOLECULAR MEDICINE REPORTS	1	3,423	3,423
MOLECULAR ONCOLOGY	2	7,449	14,898
MOLECULAR PSYCHIATRY	3	13,437	40,311
MOLECULES	1	4,927	4,927
mSphere	3	5,029	15,087
Multiple Sclerosis and Related Disorders	2	4,808	9,616
MYCOSES	2	4,931	9,862
Nanotechnology Reviews	1	6,739	6,739
Nature Communications	2	17,694	35,388
NATURE GENETICS	1	41,307	41,307
NATURE METHODS	1	47,99	47,99
Nature Reviews Drug Discovery	1	112,288	112,288
NEFROLOGIA	4	3,084	12,336
NEUROBIOLOGY OF AGING	1	5,133	5,133
NEUROCIROGIA	2	0,817	1,634
NEUROLOGIA	11	5,486	60,346
NEUROLOGICAL SCIENCES	1	3,83	3,83

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Journal	IF	Nº	Amount IF
Neurology-Neuroimmunology & Neuroinflammation	1	11,36	11,36
NEUROPSYCHOPHARMACOLOGY	1	8,294	8,294
NEURORADIOLOGY	1	2,995	2,995
NEUROSCIENCE AND BIOBEHAVIORAL REVIEWS	1	9,052	9,052
NEW ENGLAND JOURNAL OF MEDICINE	1	176,079	176,079
Npj Breast Cancer	2	7,519	15,038
NURSE EDUCATION TODAY	1	3,906	3,906
NUTRICION HOSPITALARIA	5	1,169	5,845
Nutrients	3	6,706	20,118
NUTRITION	1	4,893	4,893
NUTRITION IN CLINICAL PRACTICE	1	3,204	3,204
OBESITY RESEARCH & CLINICAL PRACTICE	1	5,214	5,214
OCCUPATIONAL THERAPY INTERNATIONAL	1	1,565	1,565
ONCOLOGIST	1	5,837	5,837
Open Forum Infectious Diseases	5	4,423	22,115
ORPHANET JOURNAL OF RARE DISEASES	1	4,303	4,303
OTOLOGY & NEUROTOLOGY	1	2,619	2,619
PACE-PACING AND CLINICAL ELECTROPHYSIOLOGY	2	1,912	3,824
PAIN MEDICINE	1	3,637	3,637
Parkinsons Disease	1	3,17	3,17
Patient Preference and Adherence	1	2,314	2,314
PATTERN RECOGNITION	1	8,518	8,518
PEDIATRIC ALLERGY AND IMMUNOLOGY	2	5,464	10,928
PEDIATRIC AND DEVELOPMENTAL PATHOLOGY	1	2,266	2,266
PEDIATRIC ANESTHESIA	1	2,129	2,129
PEDIATRIC BLOOD & CANCER	1	3,838	3,838
PEDIATRIC CRITICAL CARE MEDICINE	1	3,971	3,971
PEDIATRIC DERMATOLOGY	1	1,997	1,997
PEDIATRIC EMERGENCY CARE	2	1,602	3,204
PEDIATRIC INFECTIOUS DISEASE JOURNAL	7	3,806	26,642

Journal	IF	Nº	Amount IF
PEDIATRIC NEPHROLOGY	1	3,651	3,651
PEDIATRIC PULMONOLOGY	3	4,09	12,27
Pediatric Rheumatology	1	3,413	3,413
PEDIATRICS	1	9,703	9,703
PERITONEAL DIALYSIS INTERNATIONAL	2	2,879	5,758
Pharmaceutics	4	6,525	26,1
PHARMACOLOGY & THERAPEUTICS	1	13,4	13,4
PLOS COMPUTATIONAL BIOLOGY	1	4,779	4,779
PLoS One	11	3,752	41,272
Polymers	2	4,967	9,934
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA	1	12,779	12,779
PROGRESS IN NEURO-PSYCHOPHARMACOLOGY & BIOLOGICAL PSYCHIATRY	1	5,201	5,201
PSYCHIATRY RESEARCH	2	11,225	22,45
PSYCHOLOGICAL MEDICINE	5	10,592	52,96
PSYCHOLOGY AND AGING	1	4,201	4,201
PSYCHOPHARMACOLOGY	1	4,415	4,415
RADIOTHERAPY AND ONCOLOGY	3	6,901	20,703
RESPIRATORY MEDICINE	1	4,582	4,582
RESUSCITATION	2	6,251	12,502
REVIEWS IN CARDIOVASCULAR MEDICINE	1	4,43	4,43
REVISTA CLINICA ESPANOLA	2	3,064	6,128
REVISTA DE NEUROLOGIA	8	1,235	9,88
REVISTA DE PSIQUIATRIA Y SALUD MENTAL	3	6,795	20,385
REVISTA ESPANOLA DE CARDIOLOGIA	22	6,975	153,45
REVISTA ESPANOLA DE ENFERMEDADES DIGESTIVAS	6	2,389	14,334
Revista Espanola de Medicina Nuclear e Imagen Molecular	2	1,247	2,494
REVISTA ESPANOLA DE QUIMIOTERAPIA	7	2,515	17,605
REVISTA ESPANOLA DE SALUD PUBLICA	3	1,333	3,999
REVISTA IBEROAMERICANA DE MICOLOGIA	1	1,385	1,385
REVISTA LATINO-AMERICANA DE ENFERMAGEM	1	1,725	1,725
REVISTA LATINOAMERICANA DE HIPERTENSION	2	0,03	0,06

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SCIENTIFIC PUBLICATIONS

Journal	IF	Nº	Amount IF
Revista Portuguesa de Cardiologia	2	1,651	3,302
REVUE NEUROLOGIQUE	1	4,313	4,313
RHEUMATOLOGY	4	7,046	28,184
Rheumatology and Therapy	1	4,081	4,081
RHEUMATOLOGY INTERNATIONAL	1	3,58	3,58
Rmd Open	1	5,806	5,806
Saudi Journal of Gastroenterology	1	3,214	3,214
SCHIZOPHRENIA BULLETIN	6	7,348	44,088
SCHIZOPHRENIA RESEARCH	7	4,662	32,634
Science Translational Medicine	1	19,319	19,319
Scientific Reports	24	4,996	119,904
SEMINARS IN DIALYSIS	1	2,886	2,886
SEMINARS IN THROMBOSIS AND HEMOSTASIS	1	6,398	6,398
SENSORS	2	3,847	7,694
SEXUALLY TRANSMITTED INFECTIONS	1	4,199	4,199
SIGNAL PROCESSING	1	4,729	4,729
SLEEP	1	6,313	6,313
SLEEP MEDICINE	1	4,842	4,842
STATISTICS AND COMPUTING	2	2,324	4,648
STATISTICS IN MEDICINE	1	2,497	2,497
Stem Cell Reviews and Reports	1	6,692	6,692
STROKE	1	10,17	10,17
SUPPORTIVE CARE IN CANCER	2	3,359	6,718
SURFACE & COATINGS TECHNOLOGY	1	4,865	4,865
SURGICAL ENDOSCOPY AND OTHER INTERVENTIONAL TECHNIQUES	2	3,453	6,906
SURGICAL ONCOLOGY-OXFORD	1	2,388	2,388
Theranostics	1	11,6	11,6
Therapeutic Advances in Gastroenterology	1	4,802	4,802
Therapeutic Advances in Medical Oncology	4	5,485	21,94
Therapeutic Advances in Musculoskeletal Disease	1	3,625	3,625

Journal	IF	Nº	Amount IF
Therapeutic Innovation & Regulatory Science	1	1,337	1,337
THORAX	1	9,102	9,102
THROMBOSIS RESEARCH	1	10,407	10,407
TRANSBOUNDARY AND EMERGING DISEASES	2	4,521	9,042
TRANSFUSION AND APHERESIS SCIENCE	2	2,596	5,192
TRANSFUSION MEDICINE REVIEWS	1	6,969	6,969
Translational Lung Cancer Research	1	4,726	4,726
Translational Psychiatry	3	7,989	23,967
TRANSLATIONAL RESEARCH	1	10,171	10,171
TRANSPLANT INTERNATIONAL	2	3,842	7,684
TRANSPLANTATION	1	5,385	5,385
TRANSPLANTATION PROCEEDINGS	2	1,014	2,028
Travel Medicine and Infectious Disease	1	20,441	20,441
Trials	3	2,728	8,184
ULTRASOUND IN OBSTETRICS & GYNECOLOGY	1	8,678	8,678
United European Gastroenterology Journal	1	6,866	6,866
Updates in Surgery	2	2,692	5,384
UROLOGIC ONCOLOGY-SEMINARS AND ORIGINAL INVESTIGATIONS	1	2,954	2,954
UROLOGY	2	2,633	5,266
VACCINE	2	4,169	8,338
Vaccines	2	4,961	9,922
VALUE IN HEALTH	1	5,101	5,101
Viruses-Basel	5	5,818	29,09
VOX SANGUINIS	1	2,996	2,996
WOMEN AND BIRTH	1	3,349	3,349
World Journal of Emergency Surgery	1	8,165	8,165
WORLD JOURNAL OF GASTROENTEROLOGY	1	5,374	5,374
World Psychiatry	2	79,683	159,366
WOUND REPAIR AND REGENERATION	1	3,401	3,401
Total general	1265	176,079	9539,5

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A summary of publications by research group is shown below:

			Own Publications	Shared Publications (with IF)	1D Publications	1Q Publications	2Q Publications	3Q Publications	4Q Publications	Not indexed Publications (without IF)	TOTAL (without IF included)
1.01	Advanced technological applications and human health	Nº	30	13	5	18	22	3	0	5	48
		FI	195,413	93,499	108,227	188,938	92,655	7,319	0		288,912
1.02	Signal processing	Nº	8	6	4	6	8	0	0	0	14
		FI	31,888	44,875	31,623	43,103	33,66	0	0		76,763
1.03	Computer architecture, communications, and systems: ARCOS	Nº	4	0	0	2	2	0	0	2	6
		FI	20,458	0	-	13,159	7,299	0	0		20,458
1.04	Nonparametric statistics and intensive computing	Nº	3	0	1	2	0	0	1	0	3
		FI	6,422	0	2,592	5,089	0	0	1,333		6,422
1.05	Structural and Functional Medical Imaging	Nº	0	5	1	2	1	0	2	0	5
		FI	0	19,017	7,59	14,272	4,313	0	0,432		19,017
2.01	Natural history of heart disease	Nº	46	75	16	59	33	13	16	12	133
		FI	308,286	738,681	535,442	831,586	154,258	34,347	26,776		1046,967
2.02	Cardiovascular pathophysiology	Nº	4	0	2	3	1	0	0	0	4
		FI	29,892	0	15,35	22,226	7,666	0	0		29,892
2.03	Cardiac celular electrophysiology	Nº	6	5	1	6	5	0	0	2	13
		FI	59,32	29,366	35,855	68,156	20,53	0	0		88,686
2.05	Cardiology and heart transplantation in infants	Nº	6	8	1	4	5	2	3	6	20
		FI	19,62	53,418	20,999	42,891	20,818	5,593	3,736		73,038
2.06	Blood lipids and cardiovascular risk	Nº	17	28	3	11	26	4	4	6	51
		FI	80,46	161,985	45,382	101,909	119,127	12,856	8,553		242,445
2.07	Acute cerebral ischemia. Stroke	Nº	3	9	1	9	0	2	1	2	14
		FI	14,076	49,977	10,17	55,662	0	6,099	2,292		64,053
3.01	Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment	Nº	38	69	27	68	26	7	6	3	110
		FI	354,41	733,427	654,447	932,788	125,367	19,76	9,922		1087,837
3.03B	Neurological diseases	Nº	13	35	2	13	21	5	9	2	50
		FI	50,352	152,327	25,354	88,411	87,81	15,413	11,045		202,679
4.01	Infectious diseases	Nº	55	65	33	77	27	13	3	6	126
		FI	392,307	754,943	666,601	977,067	130,67	34,14	5,373		1147,25

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SCIENTIFIC PUBLICATIONS

			Own Publications	Shared Publications (with IF)	1D Publications	1Q Publications	2Q Publications	3Q Publications	4Q Publications	Not indexed Publications (without IF)	TOTAL (without IF included)
4.02	Clinical and epidemiological aspects of HIV infection and associated conditions	Nº	10	23	11	19	10	3	1	1	34
		FI	98,313	244,065	227,887	282,531	48,668	9,503	1,676		342,378
5.01	Pathophysiology and clinical research into chronic inflammatory and immunological diseases	Nº	32	14	4	16	18	9	3	8	54
		FI	185,526	79,776	82,671	165,975	74,476	21,427	3,424		265,302
5.02	Molecular biology of HIV	Nº	9	5	3	10	1	3	0	1	15
		FI	56,974	28,197	28,826	68,938	4,996	11,237	0		85,171
5.03	Systemic autoimmune diseases	Nº	12	15	2	8	11	7	1	4	31
		FI	47,119	116,62	48,792	85,956	50,782	24,443	2,558		163,739
5.05	Pathogenesis of the immunoallergic response	Nº	13	9	3	12	8	1	1	5	27
		FI	93,107	69,931	25,218	107,607	49,964	3,373	2,094		163,038
5.06	Immune regulation and homeostasis in diseases of the immune system	Nº	5	12	2	9	6	1	1	3	20
		FI	24,832	99,114	33,746	92,308	29,401	1,997	0,24		123,946
5.07	Infections in pediatric patients	Nº	14	25	4	20	3	14	2	3	42
		FI	55,833	163,879	91,855	166,936	12,957	36,59	3,229		219,712
6.01	Interdisciplinary oncology and biotechnology	Nº	5	32	5	9	17	5	6	11	48
		FI	12,765	149,224	38,377	59,914	76,77	14,573	10,732		161,989
6.02	Translational medical oncology and personalized cancer therapy	Nº	23	64	17	50	17	18	2	10	97
		FI	149,852	936,43	699,23	942,071	84,105	58,274	1,832		1086,282
6.03	Genetics and clinical aspects of hematologic malignancies and hematopoietic stem cell transplantation	Nº	21	66	15	35	28	14	10	3	90
		FI	98,508	682,343	434,361	586,172	132,125	45,852	16,702		780,851
6.04	Surgical oncology	Nº	2	2	0	2	0	2	0	2	6
		FI	10,083	4,029	-	10,083	0	4,029	0		14,112
7.01	Vascular damage and inflammation in chronic kidney disease, dialysis, and kidney transplantation. Pathophysiology of the kidney	Nº	12	24	7	18	11	5	2	5	41
		FI	69,491	170,744	115,812	178,983	43,964	13,814	3,474		240,235
7.02	Pathophysiology and natural history of liver and digestive diseases	Nº	16	48	20	32	20	3	9	6	70
		FI	75,768	616,556	477,343	560,171	101,116	9,904	21,133		692,324

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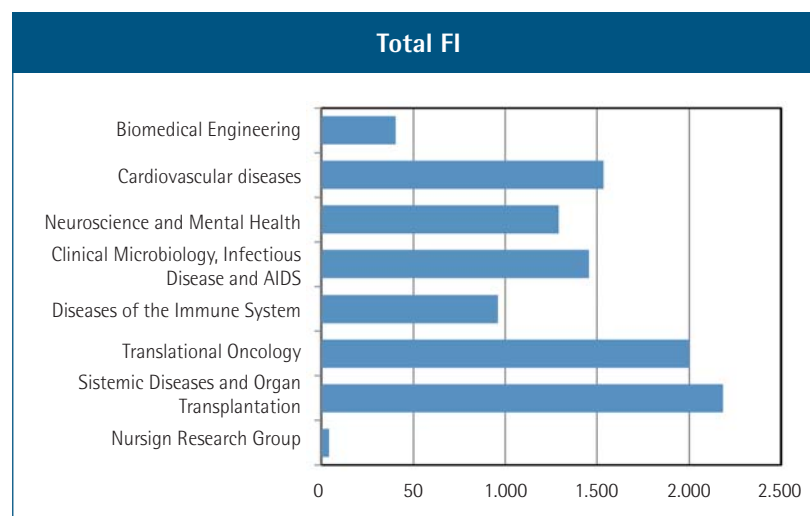


			Own Publications	Shared Publications (with IF)	1D Publications	1Q Publications	2Q Publications	3Q Publications	4Q Publications	Not indexed Publications (without IF)	TOTAL (without IF included)
7.04	Diseases of the critically ill child	Nº	18	6	2	6	9	7	2	1	25
		FI	63,034	27,058	12,502	31,144	37,874	16,906	4,168		90,092
7.05B	Pathophysiology, outcome, and therapeutic strategies in chronic respiratory insufficiency and respiratory disorders of sleep	Nº	20	26	2	18	21	4	3	7	53
		FI	100,649	231,083	112,904	215,225	93,878	14,866	7,763		331,732
7.06	Regenerative medicine in plastic surgery	Nº	1	1	0	0	1	1	0	1	3
		FI	1,763	4,964	-	0	4,964	1,763	0		6,727
7.07	Experimental kidney transplantation	Nº	11	2	0	1	0	1	11	4	17
		FI	11,046	4,804	-	3,917	0	2,633	9,3		15,85
7.10	Regeneration and biomaterials in musculoskeletal disease	Nº	4	8	0	0	9	3	0	4	16
		FI	9,845	25,47	-	0	28,574	6,741	0		35,315
7.12	Emergency medicine	Nº	0	3	0	1	1	1	0	0	3
		FI	0	12,532	-	4,931	4,802	2,799	0		12,532
7.16	Regenerative medicine and system development: cardiovascular and osteochondral	Nº	1	0	0	1	0	0	0	2	3
		FI	4,755	0	-	4,755	0	0	0		4,755
7.18	Peritransplant evaluation (liver)	Nº	2	4	1	3	0	0	3	2	8
		FI	8,03	23,265	13,4	26,577	0	0	4,718		31,295
7.20	Anesthesia, toxins, and arrhythmias	Nº	1	0	0	1	0	0	0	3	4
		FI	6,208	0	-	6,208	0	0	0		6,208
7.21	Biopathology of aging	Nº	1	6	0	3	3	1	0	3	10
		FI	4,614	28,292	-	18,138	11,704	3,064	0		32,906
7.22	Pathophysiology of the neonate and developing child	Nº	9	8	3	8	3	6	0	4	21
		FI	32,391	43,087	30,483	53,27	8	14,208	0		75,478
7.25	Artificial circulation laboratory	Nº	1	7	2	3	3	0	2	6	14
		FI	4,755	60,706	45,828	50,583	11,861	0	3,017		65,461
7.26	Evaluation of health services and clinical epidemiology	Nº	0	2	0	0	1	0	1	1	3
		FI	0	7,023	-	0	5,029	0	1,994		7,023
7.27	Hospital pharmacy and pharmacogenomics	Nº	17	14	2	12	9	6	4	8	39
		FI	71,105	72,525	23,116	80,658	37,999	18,42	6,553		143,63

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SCIENTIFIC PUBLICATIONS

			Own Publications	Shared Publications (with IF)	1D Publications	1Q Publications	2Q Publications	3Q Publications	4Q Publications	Not indexed Publications (without IF)	TOTAL (withot IF included)
7.28	Clinical nutrition	Nº	8	6	0	5	0	1	8	5	19
		FI	36,576	16,187	-	38,215	0	3,204	11,344		52,763
7.29	Vascular pathophysiology and pharmacology	Nº	8	0	5	6	2	0	0	0	8
		FI	113,953	0	98,138	102,893	11,06	0	0		113,953
7.31	Vascular pathophysiology and pharmacology	Nº	12	14	3	6	16	2	2	4	30
		FI	48,405	73,708	23,843	39,646	75,096	6,763	0,608		122,113
7.32	Physical medicine and rehabilitation	Nº	2	6	0	1	5	2	0	0	8
		FI	9,492	25,392	-	4,755	24,343	5,786	0		34,884
7.33	Pathological Anatomy	Nº	3	15	4	10	4	1	3	1	19
		FI	8,595	108,537	57,52	93,566	18,882	2,134	2,55		117,132
7.34	Multimorbidity, chronic diseases and health serviced. Primary Care	Nº	7	5	1	4	2	4	2	0	12
		FI	18,57	21,901	6,612	21,337	6,386	9,421	3,327		40,471
8.01	Research in nursing	Nº	7	4	3	4	3	3	1	4	15
		FI	21,559	18,751	16,659	21,273	10,942	6,53	1,565		40,31



Training: courses, seminars, and meetings

Since the advent of the pandemic, training activities have been restricted and some of them underwent a process of transformation to online or hybrid formats. For example, weekly seminars were resumed as early as May 2020 and have been held online ever since.

During 2021, the IISGM Training Committee continued working along the same lines as in previous years to detect specific needs in training.

After requesting information from IISGM researchers by means of a needs analysis, we assessed the results and decided on the areas that were most relevant for the Institute.

These can be seen in the Training Plan 2021 (<http://www.iisgm.com/actualidad/convocatorias-y-formacion/>).

The training activities offered by IISGM are certified by the Continuing Training Committee of the Health Care Professions of the Autonomous Community of Madrid.

As stated in the Training Plan, during the year 2021, the IISGM intended to offer the following training opportunities among those periodically organized by the Institute (see Figure):

- Basic Course in Research Methodology, which tries to cover the needs detected for training in basic areas of methodology in the needs analysis. This essentially practical course lasts 20 hours and is aimed mainly at medical residents and staff members who are in the early stages
- of their research career. Based on a case study, the course addresses review of information sources, design of a research project and database, and basic concepts of statistical analysis, interpretation and representation of results, as well as the synthesis and reporting of the information obtained.
- Course in Biomedical Research Methodology, which is organized into 4 modules lasting 80 hours. The course provides advanced training in the basics of biomedical research methodology. The format of the course enables it to cover all areas from the initial research hypothesis to publication of results.
- Course on Biomedical Research Instrumental Techniques, which aims to provide researchers with data on the main instrumental techniques and the various research platforms of the IISGM.
- The course is practical in nature and addresses various surgical and microsurgical techniques.

The IISGM has the ideal facilities, equipment, and staff for organizing training activities at the highest level. Therefore, its human and material resources can be appropriately managed to design competitive and high-quality training. The course has very specific elements that set it apart from the range of courses provided by health research institutes and could eventually become a reference in the field of postgraduate training for veterinarians.

Furthermore, the IISGM Research Seminars Program is continuing, with weekly sessions covering areas of basic research, clinical medicine, and practical aspects of research, as well as with the participation of guest researchers. This forum is considered by the Institute to be the perfect space for implementing cooperation and synergies between groups from the IISGM and researchers from other institutions who are invited to speak.

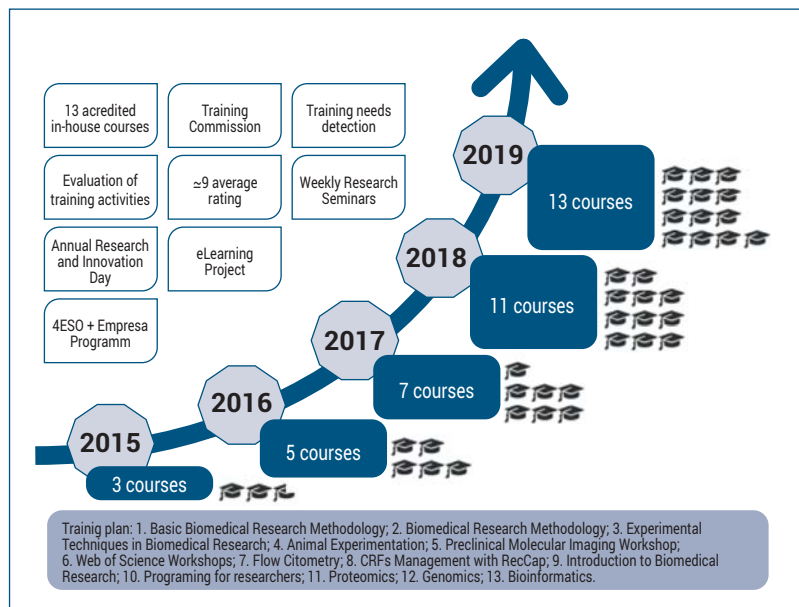
Other courses provided included the following:

- Seminars on research and lectures in the Medical Imaging Laboratory of the Experimental Medicine and Surgery Unit.
- A series of training activities were coordinated from the Nursing Research Support Unit, as follows:
 - Training courses in research methodology for resident nursing interns in gynecology and obstetrics, mental health, and pediatrics. First steps in bibliographic searches and information resources in health sciences and qualitative research.
 - Workshops: bibliographic searches and reference management. Creation of databases in access. Workshops: bibliographic searches and reference management. Creation of databases in access.



TRAINING: COURSES, SEMINARS, AND MEETINGS

TRAINING



EXECUTIVE SUMMARY



Clinical practice guidelines

Group	Authors	Title	Journal / Reference
2.01	Glikson M, Nielsen JC, Kronborg MB, Michowitz Y, Auricchio A, Barbash IM, Barrabés JA, Boriani G, Braunschweig F, Brignole M, Burri H, Coats AJS, Deharo JC, Delgado V, Diller GP, Israel CW, Keren A, Knops RE, Kotecha D, Leclercq C, Merkely B, Starck C, Thylén I, Tolosana JM; ESC Scientific Document Group	2021 ESC Guidelines on cardiac pacing and cardiac resynchronization therapy	Eur Heart J. 2021 Sep 14;42(35):3427-3520
2.01	SEC Working Group for the 2020 ESC Guidelines for the Management of Atrial Fibrillation; Expert Reviewers for the 2020 ESC Guidelines for the Management of Atrial Fibrillation; SEC Guidelines Committee; Working Group for the 2020 ESC guidelines for the management of atrial fibrillation; Expert reviewers for the 2020 ESC guidelines for the management of atrial fibrillation	SEC Guidelines Committee. Comments on the 2020 ESC/EACTS guidelines for the management of atrial fibrillation	Rev Esp Cardiol (Engl Ed). 2021 May;74(5):378-383
2.01	Grigorian-Shamagian, L; Sanz-Ruiz, R; Climent, A; Badimon, L; Barile, L; Bolli, R; Chamuleau, S; Grobbee, DE; Janssens, S; Kastrup, J; Kragten-Tabatabaie, L; Madonna, R; Mathur, A; Menasché, P; Pompilio, G; Prosper, F; Sena, E; Smart, N; Zimmermann, WH; Fernández-Avilés F	Insights into therapeutic products, preclinical research models, and clinical trials in cardiac regenerative and reparative medicine: where are we now and the way ahead. Current opinion paper of the ESC Working Group on Cardiovascular Regenerative and Reparative Medicine	Cardiovas Res 2021 May 25;117(6):1428-1433
2.07	García Pastor ¹ , E López-Cancio ² , Martínez ² , M Rodríguez-Yáñez ² , M Alonso de Leciñana ³ , S amaro ⁵ , JF Arenillas ⁶ , O Ayo Martín ⁷ , M Castellanos ⁸ , B Fuentes ⁴ , MM Freijo ⁹ , M Gomis ¹⁰ , M Gómez Chocó ¹¹ , P Martínez Sánchez ¹² , Morales ¹³ , EJ Palacio-Portilla ¹⁴ , Segura ⁷ , J serena ¹⁵ , J Vivancos-Mora ¹⁶ , J Roquer ¹⁷ , Comité <i>ad hoc</i> del Grupo de Estudio de Enfermedades Cerebrovasculares de la Sociedad Española de Neurología	Recomendaciones de la Sociedad Española de Neurología para la prevención del ictus. Intervenciones sobre el estilo de vida y la contaminación del aire	PMID: 34714236 DOI: 10.1016/j.nrleng.2020.05.020

Group	Authors	Title	Journal / Reference
2.07	M Rodríguez-Yáñez ¹ , M Gómez-Chocó ² , E López-Cancio ³ , S Amaro ⁴ , M Alonso de Leciñana ⁵ , JF Arenillas ⁶ , O Ayo Martín ⁷ , M Castellanos ⁸ , MM Freijo ⁹ , A García-Pastor ¹⁰ , M Gomis ¹¹ , P Martínez Sánchez ¹² , Morales ¹³ , EJ Palacio-Portilla ¹⁴ , J Roquer ¹⁵ , Segura ⁷ , J Serena ¹⁶ , J Vivancos-Mora ¹⁷ , B Fuentes ⁵ , comité <i>ad hoc</i> del Grupo de Estudio de Enfermedades Cerebrovasculares de la Sociedad Española de Neurología	Prevención del ictus en pacientes con hipertensión arterial: recomendaciones del Grupo de Estudio del Ictus de la Sociedad Española de Neurología	PMID: 34238528 DOI: 10.1016/j.nrleng.2020.04.023
2.07	B Fuentes ¹ , S Amaro ² , M Alonso de Leciñana ³ , JF Arenillas ⁴ , O Ayo Martín ⁵ , M Castellanos ⁶ , M Freijo ⁷ , A García-Pastor ⁸ , M Gomis ⁹ , M Gómez Chocó ¹⁰ , E López-Cancio ¹¹ , P Martínez Sánchez ¹² , Morales ¹³ , EJ Palacio-Portilla ¹⁴ , M Rodríguez-Yáñez ¹⁵ , J Roquer ¹⁶ , Segura ⁵ , J Serena ¹⁷ , J Vivancos-Mora ¹⁸ , Comité <i>ad hoc</i> del Grupo de Estudio de Enfermedades Cerebrovasculares de la Sociedad Española de Neurología	Prevención del ictus en pacientes con diabetes tipo 2 o prediabetes. Recomendaciones del Grupo de Estudio de Enfermedades Cerebrovasculares de la Sociedad Española de Neurología	PMID: 32981775 DOI: 10.1016/j.nrl.2020.04.030
2.07	A Gil-Núñez ¹ , J Masjuan ² , J Montaner ³ , M Castellanos ⁴ , Segura ⁵ , P Cardona ⁶ , JI Tembl ⁷ , F Purroy ⁸ , J Arenillas ⁹ , E Palacio ¹⁰	Inhibidores de la proproteína convertasa subtilisina/kexina tipo 9 en la prevención secundaria de eventos vasculares en pacientes con accidente cerebrovascular: documento de consenso y guía práctica	PMID: 33358061 DOI: 10.1016/j.nrl.2020.11.006
3.01	Imaz Roncero, C.; González Serrano F.; Martínez de Salazar Arboles, A.; Arango López, C.; . Psiquiatria. Bellido Zanin, G.; Payá González, B.	Salud Mental en la Infancia y la Adolescencia en la era del COVID-19: Evidencias y Recomendaciones de las Asociaciones Profesionales de Psiquiatría y Psicología Clínica	ISBN: 84-09-21734-2
3.01	Jongs, N.; Jagesar, R.; van Haren, N.; Penninx, B.; Reus, L.; Visser, P. J.; van der Wee, N.; Koning, I. M.; Arango, C.; Sommer, I.; Eijkemans, M.; Vorstman, J. A.; Kas, M.	A framework for assessing neuropsychiatric phenotypes by using smartphone-based location data	32612118

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CLINICAL PRACTICE GUIDELINES

Group	Authors	Title	Journal / Reference
3.01	McAllister-Williams, RH.; Arango, C.; Blier, P.; Demyttenaere, K.; Falkai, P.; Gorwood, P.; Hopwood, M.; Javed, A.; Kasper, S.; Malhi, GS.; Soares, JC.; Vieta, E.; Young, AH.; Papadopoulos, A.; Rush, AJ.	The identification, assessment and management of difficult-to-treat depression: An international consensus statement	32217227
3.01	Moreno, C.; Wykes, T.; Galderisi, S.; Nordentoft, M.; Crossley, N.; Jones, N.; Cannon, M.; Correll, C.; Byrne, L.; Carr, S.; Chen, E.; Gorwood, P.; Johnson, S.; Kärkkäinen, H.; Krystal, J.; Lee, J.; Lieberman, J.; López-Jaramillo, C.; Männikkö, M.; Phillips, M.; Uchida, H.; Vieta, E.; Vita, A.; Arango, C.	How mental health care should change as a consequence of the COVID-19 pandemic	32682460
3.01	Lahera, G.; Cid, J.; Gonzalez-Pinto, A.; Cabrera, A.; Mariner, C.; Vieta, E.; Arango, C.; Crespo-Facorro, B.	Needs of people with psychosis and their caregivers: «In their own voice»	31937434
3.01	Cardoner Álvarez, Narcís (Coord.) Pautas de actuación y seguimiento: Depresión. Organización Médica Colegial, International Marketing & Communication (IM&C). Madrid, 2021. ISBN: 978-84-7867-796-2	Abordajes específicos: infanto-juvenil	ISBN: 978-84-7867-796-2
3.01	Lázaro, Luisa; Moreno, Dolores; Rubio, Belén (coord.)	Manual de Psiquiatría de la Infancia y la Adolescencia	ISBN 978-84-9113-847-1
4.02	Juan Berenguer	EACS Guidelines 2021	
5.01	Cordero, E; Goycochea-Valdivia, W; Mendez-Echevarría, A; Allende, LM; Alsina, L; García-Morato, MB; Gil-Herrera, J; Gudiol, C; Len-Abad, O; López-Medrano, F; Moreno-Pérez, D; Muñoz, P; Olbrich, P; Sánchez-Ramón, S; Soler-Palacin, P; Cros, CA; Arostegui, JI; Serra, IB; Carbone, J; Fortun, J; González-Granado, LI; López-Granados, E; Lucena, JM; Parody, R; Ramakers, J; Regueiro, JR; Riviere, JG; Roca-Oporto, C; Pena, RR; Santos-Pérez, JL; Rodríguez-Gallego, C; Neth, O	Executive Summary of the Consensus Document on the Diagnosis and Management of Patients with Primary Immunodeficiencies	33161954

Group	Authors	Title	Journal / Reference
5.01	Cordero, E; Goycochea-Valdivia, W; Mendez-Echevarría, A; Allende, LM; Alsina, L; García-Morato, MB; Gil-Herrera, J; Gudiol, C; Len-Abad, O; López-Medrano, F; Moreno-Pérez, D; Muñoz, P; Olbrich, P; Sánchez-Ramón, S; Soler-Palacin, P; Cros, CA; Arostegui, JI; Serra, IB; Carbone, J; Fortun, J; González-Granado, LI; López-Granados, E; Lucena, JM; Parody, R; Ramakers, J; Regueiro, JR; Riviere, JG; Roca-Oporto, C; Pena, RR; Santos-Pérez, JL; Rodríguez-Gallego, C; Neth, O	Executive Summary of the Consensus Document on the Diagnosis and Management of Patients with Primary Immunodeficiencies	33161963
5.07	Begoña Santiago García, Alicia Hernanz Lobo, Teresa Hernández Sampelayo-Matos, Marisa Navarro Gómez, Jesús Saavedra Lozano, Mar Santos Sebastián, Elena Rincón López, David Aguilera Alonso	Manejo de la tuberculosis en pediatría	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Tuberculosis%20pediatrica%20HGUGM.pdf
5.07	Jesús Saavedra Lozano, David Aguilera Alonso, Jorge Lorente Romero, Paula Vázquez, Cecilia Martínez Fernández-Llamazares, Amanda Bermejo, María Luisa Navarro	Abordaje de la infección por el virus influenza: Periodo epidémico 2021-2022	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Gripe%202021-2022%20Definitiva.pdf
5.07	Panel de expertos de la Sociedad Española de Infectología Pediátrica (SEIP), Sociedad y Fundación Española de Cuidados Intensivos Pediátricos, Sociedad Española de Urgencias de Pediatría (incluyendo María Luisa Navarro, David Aguilera Alonso)	Documento de manejo clínico del paciente pediátrico con infección por SARS-CoV-2	https://www.aeped.es/sites/default/files/b26-11-aep-seip-secip-seup_documento_de_manejo_clinico_del_paciente_pediatrico.pdf
5.07	Grupo de expertos de la Secretaría del Plan Nacional sobre el Sida (SPNS), Grupo de Estudio de Sida (GeSIDA), la Sociedad Española de Ginecología y Obstetricia (SEGO) y la Sociedad Española de Infectología Pediátrica (SEIP), incluyendo María Luisa Navarro Gómez	Documento de consenso sobre la Asistencia en el ámbito sanitario a las mujeres con infección por el VIH	https://www.msbs.gob.es/ciudadanos/enflesiones/enftransmisibles/sida/documentos/Mujer_y_VIH_DEFI.pdf

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Group	Authors	Title	Journal / Reference
5.07	Grupo de expertos de la Secretaría del Plan Nacional sobre el Sida (SPNS), Grupo de Estudio de Sida (GeSIDA) y Sociedad Española de Farmacia Hospitalaria (SEFH), incluyendo María Luisa Navarro Gómez	Documento de consenso para mejorar la adherencia a la farmacoterapia en pacientes con infección por el virus de la inmunodeficiencia humana en tratamiento antirretroviral	https://www.msbs.gob.es/ciudadanos/enflesiones/enftransmisibles/sida/publicaciones/profSanitarios/docAdherencia_actualizacionFeb20.pdf
5.07	Alicia Hernanz Lobo, Begoña Santiago García, Teresa Hernández Sampelayo-Matos, Marisa Navarro Gómez, Jesús Saavedra Lozano, Mar Santos Sebastián, Elena Rincón López, David Aguilera Alonso, Laura Calle de Miguel	Cribado infeccioso y vacunación pretrasplante de progenitores hematopoyéticos	https://salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Cribado%20infeccioso%20y%20vacunacion%20pretrasplante%20de%20progenitores%20hematopoyeticos.pdf
5.07	María Fanjul, Elena Zamora, David Aguilera, Cecilia Martínez, Belén Padilla, María Slocker, Alejandro Lowry, Juan Vicente Darriba, Carlos Andrés Pardo	Profilaxis perioperatoria en pediatría	https://www.comunidad.madrid/hospital/gregoriomaranon/profesionales/enfermedades-infecciosas-pediatricas
5.07	Begoña Santiago García, Alicia Hernanz Lobo, Teresa Hernández Sampelayo-Matos, Marisa Navarro Gómez, Jesús Saavedra Lozano, Mar Santos Sebastián, Elena Rincón López, David Aguilera Alonso	Manejo de la tuberculosis en pediatría	https://salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Gripe%202021-2022.%20Definitiva.pdf

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5.07	Teresa Hernández-Sampelayo, Elena Rincón, Jesús Saavedra, David Aguilera, Marisa Navarro, Mar Santos, Andrea Mora, Paula Vázquez, Rosa Rodríguez y miembros de otras secciones del Hospital Gregorio Marañón	Abordaje de síndromes hiperinflamatorios sistémicos en niños en época de COVID-19 (SIM-PedS)	https://salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/SmeHiperinflamatoriosSistemicos_PIMS_Agosto2020.pdf
5.07	Alicia Hernanz Lobo, Begoña Santiago García, Teresa Hernández Sampelayo-Matos, Marisa Navarro Gómez, Jesús Saavedra Lozano, Mar Santos Sebastián, Elena Rincón López, David Aguilera Alonso	Cribado infeccioso tras el trasplante de progenitores hematopoyéticos en pediatría	https://salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Cribado%20infeccioso%20tras%20el%20TPH%20en%20Pediatría.pdf
5.07	Ángela Manzanares, David Aguilera, Marisa Navarro Gómez, Jesús Saavedra Lozano, Elena Rincón López, Luis Alcalá, Patricia Muñoz, Cecilia Martínez Fernández-Llamazares, María Slocker, Carmen Garrido	Infección por Clostridioides difficile en pediatría	https://salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Infeccion%20por%20Clostridioides%20difficile%20en%20pediatría.v1.0-2021.pdf
5.07	Teresa Hernández-Sampelayo, David Aguilera, Marisa Navarro, Elena Rincón, Jesús Saavedra, Mar Santos, Begoña Santiago, Paula Vázquez, Rosa Rodríguez y miembros de otras secciones del Hospital Gregorio Marañón	Protocolo de diagnóstico y tratamiento de enfermedad por coronavirus SARS-CoV-2 (COVID-19) en pediatría	https://salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Protocolo%20de%20diagnostico%20y%20tratamiento%20de%20COVID-19%20en%20Pediatría.%20Octubre%202020.pdf

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5.07	Beatriz Lázaro Martín, Alicia Hernanz Lobo, Marisa Navarro Gómez	Recomendaciones de vacunación en pacientes pediátricos sometidos a trasplante cardíaco	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Recomendaciones%20de%20vacunación%20en%20pacientes%20pediátricos%20sometidos%20a%20trasplante%20cardíaco.pdf
5.07	Aída Gutiérrez Sánchez, David Aguilera Alonso, Marisa Navarro Gómez, Jesús Saavedra Lozano, Elena Rincón López, Mar Santos Sebastián, Begoña Santiago García, Alicia Hernanz Lobo	Recomendaciones de vacunación en pacientes sometidos a trasplante de progenitores hematopoyéticos o quimioterapia	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Vacunación%20post-TPH%20y%20post-QT%202020.Mayo%202021.pdf
5.07	Ana Jové Blanco, David Aguilera Alonso, Jesús Saavedra Lozano	Riesgo infeccioso y profilaxis antimicrobiana en pacientes pediátricos en tratamiento inmunosupresor	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Riesgo%20infeccioso%20y%20profilaxis%20antimicrobiana%20en%20pacientes%20pediátricos%20en%20tratamiento%20inmunosupresor%20(01-06-2021).pdf

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5.07	Mar Tolín Hernani, Jimena Pérez Moreno, César Sánchez Sánchez, Carolina G. Díaz de Mera, Marta Gracia Rodríguez Venegas, Dolores González Baz	Detección de desnutrición pediátrica precoz en pacientes hospitalizados	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Detección%20de%20desnutrición%20pediátrica%20precoz%20en%20pacientes%20hospitalizados.pdf
5.07	Felipe González, Javier Urbano, Paula Carrascosa	Administración de oxigenoterapia de alto flujo en pediatría	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Administración%20de%20oxigenoterapia%20de%20alto%20flujo.pdf
5.07	Marta Rodríguez, Concepción Miguez Navarro	Protocolo de actuación en crisis de asma aguda-episodio de sibilancia en el sibilante recurrente	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/2021-PROTOCOLO_CRISIS_DE_ÁSMA-BRONCPESPASMO%20DEFINITIVO.pdf
5.07	Jorge Lorente, Manuela Camino	Protocolo de actuación con el paciente transplantado cardíaco en urgencias de pediatría	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Actuación%20paciente%20trasplantado%20cardíaco%20en%20urgencias%20pediatría.pdf

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5.07	Concepción Míguez Navarro y Grupo de Trabajo de analgesia y sedación de SEUP	Algoritmo procedimientos de sedoanalgesia en urgencias pediátricas	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Algoritmo-Protocolo%20Sedoanalgesia.pdf
5.07	Jorge Lorente	Indicación de coprocultivo en Urgencias	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Coprocultivo.%20Indicaciones%20en%20urgencias.pdf
5.07	María Escobar	Protocolo Fiebre sin Foco en menores de 24 meses	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Fiebre%20sin%20foco%20en%20menores%20de%2024%20meses.pdf
5.07	Jorge Lorente, Matheus Zeferino	Indicación e interpretación del hemocultivo en Urgencias	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Hemocultivo%20positivo.pdf
5.07	Ana Jové Blanco	Protocolo hipertensión arterial	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Hipertension%20Arterial.pdf

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5.07	Paula Melero García, Ana Jové Blanco	Protocolo lesiones bacterianas cutáneas	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Infecciones%20cutáneas.pdf
5.07	Andrea Mora, Cristina Corraliza	Protocolo meningitis en urgencias de pediatría	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Meningitis.pdf
5.07	Concepción Míguez Navarro y Grupo de Trabajo de analgesia y sedación de SEUP	Protocolo procedimientos de sedoanalgesia en urgencias de pediatría	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Procedimientos%20de%20sedoanalgesia-SEUP.pdf
5.07	García, FJA; Ortega, MJC; Aldean, JA; Garces-Sanchez, M; Sanchez, NG; Llanos, EG; Merino, AH; de Arce, AI; Melian, AM; Gomez, MLN; Ruiz-Contreras, J; Assoc Espanola Pediat CAV-AEP	Calendario de vacunaciones de la Asociación Española de Pediatría: recomendaciones 2021	PMID: 33419517
602	Navarro S, Cuatrecasas M, Hernández-Losa J, Landolfi S, Musulén E, Ramón Y Cajal S, García-Carbonero R, García-Foncillas J, Pérez-Segura P, Salazar R, Vera R, García-Alfonso P.	Actualización de la recomendación para la determinación de biomarcadores en el carcinoma colorrectal. Consenso Nacional de la Sociedad Española de Oncología Médica y de la Sociedad Española de Anatomía Patológica [Update of the recommendations for the determination of biomarkers in colorectal carcinoma. National Consensus of the Spanish Society of Medical Oncology and the Spanish Society of Pathology]	Rev Esp Patol. 2021 Jan-Mar;54(1):41-54. Spanish. doi: 10.1016/j.patol.2020.07.004. Epub 2020 Oct 16. PMID: 33455693.

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6.02	García-Alfonso P, García-Carbonero R, García-Foncillas J, Pérez-Segura P, Salazar R, Vera R, Ramón Y Cajal S, Hernández-Losa J, Landolfi S, Musulén E, Cuatrecasas M, Navarro S	Update of the recommendations for the determination of biomarkers in colorectal carcinoma: National Consensus of the Spanish Society of Medical Oncology and the Spanish Society of Pathology	Clin Transl Oncol. 2020 Nov;22(11):1976-1991. doi: 10.1007/s12094-020-02357-z. Epub 2020 May 16. PMID: 32418154; PMCID: PMC7505870. (FI: 2.737)
6.02	A. J. Muñoz Martín, E. Gallardo Díaz, I. García Escobar, R. Macías Montero, V. Martínez-Marín, V. Pachón Olmos, P. Pérez Segura, T. Quintanar Verdúguez Et M. Salgado Fernández	SEOM clinical guideline of venous thromboembolism (VTE) and cancer (2019)	Clinical and Translational Oncology volume 22, pages 171–186 (2020)
6.02	Martin, M; Guerrero-Zotano, A; Montero, A; Jara, C; Filipovich, E; Rojo, F; Moreno, F; Garcia-Saenz, JA; Ales, JE; Chacon, JJ; Cruz, J; Gimenez, J; Cruz-Merino, L; Algara, M; Santisteban, M; Tarruella, SL; GEICAM Spanish Breast Canc Grp Ste	GEICAM Guidelines for the Management of Patients with Breast Cancer During the COVID-19 Pandemic in Spain	10.1634/theoncologist.2020-0363
6.02	Keilholz U, Ascierto PA, Dummer R, Robert C, Lorigan P, van Akkooi A, Arance A, Blank CU, Sileni VC, Donia M, Faries MB, Gaudy-Marqueste C, Gogas H, Grob JJ, Guckenberger M, Haanen J, Hayes AJ, Hoeller C, Lebbé C, Lugowska I, Mandalà M, Márquez-Rodas I, Nathan P, Neyns B, Bagge RO, Puig S, Rutkowski P, Schilling B, Sondak VK, Tawbi H, Testori A, Michielin O	ESMO consensus conference recommendations on the management of metastatic melanoma: the ESMO Guidelines Committee	Ann Oncol. 2020 Jul 22:S0923-7534(20)39939-7. doi: 10.1016/j.annonc.2020.07.004. Epub ahead of print. PMID: 32763453
6.02	Michielin O, van Akkooi A, Lorigan P, Ascierto PA, Dummer R, Robert C, Arance A, Blank CU, Sileni VC, Donia M, Faries MB, Gaudy-Marqueste C, Gogas H, Grob JJ, Guckenberger M, Haanen J, Hayes AJ, Hoeller C, Lebbé C, Lugowska I, Mandalà M, Márquez-Rodas I, Nathan P, Neyns B, Bagge RO, Puig S, Rutkowski P, Schilling B, Sondak VK, Tawbi H, Testori A, Keilholz U.	ESMO consensus conference recommendations on the management of locoregional melanoma: the ESMO Guidelines Committee	Ann Oncol. 2020 Jul 22:S0923-7534(20)39940-3. doi: 10.1016/j.annonc.2020.07.005. Epub ahead of print. PMID: 32763452

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6.02	Iván Márquez Rodas	Guía "National Comprehensive Cancer Network" Squamous skin cáncer versión Europea: España. V2.2020.	https://fundacioneco.es/project/guia-de-practica-clinica-en-oncologia-de-la-nccn/
6.02	Y. Escobar Álvarez ¹ , R. de las Peñas Bataller ² , J. Pérez Altozano ³ , S. Ros Martínez ⁴ , A. Sabino Álvarez ⁵ , A. Blasco Cordellat ⁶ , E. Brozos Vázquez ⁷ , J. Corral Jaime ⁸ , I. García Escobar ⁹ , C. Beato Zambrano ¹	SEOM clinical guidelines for anaemia treatment in cancer patients (2020)	Clinical and Translational Oncology volume 23, pages 931–939 (2021)
6.02	Majem M, Manzano JL, Marquez-Rodas I, Mujika K, Muñoz-Couselo E, Pérez-Ruiz E, de la Cruz-Merino L, Espinosa E, Gonzalez-Cao M, Berrocal A.	SEOM clinical guideline for the management of cutaneous melanoma (2020)	Clin Transl Oncol. 2021 Mar 2. doi: 10.1007/s12094-020-02539-9. Epub ahead of print. PMID: 33651321.
6.02	de Juan Ferré A, Álvarez Álvarez R, Casado Herráez A, et al.	SEOM Clinical Guideline of management of soft-tissue sarcoma (2020)	Clin Transl Oncol. 2021;23(5):922–930. doi:10.1007/s12094-020-02534-0
6.02	García-Alfonso P, Saiz-Rodríguez M, Mondéjar R, et al.	Consensus of experts from the Spanish Pharmacogenetics and Pharmacogenomics Society and the Spanish Society of Medical Oncology for the genotyping of DPYD in cancer patients who are candidates for treatment with fluoropyrimidines	Clin Transl Oncol. 2022;24(3):483–494. doi:10.1007/s12094-021-02708-4. Epub 2021 Nov 13



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6.02	Navarro, Samuel; Cuatrecasas, Miriam; Hernandez-Losa, Javier; Landolfi, Stefania; Musulen, Eva; Ramon Y Cajal, Santiago; Garcia-Carbonero, Rocio; Garcia-Foncillas, Jesus; Perez-Segura, Pedro; Salazar, Ramon; Vera, Ruth; Garcia-Alfonso, Pilar	Actualizacion de la recomendacion para la determinacion de biomarcadores en el carcinoma colorrectal. Consenso Nacional de la Sociedad Espanola de Oncologia Medica y de la Sociedad Espanola de Anatomia Patologica.	Revista espanola de patologia : publicacion oficial de la Sociedad Espanola de Anatomia Patologica y de la Sociedad Espanola de Citologia, Volume54, Issue1, Page41-54, DOI10.1016/j.patol.2020.07.004 Published2021 Jan-Mar Indexed2021-01-19 Document TypeJournal Article; Practice Guideline; Review
6.02	Maria Gonzalez-Cao ,1 Teresa Puertolas,2 Mar Riveiro,3 Eva Muñoz-Couselo,4 Carolina Ortiz,4 Roger Paredes,5,6 Daniel Podzamczar,7 Jose Luis Manzano,8 Jose Molto,5,6 Boris Revollo,5,6 Cristina Carrera,9 Lourdes Mateu,5,6 Sara Fancelli,1,10 Enrique Espinosa,11 Bonaventura Clotet,5,6 Javier Martinez-Picado,5,12 Pablo Cerezuela,13 Ainara Soria,14 Ivan Marquez-Rodas,15 Mario Mandala ,16 Alfonso Berrocal,17 for the Spanish Melanoma Group (GEM)	Cancer immunotherapy in special challenging populations: recommendations of the Advisory Committee of Spanish Melanoma Group (GEM)	J Immunother Cancer. 2021;9(3):e001664. doi:10.1136/jitc-2020-001664. [published correction appears in J Immunother Cancer. 2022 Feb;10(2):].
6.02	González Del Alba, A., Méndez-Vidal, M. J., Vazquez, S., Castro, E., Climent, M. A., Gallardo, E., Gonzalez-Billalabeitia, E., Lorente, D., Maroto, J. P., & Arranz, J. A.	SEOM clinical guidelines for the treatment of advanced prostate cancer (2020).	Clin Transl Oncol. 2021;23(5):969-979. doi:10.1007/s12094-021-02561-5
7.04	María Slocker	Diagnóstico por ecografía de la insuficiencia respiratoria aguda en Pediatría	ISSN 2171-8172

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7.04	María Slocker	Uso de procinéticos en el niño crítico	ISSN 2171-8172
7.04	Mencia Bartolomé S, Tapia Moreno R.	Escalas de sedoanalgesia en la Unidad de Cuidados Intensivos Pediátricos	ISSN 2171-8172
7.04	Mencia Bartolomé S, Estepa Pedregosa L	Sedación difícil en UCIP	ISSN 2171-8172
7.04	Fernández-Sarmiento J, De Souza DC, Martínez A, Nieto V, López-Herce J, Soares Lanzotti V, Arias López MDP, De Carvalho WB, Oliveira CF, Jaramillo-Bustamante JC, Díaz F, Yock-Corralles A, Ruvinsky S, Munaico M, Pavlicich V, Iramain R, Márquez MP, González G, Yunge M, Tonial C, Cruces P, Palacio G, Grela C, Slocker-Barrio M, Campos-Miño S, González-Dambrauskas S, Sánchez-Pinto NL, Celiny García P, Jabornisky R. Latin American Consensus on the Management of Sepsis in Children: Sociedad Latinoamericana de Cuidados Intensivos Pediátricos Latin American Pediatric Intensive Care Society (SLACIP) Task Force: Executive Summary.	Latin American Consensus on the Management of Sepsis in Children: Sociedad Latinoamericana de Cuidados Intensivos Pediátricos Latin American Pediatric Intensive Care Society (SLACIP) Task Force: Executive Summary.	doi: 10.1177/08850666211054444
7.04	Jesús López-Herce	Recomendaciones de RCP pediátrica. Sociedad Latinoamericana de Cuidados Intensivos Pediátricos.	
7.04	López-Herce J, Manrique I, Calvo C, Rodríguez A, Carrillo Á, Sebastián V, Del Castillo J; en nombre del Grupo Español de Reanimación Cardiopulmonar Pediátrica y Neonatal	Novedades en las recomendaciones de reanimación cardiopulmonar pediátrica y líneas de desarrollo en España.	doi:10.1016/j.anpedi.2021.05.020

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7.04	Rodríguez Yago MA, Alcalde Mayayo I, Gómez López R, Parias Ángel MN, Pérez Miranda A, Canals Aracil M, Cívantos Fuentes E, Rodríguez Núñez A, Manrique Martínez I, López-Herce Cid J, Zaballos Sarrato G, Calvo Macías C, Hernández-Tejedor A.	Recomendaciones sobre reanimación cardiopulmonar en pacientes con sospecha o infección confirmada por SARS-CoV-2 (COVID-19). Resumen ejecutivo	doi: 10.1016/j.medin.2020.05.004
7.06	Bouza, E; de Alarcon, A; Farinas, MC; Galvez, J; Goenaga, MA; Gutierrez-Diez, F; Hortal, J; Lasso, J; Mestres, CA; Miro, JM; Navas, E; Nieto, M; Parra, A; de la Sota, EP; Rodriguez-Abella, H; Rodriguez-Creixems, M; Rodriguez-Roda, J; Espin, GS; Sousa, D; de Sierra, CVG; Munoz, P; Kestler, M	Prevention, Diagnosis and Management of Post-Surgical Mediastinitis in Adults Consensus Guidelines of the Spanish Society of Cardiovascular Infections (SEICAV), the Spanish Society of Thoracic and Cardiovascular Surgery (SECTCV) and the Biomedical Research Centre Network for Respiratory Diseases (CIBERES)	34884268
7.16	Zarragoikotxea, I; Pajares, A; Moreno, I; Porta, J; Koller, T; Cegarra, V; Gonzalez, AI; Eiras, M; Sandoval, E; Sarraide, JA; Quintana-Villamandos, B; Guillen, RV	SEDAR/SECCE ECMO management consensus document	Rev Esp Anesthesiol Reanim 2021;68:443-471.
7.16	Zarragoikotxea, I; Pajares, A; Moreno, I; Porta, J; Koller, T; Cegarra, V; Gonzalez, AI; Eiras, M; Sandoval, E; Sarraide, JA; Quintana-Villamandos, B; Guillen, RV	Documento de consenso SEDAR/ SECCE sobre el manejo de ECMO	Cirugia Cardiovascular 2021;28:332-352.
7.20	Ramirez JM, et al (Zaballos como revisor externo)	Vía Clínica RICA de RecuperaRación intensificada en cirugía del adulto.	
7.27	Alvaro Giménez Manzorro y colaboradores	Criterios para el uso racional de inmunoglobulinas humanas. Madrid: Consejería de Sanidad, Servicio Madrileño de Salud	https://saludanv.salud.madrid.org/farmacia/Paginas/Publicaciones/GuíasProtocolos.aspx

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7.27	Silvia Valero-García, Eva González-Haba, María Queralto Gorgas-Torner, José María Alonso-Herreros, Ana Cristina Cercós Lletí, José Luis Poveda-Andrés, Miguel Ángel Calleja-Hernández, Olga Delgado-Sánchez	Monitoring contamination of hazardous drug compounding surfaces at hospital pharmacy departments. A consensus Statement. Practice guidelines of the Spanish Society of Hospital Pharmacists (SEFH)	http://www.aulamedica.es/fh/pdf/11655.pdf
7.27	Cecilia Martínez, Silvia Manrique, Elena Lobato, Arantza Ais, Roberto Collado	Atención Farmacéutica en pediatría	978-84-123162-8-5
7.27	Álvaro Giménez, Ana de Lorenzo, Vicente Escudero	Evaluación y selección de medicamentos	978-84-123162-8-5
7.27	Ana de Lorenzo	Infección del tracto urinario. Pielonefritis aguda y cólico nefrítico	Plataforma informática de AppleStore y PlayStore
7.28	Cuerda, C; Home artifaical Nutr Chronic ltestin; Pironi, L; Arends, J; Bozzetti, F; Gillanders, L; Jeppesen, PB; Joly, F; Kelly, D; Lal, S; Staun, M; Szczepanek, K; Van Gossum, A; Wanten, G; Schneider, SM; Bischoff, SC	ESPEN practical guideline: Clinical nutrition in chronic intestinal failure	Clin Nutr. 2021 Sep;40(9):5196-5220
7.28	Fiaccadori, E; Sabatino, A; Barazzoni, R; Carrero, JJ; Cupisti, A; De Waele, E; Jonckheer, J; Singer, P; Cuerda, C	ESPEN guideline on clinical nutrition in hospitalized patients with acute or chronic kidney disease	Clin Nutr. 2021 Apr;40(4):1644-1668
7.28	Barazzoni R, Bischoff SC, Busetto L, Cederholm T, Chourdakis M, Cuerda C, Delzenne N, Genton L, Schneider S, Singer P, Boirie Y; endorsed by the ESPEN Council	Nutritional management of individuals with obesity and COVID-19: ESPEN expert statements and practical guidance	Clin Nutr 2021 doi: 10.1016/j.clnu.2021.05.006

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7.28	Ocón Bretón MJ, Tapia Guerrero MJ, Ramírez Rodríguez JM, Peteiro Miranda C, Ballesteros Pomar MD, Botella Romero F, Martínez Olmos MÁ, Luengo Pérez LM, Cáncer Minchot E, García Malpartida K, López Gómez JJ, Zugasti Murillo A, Álvarez Hernández J, Bretón Lesmes I; en representación del grupo de trabajo NutRICA del Área de Nutrición de la SEEN y del GERM	Multidisciplinary consensus on nutritional and metabolic therapy in enhanced recovery after abdominal surgery programs: NutRICA Project.	Endocrinol Diabetes Nutr 2021 doi: 10.1016/j.endinu.2021.02.005
8.00	Guerrero Márquez et al.	Protocolos Diagnósticos y Terapéuticos en Urgencias de Pediatría	
8.00	Laura Aliaga, Olga Delgado, Jaime Espín, Antoni Gilabert, César Hernández, Carlos Lens, Andoni Lorenzo, Ana Sánchez, Victor Mendonça, Paz Vaquero y Emilio Vargas	Documento de consenso de la Asociación Española de Medicamentos Genéricos (AESEG) para poner en valor los medicamentos con valor añadido (VAM) y analizar los retos que supone introducir estos fármacos en el actual Sistema Nacional de Salud (SNS). (2021-2022)	
8.00	Silvia A. Alonso, Susana A. López, Almudena B. Rodríguez, Luisa P. Hernández, Paz V. Lozano, Lidia P. López, Ana Campillo, Ana Frías, María E. Jiménez, and David P. Otero	Respiratory Nursing Group Neumomadrid - served as reviewers of the nursing diagnosis, Ineffective airway clearance. The revised version of the diagnosis is published in the NANDA-I Classification of Nursing Diagnoses 2021-2023	



Doctoral theses defended

Group	Type	Candidate	Title	Name/s Director/s	University	Date Defended
1.02	Ph Thesis	Pablo Moreno Muñoz	Probabilistic models for human behavior learning	Antonio Artés Rodríguez	UC3M	25/03/2021
2.01	Ph Thesis	Vanessa Bruña Fernández	Incidencia y pronóstico del bloqueo interauricular en el infarto agudo de miocardio con elevación del segmento ST	Francisco Fdez-Avilés / Manuel Martínez-Selles	UCM	11/02/2021
2.01	Ph Thesis	Juan Carlos López García	So de sacubitril/ valsartán en pacientes hospitalizados en vida real	Francisco Fdez-Avilés / Manuel Martínez-Selles	UCM	04/02/2021
2.01	Ph Thesis	Andrea Postigo Esteban	Eficacia clínica de la ecocardiografía y la resonancia magnética cardíaca en la insuficiencia aórtica	Francisco Fdez-Avilés / Javier Bermejo Thomas	UCM	09/02/2021
2.01	Ph Thesis	Raquel Luna López	Predictores electrocardiográficos de éxito agudo en la ablación de las arritmias ventriculares del tracto de salida de ventrículo derecho	Francisco Fdez-Avilés / Esteban González Torrecilla	UCM	04/02/2021
2.01	Ph Thesis	Roberto Mateos Gaitán	Uso de dexmedetomidina en unidades de cuidados intensivos cardiológicos: estudio de eficacia y seguridad	Francisco Fdez-Avilés / Manuel Martínez-Selles	UCM	04/02/2021
2.03	Ph Thesis	Paloma Nieto Marín	Factores condicionantes de la variabilidad fenotípica de los síndromes arritmogénicos hereditarios. Análisis funcional de mutaciones asociadas a los síndromes de Brugada y de QT largo	Eva Delpón, Ricardo Caballero, Juan tamargo	Complutense de Madrid	27/07/2021

Group	Type	Candidate	Title	Name/s Director/s	University	Date Defended
3.01	Ph Thesis	Lucía Rodríguez Blanco	Conducta autolesiva no suicida en adolescentes: Factores relacionados con el seguimiento en salud mental y aplicación de la evaluación ecológica momentánea	Enrique Baca García, Juan Jose Carballo Belloso	Universidad Autónoma de Madrid	28/05/2021
6.02	Ph Thesis	Rebeca Bernat	Estudios de Mecanismos de Resistencia a Agentes Antitumorales en Modelos Murinos PDXs Procedentes de Pacientes con Cáncer de Mama Triple Negativo y su Correlación con la Clínica.	Miguel Martín, Rocío Ramos	Universidad Autónoma de Madrid	01/10/2021
7.01	Ph Thesis	Isabel Galán	Influencia de la magnesemia en el pronóstico cardiovascular y la mortalidad de los pacientes con enfermedad renal crónica	Almudena Vega, Juan Manuel López-Gómez, Manuel Praga	Complutense	01/02/2021
7.01	Ph Thesis	Abraham Rincon	Consecuencias de obesidad y síndrome metabólico en diálisis	Juan Manuel López-Gómez, Manuel Praga	Complutense	17/06/2021
7.01	Ph Thesis	Ines Aragoncillo Saucó	Eficacia de las técnicas de vigilancia de segunda generación para prevenir la trombosis y aumentar la supervivencia asistida de fistulas arteriovenosas autólogas	Juan Manuel López-Gómez, Almudena Vega, Manuel Praga	Complutense	26/01/2021

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Group	Type	Candidate	Title	Name/s Director/s	University	Date Defended
7.01	Ph Thesis	Patrocinio Rodríguez-Benitez	Análisis de morbilidad materno-perinatal en gestantes diagnosticadas de preeclampsia grave durante los años 2007-2018 en el hospital Gregorio Marañón	Juan Antonio Leon Luis, Luis Álvarez-Sala	Complutense	22/12/2021
7.04	Ph Thesis	José Fernández-Cantalejo Padial	Evaluación de la sedoanalgesia en los procedimientos diagnósticos y terapéuticos en niños.	Santiago Mencía Bartolomé / Jesús López-Herce Cid	Autónoma de Madrid	13/04/2021
7.16	Ph Thesis	Raquel Martín Oropesa	Prolongación en el tiempo del efecto del esmolol sobre la regresión del remodelado coronario en ratas espontáneamente hipertensas	Begoña Quintana Villamandos, M ^a Carmen González	UCM	04/10/2021
7.16	Ph Thesis	Alejandra Serrano	Búsqueda del protocolo anestésico óptimo para la reparación endovascular del aneurisma aórtico	Begoña Quintana Villamandos	UCM	16/06/2021
7.16	Ph Thesis	Virginia Barreira	Nuevas estrategias anestésicas en los dispositivos de asistencia mecánica circulatoria	Begoña Quintana Villamandos	UCM	16/06/2021

Group	Type	Candidate	Title	Name/s Director/s	University	Date Defended
7.16	Ph Thesis	Andrea Gila Díaz	Composición de la leche materna en el primer mes de lactancia: influencia de factores maternos y neonatales	Silvia Arribas	UAM	13/05/2021
7.18	Ph Thesis	Almudena Lucía Vilchez Monge	Monitorización anestésica avanzada durante el trasplante hepático: valor clínico de la determinación intraoperatoria de troponina	Rafael Bañares Cañazares, José M ^a Pérez Peña Ignacio Garutti Martínez	Universidad Complutense	17/11/2021
7.22	Ph Thesis	Rebeca Gregorio Hernández	Utilidad de la ecografía pulmonar en el recién nacido prematuro con dificultad respiratoria	Manuel Sánchez Luna/Maria Arriaga	UCM	3 de febrero de 2021
7.27	Ph Thesis	Xandra García González	Marcadores farmacogenéticos asociados a toxicidad severa a fluoropirimidinas. Utilidad y viabilidad clínica	Luis Andrés López Fernández	Universidad de Alcalá de Henares	30/04/2021
8.00	Ph Thesis	Victor Fernandez Alonso	La profesión de enfermería en el proceso de donación de órganos en la Comunidad de Madrid	Ana García Pozo/ Domingo Ceña Palacios	Universidad Rey Juan Carlos	18/05/2021
8.00	Ph Thesis	Noelia Mancebo Slas	Grado de alfabetización en salud de los alumnos de grado de enfermería en España	José Vicente Tuells Hernández/ M ^a Nieves Moro Tejedor	Universidad de Alicante	20/09/2021

Cooperative research structures

	Type (RETIC, CIBER, others)	Name of Network	Role
1.01	Plataformas ISCIII	Plataforma de Innovación en Tecnologías Médicas y Sanitarias (ITEMAS)	Collaborating group
101	CIBER	CIBERSAM. CIBER Salud Mental	Collaborating group
1.02	CIBER	CIBERSAM CIBER Salud Mental	Others (Only Antonio Artés Rodríguez)
2.01	CIBER	CIBERCV. Centro de Investigación Biomédica en Red de Enfermedades Cardiovasculares. CB16/11/00292	Coordinating group
2.01	RETICS	Red de Terapia Celular (Ter CEL) RD16/0011/0029	Associated group
2.01	Others	PROGRAMA AVANCELL-CM - Terapias avanzadas de precisión en regeneración y reparación celular y tisular. S2017/BMD-3692	Coordinating group
2.01	Others	Programa ITACA - CM Investigación Traslacional en Arritmias Cardíacas hereditarias. B2017/BMD3738	Associated group
2.01	Others	PROGRAMA PREFI-CM - Personalización del Riesgo Embólico mediante el análisis del Flujo Intracardiaco. Y2018/BIO-4858	Coordinating group
2.01	Others	Red de Formación Interdisciplinaria en Regeneración Cardíaca (EUIN2017-88719)	Associated group
2.02	CIBER	CIBER de Enfermedades Cardiovasculares (CIBERCV)	Collaborating group
2.02	COST	ADMIRE (BM1301)	Collaborating group
2.03	CIBER	Enfermedades Cardiovasculares CB16/11/00303.	Collaborating group
2.05	CIBER	CIBERER. CB06/07/1005	Associated group
2.05	Other	RED DE ENSAYOS CLINICOS PEDIATRICOS ESPAÑA. RECLIP. Enpr-EMA PkID 70	Associated group
3.01	CIBER	CIBERSAM (CIBER de Salud Mental)	Coordinating group
3.01	Other	Ambiente y genes en esquizofrenia AGES-CM2	Associated group

	Type (RETIC, CIBER, others)	Name of Network	Role
4.01	CIBER	CIBERES	Collaborating group
4.01	RETIC	REIPI	Others:active researchers
4.01	Plataforma ISCIII	Plataforma española de EECC	Collaborating group
4.01	Others	RESITRA (Red Cooperativa de Infección en Paciente trasplantado)	Collaborating group
4.02	RETICS	Red Española de Investigación en SIDA (RIS). RD16/0025/0017	Collaborating group
5.01	RETICS	Red de Investigación en Inflamación y Enfermedades Reumáticas. RIER RD16/0012/0007	Collaborating group
5.01	Other	International Network for Strategic Initiatives in Global HIV Trials (INSIGHT)	Collaborating group
5.02	RETICS	RETIC-RIS - Red de Investigación en SIDA	Coordinating group
5.02	CIBER	CIBER BBN	Associated group
5.02	Other	RED IBEROAMERICANA DE CIENCIA Y TECNOLOGIA PARA EL DESARROLLO (CYTED).	Collaborating group
5.02	Other	Pediatric European Network for Treatment of AIDS (PENTA)	Collaborating group
5.05	CIBER	Centro de Investigación Biomédica en Red CIBERER.Group U761	Associated group
5.06	Other	Private Network. CELLNEX TELECOM - ACT 4 COVID Celular Immunological Response to SARS-Cov2	Collaborating group
5.07	RETICS	Red de Investigación en SIDA	Collaborating group
5.07	Others (Scientific Societies Networks)	Red pediátrica para la prevención. diagnóstico precoz y tratamiento del VIH en niños.	Collaborating group
5.07	Others (Scientific Societies Networks)	Pediatric Tuberculosis Network European Trialsgroup	Collaborating group
5.07	Others (Scientific Societies Networks)	Red Española de Estudio de la Tuberculosis pediátrica	Collaborating group

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	Type (RETIC, CIBER, others)	Name of Network	Role
5.07	Others (Scientific Societies Networks)	Grupo de Estudio EREMITA (Estudio de Tuberculosis Resistente en Niños de la Comunidad de Madrid)	Collaborating group
5.07	Others (Scientific Societies Networks)	Estudio de la influencia genética en la infección grave en pediatría	Collaborating group
5.07	Others (Scientific Societies Networks)	RED de Infección Congénita por CMV	Collaborating group
5.07	Others (Scientific Societies Networks)	Pediatric European Network Treatment on AIDS	Collaborating group
5.07	Others (Scientific Societies Networks)	Estudio de la Infección Meningocócica	Collaborating group
5.07	Others (Scientific Societies Networks)	Pediatric infections Staphylococcus aureus meticilin resistance ESPID	Collaborating group
5.07	Others (Scientific Societies Networks)	Estudio de los aspectos neurocognitivos en la Cohorte de infección VIH Pediátrica	Collaborating group
5.07	Others (Scientific Societies Networks)	Red para el estudio de la enfermedad invasiva por SGA.	Collaborating group
5.07	Others (Scientific Societies Networks)	Red Nacional para el Estudio de la infección osteoarticular	Collaborating group
5.07	Others (Scientific Societies Networks)	Estudio Multicéntrico retróprospectivo y prospectivo de los factores epidemiológicos clínicos, analíticos y microbiológicos determinantes de la respuesta al tratamiento de la enfermedad de Kawasaki y el riesgo del desarrollo de aneurismas coronarios en niños menores de 14 años de nuestro medio	Collaborating group
5.07	Others (Scientific Societies Networks)	Red europea de ZIKA	Collaborating group
5.07	Others (Scientific Societies Networks)	Red de Giardiasis pediátrica Nacional	Collaborating group
5.07	Others (Scientific Societies Networks)	Grupo de infecciones en drepanocitosis	Collaborating group
5.07	Others (Scientific Societies Networks)	Red de Investigación Traslacional en Infecciones Pediátricas	Collaborating group

	Type (RETIC, CIBER, others)	Name of Network	Role
5.07	Others (Scientific Societies Networks)	Red Nacional de estudio de Infección congénita por CMV	Collaborating group
5.07	Others (Scientific Societies Networks)	Registro Nacional de casos de infección por ZIKA en el embarazo y recién nacido	Collaborating group
5.07	Others (Scientific Societies Networks)	Sickle cell disease Pediatric Research about INfections Group	Collaborating group
6.01	CIBER	CIBERSAM	Collaborating group
6.02	RETICS	Redes Temáticas de Investigación Cooperativa en Salud en el Área de Cáncer. RD12/0036/0076	Associated group
6.02	CIBER	CIBERONC CB16/12/00471	Associated group
6.02	Other	GEICAM. Grupo Español de Cáncer de mama.	Coordinating group
6.02	Other	ESMO. European Society for Medical Oncology	Collaborating group
6.02	Other	TRIO. Translational Research In Oncology	Collaborating group
6.02	Other	GEIS. Grupo Español de Investigación en Sarcomas.	Collaborating group
6.02	Other	TTD. Grupo de Tratamiento de los Tumores Digestivos	Collaborating group
6.02	Other	SOGUG. Grupo Español de Oncología Genitourinaria.	Collaborating group
6.02	Other	SEOM. Sociedad Española de Oncología Médica	Collaborating group
6.02	Other	GEM. Grupo Español Multidisciplinar de Melanoma	Collaborating group
6.02	Other	EUROPACOLON España. Asociación cáncer colorrectal	Collaborating group
6.02	Other	Grupo ECO para la calidad en la Oncología	Collaborating group
6.02	Other	SOMA. Sociedad Oncológica Madrileña	Collaborating group
6.02	Other	BCIRG. Breast Cancer Internacional Research Group	Collaborating group

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COOPERATIVE RESEARCH STRUCTURE

	Type (RETIC, CIBER, others)	Name of Network	Role
6.02	Other	CIBOMA. Coalición Iberoamericana de Oncología Mamaria	Collaborating group
6.02	Other	ASCO. American Society of Clinical Oncology	Collaborating group
6.02	Other	CECOG. Central European Cooperative Oncology Group	Collaborating group
6.02	Other	EBCTCG. Early Breast Cancer Trialist Cooperative Group	Collaborating group
6.03	Others (Internacional Consortium)	ICISTEM - International Collaboration to guide and investigate the potential for HIV cure by Stem Cell Transplantation	Collaborating group
6.03	Plataformas ISCIII	Plataforma de Innovación en Tecnologías Médicas y Sanitarias (ITEMAS)	Coordinating group
6.03	CIBER	CIBERER (CIBER de Enfermedades Raras)	Collaborating group
6.03	CSUR (Centers, Services and Reference Units. Comunidad de Madrid)	CSUR de Eritropatología Hereditaria	Collaborating group
6.04	Others	Peritoneal Surface Oncology Group International	Collaborating group
6.04	Others	Grupo Español de Cirugía Oncológica Peritoneal	Collaborating group
6.04	Others	PELVEX collaborative group	Collaborating group
7.01	RETICS	REDINREN	Collaborating group
7.01	Others (Scientific Societies Networks)	Consorcio para la Investigación del Fracaso Renal Agudo (CIFRA). Comunidad de Madrid	Collaborating group
7.02	CIBER	CIBEREHD	Fully fledged group .Program Coordinator
7.04	RETICS	Red de salud Maternoinfantil y del Desarrollo III	Collaborating group
7.04	Others	Red de Salud Maternoinfantil y del Desarrollo (Red Samid [Mother and Child and Developmental Health Network])	Collaborating group

	Type (RETIC, CIBER, others)	Name of Network	Role
7.04	Other	Red Iberoamericana de estudio de la parada cardiorrespiratoria en la infancia (RIBEPCI [Latin American Network for the Study of Cardiorespiratory Arrest in Infancy]).	Collaborating group
7.05B	RETICS	REDISEC Red de investigación en enfermedades crónicas	Associated group
7.05B	Others (Red de la Comunidad de Madrid)	GENOBIA Diseño mediante inteligencia artificial de algoritmos predictivos para la identificación de individuos con riesgo de desarrollar sobrepeso/ obesidad y sus patologías asociadas. Aporte del análisis genético GENOBIA	Collaborating group Coordinating group (Network training activities)
7.05B	Others	EPOCONSUL Spanish clinical audit on the medical care for COPD patients	Associated group
7.05B	Others	CHACOS Study Group. Grupo de estudio para la caracterización del fenotipo mixto asma-epoc	Associated group
7.05B	Others	SPANISH SLEEP NETWORK	Collaborating group
7.05B	Others (Red privada financiada por Sanofi)	Registro informatizado de pacientes con enfermedad tromboembólica (RIETE)	Associated group
7.18	Others	Spanish Perioperative Audit and Research Network (REDGERM)	Coordinating group
7.22	CIBER	CIBERFES. Fragilidad y envejecimiento saludable	Collaborating group
7.22	Others	Grupo Geidis/ Registro GEIDIS	Collaborating group
7.22	Others	RED SAMID	Collaborating group
7.22	Others	RED Castrillo	Collaborating group
7.22	Others	Red RECLIP	Collaborating group
7.27	ISCIII Platform	SCReN: Spanish Clinical Research Network	Collaborating group
7.29	CIBER	CIBERES (Enfermedades Respiratorias). CB06/06/1084	Collaborating group
8	Plataforma ISCIII	Plataforma Española de Ensayos clínicos SCReN	Collaborating group



SCIENTIFIC ACTIVITY BY AREA

5



Area 1. Biomedical Engineering

Area 2. Cardiovascular Diseases

Area 3. Neuroscience and Mental Health

Area 4. Infectious Diseases and AIDS

Area 5. Diseases of the Immune System

Area 6. Translational Oncology

Area 7. Systemic Diseases and Organ
Transplantation

Nursing group

Area 1

BIOMEDICAL ENGINEERING

Area coordinator:
Manuel Desco Menéndez



The Area of Biomedical Engineering is a particularly interesting facet of the Instituto de Investigación Sanitaria Gregorio Marañón (IiSGM [*Gregorio Marañón Health Research Institute*]). It provides a complementary and clearly enriching vision of the type of research traditionally carried out in biomedicine. Its emphasis on technology, transferability, and immediacy of application, together with its clear orientation towards innovation, makes it an area of considerable added value.

These characteristics are evidenced by the considerable number of joint publications with other groups and areas of the Institute. Infact, the Area of Biomedical Engineering leads the Red de Innovación en Tecnologías Médicas y Sanitarias (ITEMAS [*Medical Technology Innovation Network*]) of the Instituto de Salud Carlos III (*Carlos III Health Institute*). This area is also the link between the IiSGM and Universidad Carlos III. In addition to its research activity, it plays a key role in the new undergraduate Degree in Biomedical Engineering offered by Universidad Carlos III.

Not surprisingly, therefore, the strategic axes of this area are directed towards consolidating collaboration with Universidad Carlos III (in which the incorporation of new research groups will be essential), defining and strengthening the area's role in teaching, consolidating the functioning of the Innovation Support Unit of Hospital General Universitario Gregorio Marañón (HGUGM) –which has considerably stepped up its activity during recent years– and intensifying its strategy of supporting and complementing clinical research.

Its marked technological character makes the Area of Biomedical Engineering a key player in obtaining funds from EU framework programs. Greater emphasis will be placed on this activity in the coming years.

Lastly, the Area of Biomedical Engineering aims to introduce a series of activities aimed at facilitating the participation of other technology groups in the IiSGM, thus promoting multidisciplinary research capacity and rapid knowledge transfer, and, in short, responding effectively to key issues in the field of biomedicine.

Interestingly, a new group joined this Research Area in 2021, 1.05. Structural and functional medical image, directed by Jesús de la Torre Fernández y Juan A. Guzmán de Villoria.

Groups in Area 1

BIOMEDICAL ENGINEERING

- ▶ 1.01. Advanced technological applications and human health
- ▶ 1.02. Signal processing
- ▶ 1.03. Computer architecture, communications, and systems (ARCOS)
- ▶ 1.04. Nonparametric statistical and intensive computing techniques
- ▶ 1.05. Structural and functional medical image

1.01. Advanced technological applications and human health

Group Head: **MANUEL DESCO MENÉNDEZ**

Organisms involved: **HGUGM - UC3M**

Type: **Consolidated Group**

Research lines

- ▶ L1: Support for clinical research.
- ▶ L2: Technological development.
- ▶ L3: Biomedical experimentation.

The work of this group is aimed mainly at research into medical imaging techniques, in terms of both developing new technology and processing methods and practical applications for clinical practice and biomedical research.

The group comprises researchers from very disparate fields (eg, physicians, engineers, physicists, and biologists) who belong to Universidad Carlos III and to Hospital Gregorio Marañón. Professionals from both entities work together to constitute the IISGM. The group's clearly multidisciplinary character creates a strong connection with real clinical and preclinical needs. Collaboration with hospitals and other biomedical research centers facilitates rapid validation of results and has generated several successful cases of technology transfer to industry.

Consequently, the group has a wide range of imaging and processing techniques, some of which were obtained before they became commercially available. These techniques enable the group to offer advanced imaging services to internal and external research groups.

Research activity is based on 3 major lines: imaging support for clinical research, development of imaging tool technology, and biomedical research projects that require preclinical molecular imaging.

Group members

- **Abella García, Mónica:** R3. Established Researcher.
- **Barco Tejada, Ainara.**
- **Brooks, Claire Jordán:** R1. First Stage Researcher.
- **Cabezas Español, Estela:** Other.
- **Calle Hernández, Daniel:** Other. Superior Support Technician.
- **Calvo Bartolomé, Lorena:** R1. First Stage Researcher.
- **Carmona Cañabate, Susana:** R3. Established Researcher.
- **Carravilla Expósito, Eva:** Other. Support Technician.
- **Casquero Veiga, Marta:** R1. First Stage Researcher.
- **Chil Pérez, Rigoberto:** R2. Recognised Researcher.
- **Cómitre Mariano, Blanca:** Other.
- **Cussó Mula, Lorena:** R3. Established Researcher.
- **De Navascues Lauzet, Hugo Jorge:** Other.
- **Del Valle Hidalgo, Alejandro:** Other.
- **Descó Menéndez, Manuel:** R4. Leading Researcher.
- **Díez Santiago, Esther:** Other. Management.
- **Felipe Maestre, M^a de la Jara:** Other. Support Technician.
- **Fernández del Cerro, Carlos:** Other.
- **Fernández Fernández, Roberto:** R1. First Stage Researcher.
- **Fernández Pena, Alberto:** R1. First Stage Researcher.

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Group members (cont.)

- **Fernández-Cortés Navia, Elena:** Other.
- **Ferrer Bazaga, Santiago:** R3. Senior Researcher.
- **Francisco López, Alexandra de:** Other. Support Technician.
- **Galán González, Agustín:** Other. Support Technician.
- **García Elcano, Laura:** R1. First Stage Researcher.
- **García Gálvez, Bárbara:** R1. First Stage Researcher.
- **García Mato, David:** R1. First Stage Researcher.
- **García Sevilla, Mónica:** R1. First Stage Researcher.
- **Garrido Huerta, Trajana:** Other. Management.
- **Gómez de Mariscal, Estíbaliz:** R1. First Stage Researcher.
- **Gómez Gavio, María Victoria:** R3. Senior Researcher.
- **González Álvarez, Alba:** Other.
- **González Arjona, Mario:** Other. Research Assistant.
- **González Gutiérrez, María Isabel:** R1. First Stage Researcher.
- **Herreros Pérez, Desiré:** R1. First Stage Researcher.
- **Hidalgo Torres, Leandro Alexis:** R1. First Stage Researcher.
- **Jorcana Noval, José Luis:** Other.
- **Lamanna Rama, Nicolás:** R1. First Stage Researcher.
- **Lobo Vega, Rebeca María.**
- **López Expósito, Patricio Roberto:** R2. Recognised Researcher.
- **López Montoya, Gonzalo:** Other. Support Technician.
- **Macías Gordaliza, Pedro:** R1. First Stage Researcher.
- **Marcos Vidal, Luis:** R1. First Stage Researcher.
- **Martín de Blas, Daniel:** Other. Other.
- **Martínez García, Magdalena:** Other. Predoctoral.
- **Martínez Sánchez, Cristóbal:** R1. First Stage Researcher.
- **Moreno Berdón, Patricia:** Other. Other.

- **Moreno Camacho, Jorge:** Other. Support Technician.
- **Moreta Martínez, Rafael:** Other.
- **Muñoz Barrutia, Arrate:** R3. Senior Researcher.
- **Navas Sánchez, Francisco Javier:** Other. Other.
- **Nicolás Saenz, Laura:** R1. First Stage Researcher.
- **Noguero Soler, Inés:** Other.
- **Pascual González-Garzón, Javier:** R3. Senior Researcher.
- **Paternina Die, M^a del Carmen:** R1. Training.
- **Pena Gil, Aida de la Fe:** R1. First Stage Researcher.
- **Pérez Benito, David:** R1. First Stage Researcher.
- **Piol, Alessandro:** R1. Other.
- **Pose Díaz de la Lastra, Alicia:** Other.
- **Reyes Pérez, Eduardo Antonio:** R1. First Stage Researcher.
- **Ripoll Lorenzo, Jorge:** R3. Established Researcher.
- **Rodríguez Casaú, Elena:** Other. Data Management.
- **Romero Miguel, Luis Diego:** R1. Training.
- **Sakaltras, Nikolaos:** R1. Other.
- **Salinas Rodríguez, Beatriz:** R3. Established Researcher.
- **Sánchez Puerto, Daniel:** Other. Support Technician.
- **Santos Coquillat, Ana María:** R2. Recognised Researcher.
- **Sierra Palomares, Yolanda:** Other. Support Technician.
- **Soto Montenegro, María Luisa:** R3. Established Researcher.
- **Vaquero López, Juan José:** R3. Established Researcher.
- **Velasco Bayón, Diego:** Other.



Research Projects – Competitive Calls

Competitive projects

- Title: **Becoming a mother: An integrative model of adaptations for motherhood during pregnancy and the postpartum period.** H2020 BEMOTHER
Directo: Carmona Cañabate, Susana
Project type: European research project
Funding body: European Commission (Framework Program)
Start date: 01/10/2020
End date: 30/10/2022
- Title: **ASPIDe: exAScale Programming models for extreme Data processing** H2020 ASPIDE
Directo: Desco Menéndez, Manuel
Project type: European research project
Funding body: European Commission (Framework Program)
Start date: 15/06/2018
End date: 30/06/2021
- Title: **Monitorización de tratamiento y respuesta a infecciones estafilocócicas mediante imagen inmunoPET empleando trazadores específicos.** PI20/01632
Directo: Salinas Rodríguez, Beatriz
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Contribución funcional de los microquimerismos maternos a la respuesta al daño cardíaco** PI18/00462
Directo: Gómez Gavira, María Victoria
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Entrenamiento y navegación quirúrgica para una medicina de precisión** PI18/01625
Directo: Pascau González-Garzón, Javier
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Evolución y bases hormonales de la remodelación cerebral gestacional en mujeres y sin riesgo de trastorno mental posparto** PI17/00064
Directo: Carmona Cañabate, Susana
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2018
End date: 31/12/2021
- Title: **¿Es posible prevenir el riesgo de aparición de la esquizofrenia durante la gestación? Estudios en un modelo animal de esquizofrenia?** PI17/01766
Directo: Soto Montenegro, María Luisa
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2018
End date: 31/12/2021
- Title: **Imagen molecular de la infección por *clostridium difficile*.** FRA20/02
Directo: Salinas Rodríguez, Beatriz
Project type: Research project
Funding body: Fundación Ramón Areces
Start date: 12/05/2021
End date: 12/05/2024
- Title: **Nuevo sistema de diagnóstico radiológico pulmonar para COVID-19-RADCOV19. Convocatoria fondo supera.-Banco de santander.-Crue.-Y csic universidades.** RADCOV19
Directo: Desco Menéndez, Manuel
Project type: Research project
Funding body: Santander Central Hispano (BSCH)
Start date: 14/07/2020
End date: 30/09/2021



- Title: **Sara Borrel**. CD19/00136
Directo: Santos Coquillat, Ana María
Project type: Human Resources
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Predoctoral contract** FI18/00255
Directo: Martínez García, Magdalena
Project type: Human Resources
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Cannabidiol como estrategia preventiva en la aparición de psicosis** DRO2017/085
Directo: Soto Montenegro, María Luisa
Project type: Research project
Funding body: Ministerio de Sanidad, Servicios Sociales e Igualdad
Start date: 01/01/2018
End date: 31/12/2021
- Title: **Nuevas aplicaciones de la nanotecnología en la enfermedad hepática crónica**. Y2018/NMT-4949
Directo: Desco Menéndez, Manuel
Project type: Research project
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2019
End date: 30/06/2022
- Title: **Diagnosis and treatment follow-up of severe Staphylococcal Infections with Anthi-Stapgyloccal antibodies and Immune-PET**. FBBVA18/01
Directo: Desco Menéndez, Manuel
Project type: Research project
Funding body: Fundación BBVA
Start date: 30/04/2019
End date: 29/04/2022
- Title: **Red Madrileña de Nanomedicina en Imagen Molecular**. S2017/BMD-3867
Directo: Desco Menéndez, Manuel
Project type: Research network
Funding body: Consejería Educación de la Comunidad de Madrid
Start date: 01/01/2018
End date: 31/12/2021
- Title: **Técnico de imagen optica (confocal y spim)** PEJ2018-003117-A
Directo: Calle Hernández, Daniel
Project type: Human Resources
Funding body: MICINN
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Gestión y procesamiento de datos de neuroimagen en entorno cloud** PEJ2018-003141-A
Directo: Carmona Cañabate, Susana
Project type: Human Resources
Funding body: MICINN
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Nuevas sondas moleculares en imagen preclínica** PEJ2018-004151-A
Directo: Desco Menéndez, Manuel
Project type: Human Resources
Funding body: MICINN
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Contratación de investigadores Posdoctorales cofinanciadas por Fondo Social Europeo, a través del Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI)** PEJD-2018-POST/BMD-9592
Directo: Salinas Rodríguez, Beatriz
Project type: Human Resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Contratación de investigadores Predoctorales cofinanciadas por Fondo Social Europeo, a través del Programa Operativo de Empleo Ju-**



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venil y la Iniciativa de Empleo Juvenil (YEI) PEJD-2019-PRE/BMD-16977

Directo: Carmona Cañabate, Susana

Project type: Human Resources

Funding body: Consejería de Educación e Investigación. Comunidad de Madrid

Start date: 01/01/2020

End date: 31/12/2022

- Title: **Contratación de investigadores Predoctorales cofinanciadas por Fondo Social Europeo, a través del Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI) PEJD-2019-PRE/TIC-17061**
Directo: Desco Menéndez, Manuel
Project type: Human Resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/02/2020
End date: 31/01/2023
- Title: **Contratación de investigadores Predoctorales cofinanciadas por Fondo Social Europeo, a través del Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI) PEJD-2018-PRE/BMD-7899**
Directo: Soto Montenegro, María Luisa
Project type: Human Resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Contratación de investigadores Predoctorales cofinanciadas por Fondo Social Europeo, a través del Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI) PEJD-2018-PRE/BMD-9077**
Directo: Desco Menéndez, Manuel
Project type: Human Resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Contratación de investigadores Predoctorales cofinanciadas por Fondo Social Europeo, a través del Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI) PEJD-2018-PRE/BMD-9401**
Directo: Carmona Cañabate, Susana
Project type: Human Resources

Funding body: Consejería de Educación e Investigación. Comunidad de Madrid

Start date: 01/01/2019

End date: 31/12/2021

Not managed by FIBHGM

- Title: **Sensitive: Early Detection of cancer onset based on sensing field cancerization at the organ level.**
Directo: Ripoll, Jorge
Project type: Research project
Funding body: European Commission
Start date: 01/01/2018
End date: 31/12/2021
- Title: **Desarrollo de una plataforma de terapia génica para enfermedades genéticas renales. RTC-2017- 6600-1**
Directo: Muñoz Barrutia, Arrate
Project type: Research project
Funding body: MICINN
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Realidad aumentada para entornos de planificación, simulación, entrenamiento y navegación quirúrgica: HoloMed. IND2018/TIC-9753.**
Directo: Pascau González-Garzón, Javier
Project type: Research project
Funding body: Comunidad de Madrid
Start date: 01/01/2019
End date: 31/12/2022
- Title: **Programa Garantía Juvenil PEJ2018-001759-A**
Directo: Pascau González-Garzón, Javier (Anxela Caldera Fernández)
Project type: Human Resources
Funding body: MICINN
Start date: 01/10/2019
End date: 31/10/2021
- Title: **Programa para Personal Investigador Predoctoral en Formación (PIPF UC3M)**
Directo: Desco Menéndez, Manuel (Marcos Vidal, Luis)



Project type: Human Resources

Funding body: UC3M

Start date: 01/11/2018

End date: 31/10/2022

- Title: **Programa para Personal Investigador Predoctoral en Formación (PIPF UC3M)**

Directo: Abella García, Mónica, (Nikolaos Sakaltras)

Project type: Human Resources

Funding body: UC3M

Start date: 03/09/2018

End date: 02/09/2022

- Title: **Programa para Personal Investigador Postdoctoral)**

Directo: Pascau González-Garzón, Javier (Fernández Fernández, Roberto)

Project type: Human Resources

Funding body: Comunidad de Valencia

Start date: 01/09/2018

End date: 31/08/2021

- Title: **Programa para Personal Investigador Predoctoral en Formación (PIPF UC3M)**

Directo: Abella García, Mónica, (Mónica García Sevilla)

Project type: Human Resources

Funding body: UC3M

Start date: 17/08/2018

End date: 17/08/2022

- Title: **Programa para Personal Investigador Predoctoral en Formación (PIPF UC3M)**

Directo: Muñoz Barrutia, Arrate (Estibaliz Gómez de Mariscal)

Project type: Human Resources

Funding body: UC3M

Start date: 18/09/2017

End date: 17/09/2021

- Title: **Programa para Personal Investigador Predoctoral en Formación (PIPF UC3M)**

Directo: Pascau González-Garzón, Javier (David García Mato)

Project type: Human Resources

Funding body: UC3M

Start date: 07/09/2017

End date: 06/09/2021

- Title: **Programa para Personal Investigador Predoctoral en Formación (PIPF UC3M)**

Directo: Vaquero López, Juan José (David Pérez Benito)

Project type: Human Resources

Funding body: UC3M

Start date: 01/09/2017

End date: 31/08/2021

- Title: **Programa para Personal Investigador Predoctoral en Formación (PIPF UC3M)**

Directo: Abella García, Mónica (Cristóbal Martínez Sánchez)

Project type: Human Resources

Funding body: UC3M

Start date: 01/02/2017

End date: 31/01/2021

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of network	Role
Plataformas ISCIII	Plataforma de Innovación en Tecnologías Médicas y Sanitarias (ITEMAS)	Collaborating group
CIBER	CIBERSAM. CIBER Salud Mental	Collaborating group



1.01. ADVANCED TECHNOLOGICAL APPLICATIONS AND HUMAN HEALTH

Industrial and Intellectual Property Registrations

Industrial property

Title	Reference*	Owner	Inventors
Aparato de tomografía multimodalidad	P200502612 (10 patents)	FIBHGM - Sociedad Española de Electromedicina y Calidad, S.A.	Juan José Vaquero, Manuel Desco
Ciclotrón clásico superconductor compacto	P 2013 30626	UC3M - CIEMAT	Luis García-Tabarés, Concepción Oliver, Fernando Toral, Daniel Gavela, Diego Obradors, Cristina Vázquez, Iván Podadera, Javier Munilla, Jesús Calero, Jose M. Pérez, Friederich Haug
TomoX3D - Reconstrucción avanzada para sistemas de tomosíntesis	Nº Asiento Registral: 16/2021/8484	FIBHGM-UC3M	Manuel Desco, Mónica Abella, Francisco Javier García Blas, Jesús Carretero
STRAY - Plataforma de simulación para sistemas de radiología	Nº Asiento Registral: 16/2021/8485	FIBHGM-UC3M	Manuel Desco, Mónica Abella, Francisco Javier García Blas, Jesús Carretero

Title	Reference*	Owner	Inventors
REXCT: Algoritmo rápido de reconstrucción de imagen tomográfica	Nº Asiento Registral: 16/2021/8486	FIBHGM-UC3M	Manuel Desco, Mónica Abella, Francisco Javier García Blas, Jesús Carretero
Equipo y método de generación de tomografías	P 2017 30341 (3 patents)	FIBHGM - UC3M	Manuel Desco, Mónica Abella
Light Sheet Microscope and procedure for extended samples	P 2018 30912	UC3M	Jorge Ripoll Lorenzo
Mobile 3D imaging system based on light sheet microscopy	P 2018 30913	UC3M	Jorge Ripoll Lorenzo
Celda centelleadora	PCT/ES 2017 070623	UC3M	Georgios Konstantinou, Juan José Vaquero, Rigoberto Chil, Manuel Desco
Equipo y simulación para control de hemorragias	P 2017 30568	FIBHGM - Medical Simulator	Manuel Desco, Juan Francisco del Cañizo
Compuestos radiactivos basados en proteínas selectivas de bacteriemias para la detección no invasiva de focos infecciosos	P 202030838 (2 patents)	FIBHGM - UC3M	Beatriz Salinas, Manuel Desco, Patricia Muñoz, Emilio Bouza

■ Transferred Industrial Property.

* Reference: P (Patent), PCT (international patent), EP (European patent), US (USA patent), U (Utility model), M (Trademark).



Copyright

Title	Reference	Owner	Inventors
MANGOOSE	Nº Asiento Registral: 02/2010/4412	FIBHGM	Javier Pascau, Manuel Desco, Mónica Abellá, Alejandro Sisniega, Juan José Vaquero
CUSQ: CARDIO US/Quantification	Nº Asiento Registral: 16/2010/303	FIBHGM - UPM	Manuel Desco, María Jesús Ledesma, Andrés de Santos
FIRST (Fast Iterative Reconstruction Software for Tomography)	Nº Depósito Notarial: 3806	FIBHGM	José Manuel Udías, Joaquín López, Samuel España, Manuel Desco, Juan José Vaquero
QuTIS (Quantification Tool for in vivo Spectroscopy)	Nº Depósito Notarial: 5095	FIBHGM	Manuel Desco, Juan José Vaquero
MMWKS	Sin número registro	FIBHGM	Manuel Desco, Juan José Vaquero
MRSITool - software para la cuantificación de estudios de imagen estroscópica	Sin número registro	FIBHGM	Manuel Desco
RapTor	Registry no.: 16/2017/7104	FIBHGM-UC3M	Manuel Desco, Mónica Abella, Claudia de Molina, Estefanía Serrano, Fco. Javier García, Jesús Carretero
XAP-LAB	Registry no.: 16/2017/7106	FIBHGM-UC3M	Manuel Desco, Mónica Abella, Álvaro Martínez, Alba García
FUX-SIM	Nº Asiento Registral: 16/2017/7105	FIBHGM-UC3M	Manuel Desco, Mónica Abella, Inés García, Claudia de Molina, Estefanía Serrano, Fco. Javier García, Jesús Carretero

■ Transferred Intellectual Property.

Publications

Total Impact Factor: 288,9

	Nº	IF
Own publications	30	195.4
Joint publications	13	93.5
First decile publications	5	108.2
First quartile publications	18	188.9
Second quartile publications	22	92.7
Third quartile publications	3	7.3
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	5	–
Total publications (including those without IF)	48	288.9

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Ximendes E; Marín R; Shen Y; Ruiz D; Gómez-Cerezo D; Rodríguez-Sevilla P; Lifante J; Viveros-Méndez PX; Gámez F; García-Soriano D; Salas G; Zalbidea C; Espinosa A; Benayas A; García-Carrillo N; Cussó L; Desco M; Terán FJ; Juárez BH; Jaque D. *Infrared-Emitting Multimodal Nanostructures for Controlled In Vivo Magnetic Hyperthermia*. ADVANCED MATERIALS. 2021; 33(30). FI: 32.086. Cuartil: 1. (Article).
- Risueño, I; Valencia, L; Jorcano, JL; Velasco, D. *Skin-on-a-chip models: General overview and future perspectives*. APL BIOENGINEERING. 2021; 5(3). FI: 6.586. Cuartil: 1. (Article).
- González-Rico, J; Núñez-Sardinha, E; Valencia, L; Arias, A; Muñoz-Barrutia, A; Velasco, D; García-González, D. *Tuning the Cell and Biological Tissue Environment through Magneto-Active Materials*. APPLIED SCIENCES-BASEL. 2021; 11(18). FI: 2.838. Cuartil: 2. (Review).
- González, MI; González-Arjona, M; Santos-Coquillat, A; Vaquero, J; Vázquez-Ogando, E; de Molina, A; Peinado, H; Desco, M; Salinas, B. *Covalently Labeled Fluorescent Exosomes for In Vitro and In Vivo Applications*. BIOMEDICINES. 2021; 9(1). FI: 4.757. Cuartil: 2. (Article).

1.01. ADVANCED TECHNOLOGICAL APPLICATIONS AND HUMAN HEALTH

- Calvo-Haro, JA; Pascau, J; Mediavilla-Santos, L; Sanz-Ruiz, P; Sánchez-Pérez, C; Vaquero-Martín, J; Pérez-Mañanes, R. *Conceptual evolution of 3D printing in orthopedic surgery and traumatology: from "do it yourself" to "point of care manufacturing"*. BMC MUSCULOSKELETAL DISORDERS. 2021; 22(1) 360-360. FI: 2.562. Cuartil: 3. (Article).
- Martínez-García, M; Paternina-Die, M; Barba-Muller, E; de Blas, DM; Beumala, L; Cortizo, R; Pozzobon, C; Marcos-Vidal, L; Fernández-Pena, A; Picado, M; Belmonte-Padilla, E; Masso-Rodríguez, A; Ballesteros, A; Desco, M; Vilarroya, O; Hoekzema, E; Carmona. *Do Pregnancy-Induced Brain Changes Reverse? The Brain of a Mother Six Years after Parturition*. BRAIN SCIENCES. 2021; 11(2). FI: 3.333. Cuartil: 3. (Article).
- Ortega, F; Gómez-Villafuertes, R; Benito-León, M; de la Torre, MM; Olivos-Ore, LA; Arribas-Blázquez, M; Gómez-Gavio, MV; Azcorra, A; Desco, M; Artalejo, AR; Puelles, L; Miras-Portugal, MT. *Salient brain entities labelled in P2rx7-EGFP reporter mouse embryos include the septum, roof plate glial specializations and circumventricular ependymal organs*. BRAIN STRUCTURE & FUNCTION. 2021; 226(3) 715-741. FI: 3.748. Cuartil: 1. (Article).
- Filgueiras-Rama, D; Vasilijevic, J; Jalife, J; Noujaim, SF; Alfonso, JM; Nicolás-Ávila, JA; Gutiérrez, C; Zamarreno, N; Hidalgo, A; Bernabe, A; Cop, CP; Ponce-Balbuena, D; Guerrero-Serna, G; Calle, D; Desco, M; Ruiz-Cabello, J; Nieto, A; Falcon, A. *Human influenza A virus causes myocardial and cardiac-specific conduction system infections associated with early inflammation and premature death*. CARDIOVASCULAR RESEARCH. 2021; 117(3) 876-889. FI: 13.081. Cuartil: 1. (Article).
- Díaz-Caneja, CM; Alloza, C; Gordaliza, PM; Fernández-Pena, A; de Hoyos, L; Santonja, J; Buimer, EEL; van Haren, NEM; Cahn, W; Arango, C; Kahn, RS; Pol, HEH; Schnack, HG; Janssen, J. *Sex Differences in Lifespan Trajectories and Variability of Human Sulcal and Gyral Morphology*. CEREBRAL CORTEX. 2021; 31(11) 5107-5120. FI: 4.861. Cuartil: 2. (Article).
- Cedeno, S; Desco, M; Alemán, Y; Macías, N; Fernández-Pena, A; Vega, A; Abad, S; López-Gómez, JM. *Intradialytic hypotension and relationship with cognitive function and brain morphometry*. CLINICAL KIDNEY JOURNAL. 2021; 14(4) 1156-1164. FI: 5.86. Cuartil: 1. (Article).
- García-González, D; Moreno, MA; Valencia, L; Arias, A; Velasco, D. *Influence of elastomeric matrix and particle volume fraction on the mechanical response of magneto-active polymers*. COMPOSITES PART B-ENGINEERING. 2021; 215. FI: 11.322. Cuartil: 1. (Article).
- de la Lastra, APD; Saenz, LGD; García-Mato, D; Hernández-Álvarez, L; Ochandi-ano, S; Pascau, J. *Real-Time Tool Detection for Workflow Identification in Open Cranial Vault Remodeling*. ENTROPY. 2021; 23(7). FI: 2.738. Cuartil: 2. (Article).
- Romero-Miguel, D; Lamanna-Rama, N; Casquero-Veiga, M; Gómez-Rangel, V; Desco, M; Soto-Montenegro, ML. *Minocycline in neurodegenerative and psychiatric diseases: An update*. EUROPEAN JOURNAL OF NEUROLOGY. 2021; 28(3) 1056-1081. FI: 6.288. Cuartil: 1. (Review).
- Casquero-Veiga, M; Romero-Miguel, D; MacDowell, KS; Torres-Sánchez, S; García-Partida, JA; Lamanna-Rama, N; Gómez-Rangel, V; Romero-Miranda, A; Berrococo, E; Leza, JC; Arango, C; Desco, M; Soto-Montenegro, ML. *Omega-3 fatty acids during adolescence prevent schizophrenia-related behavioural deficits: Neurophysiological evidences from the prenatal viral infection with Polyl:C*. EUROPEAN NEUROPSYCHOPHARMACOLOGY. 2021; 46 14-27. FI: 5.415. Cuartil: 1. (Article).
- Pérez-Caballero, L; Soto-Montenegro, ML; Desco, M; Mico, JA; Berrococo, E. *Sustained escitalopram administration affects glucose metabolism in the rat brain*. EUROPEAN NEUROPSYCHOPHARMACOLOGY. 2021; 51 1-6. FI: 5.415. Cuartil: 1. (Article).
- Fortea, L; Solanes, A; Pomarol-Clotet, E; García-León, MA; Fortea, A; Torrent, C; Varo, C; Bonnin, CM; Montejo, L; Alonso, J; Carmona, S; Soldevila-Matias, P; Alustiza, I; Arbos, D; Hidalgo-Mazzei, D; Grande, I; Vieta, E; Fullana, MA; Radua, J. *Study Protocol-Coping With the Pandemics: What Works Best to Reduce Anxiety and Depressive Symptoms*. FRONTIERS IN PSYCHIATRY. 2021; 12 642763-642763. FI: 5.435. Cuartil: 2. (Article).
- Lowe, C; Ortega-Gil, A; Moghiseh, M; Anderson, NG; Muñoz-Barrutia, A; Vaquero, JJ; Raja, AY; Matanaghi, A; Chernoglazov, AI; Dapamede, T; Adebileje, SA; Alexander, S; Amma, MR; Anjomrouz, M; Asghariomabad, F; Atharifarid, A; Atlas, J; Baer, K; Bell, ST; Bh. *Molecular Imaging of Pulmonary Tuberculosis in an Ex-Vivo Mouse Model Using Spectral Photon-Counting Computed Tomography and Micro-CT*. IEEE ACCESS. 2021; 9 67201-67208. FI: 3.476. Cuartil: 2. (Article).
- García-Sevilla, M; Mediavilla-Santos, L; Moreta-Martínez, R; García-Mato, D; Pérez-Mañanes, R; Calvo-Haro, JA; Pascau, J. *Combining Surgical Navigation*



and 3D Printing for Less Invasive Pelvic Tumor Resections. IEEE ACCESS. 2021; 9 133541-133551. FI: 3.476. Cuartil: 2. (Article).

- Galve, P; Udías, JM; López-Montes, A; Arias-Valcayo, F; Vaquero, JJ; Desco, M; Herraiz, JL. *Super-Iterative Image Reconstruction in PET*. IEEE TRANSACTIONS ON COMPUTATIONAL IMAGING. 2021; 7 248-257. FI: 4.708. Cuartil: 2. (Article).
- García-Mato, D; García-Sevilla, M; Porras, AR; Ochandiano, S; Darriba-Allés, JV; García-Leal, R; Salmerón, JI; Linguraru, MG; Pascau, J. *Three-dimensional photography for intraoperative morphometric analysis in metopic craniosynostosis surgery*. INTERNATIONAL JOURNAL OF COMPUTER ASSISTED RADIOLOGY AND SURGERY. 2021; 16(2) 277-287. FI: 3.421. Cuartil: 2. (Article).
- García-Sevilla, M; Mediavilla-Santos, L; Ruiz-Alba, MT; Pérez-Mañanes, R; Calvo-Haro, JA; Pascau, J. *Patient-specific desktop 3D-printed guides for pelvic tumour resection surgery: a precision study on cadavers*. INTERNATIONAL JOURNAL OF COMPUTER ASSISTED RADIOLOGY AND SURGERY. 2021; 16(3) 397-406. FI: 3.421. Cuartil: 2. (Article).
- Rioboó, RJJ; Gontán, N; Sanderson, D; Desco, M; Gómez-Gaviro, MV. *Brillouin Spectroscopy: From Biomedical Research to New Generation Pathology Diagnosis*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(15). FI: 6.208. Cuartil: 1. (Review).
- Montero, A; Quílez, C; Valencia, L; Girón, P; Jorcano, JL; Velasco, D. *Effect of Fibrin Concentration on the In Vitro Production of Dermo-Epidermal Equivalents*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(13). FI: 6.208. Cuartil: 1. (Article).
- Gómez-Cid, L; López-Donaire, ML; Velasco, D; Marín, V; González, MI; Salinas, B; Cusso, L; García, A; Bravo, SB; Fernández-Santos, ME; Elvira, C; Sierra, J; Arroba, E; Bañares R; Grigorian-Shamagian, L; Fernández-Avilés, F. *Cardiac Extracellular Matrix Hydrogel Enriched with Polyethylene Glycol Presents Improved Gelation Time and Increased On-Target Site Retention of Extracellular Vesicles*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(17). FI: 6.208. Cuartil: 1. (Article).
- Romero-Miguel, D; Casquero-Veiga, M; MacDowell, KS; Torres-Sánchez, S; García-Partida, JA; Lamanna-Rama, N; Romero-Miranda, A; Berrocoso, E; Leza, JC; Desco, M; Soto-Montenegro, ML. *A Characterization of the Effects of Minocycline Treatment During Adolescence on Structural, Metabolic, and*

Oxidative Stress Parameters in a Maternal Immune Stimulation Model of Neurodevelopmental Brain Disorders. INTERNATIONAL JOURNAL OF NEURO-PSYCHOPHARMACOLOGY. 2021; 24(9) 734-748. FI: 5.678. Cuartil: 1. (Article).

- Boraei, SBA; Nourmohammadi, J; Bakhshandeh, B; Dehghan, MM; Gholami, H; Hernández, DC; González, Z; Ferrari, B. *Enhanced osteogenesis of gelatin-hyalloisite nanocomposite scaffold mediated by loading strontium ranelate*. INTERNATIONAL JOURNAL OF POLYMERIC MATERIALS AND POLYMERIC BIOMATERIALS. 2021; 70(6) 392-402. FI: 3.221. Cuartil: 2. (Article).
- Navas-Sánchez, FJ; Fernández-Peña, A; de Blas, DM; Alemán-Gómez, Y; Marcos-Vidal, L; Guzmán-de-Villoria, JA; Fernández-García, P; Romero, J; Catalina, I; Lillo, L; Muñoz-Blanco, JL; Ordóñez-Ugalde, A; Quintáns, B; Pardo, J; Sobrido, MJ; Carmona, S; Granda. *Thalamic atrophy in patients with pure hereditary spastic paraplegia type 4*. JOURNAL OF NEUROLOGY. 2021; 268(7) 2429-2440. FI: 6.682. Cuartil: 1. (Article).
- Risueno, I; Valencia, L; Holgado, M; Jorcano, JL; Velasco, D. *Generation of a Simplified Three-Dimensional Skin-on-a-chip Model in a Micromachined Microfluidic Platform*. JOVE-JOURNAL OF VISUALIZED EXPERIMENTS. 2021; (171). FI: 1.424. Cuartil: 3. (Article).
- Montero, A; Atienza, C; Elvira, C; Jorcano, JL; Velasco, D. *Hyaluronic acid-fibrin hydrogels show improved mechanical stability in dermo-epidermal skin substitutes*. MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS. 2021; 128 112352-112352. FI: 8.457. Cuartil: 1. (Article).
- Martínez, C; de Molina, C; Desco, M; Abella, M. *Optimization of a calibration phantom for quantitative radiography*. MEDICAL PHYSICS. 2021; 48(3) 1039-1053. FI: 4.506. Cuartil: 2. (Article).
- Abella, M; Martínez, C; García, I; Moreno, P; De Molina, C; Desco, M. *Tolerance to geometrical inaccuracies in CBCT systems: A comprehensive study*. MEDICAL PHYSICS. 2021; 48(10) 6007-6019. FI: 4.506. Cuartil: 2. (Article).
- Canadas-Ortega, M; Gómez-Cruz, C; Vaquero, JJ; Muñoz-Barrutia, A. *The contribution of microfluidics to the fight against tuberculosis*. NANOTECHNOLOGY REVIEWS. 2021; 11(1) 40-54. FI: 6.739. Cuartil: 1. (Review).
- Gómez-de-Mariscal, E; García-López-de-Haro, C; Ouyang, W; Donati, L; Lundberg, E; Unser, M; Muñoz-Barrutia, A; Sage, D. *DeeplmageI: A user-friendly environment to run deep learning models in ImageJ*. NATURE METHODS. 2021; 18(10) 1192-1195. FI: 47.99. Cuartil: 1. (Article).



1.01. ADVANCED TECHNOLOGICAL APPLICATIONS AND HUMAN HEALTH

- de Francisco, A; Sierra-Palomares, Y; Felipe, M; Calle, D; Desco, M; Cusso, L. *Effect of illumination level [18F]FDG-PET brain uptake in free moving mice.* PLOS ONE. 2021; 16(5). FI: 3.752. Cuartil: 2. (Article).
- Stojic, M; Rodenas-Rochina, J; López-Donaire, ML; de Torre, IG; Pérez, MG; Rodríguez-Cabello, JC; Vojtova, L; Jorcano, JL; Velasco, D. *Elastin-Plasma Hybrid Hydrogels for Skin Tissue Engineering.* POLYMERS. 2021; 13(13). FI: 4.967. Cuartil: 1. (Article).
- Wert-Carvajal, C; Sánchez-García, R; Macías, JR; Sanz-Pamplona, R; Pérez, AM; Alemany, R; Veiga, E; Sorzano, COS; Muñoz-Barrutia, A. *Predicting MHC I restricted T cell epitopes in mice with NAP-CNB, a novel online tool.* SCIENTIFIC REPORTS. 2021; 11(1) 10780-10780. FI: 4.996. Cuartil: 2. (Article).
- Casquero-Veiga, M; Bueno-Fernández, C; Romero-Miguel, D; Lamanna-Rama, N; Nacher, J; Desco, M; Soto-Montenegro, ML. *Exploratory study of the long-term footprint of deep brain stimulation on brain metabolism and neuroplasticity in an animal model of obesity.* SCIENTIFIC REPORTS. 2021; 11(1) 5580-5580. FI: 4.996. Cuartil: 2. (Article).
- Gómez-de-Mariscal, E; Guerrero, V; Sneider, A; Jayatilaka, H; Phillip, JM; Wirtz, D; Muñoz-Barrutia, A. *Use of the p-values as a size-dependent function to address practical differences when analyzing large datasets.* SCIENTIFIC REPORTS. 2021; 11(1) 20942-20942. FI: 4.996. Cuartil: 2. (Article).
- Valencia, L; Canalejas-Tejero, V; Clemente, M; Fernaud, I; Holgado, M; Jorcano, JL; Velasco, D. *A new microfluidic method enabling the generation of multi-layered tissues-on-chips using skin cells as a proof of concept.* SCIENTIFIC REPORTS. 2021; 11(1) 13160-13160. FI: 4.996. Cuartil: 2. (Article).
- Villalba-Orero, M; Jiménez-Rioboó, RJ; Gontán, N; Sanderson, D; López-Olanea, M; García-Pavia, P; Desco, M; Lara-Pezzi, E; Gómez-Gaviro, MV. *Assessment of myocardial viscoelasticity with Brillouin spectroscopy in myocardial infarction and aortic stenosis models.* SCIENTIFIC REPORTS. 2021; 11(1) 21369-21369. FI: 4.996. Cuartil: 2. (Article).
- Moreta-Martínez, R; Pose-Díez-de-la-Lastra, A; Calvo-Haro, JA; Mediavilla-Santos, L; Pérez-Mañanes, R; Pascau, J. *Combining Augmented Reality and 3D Printing to Improve Surgical Workflows in Orthopedic Oncology: Smartphone Application and Clinical Evaluation.* SENSORS. 2021; 21(4). FI: 3.847. Cuartil: 2. (Article).
- García-Sevilla, M; Moreta-Martínez, R; García-Mato, D; Pose-Díez-de-la-Lastra, A; Pérez-Mañanes, R; Calvo-Haro, JA; Pascau, J. *Augmented Reality as*

a Tool to Guide PSI Placement in Pelvic Tumor Resections. SENSORS. 2021; 21(23). FI: 3.847. Cuartil: 2. (Article).

- Santos-Coquillat, A; Martínez-Campos, E; Sánchez, HM; Moreno, L; Arrabal, R; Mohedano, M; Gallardo, A; Rodríguez-Hernández, J; Matykina, E. *Hybrid functionalized coatings on Metallic Biomaterials for Tissue Engineering.* SURFACE & COATINGS TECHNOLOGY. 2021; 422. FI: 4.865. Cuartil: 2. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor:

- Pérez-Mañanes, R; García-de San Jose, S; Desco-Menendez, M; Sánchez-Arcila, I; González-Fernández, E; Vaquero-Martín, J; González-Garzon, JP; Mediavilla-Santos, L; Trapero-Moreno, D; Calvo-Haro, JA. *Application of 3D printing and distributed manufacturing during the first-wave of COVID-19 pandemic. Our experience at a third-level university hospital.* 3D PRINTING IN MEDICINE. 2021; 7(1) 7-7. (Article).
- Calvo-Haro, JA; Pascau, J; Asencio-Pascual, JM; Calvo-Manuel, F; Cancho-Gil, MJ; López, JFD; Fanjul-Gómez, M; García-Leal, R; González-Casaurrán, G; González-Leyte, M; León-Luis, JA; Mediavilla-Santos, L; Ochandiano-Calcioya, S; Pérez-Caballero, R; Ribed-S. *Point-of-care manufacturing: a single university hospital's initial experience.* 3D PRINTING IN MEDICINE. 2021; 7(1) 11-11. (Article).
- García-Mato, D; Moreta-Martínez, R; García-Sevilla, M; Ochandiano, S; García-Leal, R; Pérez-Mañanes, R; Calvo-Haro, JA; Salmerón, JI; Pascau, J. *Augmented reality visualization for craniostomosis surgery.* COMPUTER METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING-IMAGING AND VISUALIZATION. 2021; 9(4) 392-399. (Article).
- García-Mato, D; Porras, AR; Ochandiano, S; Rogers, GF; García-Leal, R; Salmerón, JI; Pascau, J; Linguraru, MG. *Effectiveness of Automatic Planning of Fronto-orbital Advancement for the Surgical Correction of Metopic Craniostomosis.* PLASTIC AND RECONSTRUCTIVE SURGERY-GLOBAL OPEN. 2021; 9(11). (Article).

Other publications

- Martínez-García M; Paternina-Díez M; Desco M; Vilarroya O; Carmona S. *Characterizing the Brain Structural Adaptations Across the Motherhood Transition.* FRONTIERS IN GLOBAL WOMEN'S HEALTH. 2021; 2 742775-742775. (Article).



1.02. Signal processing

Group Head: **ANTONIO ARTÉS RODRÍGUEZ**

Organisms involved: **UC3M**

Type: **Consolidated (in the process of integration) Group**

Research lines

- ▶ L1: Merging of data from monitoring devices.
- ▶ L2: Data mining in psychiatry.
- ▶ L4: Monitoring.
- ▶ L4: Ambulatory monitoring with wearable devices.
- ▶ L5: Diagnostic support in patients with heart arrhythmias.
- ▶ L6: Signal processing and application of machine learning in medicine.

The Signal Processing and Learning Group focuses its research and teaching activity in the following areas: detection, modification and classification of signals and images, machine learning, computational statistics in signal processing, information theory and related applications in communications, medicine, geophysics or social sciences.

Group members

- **Alcaide Cea, Marina:** R1. First Stage Researcher.
- **Armario Romero, Arturo:** R1. First Stage Researcher.
- **Artés Rodríguez, Antonio:** R4. Leading Researcher.
- **Barrejón Moreno, Daniel:** R1. First Stage Researcher.
- **Bonilla Escribano, Pablo:** R2. Recognised Researcher.
- **Campaña Montes, Juan José:** R1. First Stage Researcher.
- **Carretero Villajos, Patricia:** R1. First Stage Researcher.
- **Carrillo López, Andrés:** R1. First Stage Researcher.

- **Chao, Qi:** R2. Recognised Researcher.
- **Cobo Aguilera, Aurora:** R1. First Stage Researcher.
- **De León Martínez, Santiago:** Other.
- **García Martín, Rafael:** R1. First Stage Researcher.
- **González Hernández, Omar Fabián:** R1. First Stage Researcher.
- **Guerra Carrasco, Nuria:** R1. First Stage Researcher.
- **Guerrero López, Alejandro:** R1. First Stage Researcher.
- **Hernando Gallego, Francisco:** R2. Recognised Researcher.
- **Herrera López, Jesús:** R1. First Stage Researcher.
- **Jiménez Rama, Óscar:** R1. First Stage Researcher.
- **Koch, Tobías:** R3. Established Researcher.
- **López Elvira, Igor:** Other. Scientific Manager.
- **López Santiago, Javier:** R3. Established Researcher.
- **Martínez Casares, Alicia:** R1. First Stage Researcher.
- **Martínez García, María:** R1. First Stage Researcher.
- **Martínez Olmos, Pablo:** R3. Established Researcher.
- **Martínez Ordóñez, José Alberto:** R1. First Stage Researcher.
- **Míguez Arenas, Joaquín:** R3. Established Researcher.
- **Moreno Martínez, Ángela:** R1. First Stage Researcher.
- **Moreno Muñoz, Pablo:** R2. Recognised Researcher.
- **Moreno Pino, Fernando:** R1. First Stage Researcher.
- **Pascual Sánchez, Lidia:** R1. First Stage Researcher.
- **Peis Aznarte, Ignacio:** R1. First Stage Researcher.
- **Peleato Iñarrea, Borja M:** R3. Established Researcher.

Continued on next page



Group members (*cont.*)

- **Pérez Cruz, Fernando:** R3. Established Researcher.
- **Pérez Vieites, Sara:** R2. Recognised Researcher.
- **Ramírez García, David:** R3. Established Researcher.
- **Rodríguez de Diago, Marta:** R1. First Stage Researcher.
- **Romero Medrano, Lorena:** R1. First Stage Researcher.
- **Salcedo Fernández, Miguel:** R1. First Stage Researcher.
- **Sukey, Emese:** R1. First Stage Researcher.
- **Sztamfater García, Yannick:** R1. First Stage Researcher.
- **Vázquez López, Manuel Alberto:** R3. Established Researcher.
- **Vázquez Vilar, Gonzalo:** R3. Established Researcher.
- **Villacrés Estrada, Grace:** R2. Recognised Researcher.
- **Yáñez Montesdeoca, Alberto:** R1. First Stage Researcher.

Research Projects – Competitive Calls

Competitive projects

Not managed by the FIBHGM

- Title: **Advanced Bayesian computation methods for modelling and inference in complex dynamical networks** N00014-19-1-2226
Directo: Míguez Arenas, Joaquín
Project type: European research project
Funding body: Comisión Europea
Start date: 01/03/2017
End date: 28/02/2022
- Title: **Uncertainty Propagation Meeting Space Debris Needs** T711-501GR
NºContr.4000126151/19/D/SR
Directo: Míguez Arenas, Joaquín
Project type: European research project
Funding body: European Space Agency
Start date: 04/03/2019
End date: 31/03/2021
- Title: **Lolita: Information Theory for Low-Latency Wireless Communications** ERC-2016-StG Nr. 714161
Directo: Artés Rodríguez, Antonio
Project type: European research project
Funding body: Comisión Europea
Start date: 01/03/2017
End date: 28/02/2022
- Title: **Aprendizaje máquina y computación masiva para medicina personalizada y análisis cuantitativo del clima** RTI2018-099655-B-I00
Directo: Artés Rodríguez, Antonio
Project type: Research project
Funding body: MICINN
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Domain Alignment and Data Wrangling with Deep Generative Models**
Directo: Artés Rodríguez, Antonio
Project type: Research project
Funding body: Fundación BBVA
Start date: 30/04/2019
End date: 06/08/2021
- Title: **Investigación fundamental en teoría de la señal, aprendizaje máquina y tecnologías de telecomunicaciones** EPUC3M
Directo: Ramírez García, David
Project type: Research project
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid.
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Sistema de atención domiciliaria inteligente e interactivo para la mitigación de la pandemia del COVID-19** IntCARE-CM
Directo: Artés Rodríguez, Antonio
Project type: Research project



Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
 Start date: 01/02/2020
 End date: 31/12/2022

- Title: **PRACTICO-CM Psiquiatría Computacional y Modelos Integrales de Comportamiento** Y2018/TCS-4705
 Directo: Artés Rodríguez, Antonio
 Project type: Research project
 Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
 Start date: 01/01/2019
 End date: 30/06/2022
- Title: **Change-point Management (CAIMAN)** TEC2017-86921-C2-2-R
 Directo: Ramírez García, David
 Project type: Research project
 Funding body: MINECO
 Start date: 01/01/2018
 End date: 30/09/2021
- Title: **Servicios de asesoramiento en el área de soluciones de tratamiento de señal y aprendizaje automático en el ámbito de la salud**
 Directo: Míguez Arenas, Joaquín
 Project type: Research project
 Funding body: Evidence Based Behaviour S.L.
 Start date: 01/01/2018
 End date: 31/12/2021
- Title: **Proyecto de desarrollo de las capacidades de medición de competencias de candidatos a través de la gamificación y la inteligencia artificial** Convocatoria RIS3
 Directo: Artés Rodríguez, Antonio
 Project type: Research project
 Funding body: Job Search Technologies
 Start date: 21/01/2020
 End date: 21/01/2021
- Title: **Machine Learning Frontiers in Precision Medicine** H2020-MSCA-ITN-2018 Grant Agreement N°813533
 Directo: Artés Rodríguez, Antonio
 Project type: Human Resources

Funding body: Comisión Europea
 Start date: 01/01/2019
 End date: 31/12/2022

- Title: **AUTONOMOUS SPECTRUM MANAGEMENT IN COLLABORATIVE WIRELESS NETWORKS (AuCoNet)** H2020-MSCA-COFUND-2017-UE
 Directo: Artés Rodríguez, Antonio
 Project type: Human Resources
 Funding body: Comisión Europea
 Start date: 30/09/2020
 End date: 29/09/2021
- Title: **Metodologías de aprendizaje automático en neuroimagen** PEJ2018-001757-A
 Directo: Martínez Olmos, Pablo
 Project type: Human Resources
 Funding body: MICINN
 Start date: 01/10/2019
 End date: 28/06/2021
- Title: **Young employment contract: Research Assistant** PEJ-2018-AI/TIC-11059
 Directo: Artés Rodríguez, Antonio
 Project type: Human Resources
 Funding body: MICINN
 Start date: 15/01/2019
 End date: 15/02/2021
- Title: **Caracterización automática de comportamiento mediante modelos latentes basados en redes profundas** IND2017/TIC-7618
 Directo: Martínez Olmos, Pablo
 Project type: Human Resources
 Funding body: Dirección Genral de Investigación e Innovación. Comunidad de Madrid
 Start date: 16/02/2018
 End date: 16/08/2021
- Title: **Detection of behavioral changes and its application in psychiatry** IND2018/TIC-9574
 Directo: Ramírez García, David



1.02. SIGNAL PROCESSING

Project type: Human Resources

Funding body: Dirección General de Investigación e Innovación. Comunidad de Madrid

Start date: 04/02/2019

End date: 03/02/2022

- Title: **Domain Alignment and Data Wrangling with Deep Generative Models** IND2018/TIC-9649
Directo: Martínez Olmos, Pablo
Project type: Human Resources
Funding body: Dirección General de Investigación e Innovación. Comunidad de Madrid
Start date: 25/02/2019
End date: 24/02/2022
- Title: **Domain Alignment and Data Wrangling with Deep Generative Models** IND2020/TIC-17372
Directo: Martínez Olmos, Pablo
Project type: Human Resources
Funding body: Dirección General de Investigación e Innovación. Comunidad de Madrid
Start date: 16/02/2021
End date: 23/01/2022

Industrial And Intellectual Property Registrations

Industrial Property

Title	Reference*	Owner	Inventors
Sistema y método para la detección automática de patrones electrofisiológicos anómalos	P 2017 31161	FIBHGM - UC3M	Gonzalo Ricardo Ríos Muñoz, Antonio Artés Rodríguez. Ángel Arenal Maíz, Francisco Jesús Fernández-Avilés Díaz

* Reference: P (Patent), PCT (international patent), EP (European patent), US (USA patent), U (Utility model), M (Trademark).

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of network	Role
CIBER	CIBERSAM CIBER Salud Mental	Others (Only Antonio Artés Rodríguez)

Doctoral theses. Bachelor thesis and Master theses

Type	Candidate	Title	Name/s Director/s	University	Date defended
Ph Thesis	Pablo Moreno Muñoz	Probabilistic models for human behavior learning	Antonio Artés Rodríguez	UC3M	25/03/2021

Publications

Total Impact Factor: 76.8

	Nº	IF
Own publications	8	31.9
Joint publications	6	44.9
First decile publications	4	31.6
First quartile publications	6	43.1
Second quartile publications	8	33.7
Third quartile publications	0	0.0
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	14	76.8



Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Cobo, A; Porras-Segovia, A; Pérez-Rodríguez, MM; Artés-Rodríguez, A; Barrigón, ML; Courtet, P; Baca-García, E. *Patients at high risk of suicide before and during a COVID-19 lockdown: ecological momentary assessment study*. BJPSYCH OPEN. 2021; 7(3). FI: 5.165. Cuartil: 2. (Article).
- Aradillas, JC; Murillo-Fuentes, JJ; Olmos, PM. *Boosting Offline Handwritten Text Recognition in Historical Documents With Few Labeled Lines*. IEEE ACCESS. 2021; 9 76674-76688. FI: 3.476. Cuartil: 2. (Article).
- Vázquez-Vilar, G. *Error Probability Bounds for Gaussian Channels Under Maximal and Average Power Constraints*. IEEE TRANSACTIONS ON INFORMATION THEORY. 2021; 67(6) 3965-3985. FI: 2.978. Cuartil: 2. (Article).
- López-Castroman, J; Abad-Tortosa, D; Aguilera, AC; Courtet, P; Barrigón, ML; Artés, A; Baca-García, E. *Psychiatric Profiles of eHealth Users Evaluated Using Data Mining Techniques: Cohort Study*. JMIR MENTAL HEALTH. 2021; 8(1). FI: 6.332. Cuartil: 2. (Article).
- Ryu, J; Sükei, E; Norbury, A; Liu, SH; Campaña-Montes, JJ; Baca-García, E; Artés, A; Pérez-Rodríguez, MM. *Shift in Social Media App Usage During COVID-19 Lockdown and Clinical Anxiety Symptoms: Machine Learning-Based Ecological Momentary Assessment Study*. JMIR MENTAL HEALTH. 2021; 8(9). FI: 6.332. Cuartil: 2. (Article).
- Sükei, E; Norbury, A; Pérez-Rodríguez, MM; Olmos, PM; Artés, A. *Predicting Emotional States Using Behavioral Markers Derived From Passively Sensed Data: Data-Driven Machine Learning Approach*. JMIR MHEALTH AND UHEALTH. 2021; 9(3). FI: 4.947. Cuartil: 1. (Article).
- Porras-Segovia, A; Cobo, A; Díaz-Oliván, I; Artés-Rodríguez, A; Berrouiguet, S; López-Castroman, J; Courtet, P; Barrigón, ML; Oquendo, MA; Baca-García, E. *Disturbed sleep as a clinical marker of wish to die: A smartphone monitoring study over three months of observation*. JOURNAL OF AFFECTIVE DISORDERS. 2021; 286 330-337. FI: 6.533. Cuartil: 1. (Article).
- López-Morinigo, JD; Barrigón, ML; Porras-Segovia, A; Ruiz-Ruano, VG; Martínez, ASE; Escobedo-Aedo, PJ; Alonso, SS; Iturralde, LM; Lorenzo, LM; Artés-Rodríguez, A; David, AS; Baca-García, E. *Use of Ecological Momentary Assessment Through a Passive Smartphone-Based App (eB2) by Patients With Schizophrenia: Acceptability Study*. JOURNAL OF MEDICAL INTERNET RESEARCH. 2021; 23(7). FI: 7.076. Cuartil: 1. (Article).
- Bonilla-Escribano, P; Ramírez, D; Porras-Segovia, A; Artés-Rodríguez, A. *Assessment of Variability in Irregularly Sampled Time Series: Applications to Mental Healthcare*. MATHEMATICS. 2021; 9(1). FI: 2.592. Cuartil: 1. (Article).
- Norbury, A; Liu, SH; Campaña-Montes, JJ; Romero-Medrano, L; Barrigón, ML; Smith, E; Artés-Rodríguez, A; Baca-García, E; Pérez-Rodríguez, MM; MEMind Study Grp. *Social media and smartphone app use predicts maintenance of physical activity during Covid-19 enforced isolation in psychiatric outpatients*. MOLECULAR PSYCHIATRY. 2021; 26(8) 3920-3930. FI: 13.437. Cuartil: 1. (Article).
- Moreno-Muñoz, P; Ramírez, D; Artés-Rodríguez, A. *Change-point detection in hierarchical circadian models*. PATTERN RECOGNITION. 2021; 113. FI: 8.518. Cuartil: 1. (Article).
- Ramírez, D; Marqués, AG; Segarra, S. *Graph-signal Reconstruction and Blind Deconvolution for Structured Inputs*. SIGNAL PROCESSING. 2021; 188. FI: 4.729. Cuartil: 2. (Article).
- Akyildiz, OD; Míguez, J. *Convergence rates for optimised adaptive importance samplers*. STATISTICS AND COMPUTING. 2021; 31(2). FI: 2.324. Cuartil: 2. (Article).
- Elvira, V; Míguez, J; Djuric, PM. *On the performance of particle filters with adaptive number of particles*. STATISTICS AND COMPUTING. 2021; 31(6). FI: 2.324. Cuartil: 2. (Article).

1.03. Computer architecture, communications, and systems: ARCOS

Group Head: JESÚS CARRETERO PÉREZ

Organisms involved: UC3M

Type: Consolidated (in the process of integration) Group

Research lines

Axis 1: High-performance processing

- ▶ Line 1: Cluster processing.
- ▶ Line 2: Cloud computing.
- ▶ Line 1: High-performance storage.
- ▶ Line 1: GPU processing.

Axis 2: Medical image processing

- ▶ Line 1: Real-time reconstruction of 3D images.

Axis 3: Epidemic simulators

- ▶ Line 1: Simulation of influenza with social information.

The research group of computer architecture, communications and systems (ARCOS) represents the Computer Architecture and Technology Area at the Carlos III of Madrid University.

Its main objective is to investigate and develop hardware and software systems in the areas of real-time and embedded systems, high-performance computing, storage systems, dependable systems.

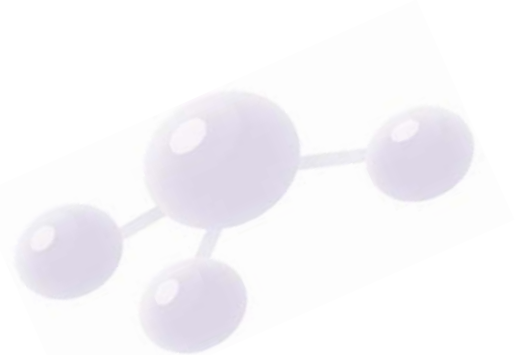
ARCOS is a dynamic research group that is currently conducting research in various HPC areas. Our research activities are oriented to the development of new software for large-scale parallel and distributed systems. These activities cover the development and optimization of parallel and distributed applications, real time, reliable designs, and high performance computing, including cross-layer optimizations of HPC storage I/O stack, parallel file systems, I/O acceleration of scientific workflows, auto-tuning of parallel I/O based on machine learning,

dynamic monitoring of HPC infrastructures, convergence of HPC and Bigdata software stacks, and resource allocation elasticity in HPC and clouds.

All the former knowledge has been applied to several scientific and industrial areas, such as fluid mechanics, reconstruction of 3D medical images, Big Data Analytics, finance computing, and simulations involving complex systems, trying to combine real world engineering with cutting-edge research topics. As a result, ARCOS has strong relations with a portfolio of major European laboratories and companies in areas such as Informatics, Bioengineering and Aerospace.

Moreover, ARCOS researchers are leading several European projects, such as COST Action IC1305 entitled "Network for Sustainable Ultrascale Computing" (NESUS, www.nesus.eu), with more than 70 institutions from 40 countries all around the world, or the projects REPARA (www.repara-project.eu) and RePhrase (rephrase-ict.eu) that address the programmability for parallel systems with special attention to heterogeneous architectures.

Besides that, ARCOS is actively involved in the standardization of the C++ programming language (representing Spain in the ISO C++ standards committee).



Group members

- Caino Lores, Silvina: R1. First Stage Researcher.
- Calderón Mateos, Alejandro: R2. Recognised Researcher.
- Camarmas Alonso, Diego.
- Carretero Pérez, Jesús: R4. Leading Researcher.
- Cristóbal Bocos, Humberto.
- Del Pozo Puñal, Elías.
- Expósito Singh, David: R2. Recognised Researcher.
- Fernández Muñoz, Javier: R2. Recognised Researcher.
- García Blas, Francisco Javier: R2. Recognised Researcher.
- García Carballeira, Félix: R3. Established Researcher.
- García Fernández, Alberto.
- García Sánchez, José Daniel: R2. Recognised Researcher.
- Gómez Carrasco, Carlos.
- Isaila Florín: R2. Recognised Researcher.
- Li, Xin.
- Llopis Sanmillán, Pablo.
- Martínez Rendón, Christian.
- Ortiz Nieto, Daniel.
- Rodrigo Duro, Francisco José.
- Sánchez Gallegos, Dante.
- Sánchez García, Luis Miguel.
- Serrano López, Estefanía: R1. First Stage Researcher.
- Sotomayo Fernández, Rafael.
- Visuña Pérez, Lara.

Industrial And Intellectual Property Registrations

Industrial Property

Title	Reference	Owner	Inventors
RapTor	Nº Asiento Registral: 16/2017/7104	FIBHGM-UC3M	Manuel Desco, Mónica Abella, Claudia de Molina, Estefanía Serrano, Fco. Javier García, Jesús Carretero

Publications

Total Impact Factor: 20.5

	Nº	IF
Own publications	4	20.5
Joint publications	0	0.0
First decile publications	0	-
First quartile publications	2	13.2
Second quartile publications	2	7.3
Third quartile publications	0	0.0
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	2	-
Total publications (including those without IF)	6	20,5



Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- García-Carballeira, F; Calderón, A; Carretero, J. *Enhancing the power of two choices load balancing algorithm using round robin policy*. CLUSTER COMPUTING-THE JOURNAL OF NETWORKS SOFTWARE TOOLS AND APPLICATIONS. 2021; 24(2) 611-624. FI: 2.303. Cuartil: 2. (Article).
- Guzmán-Merino, M; Durán, C; Marinescu, MC; Delgado-Sanz, C; Gómez-Barroso, D; Carretero, J; Singh, DE. *Assessing population-sampling strategies for reducing the COVID-19 incidence*. COMPUTERS IN BIOLOGY AND MEDICINE. 2021; 139. FI: 6.698. Cuartil: 1. (Article).
- Singh, DE; Marinescu, MC; Guzmán-Merino, M; Durán, C; Delgado-Sanz, C; Gómez-Barroso, D; Carretero, J. *Simulation of COVID-19 Propagation Scenarios in the Madrid Metropolitan Area*. FRONTIERS IN PUBLIC HEALTH. 2021; 9. FI: 6.461. Cuartil: 1. (Article).

- Yang, DD; Martínez, C; Visuna, L; Khandhar, H; Bhatt, C; Carretero, J. *Detection and analysis of COVID-19 in medical images using deep learning techniques*. SCIENTIFIC REPORTS. 2021; 11(1). FI: 4.996. Cuartil: 2. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Carrizales-Espinoza, D; Sánchez-Gallegos, DD; González-Compean, JL; Carretero, J. *A Federated Content Distribution System to Build Health Data Synchronization Services*. EUROMICRO CONFERENCE ON PARALLEL, DISTRIBUTED AND NETWORK-BASED PROCESSING. 2021; 1-8. (Proceedings Paper).
- Cascajo, A; Singh, DE; Carretero, J. *LIMITLESS - Light-weight Monitoring Tool for Large Scale Systems*. EUROMICRO CONFERENCE ON PARALLEL, DISTRIBUTED AND NETWORK-BASED PROCESSING. 2021; 220-227. (Proceedings Paper).



1.04. Nonparametric statistical and intensive computing techniques

Group Head: JUAN ROMO URROZ

Organisms involved: UC3M

Type: Consolidated (in the process of integration) Group

Research lines

Axis 1: Big data

- ▶ Line 1: Genetic studies with massive databases.
- ▶ Line 2: Design of genetic networks.
- ▶ Line 3: Analysis and selection of polymorphisms.

Axis 2: Analysis of complex data

- ▶ Line 1: Analysis of functional data.
- ▶ Line 2: Analysis of microarray data.
- ▶ Line 3: Analysis of images.

Axis 3: Survival analysis

- ▶ Line 1: Study of the efficacy of treatment using confidence intervals.
- ▶ Line 2: Definition of reliability measures and associated comparisons.
- ▶ Line 2: Use of MAP models for analysis of the appearance of events.

Group members

- Aguilera Morillo, Carmen: R2. Recognised Researcher.
- Arribas Gil, Ana: R2. Recognised Researcher.
- Hernández Roig, Harold Antonio.
- Lillo Rodríguez, Rosa Elvira: R3. Established Researcher.
- Méndez Civieta, Álvaro: Other.
- Rodríguez César, Joanna: R1. First Stage Researcher.
- Romo Urroz, Juan: R4. Leading Researcher.
- Strzalkowska Kominiak, Ewa: Other. Other.

Publications

Total Impact Factor: 6.4

	Nº	IF
Own publications	3	6.4
Joint publications	0	0.0
First decile publications	1	2.6
First quartile publications	2	5.1
Second quartile publications	0	0.0
Third quartile publications	0	0.0
Fourth quartile publications	1	1.3
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	3	6.4

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Torrente, A; Romo, J. *Initializingk-means Clustering by Bootstrap and Data Depth*. JOURNAL OF CLASSIFICATION. 2021; 38(2) 232-256. FI: 1.333. Cuartil: 4. (Article).
- Laria, JC; Aguilera-Morillo, MC; Álvarez, E; Lillo, RE; López-Taruella, S; del Monte-Millán, M; Picornell, AC; Martín, M; Romo, J. *Iterative Variable Selection for High-Dimensional Data: Prediction of Pathological Response in Triple-Negative Breast Cancer*. MATHEMATICS. 2021; 9(3). FI: 2.592. Cuartil: 1. (Article).
- Strzalkowska-Kominiak, E; Romo, J. *Censored functional data for incomplete follow-up studies*. STATISTICS IN MEDICINE. 2021; 40(12) 2821-2838. FI: 2.497. Cuartil: 1. (Article).

1.05. Structural and functional medical image

Group Head: JESÚS DE LA TORRE FERNÁNDEZ / JUAN A. GUZMÁN DE VILLORIA

Organisms involved: HGUGM

Type: Emerging Group

Research lines

Axis 1: Neuroimaging

- ▶ Line 1: MRI assessment of carotid plaque vulnerability in patients with asymptomatic stenosis.
- ▶ Line 2: Utility of artificial intelligence models in neurooncologic Pathology.
- ▶ Line 3: Correlation of brain activation MRI with intraoperative monitoring in localization of eloquent areas.
- ▶ Line 4: Stimulation by means of deep electrodes in patients with movement disorders.

Axis 2: Pediatric Radiology

- ▶ Line 1: 3D printing for the implantation of Melody® endovascular devices in pulmonary insufficiency.
- ▶ Line 2: Cardiac morphology and function study for Pulsta® valve prosthesis.
- ▶ Line 3: Doppler and cerebral MRI in the study of hypothermia treatment of cerebral hypoxia-ischemia in the neonate.

Axis 3: Cardiothoracic imaging

- ▶ Line 1: Multiparametric and quantitative CT assessment in the planning of lung volume reduction techniques in patients with advanced emphysema.
- ▶ Line 2: Reconstruction and 3D printing of thoracic structures as a surgical map for atypical pulmonary segmentectomies.
- ▶ Line 3: Spectral CT assessment of pulmonary sequelae after SARS-CoV 2 pneumonia.

Axis 4: Abdominal Imaging

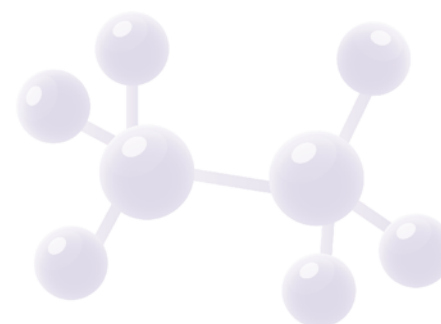
- ▶ Line 1: Analysis of the composition of renal lithiasis by spectral CT.

- ▶ Line 2: Prostatic biopsy by fusion of magnetic resonance imaging and intraoperative ultrasound.
- ▶ Line 3: Validation of advanced MRI techniques in the detection of prostate cancer.

Axis 5: Vascular and interventional radiology

- ▶ Line 1: Efficacy and safety in radicular liver segmentation.
- ▶ Line 2: Treatment by TIPS (Tranjugular intrahepatic portosystemic shunt) of portal thrombosis.
- ▶ Line 3: Endovascular embolization of bleeding due to anticoagulation.

The Structural and Functional Medical Imaging group is a transversal research group whose objective is the assessment, quantification and analysis of parameters obtained from medical imaging. The results obtained provide diagnostic, prognostic or predictive biomarkers of the pathological processes studied.



Group members

- **Calleja Cartón, Enrique:** R1. First Stage Researcher.
- **Carretero López, Fernando:** R1. First Stage Researcher.
- **De la Torre Fernández, Jesús:** R2. Recognised Researcher.
- **De Miguel Campos, Enrique:** R1. First Stage Researcher.
- **Echenagusia Boyra, Miguel Jesús:** R1. First Stage Researcher.
- **González Cantero, José Luis:** R2. Recognised Researcher.
- **González Leyte, Manuel.**
- **Guzmán de Villoria Libiedziejewski, Juan Adán:** R3. Established Researcher.
- **Lancharro Zapata, Ángel Miguel:** R1. First Stage Researcher.
- **Marín Rodríguez, Carlos:** R2. Recognised Researcher.
- **Paniagua González, Miguel.**
- **Ruiz Martín, Yolanda:** R1. First Stage Researcher.
- **Sánchez Alegre, María Luisa:** R1. First Stage Researcher.

Publications

Total Impact Factor: 19.0

	Nº	IF
Own publications	0	0.0
Joint publications	5	19.0
First decile publications	1	7.6
First quartile publications	2	14.3
Second quartile publications	1	4.3
Third quartile publications	0	0.0
Fourth quartile publications	2	0.4
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	5	19.0

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Joigneau, L; Ruiz, Y; Bravo, C; Bujan, J; Ortega, MA; De León-Luis, J. *The brain-stem-tentorium angle revisited. Difficulties encountered and possible solutions.* CLINICAL AND EXPERIMENTAL OBSTETRICS & GYNECOLOGY. 2021; 48(4) 991-994. FI: 0.192. Cuartil: 4. (Article).
- Bada-Bosch, I; Berenguer, B; Lorca-García, C; Ruiz, Y; De Tomas, E. *Sinus pericranii: an update illustrated with a large case with long-term follow-up.* EUROPEAN JOURNAL OF PLASTIC SURGERY. 2021; 44(6) 715-720. FI: 0.24. Cuartil: 4. (Review).
- González-Cantero, A; Ortega-Quijano, D; Álvarez-Díaz, N; Ballester, MA; Jiménez-Gómez, N; Jaén, P; González-Cantero, J; González-Calvin, JL; Barderas, MG; Shin, DB; Mehta, NN; Gelfand, JM. *Impact of Biological Agents on Imaging and Biomarkers of Cardiovascular Disease in Patients with Psoriasis: A Systematic Review and Meta-Analysis of Randomized Placebo-Controlled Trials.* JOURNAL OF INVESTIGATIVE DERMATOLOGY. 2021; 141(10) 2402-2411. FI: 7.59. Cuartil: 1. (Review).
- Navas-Sánchez, FJ; Fernández-Peña, A; de Blas, DM; Alemán-Gómez, Y; Marcos-Vidal, L; Guzmán-de-Villoria, JA; Fernández-García, P; Romero, J; Catalina, I; Lillo, L; Muñoz-Blanco, JL; Ordóñez-Ugalde, A; Quintáns, B; Pardo, J; Sobrido, MJ; Carmona, S; Granda. *Thalamic atrophy in patients with pure hereditary spastic paraplegia type 4.* JOURNAL OF NEUROLOGY. 2021; 268(7) 2429-2440. FI: 6.682. Cuartil: 1. (Article).
- Alungulese, AL; Lebiedziejewski, JAGD; Montalvo, JP. *Spectrum of neuroimaging findings following drug abuse.* REVUE NEUROLOGIQUE. 2021; 177(3) 323-325. FI: 4.313. Cuartil: 2. (Letter).

Area 2

CARDIOVASCULAR DISEASES

Area coordinator:
Francisco Fernández-Avilés Díaz



Cardiovascular diseases constitute a major health problem in developed countries, both because of their prevalence and incidence and because of their severity; hence the importance of a research area for cardiovascular diseases in the IISGM. The Area of Cardiovascular Diseases covers all aspects of this modern epidemic, through basic research and, very importantly, clinical research, including various emerging and associated clinical groups from a variety of hospital services.

Investigación Cardiovascular (RIC [*Cooperative Network for Research on Cardiovascular Disease*]) for the study of cardiovascular diseases, which is funded by the Instituto de Salud Carlos III. Of particular interest, this area includes basic research groups belonging to the Universidad Complutense and envisages wide-ranging agreements with American universities for the development of an ambitious program for the generation of artificial organs (SABIO Project). In addition to such important ongoing projects, the Area of Cardiovascular Diseases has forged an ambitious set of objectives for the coming years, including promotion of basic research laboratories, increased funding from the EU's Seventh Framework Programme for Research and Technological Development, and development of a model for the evaluation and identification of intellectual property products.

Finally, the Area of Cardiovascular Diseases places particular emphasis on undergraduate education and importantly training for research personnel.

Groups in Area 2

CARDIOVASCULAR DISEASES

- ▶ 2.01. Natural history of heart disease
- ▶ 2.02. Cardiovascular pathophysiology
- ▶ 2.03. Cardiac cellular electrophysiology
- ▶ 2.05. Cardiology and heart transplantation in infants
- ▶ 2.06. Blood lipids and cardiovascular risk
- ▶ 2.07. Acute cerebral ischemia. Stroke

2.01. Natural history of heart disease

Group Head: FRANCISCO FERNÁNDEZ AVILÉS DÍAZ

Organisms involved: HGUGM

Type: Consolidated Group

Research lines

Axis 1: Consolidation of research lines in cardiovascular diseases

- ▶ L1: Consolidation of the basic research area.
- ▶ L2: Leading national and European research projects.
- ▶ L3: Consolidation of the translational research area of the cardiac cellular electrophysiology area.
- ▶ L4: Maintenance and consolidation of scientific output.
- ▶ L5: Diversification of funding sources by consolidating several PIs.

Axis 2: Consolidation of training

- ▶ L1: Increase in the offer for postgraduate training.
- ▶ L2: Encourage temporary stays for researchers at prestigious laboratories.

Axis 3: Consolidation of infrastructures

- ▶ L1: Final distribution and equipping of the Bioartificial Organ Laboratory.

Axis 4: R&D&i

- ▶ L1: Development of a model for evaluating and identifying intellectual property products.
- ▶ L2: Development of spin-off models with hospitals and universities.

Basic, translational and clinical research on cardiovascular diseases in collaboration with clinical groups and institutions and coordination of CIBER Cardiovascular at a national level.

Group members

- Acosta Ocampo, Alejandra: Others. Laboratory technician.
- Alcón Durán, Blanca: R1. First Stage Researcher.
- Alonso García, Andrés: R1. First Stage Researcher.
- Álvarez Zaballos, Sara: R1. First Stage Researcher.
- Arenal Maíz, Ángel: R3. Established Researcher.
- Atienza Fernández, Felipe: R3. Established Researcher.
- Ávila Alonso, Pablo: R2. Recognised Researcher.
- Bejarano Arosemena, Roberto Andrés: R1. First Stage Researcher.
- Benito Vicente, Yolanda: R1. First Stage Researcher.
- Bermejo Thomas, Javier: R3. Established Researcher.
- Blázquez Bermejo, Zorba.
- Bruña Fernández, Vanesa: R1. First Stage Researcher.
- Carta Bergaz, Alejandro: R1. First Stage Researcher.
- Castrodeza Calvo, Javier: R2. Recognised Researcher.
- Chazo Paz, Christian: R1. First Stage Researcher.
- Corisco Beltrán, Rafael: R1. First Stage Researcher.
- Delgado Montero, Antonia: R2. Recognised Researcher.
- Devesa Cordero, Carolina: R1. First Stage Researcher.
- Díez del Hoyo, Felipe: R1. First Stage Researcher.
- Elizaga Corrales, Jaime: R3. Established Researcher.

Continued on next page



Group members (*cont.*)

- Espinosa Castro, M^a Ángeles: R2. Recognised Researcher.
- Fernández Ávila, Ana Isabel: R2. Recognised Researcher.
- Fernández Baza, Ana María: Other. Research project manager.
- Fernández Cordon, Clara: R1. First Stage Researcher.
- Fernández Santos, M^a Eugenia: R3. Established Researcher.
- Fernández-Avilés Díaz, Francisco Jesús: R4. Leading Researcher.
- Gabaldón Badiola, Álvaro: R1. First Stage Researcher.
- Galán López, Virgilio: Other.
- García Carreño, Jorge: R1. First Stage Researcher.
- García del Rey, M^a Carmen: R1. First Stage Researcher.
- García Montero, Marta: R1. First Stage Researcher.
- Garnacho Gómez, Luis Jorge: R1. First Stage Researcher.
- Gómez Cid, Lidia: R1. First Stage Researcher.
- Gómez González, Cristina: R1. First Stage Researcher.
- Gómez Sánchez, Roberto: R1. First Stage Researcher.
- González Mansilla, Ana: R2. Recognised Researcher.
- González Pinto, Ángel: R3. Established Researcher.
- González Torrecilla, Esteban: R3. Established Researcher.
- Grigorian Shamagian, Lilian: R2. Recognised Researcher.
- Gutiérrez Gálvez, Jeniffer: Other.
- Gutiérrez Ibañes, Enrique: R3. Established Researcher.
- Herrera Flores, Cristian: R1. First Stage Researcher.
- Juárez Fernández, Miriam: R2. Recognised Researcher.
- Martín Manzano, Virginia Milagros: R1. First Stage Researcher.

- Martínez Solano, Jorge: R1. First Stage Researcher.
- Martínez-Legazpi Aguilo, Pablo: R3. Established Researcher.
- Martínez-Sellés d'Oliveira Soares, Manuel: Other.
- Méndez Fernández, Irene: R2. Recognised Researcher.
- Mombiola Ramírez de Ganuza, Teresa: R2. Recognised Researcher.
- Moreno Pena, Pablo: Other.
- Navas Tejedor, Paula: R2. Recognised Researcher.
- Ortiz Bautista, Carlos: R2. Recognised Researcher.
- Plasencia Martín, Virginia: Other. Laboratory technician.
- Pórtolles Hernández, Antonio: Other.
- Postigo Esteban, Andrea: R1. First Stage Researcher.
- Prieto Arévalo, Raquel: R1. First Stage Researcher.
- Ríos Muñoz, Gonzalo Ricardo: R2. Recognised Researcher.
- Rodríguez Crespo, José Fernando: Other.
- Rodríguez González, Elena: R2. Recognised Researcher.
- Sánchez de la Nava, Ana María: R1. First Stage Researcher.
- Sanz Ruiz, Ricardo: R3. Established Researcher.
- Soriano Triguero, Javier: R2. Recognised Researcher.
- Sousa Casanovas, Iago: R2. Recognised Researcher.
- Suárez Sancho, Susana: R1. First Stage Researcher.
- Tamargo Delpón, M^a Amalia: R1. First Stage Researcher.
- Valero Masa, M^a Jesús: R2. Recognised Researcher.
- Vázquez Álvarez, M^a Eugenia: R3. Established Researcher.
- Vázquez Castaño, Alexandra: R1. First Stage Researcher.
- Villa Arranz, Adolfo: R3. Established Researcher.
- Zataráin Nicolás, Eduardo: R2. Recognised Researcher.



2.01. NATURAL HISTORY OF HEART DISEASE

Research Projects – Competitive Calls

Competitive projects

- Title: **Regenerative medicine: from new insights to new applications. 874827.** H2020 BRAV3.
Directo: Fernández-Avilés Díaz, Francisco Jesús
Project type: European research project
Funding body: Unión Europea. Programa Marco
Start date: 01/01/2020
End date: 31/12/2024
- Title: **CARDIATEAM-IMI2-821508** H2020-JTI-IMI2-2017.
Directo: Bermejo Thomas, Javier
Project type: European research project
Funding body: Unión Europea. Programa Marco
Start date: 01/03/2019
End date: 28/02/2024
- Title: **Clinical development and proof of principle testing of new regenerative VEGF-D therapy for cost-effective treatment of refractory angina "A phase II randomized, double-blinded, placebo-controlled study"** H2020 ReGenHeart.
Directo: Fernández-Avilés Díaz, Francisco Jesús
Project type: European research project
Funding body: Unión Europea. Programa Marco
Start date: 01/01/2017
End date: 30/06/2021
- Title: **Secondary Prevention of Cardiovascular Disease in the Elderly Trial (Secure).** H2020 SECURE
Directo: Fernández-Avilés Díaz, Francisco Jesús
Project type: European research project
Funding body: Unión Europea.dg.sanco
Start date: 06/10/2017
End date: 06/10/2022
- Title: **Artificial intelligence drive platform for atrial fibrillation stratification** EIT HEALTH AF-FINE
Directo: Atienza Fernández, Felipe
Project type: European research project
Funding body: Unión Europea
Start date: 01/07/2019
End date: 01/01/2021
- Title: **Advanced multifunction 3D biofabrication for the generation of computationally modelled human-scale therapeutic cardiac tissues – CARDIOPRINT** PLEC2021-008127
Directo: Fernández-Avilés Díaz, Francisco Jesús
Project type: Research project
Funding body: Ministerio de Ciencia, Innovación y Universidades
Start date: 01/12/2021
End date: 30/11/2024
- Title: **Safe and Efficacy of the Intracoronary administration of Allogeneic human Cardiac Stem Cells in Patients with Ischemic Chronic Heart Failure at High Risk for Sudden Cardiac Death (CaSeC-HF)** PIC18/00024
Directo: Fernández-Avilés Díaz, Francisco Jesús
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2022
- Title: **Inteligencia artificial para la caracterización hemodinámica no invasiva. AI4NHEM.** PI20/00587
Directo: Martínez-Legazpi Aguilo, Pablo
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Caracterización del sustrato electrofisiológico en pacientes con fibrilación auricular persistente y paroxística. Estudio PAPER AF.** PI20/01618
Directo: Atienza Fernández, Felipe
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023





- Title: **Personalización del riesgo de accidente cerebrovascular y de infarto cerebral silencioso en la enfermedad cardiovascular. ISBI-FLOW.** DTS19/00063
Directo: Bermejo Thomas, Javier
Project type: Technological development project in health
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Validación prospectiva de un índice pronóstico de muerte súbita o arritmias ventriculares malignas en adultos con cardiopatías congénitas** PI17/01327
Directo: Datino Romaniega, Tomás
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2018
End date: 31/12/2021
- Title: **Técnicas avanzadas de procesamiento de resonancia magnética para caracterizar el sustrato arritmogénico y el riesgo arritmico en la miocardiopatía dilatada** PI18/01117
Directo: Pérez David, Esther
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Ablación radial para control de la Fibrilación auricular persistente (Artist Trial)** PI18/01895
Directo: Arenal Maíz, Ángel
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2021
- Title: **OCTOPUS-CHF Optical Coherence Tomography Observation of Pulmonary Ultra-Structural Changes in Heart Failure Tomografía de Coherencia óptica observación de los cambios ultra-estructurales pulmonares en insuficiencia** PI18/00254
Directo: Martínez-Sellés D'oliveira Soares, Manuel
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Efectos de la inhibición del cotransportador sodio-glucosa-2 sobre los mecanismos de la insuficiencia cardíaca con fracción de eyección preservada del paciente diabético** PI18/01595
Directo: Bermejo Thomas, Javier
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Reparación cardíaca inducida por vesículas extracelulares cardíacas integradas en hidrogeles de matriz mioárdica descelularizada en un modelo de infarto porcino crónico.** PI19/00161
Directo: Fernández-Avilés Díaz, Francisco Jesús
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Caracterización de la fisiología cardiovascular con el Ejercicio en pacientes adultos con circulación de Fontán.** PI19/01604
Directo: Prieto Arévalo, Raquel
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022
- Title: **ITACA-CM. "Investigación Traslacional en arritmias cardíacas hereditarias** S2017/BMD-3738
Directo: Atienza Fernández, Felipe
Project type: Research project
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2018
End date: 31/12/2021



2.01. NATURAL HISTORY OF HEART DISEASE

- Title: **AvanCell-CM. Terapias avanzadas de precisión en regeneración y reparación celular y tisular** S2017/BMD-3692
Directo: Fernández-Avilés Díaz, Francisco Jesús
Project type: Research project
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2018
End date: 31/12/2021

Human Resources

- Title: **Río Hortega contract** CM20/00054
Directo: Bermejo Thomas, Javier
Payee Name: Tamargo Delpón, Amalia
Funding body: Instituto de Salud Carlos III
Project type: Human resources
Start date: 04/01/2021
End date: 04/01/2022
- Title: **Intesification contract** INT19/00012
Directo: Bermejo Thomas, Javier
Funding body: Instituto de Salud Carlos III
Project type: Human resources
Start date: 01/01/2020
End date: 31/12/2021
- Title: **Predoctoral contract** BES-2017-079924
Directo: Martínez-Legazpi Aguiló, Pablo
Payee Name: Chazo Paz, Christian
Funding body: Ministerio De Ciencia, Innovación y Universidades
Project type: Human resources
Start date: 01/07/2018
End date: 01/07/2022
- Title: **Formación en investigación post-residencia. Proyecto en Electrofisiología y Arritmias integrándose en una unidad asistencial. "Artificial Intelligence in Atrial Fibrillation (AIa) Identification and Ablation of Drivers Related to Electrogram Entanglement".** SEC20/01

Directo: Arenal Amíz, Ángel
Funding body: Fundación Casa el Corazón
Project type: Human resources
Start date: 01/10/2020
End date: 30/09/2021

Industrial and Intellectual Property Registrations

Industrial property

Title	Reference*	Owner	Inventors
Sistema y método para la detección automática de patrones electrofisiológicos anómalos	P 2017 31161	FIBHGM - UC3M	Gonzalo Ricardo Ríos Muñoz, Antonio Artés Rodríguez, Ángel Arenal Maíz, Francisco Jesús, Fernández-Avilés Díaz
Catéter y método para la detección de actividad eléctrica en un órgano	P201431315	FIBHGM - Universidad Politécnica de Valencia - Universidad de Michigan	Andreu Martínez, Felipe Atienza, Miguel Rodrigo, M ^a Salud Guillem, Omer Berenfeld
Dispositivo de localización de arritmias cardíacas	P201431597 (3 patents)	FIBHGM - Universidad Politécnica de Valencia	Andreu Martínez, Felipe Atienza, Ángel Arenal, Francisco Fernández-Avilés, M ^a Salud Guillem
Mapping and quantifying blood stasis and thrombus risk in the heart	US 62259494 (3 patents)	FIBHGM - University of California	Juan Carlos del Álamo, Andrew Kahn, Lorenzo Rossini, Javier Bermejo, Pablo Martínez-Legazpi, Raquel Yotti

■ Transferred patents.
* Reference: P (Patent), PCT (international patent), EP (European patent), US (USA patent), U (Utility model), M (Trademark).

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of network	Role
CIBER	CIBERCV. Centro de Investigación Biomédica en Red de Enfermedades Cardiovasculares. CB16/11/00292	Coordinating group
RETICS	Red de Terapia Celular (Ter CEL). RD16/0011/0029	Associated group
Others	PROGRAMA AVANCELL-CM - Terapias avanzadas de precisión en regeneración y reparación celular y tisular. S2017/BMD-3692	Collaborating group
Others	Programa ITACA - CM Investigación Traslacional en Arritmias Cardíacas hereditarias. B2017/BMD3738	Associated group
Others	PROGRAMA PREFI-CM - Personalización del Riesgo Embólico mediante el análisis del Flujo Intracardiaco. Y2018/BIO-4858	Coordinating group
Others	Red de Formación Interdisciplinaria en Regeneración Cardíaca (EUIN2017-88719)	Associated group

Doctoral theses. Bachelor theses and Master theses

Type	Candidate	Title	Name/s Director/s	University	Date defended
Ph Thesis	Vanessa Bruña Fernández	Incidencia y pronóstico del bloqueo interauricular en el infarto agudo de miocardio con elevación del segmento ST	Francisco Fdez-Avilés/ Manuel Martínez-Selles	UCM	11/02/2021
Ph Thesis	Juan Carlos Lopez Garcia	So de sacubitril/valsartán en pacientes hospitalizados en vida real	Francisco Fdez-Avilés/ Manuel Martínez-Selles	UCM	04/02/2021
Ph Thesis	Andrea Postigo Esteban	Eficacia clínica de la ecocardiografía y la resonancia magnética cardíaca en la insuficiencia aórtica	Francisco Fdez-Avilés/Javier Bermejo Thomas	UCM	09/02/2021
Ph Thesis	Raquel Luna Lopez	Predictores electrocardiográficos de éxito agudo en la ablación de las arritmias ventriculares del tracto de salida de ventrículo derecho	Francisco Fdez-Avilés/Esteban González Torrecilla	UCM	04/02/2021
Ph Thesis	Roberto Mateos Gaitan	Uso de dexmedetomidina en unidades de cuidados intensivos cardiológicos: estudio de eficacia y seguridad	Francisco Fdez-Avilés/Manuel Martínez-Selles	UCM	04/02/2021



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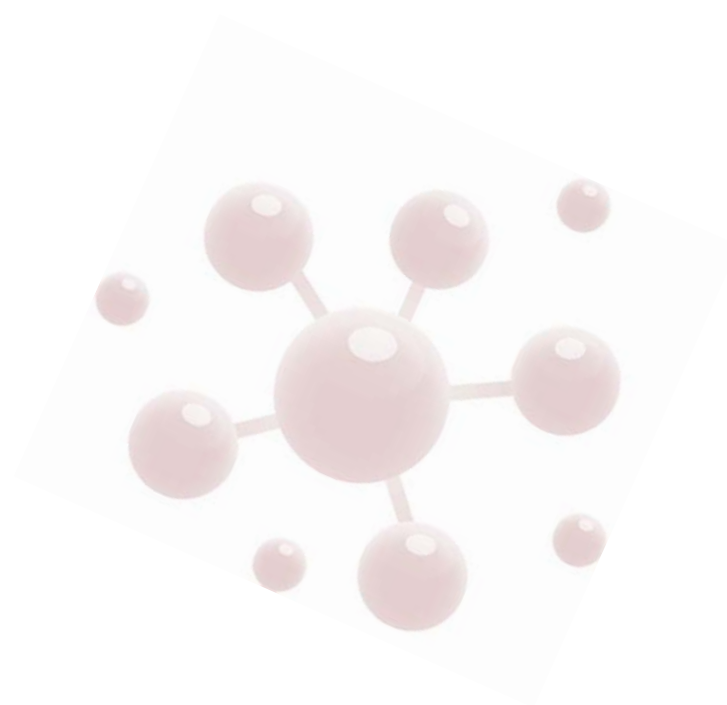
Clinical Practice Guidelines

Authors	Title	Journal/Reference
Glikson M, Nielsen JC, Kronborg MB, Michowitz Y, Auricchio A, Barbash IM, Barrabés JA, Boriani G, Braunschweig F, Brignole M, Burri H, Coats AJS, Deharo JC, Delgado V, Diller GP, Israel CW, Keren A, Knops RE, Kotecha D, Leclercq C, Merkely B, Starck C, Thyllén I, Tolosana JM; ESC Scientific Document Group.	2021 ESC Guidelines on cardiac pacing and cardiac resynchronization therapy.	Eur Heart J. 2021 Sep 14;42(35):3427-3520.
SEC Working Group for the 2020 ESC Guidelines for the Management of Atrial Fibrillation; Expert Reviewers for the 2020 ESC Guidelines for the Management of Atrial Fibrillation; SEC Guidelines Committee; Working Group for the 2020 ESC guidelines for the management of atrial fibrillation; Expert reviewers for the 2020 ESC guidelines for the management of atrial fibrillation	SEC Guidelines Committee. Comments on the 2020 ESC/EACTS guidelines for the management of atrial fibrillation.	Rev Esp Cardiol (Engl Ed). 2021 May;74(5):378-383.
Grigorian-Shamagian, L; Sanz-Ruiz, R; Climent, A; Badimon, L; Barile, L; Bolli, R; Chamuleau, S; Grobbee, DE; Janssens, S; Kastrup, J; Kragten-Tabatabaie, L; Madonna, R; Mathur, A; Menasché, P; Pompilio, G; Prosper, F; Sena, E; Smart, N; Zimmermann, WH; Fernández-Avilés F.	Insights into therapeutic products, preclinical research models, and clinical trials in cardiac regenerative and reparative medicine: where are we now and the way ahead. Current opinion paper of the ESC Working Group on Cardiovascular Regenerative and Reparative Medicine	Cardiovas Res 2021 May 25;117(6):1428-1433

Publications

Total Impact Factor: 1047.0

	Nº	IF
Own publications	46	308.3
Joint publications	75	738.7
First decile publications	16	535.4
First quartile publications	59	831.6
Second quartile publications	33	154.3
Third quartile publications	13	34.3
Fourth quartile publications	16	26.8
Nonindexed publications / No IF	12	-
Total publications (including those without IF)	133	1047.0



Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Moreno, R; Alonso, JJ; Caballero, R; del Corral, E; Elizaga, J; Asenjo, RM; Mena, MJ; Alfonso, F; Fernández-Ortiz, A; Goicolea, FJ; Botas, J; Navarro, F; Alegria-Barrero, E; Ansedo, JC; de Sá, EL; López-Sendon, JL. *Age and Gender influence on time of arrival for STEMI patients during Covid-19 pandemic*. AMERICAN JOURNAL OF EMERGENCY MEDICINE. 2021; 42 244-245. FI: 4.093. Cuartil: 1. (Letter).
- de la Nava, AMS; Atienza, F; Bermejo, J; Fernández-Avilés, F. *Artificial intelligence for a personalized diagnosis and treatment of atrial fibrillation*. AMERICAN JOURNAL OF PHYSIOLOGY-HEART AND CIRCULATORY PHYSIOLOGY. 2021; 320(4) 1337-1347. FI: 5.125. Cuartil: 1. (Review).
- Ibarra, G; Vallejo, A; Rivera, A; Fernández-Ibarburu, B; García-Ruano, A. *Sarcoidosis Presenting as Late Seroma Mimicking Breast Implant-Associated Anaplastic Large Cell Lymphoma*. ANNALS OF PLASTIC SURGERY. 2021; 87(4) 415-420. FI: 1.763. Cuartil: 3. (Article).
- Galar, A; Valerio, M; Catalán, P; García-González, X; Burillo, A; Fernández-Cruz, A; Zataráin, E; Sousa-Casasnovas, I; Anaya, F; Rodríguez-Ferrero, ML; Muñoz, P; Bouza, E. *Valganciclovir-Ganciclovir Use and Systematic Therapeutic Drug Monitoring. An Invitation to Antiviral Stewardship*. ANTIBIOTICS-BASEL. 2021; 10(1). FI: 5.222. Cuartil: 1. (Article).
- Martínez-Solano, J; Sousa-Casasnovas, I; Fernández, MJ; Devesa-Cordero, C; Fernández-Avilés, F; Martínez-Sellés, M. *Emergent Bedside and Anticoagulation-free Veno-venal Extracorporeal Oxygenation Membrane Cannulation in a Patient with Massive Hemoptysis and Unresponsive Shock*. ARCHIVOS DE BRONCONEUMOLOGIA. 2021; 57(1) 71-73. FI: 6.333. Cuartil: 1. (Letter).
- Rossini, L; Braun, OO; Brambatti, M; Benito, Y; Mizeracki, A; Miramontes, M; Nguyen, C; Martínez-Legazpi, P; Almeida, S; Kraushaar, M; Vu, V; May-Newman, K; Bermejo, J; Adler, ED; Kahn, AM; Del Álamo, JC. *Intraventricular Flow Patterns in Patients Treated with Left Ventricular Assist Devices*. ASAIO JOURNAL. 2021; 67(1) 74-83. FI: 3.826. Cuartil: 2. (Article).
- Martínez-Solano, J; Ortiz-Bautista, C; Zataráin-Nicolás, E; Sousa-Casasnovas, I; Pedraz-Prieto, A; Barrio-Gutiérrez, JM; Pascual-Izquierdo, C; Fernández-Avilés, F. *Management of Intracranial Hemorrhage During Pulsatile Long-Term Biventricular Support: When Necessity Is the Mother of Invention*. ASAIO JOURNAL. 2021; 67(10) 172-175. FI: 3.826. Cuartil: 2. (Article).
- del Blanco, BG; Otaegui, I; Rodríguez-Palomares, JF; Bayés-Genis, A; Fernández-Nofrerías, E; del Olmo, VV; Carrillo, X; Ibáñez, B; Worner, F; Casanova, J; Pueo, E; González-Juanatey, JR; López-Pais, J; Bardají, A; Bonet, G; Fuertes, M; Rodríguez-Sinovas. *Effect of COMBinAction therapy with remote ischemic conditioning and exenatide on the Myocardial Infarct size: a two-by-two factorial randomized trial (COMBAT-MI)*. BASIC RESEARCH IN CARDIOLOGY. 2021; 116(1). FI: 12.416. Cuartil: 1. (Article).
- de la Nava, AMS; Mansilla, AG; González-Torrecilla, E; Ávila, P; Datino, T; Bermejo, J; Arenal, A; Fernández-Avilés, F; Atienza, F. *Personalized Evaluation of Atrial Complexity of Patients Undergoing Atrial Fibrillation Ablation: A Clinical Computational Study*. BIOLOGY-BASEL. 2021; 10(9). FI: 5.168. Cuartil: 1. (Article).
- Cámara-Vázquez, MA; Hernández-Romero, I; Rodrigo, M; Alonso-Atienza, F; Figuera, C; Morgado-Reyes, E; Atienza, F; Guillem, MS; Climent, AM; Barquero-Pérez, O. *Electrocardiographic imaging including intracardiac information to achieve accurate global mapping during atrial fibrillation*. BIOMEDICAL SIGNAL PROCESSING AND CONTROL. 2021; 64. FI: 5.076. Cuartil: 2. (Article).
- Amor-García, MA; Ibáñez-García, S; García-González, X; Mombiela, T; Villanueva-Bueno, C; Herranz-Alonso, A; Sanjurjo-Sáez, M. *Clinical evaluation of pulmonary hypertension using patient-reported outcomes: a cross-sectional study*. BMC PULMONARY MEDICINE. 2021; 21(1) 48-48. FI: 3.32. Cuartil: 3. (Article).
- Rivera, A; González-Pozega, C; Ibarra, G; Fernández-Ibarburu, B; García-Ruano, A; Vallejo-Valero, A. *Punctual Breast Implant Rupture following Lipofilling: Only a Myth?*. BREAST CARE. 2021; 16(5) 544-547. FI: 2.268. Cuartil: 4. (Article).
- Gutiérrez-Seijo, A; García-Martínez, E; Barrio-Alonso, C; Pareja-Malagón, M; Acosta-Ocampo, A; Fernández-Santos, ME; Puig-Kroger, A; Parra-Blanco, V; Mercader, E; Márquez-Rodas, I; Avilés-Izquierdo, JA; Samaniego, R; Sánchez-Mateos, P. *CCL20/TNF/VEGFA Cytokine Secretory Phenotype of Tumor-Associated Macrophages Is a Negative Prognostic Factor in Cutaneous Melanoma*. CANCERS. 2021; 13(16). FI: 6.575. Cuartil: 1. (Article).

2.01. NATURAL HISTORY OF HEART DISEASE

- Vicent, L; Bruña, V; Devesa, C; Sousa-Casasnovas, I; Juárez, M; Alcalá, L; Muñoz, P; Fernández-Avilés, F; Martínez-Sellés, M. *Ticagrelor and Infection Risk in Patients with Coronary Artery Disease*. CARDIOLOGY. 2021; 146(6) 698-704. FI: 2.342. Cuartil: 3. (Article).
- Gil-Jaurena, JM; Pardo, C; Pita, A; Pérez-Caballero, R; Zamorano, J; Camino, M; Gil-Villanueva, N; Zatarain, E; Prieto, R. *Technical modifications for transplant in the failing Fontán*. CARDIOLOGY IN THE YOUNG. 2021; 31(3) 400-405. FI: 1.023. Cuartil: 4. (Article).
- Araiza-Garaygordobil D; García-Martínez CE; Burgos LM; Saldarriaga C; Liblik K; Mendoza I; Martínez-Sellés M; Scatularo CE; Farina JM; Baranchuk A; Neglected Tropical Diseases and other Infectious Diseases affecting the Heart (t. *Dengue and the heart*. CARDIOVASCULAR JOURNAL OF AFRICA. 2021; 32(5) 276-283. FI: 0.802. Cuartil: 4. (Article).
- Grigorian-Shamagian, L; Sanz-Ruiz, R; Climent, A; Badimon, L; Barile, L; Bolli, R; Chamuleau, S; Grobbee, DE; Janssens, S; Kastrup, J; Kragten-Tabatabaie, L; Madonna, R; Mathur, A; Menasche, P; Pompilio, G; Prosper, F; Sena, E; Smart, N; Zimmermann, WH; F. *Insights into therapeutic products, preclinical research models, and clinical trials in cardiac regenerative and reparative medicine: where are we now and the way ahead. Current opinion paper of the ESC Working Group on Cardiovascular Regenerative and Rep*. CARDIOVASCULAR RESEARCH. 2021; 117(6) 1428-1433. FI: 13.081. Cuartil: 1. (Article).
- Prat-Vidal, C; Crisóstomo, V; Moscoso, I; Báez-Díaz, C; Blanco-Blázquez, V; Gómez-Mauricio, G; Albericio, G; Aguilar, S; Fernández-Santos, ME; Fernández-Avilés, F; Sánchez-Margallo, FM; Bayés-Genis, A; Bernad, A. *Intracoronary Delivery of Porcine Cardiac Progenitor Cells Overexpressing IGF-1 and HGF in a Pig Model of Sub-Acute Myocardial Infarction*. CELLS. 2021; 10(10). FI: 7.666. Cuartil: 2. (Article).
- Soto, N; González-Casal, D; Ávila, P. *Complete Atrioventricular Block Cured by Atrial Pacing? Nothing Is What It Seems*. CIRCULATION. 2021; 143(3) 283-286. FI: 39.918. Cuartil: 1. (Editorial Material).
- Coromilas, EJ; Kochav, S; Goldenthal, I; Biviano, A; Garan, H; Goldbarg, S; Kim, JH; Yeo, I; Tracy, C; Ayanian, S; Akar, J; Singh, A; Jain, S; Zimerman, L; Pimentel, M; Osswald, S; Twerenbold, R; Schaerli, N; Crotti, L; Fabbri, D; Parati, G; Li, Y; Atieniz. *Worldwide Survey of COVID-19-Associated Arrhythmias*. CIRCULATION-ARRHYTHMIA AND ELECTROPHYSIOLOGY. 2021; 14(3) 285-295. FI: 7.718. Cuartil: 1. (Article).
- Dehghani, P; Cantor, WJ; Wang, J; Wood, DA; Storey, RF; Mehran, R; Bainey, KR; Welsh, RC; Rodes-Cabau, J; Rao, S; Lavi, S; Velianou, JL; Natarajan, MK; Ziakas, A; Guiducci, V; Fernández-Avilés, F; Cairns, JA; Mehta, SR. *Complete Revascularization in Patients Undergoing a Pharmacoinvasive Strategy for ST-Segment-Elevation Myocardial Infarction Insights From the COMPLETE Trial*. CIRCULATION-CARDIOVASCULAR INTERVENTIONS. 2021; 14(8) 790-799. FI: 7.514. Cuartil: 1. (Article).
- Ducrocq, G; Calvo, G; González-Juanatey, JR; Durand-Zaleski, I; Avendano-Sola, C; Puymirat, E; Lemesle, G; Arnaiz, JA; Martínez-Sellés, M; Rousseau, A; Cachanado, M; Vicaut, E; Silvain, J; Karam, C; Danchin, N; Simon, T; Steg, PG; REALITY Investigators. *Restrictive vs liberal red blood cell transfusion strategies in patients with acute myocardial infarction and anemia: Rationale and design of the REALITY trial*. CLINICAL CARDIOLOGY. 2021; 44(2) 143-150. FI: 3.287. Cuartil: 3. (Article).
- Del Val, D; Abdel-Wahab, M; Linke, A; Durand, E; Ihlemann, N; Urena, M; Pellegri, C; Giannini, F; Landt, M; Auffret, V; Sinning, JM; Cheema, A; Nombela-Franco, L; Chamandi, C; Campelo-Parada, F; Muñoz-García, A; Herrmann, HC; Testa, L; Won-Keun, K; Cast. *Temporal Trends, Characteristics, and Outcomes of Infective Endocarditis After Transcatheter Aortic Valve Replacement*. CLINICAL INFECTIOUS DISEASES. 2021; 73(11) 3750-3758. FI: 20.999. Cuartil: 1. (Article).
- Pericas, JM; Hernández-Meneses, M; Muñoz, P; Martínez-Sellés, M; Álvarez-Uría, A; De Alarcón, A; Gutiérrez-Carretero, E; Goenaga, MA; Zarauza, MJ; Falces, C; Rodríguez-Esteban, MA; Hidalgo-Tenorio, C; Hernández-Cabrera, M; Miro, JM; Grp Apoyo Manejo Endoc. *Characteristics and Outcome of Acute Heart Failure in Infective Endocarditis: Focus on Cardiogenic Shock*. CLINICAL INFECTIOUS DISEASES. 2021; 73(5) 765-774. FI: 20.999. Cuartil: 1. (Article).
- Pérez, PC; González-Juanatey, JR; Nuche, J; Guerra, JM; Sellés, MM; Delgado, JF. *Reply to G. Betts's letter referring to "Serum potassium dynamics during acute heart failure hospitalization"*. CLINICAL RESEARCH IN CARDIOLOGY. 2021; 110(4) 606-607. FI: 6.138. Cuartil: 2. (Letter).
- Heldman, MR; Kates, OS; Haydel, BM; Florman, SS; Rana, MM; Chaudhry, ZS; Ramesh, MS; Safa, K; Kotton, CN; Blumberg, EA; Besharatian, BD; Tanna, SD;





- Ison, MG; Malinis, M; Azar, MM; Rakita, RM; Morillas, JA; Majeed, A; Sait, AS; Spaggiari, M; Hemmige, V; Me. *Healthcare resource use among solid organ transplant recipients hospitalized with COVID-19*. CLINICAL TRANSPLANTATION. 2021; 35(2). FI: 3.456. Cuartil: 2. (Letter).
- Ayesta, A; Masa, MJV; Vidán, MT; Luna-López, R; Segovia-Cubero, J; García-Cosío, MD; Gómez, LP; Pérez, PC; López-Ibor, JV; Nuche, J; Martínez-Sellés, M. *Prevalence and characterization of frailty, depression, and cognitive impairment in patients listed for heart transplantation: Results of the FELICITAR prospective registry*. CLINICAL TRANSPLANTATION. 2021; 35(9). FI: 3.456. Cuartil: 2. (Article).
 - Salamanca, J; García-Guimaraes, M; Camacho-Freire, SJ; Ojeda, S; Veiga, G; Jiménez-Valero, S; Hernández-Antolín, R; Trillo, R; Velázquez, M; Cortés, C; Gutiérrez-Barrios, A; Franco-Peláez, JA; Lezcano-Pertejo, C; Díez-Delhoyo, F; Gamarra, A; Aguilar, R; D. *Spontaneous coronary artery dissection and Takotsubo syndrome: comparison of baseline clinical and angiographic characteristics and in-hospital outcomes*. CORONARY ARTERY DISEASE. 2021; 32(6) 509-516. FI: 1.717. Cuartil: 4. (Article).
 - de Miguel, IM; Núñez-Gil, IJ; Pérez-Castellanos, A; Uribarri, A; Durán-Cambrá, A; Martín-García, A; Corbi-Pascual, M; Marzo, MG; Martínez-Sellés, M; RETAKO Investigators. *Electrocardiographic Characteristics and Associated Outcomes in Patients with Takotsubo Syndrome. Insights from the RETAKO Registry*. CURRENT PROBLEMS IN CARDIOLOGY. 2021; 46(8) 100841-100841. FI: 16.464. Cuartil: 1. (Review).
 - Povsic, TJ; Sanz-Ruiz, R; Climent, AM; Bolli, R; Taylor, DA; Gersh, BJ; Menasche, P; Perin, EC; Pompilio, G; Atsma, DE; Badimon, L; DeMaria, AN; Hare, JM; Henry, TD; Janssens, S; Kastrup, J; Torella, D; Traverse, JH; Willerson, JT; Fernández-Avilés, F. *Reparative cell therapy for the heart: critical internal appraisal of the field in response to recent controversies*. ESC HEART FAILURE. 2021; 8(3) 2306-2309. FI: 3.612. Cuartil: 2. (Article).
 - Sinning, C; Zengin, E; Diller, GP; Onorati, F; Castel, MA; Petit, T; Chen, YS; Lo Rito, M; Chiarello, C; Guillemain, R; Nubret-Le Coniat, K; Magnussen, C; Knappe, D; Becher, PM; Schrage, B; Smits, JM; Metzner, A; Knosalla, C; Schoenrath, F; Miera, O; Cho. *Study design and rationale of the pAtients pResenTing with cOngenital heaRt dIseAsE Register (ARTORIA-R)*. ESC HEART FAILURE. 2021; 8(6) 5542-5550. FI: 3.612. Cuartil: 2. (Article).
 - García-González, MJ; Perona, AA; Padron, AL; Rull, JLM; Martínez-Sellés, M; Martín, MD; Díaz, JL; Fernández, SL; Oficialdegui, PO; Sosa, AJ. *Efficacy and safety of intermittent repeated levosimendan infusions in advanced heart failure patients: the LAICA study*. ESC HEART FAILURE. 2021; 8(6) 4820-4831. FI: 3.612. Cuartil: 2. (Article).
 - Muntané-Carol, G; Urena, M; Nombela-Franco, L; Amat-Santos, I; Kleiman, N; Muñoz-García, A; Atienza, F; Serra, V; Deyell, MW; Veiga-Fernández, G; Masson, JB; Canadas-Godoy, V; Himbert, D; Castrodeza, J; Elizaga, J; Pascual, JF; Webb, JG; Hernández, JMD; A. *Arrhythmic burden in patients with new-onset persistent left bundle branch block after transcatheter aortic valve replacement: 2-year results of the MARE study*. EUROPACE. 2021; 23(2) 254-263. FI: 5.486. Cuartil: 2. (Article).
 - Alves, M; Fernandes, MA; Bahat, G; Benetos, A; Clemente, H; Grodzicki, T; Martínez-Sellés, M; Mattace-Raso, F; Rajkumar, C; Ungar, A; Werner, N; Strandberg, TE; EuGMS Special Interest Grp. *Protecting older patients with cardiovascular diseases from COVID-19 complications using current medications*. EUROPEAN GERIATRIC MEDICINE. 2021; 12(4) 725-739. FI: 3.269. Cuartil: 3. (Article).
 - Bermejo, J; Postigo, A; Baumgartner, H. *The year in cardiovascular medicine 2020: valvular heart disease*. EUROPEAN HEART JOURNAL. 2021; 42(6) 647-656. FI: 35.855. Cuartil: 1. (Article).
 - Postigo, A; Vernooij, RWM; Fernández-Avilés, F; Martínez-Sellés, M. *Cardiac troponin and infective endocarditis prognosis: a systematic review and meta-analysis*. EUROPEAN HEART JOURNAL-ACUTE CARDIOVASCULAR CARE. 2021; 10(3) 356-366. FI: 4.766. Cuartil: 2. (Review).
 - Díez-Villanueva, P; García-Guimaraes, M; Sanz-Ruiz, R; Roura, G; Macaya, F; Alvarado, JCB; Tizón-Marcos, H; Flores-Ríos, X; Masotti, M; Lezcano-Pertejo, C; Cortés, C; Fuertes-Ferre, G; Becerra-Muñoz, VM; Ruiz-Poveda, FL; Valero, E; Portero-Portaz, JJ; Ver. *Spontaneous coronary artery dissection in old patients: clinical features, angiographic findings, management and outcome*. EUROPEAN HEART JOURNAL-ACUTE CARDIOVASCULAR CARE. 2021; 10(8) 926-932. FI: 4.766. Cuartil: 2. (Article).
 - Gimeno, JR; Elliott, PM; Tavazzi, L; Tendera, M; Kaski, JP; Laroche, C; Barriales-Villa, R; Seferovic, P; Biagini, E; Arbustini, E; Lopes, LR; Linhart, A; Mo-



2.01. NATURAL HISTORY OF HEART DISEASE

- gensen, J; Hagege, A; Espinosa, MA; Saad, A; Maggioni, AP; Caforio, ALP; Charron, PH; EORP Cardiom. *Prospective follow-up in various subtypes of cardiomyopathies: insights from the ESC EORP Cardiomyopathy Registry*. EUROPEAN HEART JOURNAL-QUALITY OF CARE AND CLINICAL OUTCOMES. 2021; 7(2) 134-142. FI: 7.064. Cuartil: 1. (Article).
- Esteve-Pastor, MA; Martín, E; Alegre, O; Formiga, F; Sanchis, J; López-Palop, R; Sellés, MM; Vidán, MT; Bueno, H; Díez-Villanueva, P; Abu Assi, E; Ariza-Solé, A; Marín, F; Domínguez, JCC; LONGEVO-SCA Registry Investigators. *Impact of frailty and atrial fibrillation in elderly patients with acute coronary syndromes*. EUROPEAN JOURNAL OF CLINICAL INVESTIGATION. 2021; 51(5). FI: 5.722. Cuartil: 1. (Article).
 - Martínez-Sellés, M; Valerio-Minero, M; Farinas, MC; Rodríguez-Abella, H; Rodríguez, ML; de Alarcón, A; Gutiérrez-Carretero, E; Cobo-Belaustegui, M; Goenaga, MA; Moreno-Camacho, A; Domínguez, F; García-Pérez, L; Domínguez-Pérez, L; Muñoz, P; GAMES. *Infective endocarditis in patients with solid organ transplantation. A nationwide descriptive study*. EUROPEAN JOURNAL OF INTERNAL MEDICINE. 2021; 87 59-65. FI: 7.749. Cuartil: 1. (Article).
 - Díaz-González, L; Bruña, V; Valenzuela, PL; Velásquez-Rodríguez, J; Boraita, A; Lucia, A; Martínez-Sellés, M. *Sinus bradycardia in paediatric athletes*. EUROPEAN JOURNAL OF PREVENTIVE CARDIOLOGY. 2021; 28(10) 1142-1144. FI: 8.526. Cuartil: 1. (Article).
 - Vicent, L; Martínez-Sellés, M. *Circadian rhythms, cardiac arrhythmias and sudden death*. FRONTIERS IN BIOSCIENCE-LANDMARK. 2021; 26(11) 1305-1311. FI: 3.115. Cuartil: 3. (Review).
 - Martínez-Sellés, M; Ayesta, A; Díaz-Molina, B; Bayés-Genis, A; Baranchuk, A. *Editorial: The Role of Sex in Heart Failure and Transplantation*. FRONTIERS IN CARDIOVASCULAR MEDICINE. 2021; 8 690438-690438. FI: 5.846. Cuartil: 2. (Editorial Material).
 - García-Cosío, MD; González-Vilchez, F; López-Vilella, R; Barge-Caballero, E; Bueno, MG; Martínez-Sellés, M; Arizón, JM; Sousa, DR; González-Costello, J; Mirabet, S; Pérez-Villa, F; Molina, BD; Rábago, G; Ocampo, AP; Galán, LD; Garrido, I; Delgado, JF. *Influence of Gender in Advanced Heart Failure Therapies and Outcome Following Transplantation*. FRONTIERS IN CARDIOVASCULAR MEDICINE. 2021; 8 630113-630113. FI: 5.846. Cuartil: 2. (Article).
 - Grigorian-Shamagian, L; Edel, K; Esteve-Pastor, MA; Acena, A; Silva, C; Delgado-Silva, J; Ntaios, G; Demerouti, E; Brotons, C. *Practical Decision Algorithms for the Use of the Cardiovascular Polypill in Secondary Prevention in Europe*. FRONTIERS IN CARDIOVASCULAR MEDICINE. 2021; 8 663361-663361. FI: 5.846. Cuartil: 2. (Article).
 - García-Villalba, M; Rossini, L; Gonzalo, A; Vigneault, D; Martínez-Legazpi, P; Durán, E; Flores, O; Bermejo, J; McVeigh, E; Kahn, AM; Del Álamo, JC. *Demonstration of Patient-Specific Simulations to Assess Left Atrial Appendage Thrombogenesis Risk*. FRONTIERS IN PHYSIOLOGY. 2021; 12 596596-596596. FI: 4.755. Cuartil: 1. (Article).
 - Salinet, J; Molero, R; Schlindwein, FS; Karel, J; Rodrigo, M; Rojo-Álvarez, JL; Berenfeld, O; Climent, AM; Zenger, B; Vanheusden, F; Paredes, JGS; MacLeod, R; Atienza, F; Guillem, MS; Cluitmans, M; Bonizzi, P. *Electrocardiographic Imaging for Atrial Fibrillation: A Perspective From Computer Models and Animal Experiments to Clinical Value*. FRONTIERS IN PHYSIOLOGY. 2021; 12 653013-653013. FI: 4.755. Cuartil: 1. (Review).
 - Álvarez-García, J; García-Osuna, A; Vives-Borrás, M; Ferrero-Gregori, A; Martínez-Sellés, M; Vázquez, R; González-Juanatey, JR; Rivera, M; Segovia, J; Pascual-Figal, D; Bover, R; Bascompte, R; Delgado, J; Sepulveda, AG; Bardají, A; Pérez-Villa, F; Zamoran. *A 3-Biomarker 2-Point-Based Risk Stratification Strategy in Acute Heart Failure*. FRONTIERS IN PHYSIOLOGY. 2021; 12 708890-708890. FI: 4.755. Cuartil: 1. (Article).
 - de la Nava, AMS; Arenal, A; Fernández-Avilés, F; Atienza, F. *Artificial Intelligence-Driven Algorithm for Drug Effect Prediction on Atrial Fibrillation: An in silico Population of Models Approach*. FRONTIERS IN PHYSIOLOGY. 2021; 12 768468-768468. FI: 4.755. Cuartil: 1. (Article).
 - Santillan-García, A; Oliver, E; Shamagian, LG; Climent, AM; Melchor, L. *Ciencia en el Parlamento: the need for a parliamentary office of science and technology advice*. GACETA SANITARIA. 2021; 35(3) 293-297. FI: 2.479. Cuartil: 3. (Article).
 - Oliver, JM; Gallego, P; González, AE; Ávila, P; Alonso, A; García-Hamilton, D; Peinado, R; Dos-Subira, L; Pijuan-Domenech, A; Rueda, J; Rodríguez-Puertas, MJ; García-Orta, R; Martínez-Quintana, E; Datino, T; Fernández-Avilés, F; Bermejo, J; Spanish ACHD Net. *Predicting sudden cardiac death in adults*



- with congenital heart disease. HEART. 2021; 107(1) 67-75. FI: 7.365. Cuartil: 1. (Article).
- de Paredes, AGG; Manicardi, N; Tellez, L; Ibáñez, L; Royo, F; Bermejo, J; Blanco, C; Fondevila, C; Lanza, VF; García-Bermejo, L; Falcon-Pérez, JM; Banares, R; Gracia-Sancho, J; Albillos, A. *Molecular Profiling of Decompensated Cirrhosis by a Novel MicroRNA Signature*. HEPATOLOGY COMMUNICATIONS. 2021; 5(2) 309-322. FI: 5.701. Cuartil: 2. (Article).
 - Gutiérrez-Villanueva, A; Muñoz, P; Delgado-Montero, A; Olmedo-Samperio, M; de Alarcón, A; Gutiérrez-Carretero, E; Zarauza, J; Pares, DGI; Goenaga, MA; Ojeda-Burgos, G; Goikoetxea-Agirre, AJ; Reguera-Iglesias, JM; Ramos, A; Fernández-Cruz, A. *Mural Endocarditis: The GAMES Registry Series and Review of the Literature*. INFECTIOUS DISEASES AND THERAPY. 2021; 10(4) 2749-2764. FI: 6.119. Cuartil: 2. (Review).
 - Vicent, L; Álvarez-García, J; González-Juanatey, JR; Rivera, M; Segovia, J; Worner, F; Bover, R; Pascual-Figal, D; Vázquez, R; Cinca, J; Fernández-Avilés, F; Martínez-Sellés, M. *Prognostic impact of hyponatraemia and hypernatraemia at admission and discharge in heart failure patients with preserved, mid-range and reduced ejection fraction*. INTERNAL MEDICINE JOURNAL. 2021; 51(6) 930-938. FI: 2.611. Cuartil: 3. (Article).
 - Martínez-Sellés, M; Tattevin, P; Valerio-Minero, M; de Alarcón, A; Fariñas MC; Mirabet-Pérez, S; Lavie-Badie, Y; Ambrosi, P; Chabanne, C; Duval, X; Lecomte, R; López-Vilella, R; Uribarri, A; Vinuesa, D; Muñoz P. *Infective endocarditis in patients with heart transplantation*. INTERNATIONAL JOURNAL OF CARDIOLOGY. 2021; 328 158-162. FI: 4.039. Cuartil: 2. (Article).
 - Ibáñez-García, S; Zatarain-Nicolás, E; García-González, X; Rodríguez-Ferreiro, ML; Fernández-Yáñez, J; Díaz, FJFA; Sáez, MS. *Levels of tacrolimus after treatment for chronic hepatitis C with direct antiviral agents in solid organ transplant recipients*. INTERNATIONAL JOURNAL OF CLINICAL PHARMACY. 2021; 43(3) 731-736. FI: 2.305. Cuartil: 4. (Article).
 - Díez-Villanueva, P; Vera, A; Ariza-Solé, A; Formiga, F; Martínez-Sellés, M; Alegre, O; Sanchis, J; Marín, F; Vidán, M; López-Palop, R; Abu-Assi, E; Bueno, H; Alfonso, F; LONGEVO-SCA Registry Investigators. *Baseline CHA(2)DS(2)-VASc score and prognosis in octogenarians with non-ST segment elevation acute coronary syndrome*. INTERNATIONAL JOURNAL OF CLINICAL PRACTICE. 2021; 75(6). FI: 3.149. Cuartil: 2. (Article).
 - Gómez-Cid, L; López-Donaire, ML; Velasco, D; Marín, V; González, MI; Salinas, B; Cusso, L; García, A; Bravo, SB; Fernández-Santos, ME; Elvira, C; Sierra, J; Arroba, E; Bañares R; Grigorian-Shamagian, L; Fernández-Avilés, F. *Cardiac Extracellular Matrix Hydrogel Enriched with Polyethylene Glycol Presents Improved Gelation Time and Increased On-Target Site Retention of Extracellular Vesicles*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(17). FI: 6.208. Cuartil: 1. (Article).
 - Sanz-Ruiz, R; González-Mansilla, A; Rivera-Juárez, A; Bermejo, J; Fernández-Avilés, F. *1-Step Percutaneous Treatment of Heavily Calcified Left-Heart Valve Stenoses*. JACC-CARDIOVASCULAR INTERVENTIONS. 2021; 14(24) 335-337. FI: 11.075. Cuartil: 1. (Editorial Material).
 - Alperi, A; Mohammadi, S; Campelo-Parada, F; Muñoz-García, E; Nombela-Franco, L; Faroux, L; Veiga, G; Serra, V; Fischer, Q; Pascual, I; Asmarats, L; Gutiérrez, E; Regueiro, A; Vilalta, V; Ribeiro, HB; Matta, A; Muñoz-García, A; Armijo, G; Metz, D; Hernande. *Transcatheter Versus Surgical Aortic Valve Replacement in Patients With Complex Coronary Artery Disease*. JACC-CARDIOVASCULAR INTERVENTIONS. 2021; 14(22) 2490-2499. FI: 11.075. Cuartil: 1. (Article).
 - Akhtar, MM; Lorenzini, M; Pavlou, M; Ochoa, JP; O'Mahony, C; Restrepo-Córdoba, MA; Segura-Rodríguez, D; Bermúdez-Jiménez, F; Molina, P; Cuenca, S; Ader, F; Larranaga-Moreira, JM; Sabater-Molina, M; García-Álvarez, MI; Arantzamendi, LG; Truszkowska, G; Ort. *Association of Left Ventricular Systolic Dysfunction Among Carriers of Truncating Variants in Filamin C With Frequent Ventricular Arrhythmia and End-stage Heart Failure*. JAMA CARDIOLOGY. 2021; 6(8) 891-901. FI: 30.154. Cuartil: 1. (Article).
 - Ducrocq, G; González-Juanatey, JR; Puymirat, E; Lemesle, G; Cachanado, M; Durand-Zaleski, I; Arnaiz, JA; Martínez-Sellés, M; Silvain, J; Ariza-Solé, A; Ferrari, E; Calvo, G; Danchin, N; Avendano-Sola, C; Frenkiel, J; Rousseau, A; Vicaut, E; Simon, T; Steg. *Effect of a Restrictive vs Liberal Blood Transfusion Strategy on Major Cardiovascular Events Among Patients With Acute Myocardial Infarction and Anemia The REALITY Randomized Clinical Trial*. JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. 2021; 325(6) 552-560. FI: 157.335. Cuartil: 1. (Article).
 - Zlotoff, DA; Hassan, MZO; Zafar, A; Alvi, RM; Awadalla, M; Mahmood, SS; Zhang, LL; Chen, CL; Ederhy, S; Barac, A; Banerji, D; Jones-O'Connor, M; Mur-

2.01. NATURAL HISTORY OF HEART DISEASE

- phy, SP; Armanious, M; Forrestal, BJ; Kirchberger, MC; Coelho, OR; Rizvi, MA; Sahni, G; Mandawat, A; Tocche. *Electrocardiographic features of immune checkpoint inhibitor associated myocarditis*. JOURNAL FOR IMMUNOTHERAPY OF CANCER. 2021; 9(3). FI: 12.469. Cuartil: 1. (Article).
- Vicent, L; Guerra, J; Vázquez-García, R; González-Juanatey, JR; Dolz, LM; Segovia, J; Pascual-Figal, D; Bover, R; Worner, F; Delgado, J; Fernández-Avilés, F; Martínez-Sellés, M. *Ischemic Etiology and Prognosis in Men and Women with Acute Heart Failure*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(8). FI: 4.964. Cuartil: 2. (Article).
 - Díez-Villanueva P; García-Acuña JM; Raposeiras-Roubin S; Barrabés JA; Cordero A; Martínez-Sellés M; Bardají A; Marin F; Ruiz-Nodar JM; Vicente-Ibarra N; Alonso Salinas GL; Cid-Alvárez B; Abu Assi E; Formiga F; Núñez J; Núñez E; Ariza-Solé A; Sanchis J. *Prognosis Impact of Diabetes in Elderly Women and Men with Non-ST Elevation Acute Coronary Syndrome*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(19). FI: 4.964. Cuartil: 2. (Article).
 - García-Blas, S; Cordero, A; Díez-Villanueva, P; Martínez-Avial, M; Ayesta, A; Ariza-Solé, A; Mateus-Porta, G; Martínez-Sellés, M; Escribano, D; Gabaldón-Pérez, A; Bodi, V; Bonanad, C. *Acute Coronary Syndrome in the Older Patient*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(18). FI: 4.964. Cuartil: 2. (Review).
 - Bonanad, C; García-Blas, S; Llergo, JT; Fernández-Olmo, R; Díez-Villanueva, P; Ariza-Solé, A; Martínez-Sellés, M; Raposeiras, S; Ayesta, A; Bertomeu-González, V; Santabalbina, FT; Facila, L; Vivas, D; Gabaldón-Pérez, A; Bodi, V; Núñez, J; Cordero, A. *Direct Oral Anticoagulants versus Warfarin in Octogenarians with Nonvalvular Atrial Fibrillation: A Systematic Review and Meta-Analysis*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(22). FI: 4.964. Cuartil: 2. (Review).
 - Martínez-Sellés, H; Martínez-Sellés, D; Martínez-Sellés, M. *Sex, Lies, and Coronary Artery Disease*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(14). FI: 4.964. Cuartil: 2. (Editorial Material).
 - Martínez-Sellés, M; Bruña, V; Lacalzada-Almeida, J; Díez-Villanueva, P; Ruiz-Ortiz, M; Alzola, E; Arnau, MA; Tobar, J; Hernández, JM; Bonet, A; Castro, V; Rubin, JM; García-Martín, A; Pérez-David, E. *Rationale and design of the rigorous atrial analysis in advanced interatrial block (ARABIA) prospective study*. JOURNAL OF ELECTROCARDIOLOGY. 2021; 68 135-140. FI: 1.38. Cuartil: 4. (Article).
 - Martínez-Sellés M; Juárez M; Marina-Breyse M; Lillo-Castellano JM; Ariza A. *Rational and design of ST-segment elevation not associated with acute cardiac necrosis (LESTONNAC). A prospective registry for validation of a deep learning system assisted by artificial intelligence*. JOURNAL OF ELECTROCARDIOLOGY. 2021; 69 140-144. FI: 1.38. Cuartil: 4. (Article).
 - Ibarra, G; González-Pozega, C; Cuervas-Mons, M; Rivera, A; Fernández-Ibarburu, B; García-Ruano, A. *Reverse Dermis Flap for Coverage of Distal Leg and Ankle Defects*. JOURNAL OF FOOT & ANKLE SURGERY. 2021; 60(4) 839-844. FI: 1.345. Cuartil: 4. (Article).
 - Ortiz-Bautista, C; Fernández-Avilés, F; Jiménez, JFD. *Serum biomarkers of acute rejection: Towards precision medicine in heart transplant*. JOURNAL OF HEART AND LUNG TRANSPLANTATION. 2021; 40(10) 1090-1097. FI: 13.569. Cuartil: 1. (Article).
 - Gudíol, C; Durà-Miralles, X; Aguilar-Company, J; Hernández-Jiménez, P; Martínez-Cutillas, M; Fernández-Avilés, F; Machado, M; Vázquez, L; Martín-Dávila, P; de Castro, N; Abdala, E; Sorli, L; Andermann, TM; Márquez-Gómez, I; Morales, H; Gabilán, F; Ayaz, C. *Co-infections and superinfections complicating COVID-19 in cancer patients: A multicentre, international study*. JOURNAL OF INFECTION. 2021; 83(3) 306-313. FI: 38.637. Cuartil: 1. (Article).
 - Ibarra, G; Rivera, A; Fernández-Ibarburu, B; Lorca-García, C; García-Ruano, A. *Prone position pressure sores in the COVID-19 pandemic: The Madrid experience*. JOURNAL OF PLASTIC RECONSTRUCTIVE AND AESTHETIC SURGERY. 2021; 74(9) 2141-2148. FI: 3.022. Cuartil: 2. (Article).
 - Gupta, S; Gazendam, N; Farina, JM; Saldarriaga, C; Mendoza, I; López-Santi, R; Pérez, GE; Martínez-Sellés, M; Baranchuk, A. *Malaria and the Heart*. JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY. 2021; 77(8) 1110-1121. FI: 27.203. Cuartil: 1. (Review).
 - Faroux, L; Lhermusier, T; Vincent, F; Nombela-Franco, L; Tchetché, D; Barbanti, M; Abdel-Wahab, M; Windecker, S; Auffret, V; Campanha-Borges, DC; Fischer, Q; Muñoz-García, E; Trillo-Nouche, R; Jorgensen, T; Serra, V; Toggweiler, S; Tarantini, G; Saia, F. *ST-Segment Elevation Myocardial Infarction Following Transcatheter Aortic Valve Replacement*. JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY. 2021; 77(17) 2187-2199. FI: 27.203. Cuartil: 1. (Article).
 - del Val, D; Abdel-Wahab, M; Mangner, N; Durand, E; Ihlemann, N; Urena, M; Pellegrini, C; Giannini, F; Gasior, T; Wojakowski, W; Landt, M; Auffret, V; Sin-



- ning, JM; Cheema, AN; Nombela-Franco, L; Chamandi, C; Campelo-Parada, F; Muñoz-García, E; Herrmann, HC. *Stroke Complicating Infective Endocarditis After Transcatheter Aortic Valve Replacement*. JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY. 2021; 77(18) 2276-2287. FI: 27.203. Cuartil: 1. (Article).
- Thavendiranathan, P; Zhang, LL; Zafar, A; Drobni, ZD; Mahmood, SS; Cabral, M; Awadalla, M; Nohria, A; Zlotoff, DA; Thuny, F; Heinzerling, LM; Barac, A; Sullivan, RJ; Chen, CL; Gupta, D; Kirchberger, MC; Hartmann, SE; Weinsaft, JW; Gilman, HK; Rizvi, MA; K. *Myocardial T1 and T2 Mapping by Magnetic Resonance in Patients With Immune Checkpoint Inhibitor-Associated Myocarditis*. JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY. 2021; 77(12) 1503-1516. FI: 27.203. Cuartil: 1. (Article).
 - Escobar-López, L; Ochoa, JP; Mirelis, JG; Espinosa, MA; Navarro, M; Gallego-Delgado, M; Barriales-Villa, R; Robles-Mezcua, A; Basurte-Elorz, MT; García-Moreno, LG; Climent, V; Jiménez-Jaimez, J; Mogollón-Jiménez, MV; López, J; Peña-Peña, ML; García-Álvarez. *Association of Genetic Variants With Outcomes in Patients With Nonischemic Dilated Cardiomyopathy*. JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY. 2021; 78(17) 1682-1699. FI: 27.203. Cuartil: 1. (Article).
 - Bermejo, J; González-Mansilla, A; Mombiola, T; Fernández, AI; Martínez-Le-gazpi, P; Yotti, R; García-Orta, R; Sánchez-Fernández, PL; Castano, M; Segovia-Cubero, J; Escribano-Subías, P; San Román, JA; Borrás, X; Alonso-Gómez, A; Botas, J; Crespo-Leiro, MG. *Persistent Pulmonary Hypertension in Corrected Valvular Heart Disease: Hemodynamic Insights and Long-Term Survival*. JOURNAL OF THE AMERICAN HEART ASSOCIATION. 2021; 10(2). FI: 6.106. Cuartil: 2. (Article).
 - López-López, JP; Posada-Martínez, EL; Saldarriaga, C; Wyss, F; Ponte-Negretti, CI; Alexander, B; Miranda-Arboleda, AF; Martínez-Sellés, M; Baranchuk, A; Neglected Tropical Dis; Other Infect Dis Affecting Heart N. *Tuberculosis and the Heart*. JOURNAL OF THE AMERICAN HEART ASSOCIATION. 2021; 10(7). FI: 6.106. Cuartil: 2. (Review).
 - Attia, ZI; Kapa, S; Dugan, J; Pereira, N; Noseworthy, PA; Jiménez, FL; Cruz, J; Carter, RE; DeSimone, DC; Signorino, J; Halamka, J; Gari, NRC; Madathala, RS; Platonov, PG; Gul, F; Janssens, SP; Narayan, S; Upadhyay, GA; Alenghat, FJ; Lahiri, MK; Dujardin. *Rapid Exclusion of COVID Infection With the Artificial Intelligence Electrocardiogram*. MAYO CLINIC PROCEEDINGS. 2021; 96(8) 2081-2094. FI: 11.104. Cuartil: 1. (Article).
 - Martínez-Sellés, M. *Flu infection and acute cardiovascular disease*. MEDICINA CLINICA. 2021; 157(2) 92-92. FI: 3.2. Cuartil: 2. (Letter).
 - Martínez-Sellés, M; Pérez-Castellanos, A. *Variables associated with survival free of severe neurological sequelae in patients recovered from cardiac arrest*. MEDICINA INTENSIVA. 2021; 45(3) 190-190. FI: 2.799. Cuartil: 3. (Letter).
 - Iomini, PA; Parodi, JB; Farina, JM; Saldarriaga, C; Liblik, K; Mendoza, I; Liprandi, AS; Wyss, F; Martínez-Sellés, M; Burgos, LM; Baranchuk, A. *Neglected tropical diseases and their impact on cardiovascular health. (The NET-Heart Project)*. MEDICINA-BUENOS AIRES. 2021; 81(5) 808-816. FI: 0.96. Cuartil: 4. (Article).
 - Muñoz, P; De la Villa, S; Martínez-Sellés, M; Goenaga, MA; Reviejo-Jaka, K; de las Revillas, FA; García-Cuello, L; Hidalgo-Tenorio, C; Rodríguez-Esteban, MA; Antorrena, I; Castelo-Corral, L; García-Vázquez, E; De la Torre, J; Bouza, E; Grp Apoyo Manejo En. *Linezolid for infective endocarditis A structured approach based on a national database experience*. MEDICINE. 2021; 100(51). FI: 1.817. Cuartil: 3. (Article).
 - Goicoechea, M; Gómez-Preciado, F; Benito, S; Torras, J; Torra, R; Huerta, A; Restrepo, A; Ugalde, J; Astudillo, DE; Agraz, I; López-Mendoza, M; de Arriba, G; Corchete, E; Quiroga, B; Gutiérrez, MJ; Martín-Conde, ML; Lopes, V; Ramos, C; Méndez, I; Cao, M. *Predictors of outcome in a Spanish cohort of patients with Fabry disease on enzyme replacement therapy*. NEFROLOGIA. 2021; 41(6) 652-660. FI: 3.084. Cuartil: 2. (Article).
 - San Antonio, R; Guasch, E; González-Ascaso, A; Jiménez-Arjona, R; Climent, AM; Pujol-López, M; Doltra, A; Alarcón, F; Garre, P; Liberos, A; Trotta, O; Quinto, L; Borrás, R; Arbelo, E; Roca-Luque, I; Atienza, F; Brugada, J; Fernández-Avilés, F; Guillem, MS. *Optimized single-point left ventricular pacing leads to improved resynchronization compared with multipoint pacing*. PACE-PACING AND CLINICAL ELECTROPHYSIOLOGY. 2021; 44(3) 519-527. FI: 1.912. Cuartil: 4. (Article).
 - Gentile-Lorente, DI; Scott, L; Escobar-Robledo, LA; Mesa-Maya, MA; Carreras-Costa, F; Baranchuk, A; Martínez-Sellés, M; Elosua, R; Bayés-Genis, A; Bayés-de-Luna, A. *Atypical advanced interatrial block due to giant atrial lipoma*. PACE-PACING AND CLINICAL ELECTROPHYSIOLOGY. 2021; 44(4) 737-739. FI: 1.912. Cuartil: 4. (Article).

2.01. NATURAL HISTORY OF HEART DISEASE

- de Cerio, ALD; Pérez-Estenaga, I; Inoges, S; Abizanda, G; Gavira, JJ; Larequi, E; Andreu, E; Rodríguez, S; Gil, AG; Crisóstomo, V; Sánchez-Margallo, FM; Bermejo, J; Jauregui, B; Quintana, L; Fernández-Avilés, F; Pelacho, B; Prosper, F. *Preclinical Evaluation of the Safety and Immunological Action of Allogeneic ADSC-Collagen Scaffolds in the Treatment of Chronic Ischemic Cardiomyopathy*. PHARMACEUTICS. 2021; 13(8). FI: 6.525. Cuartil: 1. (Article).
- Ghofrani HA; Gómez Sánchez MA; Humbert M; Pittrow D; Simonneau G; Gall H; Grünig E; Klose H; Halank M; Langleben D; Snijder RJ; Escribano Subias P; Mielniczuk LM; Lange TJ; Vachiéry JL; Wirtz H; Helmersen DS; Tsangaris I; Barberá JA; Pepke-Zaba J; Boonstr. *Riociguat treatment in patients with chronic thromboembolic pulmonary hypertension: Final safety data from the EXPERT registry*. RESPIRATORY MEDICINE. 2021; 178 106220-106220. FI: 4.582. Cuartil: 2. (Article).
- Martínez-Solano, J; Alonso-García, A; Álvarez-Zaballos, S; Martínez-Sellés, M. *Management strategy of non-ST segment elevation acute coronary syndromes in octogenarians: a call for a personalized approach*. REVIEWS IN CARDIOVASCULAR MEDICINE. 2021; 22(4) 1205-1214. FI: 4.43. Cuartil: 2. (Review).
- Martínez-Sellés, M. *Cardiovascular events in patients with HIV infection. Preventive measures are urgent*. REVISTA CLINICA ESPANOLA. 2021; 221(3) 185-186. FI: 3.064. Cuartil: 2. (Letter).
- García, AM; Mitroi, C; Ramos, PM; Sanz, RG; Virizuela, JA; Arenas, M; Cabello, IE; Albert, D; Sánchez, MA; Esteban, VIA; de la Peña, FA; Lozano, CB; Castro, A; Fernández, AC; Cordoba, R; Cosín-Sales, J; Chaparro-Muñoz, M; Dalmau, R; Hernández, YD; Bronte. *Stratification and management of cardiovascular risk in cancer patients. A consensus document of the SEC, FEC, SEOM, SEOR, SEHH, SEMG, AEEMT, AECC, and AECC*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(5) 438-448. FI: 6.975. Cuartil: 1. (Article).
- Barriales-Villa R; Ochoa JP; Larrañaga-Moreira JM; Salazar-Mendiguchía J; Díez-López C; Restrepo-Córdoba MA; Álvarez-Rubio J; Robles-Mezcua A; Olmo-Conesa MC; Nicolás-Rocamora E; Sanz J; Villacorta E; Gallego-Delgado M; Yotti R; Espinosa MÁ; Manovel A; Ri. *Risk predictors in a Spanish cohort with cardiac laminopathies. The REDLAMINA registry*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(3) 216-224. FI: 6.975. Cuartil: 1. (Article).
- Vicent, L; Fernández-Yáñez, J; Mateos, R; Sousa-Casasnovas, I; Fernández-Avilés, F; Martínez-Sellés, M. *Apical ventricular hypertrophy in the transplanted heart: a 20-year single-center experience*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(2) 191-194. FI: 6.975. Cuartil: 1. (Letter).
- Bonanad, C; Díez-Villanueva, P; García-Blas, S; Martínez-Sellés, M. *Main challenges of electrolyte imbalance in older patients with COVID-19 and risk of QT prolongation. Response*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(2) 199-200. FI: 6.975. Cuartil: 1. (Letter).
- López-Vilella, R; González-Vilchez, F; Crespo-Leiro, MG; Segovia-Cubero, J; Cobo, M; Delgado-Jiménez, J; del Prado, JMA; Martínez-Sellés, M; Márquez, JMS; Mirabet-Pérez, S; González-Costello, J; Pérez-Villa, F; Lambert-Rodríguez, JL; Rábago-Aracil, G; Bla. *Impact of donor-recipient age on cardiac transplant survival. Subanalysis of the Spanish Heart Transplant Registry*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(5) 393-401. FI: 6.975. Cuartil: 1. (Article).
- Díez-Villanueva, P; Bonanad, C; Ariza-Solé, A; Martínez-Sellés, M. *Telematic cardiology consultation in the elderly. The 5 M framework can help*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(1) 116-117. FI: 6.975. Cuartil: 1. (Letter).
- Loughlin, G; Datino, T; Arenal, A; Ruiz-Granell, R; Sánchez-Gómez, JM; Pérez, L; Martínez-Ferrer, J; Alzueta, J; Pérez-Lorente, F; Vinolas, X; Andrés, MLF; de la Concha, JF. *Predictors of adoption and impact of evidence-based programming on the incidence of implantable cardioverter-defibrillator therapies*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(4) 296-302. FI: 6.975. Cuartil: 1. (Article).
- Martínez-Sellés, M; Sanchis, J; Bueno, H. *Chest pain unit: do not forget the clinical indexes*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(1) 113-113. FI: 6.975. Cuartil: 1. (Letter).
- Cortés, C; Rivero, F; Gutiérrez-Ibanes, E; Aparisi, A; San Román, JA; Amat-Santos, IJ. *Prospective validation and comparison of new indexes for the assessment of coronary stenosis: resting full-cycle and quantitative flow ratio*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(1) 94-97. FI: 6.975. Cuartil: 1. (Letter).
- García-Guimaraes, M; Bastante, T; Macaya, F; Roura, G; Sanz, R; Alvarado, JCB; Tizón, H; Flores-Ríos, X; Moreu, J; Ojeda, S; Nogales, JM; Veiga, G; Massotti, M; Camacho-Freire, SJ; Jiménez-Valero, S; Jiménez-Kockar, M; Lozano, I; González-Ferreiro, R; Vela. *Spontaneous coronary artery dissection in Spain:*



clinical and angiographic characteristics, management, and in-hospital events. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(1) 15-23. FI: 6.975. Cuartil: 1. (Article).

- Martínez-Sellés, M; Martín-Sánchez, FJ. *Medical associations in the 21st century. Reflections in the wake of the agreement between the Spanish Heart Foundation and the Official Physicians Association of Madrid.* REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(8) 726-728. FI: 6.975. Cuartil: 1. (Letter).
- Vega, JDS; Salinas, GLA; Flórez, JMV; Solé, AA; de Sá, EL; Ruiz, RS; Palacios, VB; Raposeiras-Roubin, S; Varela, SG; Sanchis, J; Melchor, LS; Martínez-Seara, X; López, LM; Gómez, JLZ; Fernández, MS; Representacion Investigadores. *Temporal trends in postinfarction ventricular septal rupture: the CIVIAM Registry.* REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(9) 757-764. FI: 6.975. Cuartil: 1. (Article).
- Gutiérrez, E; Gómez-Lara, J; Moreno, R. *Importance of nonobstructive atherosclerosis in patients with acute myocardial infarction.* REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(11) 901-904. FI: 6.975. Cuartil: 1. (Editorial Material).
- Elosua, R; Escobar-Robledo, LA; Masso-van Roessel, A; Martínez-Sellés, M; Barranchuk, A; Bayés-de-Luna, A. *ECG patterns of typical and atypical advanced interatrial block: prevalence and clinical relevance.* REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(9) 808-810. FI: 6.975. Cuartil: 1. (Letter).
- Sanchis, J; Acuña, JMG; Raposeiras, S; Barrabés, JA; Cordero, A; Martínez-Sellés, M; Bardají, A; Díez-Villanueva, P; Marín, F; Ruiz-Nodar, JM; Vicente-Ibarra, N; Salinas, GLA; Rigueiro, P; Abu-Assi, E; Formiga, F; Núñez, J; Núñez, E; Ariza-Solé, A. *Comorbidity burden and revascularization benefit in elderly patients with acute coronary syndrome.* REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(9) 765-772. FI: 6.975. Cuartil: 1. (Article).
- González-Vilchez, F; Almenar-Bonet, L; Crespo-Leiro, MG; Gómez-Bueno, M; González-Costello, J; Pérez-Villa, F; Delgado-Jiménez, JF; del Prado, JMA; Sobrino-Márquez, JM; Valero-Masa, MJ; Equipos Espanoles Trasplante Cardi. *Spanish Heart Transplant Registry. 32nd Official Report of the Heart Failure Association of the Spanish Society of Cardiology.* REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(11) 962-970. FI: 6.975. Cuartil: 1. (Article).
- Bermejo, J; Díez, J; Fernández-Avilés, F. *(Collaborative) cardiovascular research in Spain: quo vadis?.* REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(11) 898-900. FI: 6.975. Cuartil: 1. (Editorial Material).
- Ruiz-Galiana, J; Cantón, R; Ramos, PD; García-Botella, A; García-Lledó, A; Gómez-Pavón, J; del Castillo, JG; Hernández-Sampelayo, T; Martín-Delgado, MC; Sánchez, FJM; Martínez-Sellés, M; García, JMM; Guillén, SM; Rodríguez-Artalejo, F; Bouza, E. *COVID-19 vaccination: the reality after clinical trials.* REVISTA ESPANOLA DE QUIMIOTERAPIA. 2021; 34(5) 408-418. FI: 2.515. Cuartil: 3. (Review).
- Bouza, E; Moreno, RC; Ramos, PD; García-Botella, A; García-Lledó, A; Gómez-Pavón, J; del Castillo, JG; Hernández-Sampelayo, T; Martín-Delgado, MC; Sánchez, FJM; Martínez-Sellés, M; García, JMM; Guillén, SM; Rodríguez-Artalejo, FJ; Ruiz-Galiana, J; Bruhlma. *Post-COVID syndrome: A reflection and opinion paper.* REVISTA ESPANOLA DE QUIMIOTERAPIA. 2021; 34(4) 269-279. FI: 2.515. Cuartil: 3. (Review).
- Cantón, R; Ramos, PD; García-Botella, A; García-Lledó, A; Gómez-Pavón, J; del Castillo, JG; Hernández-Sampelayo, T; Martín-Delgado, MC; Sánchez, FJM; Martínez-Sellés, M; García, JMM; Guillén, SM; Rodríguez-Artalejo, F; Ruiz-Galiana, J; Bouza, E. *New variants of SARS-CoV-2.* REVISTA ESPANOLA DE QUIMIOTERAPIA. 2021; 34(5) 419-428. FI: 2.515. Cuartil: 3. (Review).
- Velásquez-Rodríguez, J; Bruña, V; Vicent, L; Díez-Delhoyo, F; Valero-Masa, MJ; Sousa-Casasnovas, I; Juárez, M; Devesa, C; Fernández-Avilés, F; Martínez-Sellés, M. *Influence of left ventricular systolic function on the long-term benefit of beta-blockers after ST-segment elevation myocardial infarction.* REVISTA PORTUGUESA DE CARDIOLOGIA. 2021; 40(4) 285-290. FI: 1.651. Cuartil: 4. (Article).
- Velásquez-Rodríguez, J; Martínez-Sellés, M. *Reply to letter "Beta-blockers in acute coronary syndrome patients: The concept of 'gradient of benefit'".* REVISTA PORTUGUESA DE CARDIOLOGIA. 2021; 40(10) 813-814. FI: 1.651. Cuartil: 4. (Letter).
- Gómez-Cid, L; Grigorian-Shamagian, L; Sanz-Ruiz, R; de la Nava, AS; Fernández, AI; Fernández-Santos, ME; Fernández-Avilés, F. *The Essential Need for a Validated Potency Assay for Cell-Based Therapies in Cardiac Regenerative and Reparative Medicine. A Practical Approach to Test Development.* STEM CELL REVIEWS AND REPORTS. 2021; 17(6) 2235-2244. FI: 6.692. Cuartil: 1. (Article).
- Minguito-Carazo, C; Gómez-Bueno, M; Almenar-Bonet, L; Barge-Caballero, E; González-Vilchez, F; Delgado-Jiménez, JF; del Prado, JMA; Sousa-Casasnovas,



2.01. NATURAL HISTORY OF HEART DISEASE

- I; Mirabet-Pérez, S; González-Costello, J; Sobrino-Márquez, JM; Pérez-Villa, F; Díaz-Molina, B; Juan-Arac. *Malignancy following heart transplantation: differences in incidence and prognosis between sexes - a multicenter cohort study*. TRANSPLANT INTERNATIONAL. 2021; 34(5) 882-893. FI: 3.842. Cuartil: 1. (Article).
- Coll, E; Fernández-Ruiz, M; Padilla, M; Moreso, F; Hernández-Vicente, A; Yáñez, I; Molina, M; Vázquez-Sánchez, T; Crespo, M; Facundo, C; Rodríguez-Ferrero, ML; Fuentes, MCR; Loinaz, C; Bernal, G; Melilli, E; Bravo, C; Diekmann, F; Llado, L; García-Álvarez. *COVID-19 in Solid Organ Transplant Recipients in Spain Throughout 2020: Catching the Wave?*. TRANSPLANTATION. 2021; 105(10) 2146-2155. FI: 5.385. Cuartil: 1. (Article).
 - Gallego, A; Sarmiento, E; Sousa, I; Zataráin, E; Fernández-Yáñez, J; Navarro, J; Gil, J; Carbone, J. *Immunologic Abnormalities Associated With Health Status of Heart Recipients Long Term After Transplantation*. TRANSPLANTATION PROCEEDINGS. 2021; 53(9) 2724-2727. FI: 1.014. Cuartil: 4. (Article).
 - Fernández, AI; Bermejo, J; Yotti, R; Martínez-González, MA; Mira, A; Gophna, U; Karlsson, R; Al-Daccak, R; Martín-Demiguel, I; Gutiérrez-Ibanes, E; Charron, D; Fernández-Avilés, F; MEDIMACS Res Team. *The impact of Mediterranean diet on coronary plaque vulnerability, microvascular function, inflammation and microbiome after an acute coronary syndrome: study protocol for the MEDIMACS randomized, controlled, mechanistic clinical trial*. TRIALS. 2021; 22(1) 795-795. FI: 2.728. Cuartil: 4. (Article).
 - Soria-Juan, B; García-Arranz, M; Jiménez, LL; Aparicio, C; González, A; Fernández, IM; del Moral, LR; Grochowicz, L; Andreu, EJ; Marín, P; Castellanos, G; Moraleda, JM; García-Hernández, AM; Lozano, FS; Sánchez-Guijo, F; Villarón, EM; Parra, ML; Yáñez, RM. *Efficacy and safety of intramuscular administration of allogeneic adipose tissue derived and expanded mesenchymal stromal cells in diabetic patients with critical limb ischemia with no possibility of revascularization: study protocol for a randomized cont*. TRIALS. 2021; 22(1) 595-595. FI: 2.728. Cuartil: 4. (Article).
- Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor**
- Uribarri, A; Sandin, M; San Román, JA; Datino, T. *Ventricular tachycardia in patient with long-term left ventricular assist device: a therapeutic challenge*. ARCHIVOS DE CARDIOLOGIA DE MEXICO. 2021; 91(4) 539-541. (Letter).
 - García-Mere, C; Rodríguez-Abella, RH; Monzón-Díaz, D; Murgoitio-Esandi, UM; Villa-Gallardo, Y; González-Pinto, A. *Giant and Aberrant papillary muscle in a patient with obstructive hypertrophic cardiomyopathy accompanied by severe mitral regurgitation. Surgical treatment case report*. CIRUGIA CARDIOVASCULAR. 2021; 28(5) 293-295. (Article).
 - Cuerpo, G; Pedraz, A; Pinto, A. *Impact of the COVID-19 pandemic on cardiac surgery in Spain*. CIRUGIA CARDIOVASCULAR. 2021; 28(4) 187-189. (Editorial Material).
 - Alexander, B; Tse, G; Martínez-Sellés, M; Baranchuk, A. *Atrial Conduction Disorders*. CURRENT CARDIOLOGY REVIEWS. 2021; 17(1) 68-73. (Review).
 - de Miguel, IM; Ávila, P. *Atrial Fibrillation in Congenital Heart Disease*. EUROPEAN CARDIOLOGY REVIEW. 2021; 16. (Article).
 - Flores, CH; del Villar, CP; Fernández-Avilés, F; Bermejo, J. *A multifactorial aetiology for dilated cardiomyopathy*. EUROPEAN HEART JOURNAL-CASE REPORTS. 2021; 5(6). (Editorial Material).
 - Méndez, I; Fernández, AI; Espinosa, MA; Cuenca, S; Lorca, R; Rodríguez, JF; Tamargo, M; García-Montero, M; Gómez, C; Vilches, S; Vázquez, N; Álvarez, R; Medrano, C; Yotti, R; Fernández-Avilés, F; Bermejo, J. *Founder mutation in myosin-binding protein C with an early onset and a high penetrance in males*. OPEN HEART. 2021; 8(2). (Article).
 - Valerio, M; Vasquez, V; Álvarez-Uría, A; Zataráin-Nicolás, E; Pavone, P; Martínez-Jiménez, MD; Barrio-Gutiérrez, JM; Cuerpo, G; Guinea-Ortega, J; Vena, A; Peligros-Gómez, MI; Bouza, E; Muñoz, P. *Disseminated lomentosporiosis in a heart transplant recipient: Case report and review of the literature*. TRANSPLANT INFECTIOUS DISEASE. 2021; 23(4). (Review).
 - de la Villa, S; Valerio, M; Salcedo, M; Ortiz-Bautista, C; Catalán, P; Padilla, B; Romero, M; Blaquez-Bermejo, Z; Pedraz, A; López-Baena, JA; Hortal, J; Bouza, E; Alonso, R; Muñoz, P. *Heart and liver transplant recipients from donor with positive SARS-CoV-2 RT-PCR at time of transplantation*. TRANSPLANT INFECTIOUS DISEASE. 2021; 23(5). (Letter).
- Other publications**
- Nuechterlein K; Alturki A; Ni J; Martínez-Sellés M; Martens P; Russo V; Backelin CN; Huynh T. *Real-World Safety of Sacubitril/Valsartan in Women and*



Men With Heart Failure and Reduced Ejection Fraction: A Meta-analysis. CJC OPEN. 2021; 3(12 Suppl). (Article).

- Romaguera R; Ojeda S; Cruz-González I; Moreno R; collaborators of the ACI-SEC; REGISTRY COLLABORATORS. *Spanish Cardiac Catheterization and Coronary Intervention Registry. 30th Official Report of the Interventional Cardiology Association of the Spanish Society of Cardiology (1990-2020) in the year of the COVID-19 pandemic.* REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(12) 1095-1105. (Article).
- Martín García A; Mitroi C; Mazón Ramos P; García Sanz R; Virizuela JA; Arenas M; Egocheaga Cabello I; Albert D; Anguita Sánchez M; Arrarte Esteban VI; Ayala de la Peña F; Bonanand Lozano C; Castro A; Castro Fernández A; Córdoba R; Cosín-Sales J; Chaparro-. *Stratification and management of cardiovascular risk in cancer patients. A consensus document of the SEC, FEC, SEOM, SEOR, SEHH, SEMG, AEEMT, AECC, and AECC.* REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(5) 438-448. (Article).



2.02. Cardiovascular pathophysiology

Group Head: VICTORIA CACHOFEIRO RAMOS

Organisms involved: UCM

Type: Consolidated Group

Research lines

Axis 1: Cardiovascular metabolic damage associated with obesity

- ▶ L1: Role of changes in the use of metabolic substrates in cardiac damage associated with obesity
- ▶ L2: Role of mitochondrial dysfunction in cardiac damage associated with obesity
- ▶ L3: Role of endoplasmic reticulum stress in obesity-associated cardiac damage.
- ▶ L4: Impact of mitochondrial transplantation on cardiac function and structure
- ▶ L5: Role of autophagy in the cardiac consequences of obesity

Axis 2: Mechanisms involved in cardiovascular damage associated with ischemia

- ▶ L1: Role of changes in the use of metabolic substrates in cardiac damage associated with ischemia
- ▶ L2: Role of mitochondrial dysfunction in cardiac damage associated with ischemia
- ▶ L3: Impact of obesity on cardiac damage associated with ischemia
- ▶ L4: Role of endoplasmic reticulum stress in ischemia-associated cardiac damage
- ▶ L5: Impact of mitochondrial transplantation on cardiac function and structure
- ▶ L6: Role of autophagy in the cardiac consequences of myocardial ischemia.

The core of the project research team is made up of researchers from the Cardiovascular and Metabolic Pathophysiology Group of obesity of the Department of Physiology School of Medicine, UCM under the coordination of Victoria Cachofeiro.

The main objective of the group is to achieve a better understanding of the molecular and cellular mechanisms involved in the functional, structural and mechanical alterations of the cardiovascular system associated with different risk factors including obesity.

To carry out our research, we use various experimental approaches: animal models, in vivo and ex vivo experiments and cell studies combining physiological, Pharmacological, molecular, histological and imaging techniques in which the group has a great experience as endorsed by our publications.

In addition, we try to transfer the knowledge to human pathology through the collaboration with Dr. Luaces and Dr. Islas from the Cardiology Department and Dr. Ramchandani from the Cardiac Surgery Department of the Hospital Clínico San Carlos.

Group members

- **Bartolomé Pascual, M^a Visitación:** R3. Established Researcher.
- **Cachofeiro Ramos, Victoria:** R4. Leading Researcher.
- **Delgado Valero, Beatriz:** R1. First Stage Researcher.
- **Jurado López, Raquel:** Other. Research Support Technician.
- **Marín Royo, Gema:** Other.
- **Martínez Martínez, Ernesto:** R3. Established Researcher.
- **Vasconcelos de Souza Neto, Francisco das Chagas:** R1. First Stage Researcher.



Research Projects – Competitive Calls

Competitive projects

Not managed by FIBHGM

- Title: **Papel del estrés del retículo endoplásmico y sus moduladores en el fibrosis miocárdica asociada a la isquemia miocárdica en el contexto de la obesidad. Relevancia de los miRNAs.** PI18/00257
Directo: Cachofeiro Ramos, Victoria
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Efecto del suplemento alimenticio pectina cítrica modificada en las consecuencias cardíacas de una dieta aterogénica en el contexto de la isquemia cardíaca. Papel de las interacciones del estrés del retículo endoplásmico y la autofagia.**
Directo: Cachofeiro Ramos, Victoria
Funding body: Fundación Española de Arteriosclerosis (FEA)
Project type: Research project
Start date: 01/11/2020
End date: 31/12/2021

Human Resources

- Title: **Predotoral contract.** FI19/00277
Directo: Cachofeiro Ramos, Victoria (Beatriz Delgado Valero)

Funding body: Instituto de Salud Carlos III

Project type: Human resources

Start date: 01/01/2020

End date: 31/12/2023

- Title: **Becas predoctorales UCM**
Directo: Cachofeiro Ramos, Victoria (Francisco das Chagas Vasconcelos Neto)
Project type: Human Resources
Funding body: UCM
Start date: 01/06/2019
End date: 31/05/2022
- Title: **Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI), 2020**
Directo: Cachofeiro Ramos, Victoria, (Alexandra Castro Soplin)
Project type: Human Resources
Funding body: Comunidad de Madrid
Start date: 01/04/2021
End date: 30/03/2023
- Title: **Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI), 2018**
Directo: Martínez, Ernesto (Ana Romero Miranda)
Project type: Human Resources
Funding body: Comunidad de Madrid
Start date: 01/04/2019
End date: 30/03/2021
Cooperative Research Structures



2.02. CARDIOVASCULAR PATHOPHYSIOLOGY

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of network	Role
CIBER	CIBER de Enfermedades Cardiovasculares (CIBERCV)	Collaborating group
COST	ADMIRE (BM1301)	Collaborating group

Publications

Total Impact Factor: 29.9

	Nº	IF
Own publications	4	29.9
Joint publications	0	0.0
First decile publications	2	15.4
First quartile publications	3	22.2
Second quartile publications	1	7.7
Third quartile publications	0	0.0
Fourth quartile publications	0	0.0
Nonindexed publications/No IF	0	—
Total publications (including those without IF)	4	29.9

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Martínez-Martínez, E; Souza-Neto, FV; Jiménez-González, S; Cachoeiro, V. *Oxidative Stress and Vascular Damage in the Context of Obesity: The Hidden Guest*. ANTIOXIDANTS. 2021; 10(3). FI: 7.675. Cuartil: 1. (Review).
- Souza-Neto, FV; Jiménez-González, S; Delgado-Valero, B; Jurado-López, R; Genty, M; Romero-Miranda, A; Rodríguez, C; Nieto, ML; Martínez-Martínez, E; Cachoeiro, V. *The Interplay of Mitochondrial Oxidative Stress and Endoplasmic Reticulum Stress in Cardiovascular Fibrosis in Obese Rats*. ANTIOXIDANTS. 2021; 10(8). FI: 7.675. Cuartil: 1. (Article).
- Delgado-Valero, B; Cachoeiro, V; Martínez-Martínez, E. *Fibrosis, the Bad Actor in Cardioresenal Syndromes: Mechanisms Involved*. CELLS. 2021; 10(7). FI: 7.666. Cuartil: 2. (Review).
- Delgado-Valero, B; de la Fuente-Chavez, L; Romero-Miranda, A; Bartolome, MV; Ramchandani, B; Islas, F; Luaces, M; Cachoeiro, V; Martínez-Martínez, E. *Role of endoplasmic reticulum stress in renal damage after myocardial infarction*. CLINICAL SCIENCE. 2021; 135(1) 143-159. FI: 6.876. Cuartil: 1. (Article).



2.03. Cardiac celular electrophysiology

Group Head: EVA DELPÓN MOSQUERA

Organisms involved: UCM

Type: Consolidated Group

Research lines

Axis 1: Cardiac cellular pharmacology and electrophysiology

- ▶ L1: Regulation of cardiac electrical properties at the cellular level.
- ▶ L2: Identification of acquired alterations in cellular electrical properties (electrical remodelling) responsible for arrhythmias in patients with heart failure.

Group members

- Caballero Collado, Ricardo: R4. Leading Researcher.
- Cámara Checa, Anabel.
- Cebrián Castillo, Jorge.
- Crespo García, Teresa.
- Dago Requena, María.
- Delpón Mosquera, Eva: R4. Leading Researcher.
- Marín García, María.
- Nieto Marín, Paloma.
- Rubio Alarcón, Marcos.
- Tamargo Menéndez, Juan: R4. Leading Researcher.

The Cardiac Cell Electrophysiology group has been part of the Instituto de Investigación Sanitaria Gregorio Marañón (IISGM) since its foundation. It is a small academic group (we carry out non-clinical experimental activity) with a clear translational vocation and whose headquarters are located in the Faculty of Medicine of the Complutense University of Madrid.

The group was created in the early 1970s by Prof. Juan Tamargo Menéndez and is currently directed by Dr. Eva Delpón with the active collaboration of Dr. Ricardo Caballero. Its continuous evolution and scientific and technological adaptation has allowed it to become a reference and recognised group in the area of cardiac cellular electrophysiology at a national and international level for many years. The general objectives of our lines of research have been and/or are:

1. The analysis of the biology and regulation of cardiac ion channels by cellular mediators, drugs, microRNAs, etc., as well as the consequences of their interaction with other channels and anchor proteins.
2. The identification of new genes responsible for hereditary primary arrhythmogenic syndromes, as well as the functional study of the electrophysiological repercussions of these mutations at the molecular, cellular [in cardiomyocytes differentiated from human induced pluripotent stem cells (iPSCs)], and in vivo levels.
3. The identification of electrophysiological alterations in the electrical remodelling produced by heart failure (HF) with reduced ejection fraction (HFrEF) or preserved ejection fraction (HFpEF) and the design of an advanced targeted therapy for the treatment of ventricular arrhythmias in patients with HF.



Research Projects – Competitive Calls

Competitive projects

Not managed by FIBHGM

- Title: **Papel de los factores de transcripción específicos cardiacos en el control de la actividad eléctrica miocárdica.** SAF2017-88116-P
Directo: Delpón, Eva / Caballero, Ricardo
Funding body: MICINN/MINECO
Project type: Research project
Start date: 01/01/2018
End date: 30/09/2021
- Title: **Determinantes moleculares del aumento de canales de sodio y potasio producido por el dominio N-terminal del canal de Nav1.5.** PID2020-118694RB-I00
Directo: Caballero, Ricardo / Delpón, Eva
Funding body: MICINN
Project type: Research project
Start date: 01/09/2021
End date: 30/09/2023
- Title: **Investigación Traslacional en Arritmias Cardiacas hereditarias.** ITACA-CM B017/BMD3738
Directo: DELPÓN, EVA
Project type: Research project
Funding body: Comunidad de Madrid. Programa de Biomedicina
Start date: 01/01/2018
End date: 31/12/2021

Human Resources

Not managed by the FIBHGM

- Title: **Programa Biomedicina. ITACA-CM. Investigación Traslacional en Arritmias Cardiacas Hereditarias.** B2017/BMD-3738
Directo: Delpón Mosquera, Eva
Payee Name: Rubio Alarcón, Marcos
Project type: Human Resources
Funding body: UCM
Start date: 26/10/2018

- Title: **Programa Biomedicina. ITACA-CM. Investigación Traslacional en Arritmias Cardiacas Hereditarias.** B2017/BMD-3738
Directo: Delpón Mosquera, Eva
Payee Name: Vaquero López, Paloma
Project type: Human Resources
Funding body: UCM
Start date: 15/03/2019
- Title: **Contratos Ayudas Atracción Talento. Convocatoria 2018** 2018-T2/BMD-10724
Directo: Delpón Mosquera, Eva
Payee Name: Cebrián Castillo, Jorge
Project type: Human Resources
Funding body: UCM
Start date: 08/04/2019
- Title: **Contratos Predoctorales de personal investigador en formación de la UCM 2018.** Contrato FPU – UCM
Directo: Delpón Mosquera, Eva
Payee Name: Nieto Marín, Paloma
Project type: Human Resources
Funding body: UCM
Start date: 01/06/219
- Title: **Ayudas parra contratos predoctorales para la formación de docentes.** PRE2018-086155
Directo: Delpón Mosquera, Eva
Payee Name: Cámara Checa, Anabel
Project type: Human Resources
Funding body: UCM
Start date: 01/08/219
- Title: **CIBERCV. Centro de Investigación Biomédica en Red – Enfermedades Cardiovasculares.** CB16/11/00303
Directo: Delpón Mosquera, Eva
PAYEE NAME: MARÍN GARCÍA, MARÍA
Project type: Human Resources
Funding body: UCM
Start date: 05/11/2020



Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of network	Role
CIBER	Enfermedades Cardiovasculares CB16/11/00303	Collaborating group

Doctoral theses. Bachelor theses and Master theses

Type	Candidate	Title	Name/s Director/s	University	Date defended
Ph Thesis	Paloma Nieto Marín	Factores condicionantes de la variabilidad fenotípica de los síndromes arritmogénicos hereditarios. Análisis funcional de mutaciones asociadas a los síndromes de Brugada y de QT largo	Eva Delpón, Ricardo Caballero, y Juan tamargo	Complutense de Madrid	27/07/2021

Publications

Total Impact Factor: 88.7

	Nº	IF
Own publications	6	59.3
Joint publications	5	29.4
First decile publications	1	35.9
First quartile publications	6	68.2
Second quartile publications	5	20.5
Third quartile publications	0	0.0
Fourth quartile publications	0	0.0
Nonindexed publications/No IF	2	-
Total publications (including those without IF)	13	88.7

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Cebrián, J; Martínez, V; Hernández, P; Krimer, DB; Fernández-Nestosa, MJ; Schwartzman, JB. *Two-Dimensional Gel Electrophoresis to Study the Activity of Type IIA Topoisomerases on Plasmid Replication Intermediates*. BIOLOGY-BASEL. 2021; 10(11). FI: 5.168. Cuartil: 1. (Article).
- Merino, JL; Tamargo, J. *Is It Safe (and When) to Stop Oral Anticoagulation After Ablation for Atrial fibrillation? (Do We Have Enough Evidence to Solve the Dilemma?)*. CARDIOVASCULAR DRUGS AND THERAPY. 2021; 35(6) 1191-1204. FI: 3.947. Cuartil: 2. (Editorial Material).
- Tamargo, J; Agewall, S. *Fluoroquinolone use and valvular heart disease: is the jury still out?* EUROPEAN HEART JOURNAL. 2021; 42(30) 2909-2911. FI: 35.855. Cuartil: 1. (Editorial Material).
- Tamargo, J; Caballero, R; Delpón, E. *The pharmacotherapeutic management of hyperkalemia in patients with cardiovascular disease*. EXPERT OPINION ON PHARMACOTHERAPY. 2021; 22(10) 1319-1341. FI: 4.103. Cuartil: 2. (Review).
- Spivakovsky-González, E; Polleys, EJ; Masnovo, C; Cebrián, J; Molina-Vargas, AM; Freudenreich, CH; Mirkin, SM. *Rad9-mediated checkpoint activation is responsible for elevated expansions of GAA repeats in CST-deficient yeast*. GENETICS. 2021; 219(2). FI: 4.402. Cuartil: 2. (Article).
- Tamargo, J. *Does anticoagulation reduce mortality in patients with atrial fibrillation who later developed a COVID-19 infection?* INTERNATIONAL JOURNAL OF CARDIOLOGY. 2021; 331 340-341. FI: 4.039. Cuartil: 2. (Editorial Material).
- Bhatt, DL; Kaski, JC; Delaney, S; Alasnag, M; Andreotti, F; Angiolillo, DJ; Ferro, A; Gorog, DA; Lorenzatti, AJ; Mamas, M; McNeil, J; Nicolau, JC; Steg, PG; Tamargo, J; Tan, D; Valgimigli, M. *Results of an international crowdsourcing survey on the treatment of non-ST segment elevation ACS patients at high-bleeding risk undergoing percutaneous intervention*. INTERNATIONAL JOURNAL OF CARDIOLOGY. 2021; 337 1-8. FI: 4.039. Cuartil: 2. (Article).
- Rubio-Alarcón, M; Cámara-Checa, A; Dago, M; Crespo-García, T; Nieto-Marín, P; Marín, M; Merino, JL; Toquero, J; Salguero-Bodes, R; Tamargo, J; Cebrián, J;



2.03. CARDIAC CELULAR ELECTROPHYSIOLOGY

Delpón, E; Caballero, R; Invest. *Zfhx3 Transcription Factor Represses the Expression of SCN5A Gene and Decreases Sodium Current Density (I-Na)*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(23). FI: 6.208. Cuartil: 1. (Article).

- García, AM; Mitroi, C; Ramos, PM; Sanz, RG; Virizuela, JA; Arenas, M; Cabello, IE; Albert, D; Sánchez, MA; Esteban, VIA; de la Peña, FA; Lozano, CB; Castro, A; Fernández, AC; Cordoba, R; Cosín-Sales, J; Chaparro-Muñoz, M; Dalmau, R; Hernández, YD; Bronte. *Stratification and management of cardiovascular risk in cancer patients. A consensus document of the SEC, FEC, SEOM, SEOR, SEHH, SEMG, AEEMT, AEEC, and AECC*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(5) 438-448. FI: 6.975. Cuartil: 1. (Article).
- González-Juanatey, JR; Tamargo, J; Torres, F; Weisser, B; Oudovenko, N. *Pharmacodynamic study of the cardiovascular polypill. Is there any interaction among the monocomponents?*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(1) 51-58. FI: 6.975. Cuartil: 1. (Article).
- Alonso-Fernández-Gatta, M; Gallego-Delgado, M; Caballero, R; Villacorta, E; Díaz-Pelaez, E; García-Berroca, B; Crespo-García, T; Plata-Izquierdo, B; Marcos-Vadillo, E; García-Cuenllas, L; Barreiro-Pérez, M; Isidoro-García, M;

Tamargo-Menendez, J; Delpón. *A rare HCN4 variant with combined sinus bradycardia, left atrial dilatation, and hypertrabeculation/left ventricular noncompaction phenotype*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(9) 781-789. FI: 6.975. Cuartil: 1. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Tamargo, J; López-Sendón, J. *Ranolazine: a better understanding of pathophysiology and patient profile to guide treatment of chronic stable angina*. FUTURE CARDIOLOGY. 2021; 18(3). (Review).

Other publications

- Martín García A; Mitroi C; Mazón Ramos P; García Sanz R; Virizuela JA; Arenas M; Egocheaga Cabello I; Albert D; Anguita Sánchez M; Arrarte Esteban VI; Ayala de la Peña F; Bonanand Lozano C; Castro A; Castro Fernández A; Córdoba R; Cosín-Sales J; Chaparro-Muñoz, M. *Stratification and management of cardiovascular risk in cancer patients. A consensus document of the SEC, FEC, SEOM, SEOR, SEHH, SEMG, AEEMT, AEEC, and AECC*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(5) 438-448. (Article).



2.05. Cardiology and heart transplantation in children

Group Head: **CONSTANCIO MEDRANO LÓPEZ**

Organisms involved: **HGUGM**

Type: **Emerging group**

Research lines

Axis 1: Heart transplant in children

- ▶ L1: Optimize and reduce antirejection therapy.

Axis 2: Cardiomyopathy in children

- ▶ L1: Correlation between genotype and phenotype.
- ▶ L2: Development of advanced imaging techniques (speckle tracking-echocardiography).

Axis 3: Respiratory infections and congenital heart disease

- ▶ L1: Impact on patients with heart disease.

Axis 4: Drugs used in infant and pediatric cardiology

- ▶ L1: Utility and safety of cardiovascular drugs in infancy.

Axis 5: Infant cardiac rehabilitation (cooperation with Infant Rehabilitation research group: Dr. Supervia and Dr. Arroyo)

- ▶ L1: Improving quality of life.

Axis 6: Cell therapy in pediatric cardiology

- ▶ L1: New therapies in advanced heart failure.

Axis 7: Innovation in interventional approaches in congenital heart disease and in infants

- ▶ L1: New devices adapted to congenital heart disease.

Axis 8: Innovation in surgical approaches in congenital heart disease and in infants

- ▶ L1: New mini-invasive techniques are safe and reduce morbidity.

Axis 9: Telemedicine

- ▶ L1: Tool for optimizing patient follow-up and cooperation with other centers/professionals.

Axis 10: RASopathies (in collaboration with Molecular Biology research group: Dr. Begoña Ezquieta)

- ▶ L1: Improving knowledge about health.

Axis 11: International cooperation

- ▶ L1: Training as a development tool.

Axis 12: Innovation in infant electrophysiology

- ▶ L1: Optimizing infant electrophysiology devices and techniques.

Axis 13: Innovation: Patient experience

- ▶ L1: Development of applications for the adolescent heart patient experience.



2.05. CARDIOLOGY AND HEART TRANSPLANTATION IN INFANTS

Our group focuses on the study of cardiovascular pathology in childhood and congenital heart disease, taking advantage of our position as a national reference center for pediatric cardiac transplantation, congenital heart disease and familial heart disease, and our relationships with the rest of the cardiovascular area of the Institute as well as with national and international networks.

It integrates pediatric cardiologists, pediatric cardiac surgeons and other researchers, including adult cardiologists.

The main lines of research have focused on the study of heart failure and transplantation to advance in the modulation of the mechanisms of rejection (collaborating with other groups such as immunology), avoid the side effects of drugs in children and evaluate new cell therapies (TABHY study in collaboration with the Cell Therapy laboratory).

The study of familial heart disease, especially cardiomyopathies from the genetic basis (we started the mystela study, we have participated in the Cardiovascular Network and we continue to collaborate with the adult Cardiology group, and we have included the study of rasopathies with molecular biochemistry groups) to studies with advanced imaging techniques (2D speckle tracking echocardiography) and the use of new drugs (international multicenter clinical trials).

In the field of congenital heart disease we have led the study and prevention of respiratory infections in young children with different national (CIVIC) and international studies with the achievement of clinical guidelines and consensus.

On the other hand, we have developed from research the implementation of a Children's Cardiac Rehabilitation program that optimizes the quality of life with safety in older children and young people.

The latest lines are focused on technological innovation and new techniques in interventional catheterization, pediatric cardiac surgery and pediatric electrophysiology (in project with the electrophysiology group of the adult Cardiology Service). We have opened lines of research in telemedicine management and development (equipment networks) and in training for the development of international cooperation (project training trainers in Nicaragua), as well as patient experience in research and innovation with new m-health devices.

Group members

- **Alcaide Bazán, Paola:** Other.
- **Álvarez García-Roves, Reyes:** R1. First Stage Researcher.
- **Álvarez Martín, Teresa:** R1. First Stage Researcher.
- **Arriba Domenech, María:** R2. Recognised Researcher.
- **Ballesteros Tejerizo, Fernando:** R1. First Stage Researcher.
- **Calle Valda, Corazón Mabel:** R2. Recognised Researcher.
- **Cambra Conejero, Ana:** R1. First Stage Researcher.
- **Camino López, Manuela:** R1. First Stage Researcher.
- **Carchenilla Pulido, Inmaculada:** Other. Project Manager.
- **Centeno Jiménez, Mirian:** R1. First Stage Researcher.
- **Cobos Hinojal, Susana:** Other.
- **Cuenca Yunta, Alejandra:** Other.
- **Ezquieta Zubicaray, Begoña:** R3. Established Researcher.
- **García González, M^a Dolores:** Other. Support Technician.
- **Gil Jaurena, Juan Miguel:** R1. First Stage Researcher.
- **Gil Villanueva, Nuria:** R1. First Stage Researcher.
- **López Blázquez, María:** R1. First Stage Researcher.
- **Medrano López, Constancio:** R4. Leading Researcher.
- **Muñoz-Pacheco Román, Rafael:** Other.
- **Panadero Carlavilla, M^a Esther:** R1. First Stage Researcher.
- **Pardo Pardo, Carlos Andrés:** R2. Recognised Researcher.
- **Pinero Díaz, Gloria Isabel:** Other.
- **Pita Fernández, Ana:** R1. First Stage Researcher.
- **Relaño García, Cristina:** Other.
- **Rodríguez Ogando, Alejandro:** R2. Recognised Researcher.
- **Sobrino Baladrón, Adolfo:** R1. First Stage Researcher.
- **Solana Gracia, Ruth:** R3. Established Researcher.
- **Zunzunegui Martínez, José Luis:** R1. First Stage Researcher.



Research Projects – Competitive Calls

Competitive projects

- Title:** Estudio multicéntrico, abierto, de dosis única, para evaluar la seguridad, tolerabilidad y farmacocinética de LCZ696, seguido de un estudio de 52 semanas, aleatorizado, doble ciego, paralelo controlado con fármaco activo para evaluar la eficacia y seguridad de LCZ696 comparado con enalapril en pacientes pediátricos con edades desde 1 mes hasta < 18 años, con insuficiencia cardíaca debida a disfunción sistólica del ventrículo izquierdo sistémico. CLCZ696B2319

Directo: Gil Villanueva, Nuria

Funding body: NOVARTIS

Type of project: International project

Start date: 22/09/2020
- Title:** Estudio fase II, multicéntrico, abierto para evaluar la dosis adecuada y la seguridad de crizanlizumab, con o sin hidroxiurea/hydroxicarbamida, en grupos secuenciales de edad descendente de pacientes pediátricos con Enfermedad de Células Falciformes con crisis vaso-oclusivas. SEG101B2201

Directo: Cela, Elena

Funding body: NOVARTIS

Type of project: International project

Start date: 28/11/2018

End date: 31/12/2022
- Title:** Estudio previo a la aprobación de la válvula pulmonar transcatóter (VPT) PULSTATM. TWTPV-E1001

Directo: Zunzunegui Martínez, José Luis

Funding body: TAEWOONG MEDICAL

Type of project: International project

Start date: 01/01/2020
- Title:** Trasplante de células thyTreg autólogas para prevenir el rechazo en niños trapiantados de corazón. Un nuevo paradigma en el tratamiento de enfermedades inmunológicas. FIBHGM-CCA001-2019

Directo: Correa Rocha, Rafael

Funding body: Fundación Familia Alonso

Type of project: Research project

Start date: 02/01/2019

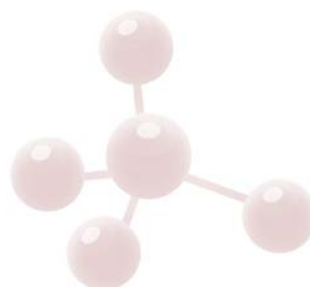
End date: 31/12/2022
- Title:** Estudio epidemiológico de la infección y enfermedad COVID-19 en pacientes pediátricos con cardiopatía, y de la cardiopatía asociada al síndrome inflamatorio multisistémico en relación con la enfermedad COVID-19 en pacientes pediátricos. Estudio CORONA-CIVIC. CORONA-CIVIC

Directo: Medrano López, Constancio

Funding body: Junta Castilla y León

Type of Project: Research project

Start date: 21/10/2020



2.05. CARDIOLOGY AND HEART TRANSPLANTATION IN INFANTS

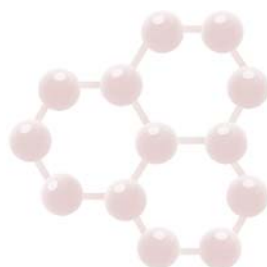
Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of network	Role
CIBER	CIBERER. CB06/07/1005	Associated group
Other	RED DE ENSAYOS CLINICOS PEDIATRICOS ESPAÑA. RECLIP. Enpr-EMA PKID 70	Associated group

Publications

Total Impact Factor: 73.0

	Nº	IF
Own publications	6	19.6
Joint publications	8	53.4
First decile publications	1	21.0
First quartile publications	4	42.9
Second quartile publications	5	20.8
Third quartile publications	2	5.6
Fourth quartile publications	3	3.7
Nonindexed publications/No IF	6	-
Total publications (including those without IF)	20	73.0



Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Oulego-Eroz, I; de Castro-Vecino, P; Ocaña-Alcober, C; Gutiérrez-Marqués, S; Martínez-Badás, JP; Centeno-Jiménez, M. *Complete atrioventricular block associated with respiratory syncytial virus: Presentation of a case and a literature review*. ANALES DE PEDIATRIA. 2021; 94(6) 417-419. FI: 2.377. Cuartil: 3. (Letter).
- Gallego-Valle, J; Gil-Manso, S; Pita, A; Bernaldo-de-Quirós, E; López-Esteban, R; Martínez-Bonet, M; Pérez-Fernández, VA; Pérez-Caballero, R; Pardo, C; Gil-Jaurena, JM; Correa-Rocha, R; Pion, M. *Ectopic FOXP3 Expression in Combination with TGF-beta 1 and IL-2 Stimulation Generates Limited Suppressive Function in Human Primary Activated Thymocytes Ex Vivo*. BIOMEDICINES. 2021; 9(5). FI: 4.757. Cuartil: 2. (Article).
- Gil-Jaurena, JM; Pardo, C; Pita, A; Pérez-Caballero, R; Zamorano, J; Camino, M; Gil-Villanueva, N; Zataráin, E; Prieto, R. *Technical modifications for transplant in the failing Fontán*. CARDIOLOGY IN THE YOUNG. 2021; 31(3) 400-405. FI: 1.023. Cuartil: 4. (Article).
- Arriba, M; Oriola, J; Ezquieta, B. *A new synonymous variant involving an mRNA splicing site in CYP21A2 detected in 12 unrelated patients with deficiency of 21-hydroxylase*. CLINICAL GENETICS. 2021; 100(5) 634-636. FI: 4.296. Cuartil: 2. (Letter).
- Moraleda, C; Serna-Pascual, M; Soriano-Arandes, A; Simo, S; Epalza, C; Santos, M; Grasa, C; Rodríguez, M; Soto, B; Gallego, N; Ruiz, Y; Urretavizcaya-Martínez, M; Pareja, M; Sanz-Santaeufemia, FJ; Fumado, V; Lanaspá, M; Jordán, I; Prieto, L; Belda, S; Tor. *Multi-inflammatory Syndrome in Children Related to Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) in Spain*. CLINICAL INFECTIOUS DISEASES. 2021; 72(9) 397-401. FI: 20.999. Cuartil: 1. (Editorial Material).
- Gil-Jaurena, JM; Zunzunegui, JL; Pérez-Caballero, R; Pita, A; Pardo, C; Calle, C; Murgioitio, U; Ballesteros, F; Rodríguez, A; Medrano, C. *Hybrid Procedures. Opening Doors for Surgeon and Cardiologist Close Collaboration*. FRONTIERS IN PEDIATRICS. 2021; 9 687909-687909. FI: 3.569. Cuartil: 2. (Article).
- Alonso, JAB; Fernández, GB; Barbeira, SF; Romo, AI; Zunzunegui, JL; Jiménez-Díaz, VA. *Transcatheter Pulmonary Valve Replacement With "Double-Barrel" Stent-and-Valve Technique in a Dilated Right Ventricular Outflow Tract*.



JACC-CARDIOVASCULAR INTERVENTIONS. 2021; 14(20) 282-283. FI: 11.075. Cuartil: 1. (Editorial Material).

- Cortés, RG; Villaescusa, JU; García, MJS; González, JL; Lafever, SNF; Gómez, BR; Morán, JRF; García, IH; Pensado, AP; Martínez, RPC; Prado, CAP; Ogando, AR; Blázquez, ML; Cid, JLH. *Microcirculatory Changes in Pediatric Patients During Congenital Heart Defect Corrective Surgery*. JOURNAL OF CARDIOVASCULAR TRANSLATIONAL RESEARCH. 2021; 14(6) 1173-1185. FI: 3.216. Cuartil: 3. (Article).
- López-Blázquez, M; Field, E; Tollit, J; Walsh, H; Addis, A; French, N; Starling, L; Kaski, JP. *Clinical significance of inferolateral early repolarisation and late potentials in children with Brugada Syndrome*. JOURNAL OF ELECTROCARDIOLOGY. 2021; 66 79-83. FI: 1.38. Cuartil: 4. (Article).
- Ortiz-Temprado, A; Martínez-Figueras, L; Montero-Domínguez, C. *3-methoxytyramine secreting cervical paraganglioma*. MEDICINA CLINICA. 2021; 157(7) 289-290. FI: 3.2. Cuartil: 2. (Letter).
- Solana-Gracia, R; Soto, AM; Moreno, JIC; Marín, MJD; Aguado, FGL; Sánchez, JFC; Mata, RB; Martínez, FHP; Álvarez-Ossorio, MP; Montanes, LJ; de Prado, AP; del Rey, MDRV; García, HG; Bayon, JMV; Martínez, JLZ. *Spanish registry of percutaneous VSD closure with NitOcclud Le VSD Coil device: lessons learned after more than a hundred implants*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(7) 591-601. FI: 6.975. Cuartil: 1. (Article).
- Soria, JLM; Castillo, JMGD; Ramírez, AA; Calera, RML; García, SP; Rubió, AR; Villoria, JG; Macías, RY; Ríos, AIA; Madrid, EM; Irazábal, YG; de Abajo, GH; García, BP; González, LC; Morillo, EM; Bauza, JR; Rosselló, JMB; Esteban, GP; Estévez, FDF; Mangas. *Beginnings, evolution and current situation of the New-born Screening Programs in Spain*. REVISTA ESPANOLA DE SALUD PUBLICA. 2021; 95. FI: 1.333. Cuartil: 4. (Article).
- López-Abente, J; Martínez-Bonet, M; Bernaldo-de-Quirós, E; Camino, M; Gil, N; Panadero, E; Gil-Jaurena, JM; Clemente, M; Urschel, S; West, L; Pion, M; Correa-Rocha, R. *Basiliximab impairs regulatory T cell (TREG) function and could affect the short-term graft acceptance in children with heart transplantation*. SCIENTIFIC REPORTS. 2021; 11(1) 827-827. FI: 4.996. Cuartil: 2. (Article).
- Minguito-Carazo, C; Gómez-Bueno, M; Almenar-Bonet, L; Barge-Caballero, E; González-Vilchez, F; Delgado-Jiménez, JF; del Prado, JMA; Sousa-Casasnovas,

I; Mirabet-Pérez, S; González-Costello, J; Sobrino-Márquez, JM; Pérez-Villa, F; Díaz-Molina, B; Juan-Arac. *Malignancy following heart transplantation: differences in incidence and prognosis between sexes - a multicenter cohort study*. TRANSPLANT INTERNATIONAL. 2021; 34(5) 882-893. FI: 3.842. Cuartil: 1. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Calvo-Haro, JA; Pascau, J; Asencio-Pascual, JM; Calvo-Manuel, F; Cancho-Gil, MJ; López, JFD; Fanjul-Gómez, M; García-Leal, R; González-Casaurrán, G; González-Leyte, M; León-Luis, JA; Mediavilla-Santos, L; Ochandiano-Caicoya, S; Pérez-Caballero, R; Ribed-S. *Point-of-care manufacturing: a single university hospital's initial experience*. 3D PRINTING IN MEDICINE. 2021; 7(1) 11-11. (Article).
- Gil-Jaurena, JM; Pérez-Caballero, R; Pita, A; Pardo, C; Monzón, D; Pérez, R; Ramírez, B; Zamorano, J. *Neonatal aortic arch surgery on by-pass*. CIRUGIA CARDIOVASCULAR. 2021; 28(1) 8-13. (Article).
- Méndez, I; Fernández, AI; Espinosa, MA; Cuenca, S; Lorca, R; Rodríguez, JF; Tamargo, M; García-Montero, M; Gómez, C; Vilches, S; Vázquez, N; Álvarez, R; Medrano, C; Yotti, R; Fernández-Avilés, F; Bermejo, J. *Founder mutation in myosin-binding protein C with an early onset and a high penetrance in males*. OPEN HEART. 2021; 8(2). (Article).
- Bernaldo-de-Quirós, E; López-Abente, J; Camino, M; Gil, N; Panadero, E; López-Esteban, R; Martínez-Bonet, M; Pion, M; Correa-Rocha, R. *The Presence of a Marked Imbalance Between Regulatory T Cells and Effector T Cells Reveals That Tolerance Mechanisms Could Be Compromised in Heart Transplant Children*. TRANSPLANTATION DIRECT. 2021; 7(5). (Article).

Other publications

- Lafuente-Romero A; Rodríguez Ogando A. *Selexipag use for paediatric pulmonary hypertension: a single centre report focussed on congenital heart disease patients*. CARDIOLOGY IN THE YOUNG. 2021; 31(9) 1513-1515. (Article).
- Marín Soria JL; González de Aledo Castillo JM; Argudo Ramírez A; López Gallera RM; Pajares García S; Ribes Rubió A; García Villoria J; Yahyaoui Macías R; Álvarez Ríos AI; Melguizo Madrid E; González Irazábal Y; Hernández de Abajo G; Prieto García B; Cardo. *Inicio, evolución y situación actual de los Programas de Cribado Neonatal en España*. REVISTA ESPANOLA DE SALUD PUBLICA. 2021; 95. (Article).



2.06. Blood lipids and cardiovascular risk

Group Head: LUIS ANTONIO ÁLVAREZ-SALA WALTHER

Organisms involved: HGUGM

Type: Emerging group

Research lines

- ▶ L1: Prevalence of subaneurysmal dilations of abdominal aorta in a cohort of hypertensive patients and predictive value of micro-RNA.
- ▶ L2: Effects of pectin obtained from the Canary Islands banana on mitochondrial biogenesis.

Group members

- Álvarez-Sala Walther, Luis Antonio: R4. Leading Researcher
- Bello Martínez, Elena: R2. Recognised Researcher.
- Cabrera Aguilar, Francisco Javier.
- Conthe Gutiérrez, Pedro: R2. Recognised Researcher.
- De Miguel Yanes, José M^a.
- Del Toro Cervera, Jorge: R1. First Stage Researcher.
- Demelo Rodríguez, Pablo: R1. First Stage Researcher.
- Galeano Valle, Francisco.
- Millán Núñez-Cortes, Jesús: R4. Leading Researcher.
- Modeo Oblitas, Christian Mario.
- Pérez de Oteyza, Carlos.
- Pérez Rus, Gloria: R1. First Stage Researcher.
- Recarte García-Andrade, Carlos: R1. First Stage Researcher.
- Toledo Samaniego, Nerea.
- Torres do Rego, Ana.
- Valdés Gross, Inés.

Publications

Total Impact Factor: 242.4

	Nº	IF
Own publications	17	80.5
Joint publications	28	162.0
First decile publications	3	45.4
First quartile publications	11	101.9
Second quartile publications	26	119.1
Third quartile publications	4	1.9
Fourth quartile publications	4	8.6
Nonindexed publications / No IF	6	-
Total publications (including those without IF)	51	242.4

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Martín-Rojas, RM; Chasco-Ganuza, M; Casanova-Prieto, S; Delgado-Pinos, VE; Pérez-Rus, G; Duque-González, P; Sancho, M; Díez-Martín, JL; Pascual-Izquierdo, C. *A mild deficiency of ADAMTS13 is associated with severity in COVID-19: comparison of the coagulation profile in critically and noncritically ill patients*. BLOOD COAGULATION & FIBRINOLYSIS. 2021; 32(7) 458-467. FI: 1.061. Cuartil: 4. (Article).
- Regalado-Artamendi, I; Pérez-Corral, AM; García-Morín, M; Cela, E; Beléndez, C; Bardón-Cancho, EJ; Pérez-Rus, G; Pérez-Sánchez, I; Pascual, C; Monsalvo, S; Falero, C; Díez-Martín, JL; Anguita, J. *Complete RH and Kell matching related to low alloimmunisation risk in sickle cell disease: prevalence and risk factors*

of alloimmunisation in a Spanish Tertiary Care National Reference Centre. BLOOD TRANSFUSION. 2021; 19(4) 292-299. FI: 5.752. Cuartil: 2. (Article).

- Estrada, ADB; Parra, JC; Carracedo, EF; Míguez, AM; Martínez, AR; Rubio, EM; Rubio-Rivas, M; Agudo, P; Fernández, FA; Pérez, VE; Martínez, MLT; Vieitez, AC; Fontán, PMP; Bustamante, M; Freire, SJ; Oriol-Bermúdez, I; Artero, A; Sierra, JO; Manrique, MA; Ca. *Inadequate use of antibiotics in the covid-19 era: effectiveness of antibiotic therapy.* BMC INFECTIOUS DISEASES. 2021; 21(1) 1144-1144. FI: 3.667. Cuartil: 3. (Article).
- Penedo, RP; Lucas, MR; Walther, LAAS; Benavent, AT; Losada, MLC; Andrio, LB; Poves, ABR; Campana, MB. *MR-Proadrenomedullin as biomarker of renal damage in urinary tract infection in children.* BMC PEDIATRICS. 2021; 21(1) 292-292. FI: 2.567. Cuartil: 3. (Article).
- Mingot-Castellano, ME; Alcalde-Mellado, P; Pascual-Izquierdo, C; Rus, GP; Pérez, AC; Martínez, MP; López-Jaime, FJ; Pérez, LA; González-Porras, JR; Fernández, FL; Miranda, ICS; González-López, TJ; Beltrán, MEM; Escuin, RR; Bárcenas, RJ; GEPTI. *Incidence, characteristics and clinical profile of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) infection in patients with pre-existing primary immune thrombocytopenia (ITP) in Spain.* BRITISH JOURNAL OF HAEMATOLOGY. 2021; 194(3) 537-541. FI: 8.615. Cuartil: 1. (Article).
- López-de-Andrés, A; Jiménez-García, R; Hernández-Barrera, V; de Miguel-Yanes, JM; Albaladejo-Vicente, R; Villanueva-Orbaiz, R; Carabantes-Alarcón, D; Zamorano-León, JJ; López-Herranz, M; de Miguel-Díez, J. *Are there sex differences in the effect of type 2 diabetes in the incidence and outcomes of myocardial infarction? A matched-pair analysis using hospital discharge data.* CARDIOVASCULAR DIABETOLOGY. 2021; 20(1) 81-81. FI: 8.949. Cuartil: 1. (Article).
- López-de-Andrés, A; Jiménez-García, R; Hernández-Barrera, V; Jiménez-Trujillo, I; de Miguel-Yanes, JM; Carabantes-Alarcón, D; de Miguel-Díez, J; López-Herranz, M. *Sex-related disparities in the incidence and outcomes of hemorrhagic stroke among type 2 diabetes patients: a propensity score matching analysis using the Spanish National Hospital Discharge Database for the period 2016-18.* CARDIOVASCULAR DIABETOLOGY. 2021; 20(1) 138-138. FI: 8.949. Cuartil: 1. (Article).
- Martínez-Lacalzada, M; Viteri-Noel, A; Manzano, L; Fabregate, M; Rubio-Rivas, M; García, SL; Arnalich-Fernández, F; Beato-Pérez, JL; Vargas-Núñez, JA;

Calvo-Manuel, E; Espino-Álvarez, AC; Freire-Castro, SJ; Loureiro-Amigo, J; Fontán, PMP; Pina, A; Suárez. *Predicting critical illness on initial diagnosis of COVID-19 based on easily obtained clinical variables: development and validation of the PRIORITY model.* CLINICAL MICROBIOLOGY AND INFECTION. 2021; 27(12) 1838-1844. FI: 13.31. Cuartil: 1. (Article).

- Salinero-Fort, MA; Gómez-Campelo, P; Cardenas-Valladolid, J; San Andrés-Rebollo, FJ; de Miguel-Yanes, JM; de Burgos-Lunar, C; MADIABETES Res. *Effect of depression on mortality in type 2 diabetes mellitus after 8 years of follow-up. The DIADEMA study.* DIABETES RESEARCH AND CLINICAL PRACTICE. 2021; 176 108863-108863. FI: 8.18. Cuartil: 1. (Article).
- Ordieres-Ortega, L; Pulfer, MD; Cano-Ballesteros, JC. *Nocardia: the great simulator.* ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA. 2021; 39(3) 159-160. FI: 1.994. Cuartil: 4. (Letter).
- Demelo-Rodríguez, P; Ordieres-Ortega, L; Ji, ZC; del Toro-Cervera, J; de Miguel-Díez, J; Álvarez-Sala-Walther, LA; Galeano-Valle, F. *Long-term follow-up of patients with venous thromboembolism and COVID-19: Analysis of risk factors for death and major bleeding.* EUROPEAN JOURNAL OF HAEMATOLOGY. 2021; 106(5) 716-723. FI: 3.674. Cuartil: 3. (Article).
- de Miguel-Díez, J; López-de-Andrés, A; Jiménez-García, R; Hernández-Barreira, V; Jiménez-Trujillo, I; Ji, ZC; de Miguel-Yanes, JM; López-Herranz, M. *Sex Differences in the Incidence and Outcomes of COPD Patients Hospitalized with Ischemic Stroke in Spain: A Population-Based Observational Study.* INTERNATIONAL JOURNAL OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE. 2021; 16 1851-1862. FI: 2.893. Cuartil: 4. (Article).
- de Miguel-Yanes, JM; Jiménez-García, R; López-de-Andrés, A; Hernández-Barreira, V; de Miguel-Díez, J; Méndez-Bailón, M; Muñoz-Rivas, N; Pérez-Farinos, N; López-Herranz, M. *The influence of sex on ischemic stroke incidence, therapeutic procedures and in-hospital mortality: Results of the Spanish National Hospital Discharge.* INTERNATIONAL JOURNAL OF CLINICAL PRACTICE. 2021; 75(12). FI: 3.149. Cuartil: 2. (Article).
- Villarreal-Paul, G; Ordieres-Ortega, L; Galeano-Valle, F; del Toro-Cervera, J; Demelo-Rodríguez, P. *The cobbler's children have no shoes: scurvy in a farmer.* INTERNATIONAL JOURNAL OF DERMATOLOGY. 2021; 60(6) 761-762. FI: 3.204. Cuartil: 2. (Letter).



2.06. BLOOD LIPIDS AND CARDIOVASCULAR RISK

- López-de-Andrés, A; Jiménez-García, R; Hernández-Barrera, V; Jiménez-Trujillo, I; Zamorano-León, JJ; Carabantes-Alarcón, D; López-Herranz, M; de Miguel-Yanes, JM; de Miguel-Díez, J. *Sex-Related Disparities in the Incidence and Outcomes of Ischemic Stroke among Type 2 Diabetes Patients. A Matched-Pair Analysis Using the Spanish National Hospital Discharge Database for Years 2016-2018*. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2021; 18(7). FI: 4.614. Cuartil: 1. (Article).
- López-de-Andrés, A; López-Herranz, M; Hernández-Barrera, V; de-Miguel-Díez, J; de-Miguel-Yanes, JM; Carabantes-Alarcón, D; Albaladejo-Vicente, R; Villanueva-Orbaiz, R; Jiménez-García, R. *Sex Differences in Hospital-Acquired Pneumonia among Patients with Type 2 Diabetes Mellitus Patients: Retrospective Cohort Study using Hospital Discharge Data in Spain (2016-2019)*. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2021; 18(23). FI: 4.614. Cuartil: 1. (Article).
- Galeano-Valle, F; Ordieres-Ortega, L; Oblitas, CM; Del-Toro-Cervera, J; Álvarez-Sala-Walther, L; Demelo-Rodríguez, P. *Inflammatory Biomarkers in the Short-Term Prognosis of Venous Thromboembolism: A Narrative Review*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(5). FI: 6.208. Cuartil: 1. (Review).
- Domingo-González, A; Regalado-Artamendi, I; Martín-Rojas, RM; Pérez-Rus, G; Pérez-Corral, A; Díez-Martín, JL; Pascual-Izquierdo, C. *Application of the French TMA Reference Center Score and the mortality in TTP Score in de novo and relapsed episodes of acquired thrombotic thrombocytopenic purpura at a tertiary care facility in Spain*. JOURNAL OF CLINICAL APHERESIS. 2021; 36(3) 420-428. FI: 2.605. Cuartil: 4. (Article).
- Méndez-Bailón, M; Jiménez-García, R; Muñoz-Rivas, N; Hernández-Barrera, V; de Miguel-Yanes, JM; de Miguel-Díez, J; Andrés, E; Lorenzo-Villalba, N; López-de-Andrés, A. *Trends and Clinical Impact of Gastrointestinal Endoscopic Procedures on Acute Heart Failure in Spain (2002-2017)*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(3). FI: 4.964. Cuartil: 2. (Article).
- de Miguel-Yanes, JM; Jiménez-García, R; Hernández-Barrera, V; de Miguel-Díez, J; Muñoz-Rivas, N; Méndez-Bailón, M; Pérez-Farinos, N; López-Herranz, M; López-de-Andrés, A. *Sex Differences in the Incidence and Outcomes of Acute Myocardial Infarction in Spain, 2016-2018: A Matched-Pair Analysis*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(8). FI: 4.964. Cuartil: 2. (Article).
- Roy-Vallejo, E; Purificación, AS; Pena, JDT; Moreno, BS; Arnalich, F; Blanco, MJG; Miranda, JL; Romero-Cabrera, JL; Gil, CRH; Bascunana, J; Rubio-Rivas, M; Otero, SP; Sempere, VM; Rodríguez-Solis, JB; Sánchez, RG; del Pino, JL; Noya, AG; Navas-Alcántara. *Angiotensin-Converting Enzyme Inhibitors and Angiotensin Receptor Blockers Withdrawal Is Associated with Higher Mortality in Hospitalized Patients with COVID-19*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(12). FI: 4.964. Cuartil: 2. (Article).
- Josa-Laorden, C; Crestelo-Vieitez, A; Andreu, MDG; Rubio-Rivas, M; Sánchez, M; Samaniego, NT; Fernández, FA; Bermúdez, RI; Aizpuru, EMF; Núñez, JAV; Fontán, PMP; Ballesteros, JS; Castro, SJF; Fernández, MP; García, AV; Rodríguez, VN; Giner-Galván, V; Sanc. *Gender-Based Differences by Age Range in Patients Hospitalized with COVID-19: A Spanish Observational Cohort Study*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(5). FI: 4.964. Cuartil: 2. (Article).
- de-Miguel-Díez, J; Jiménez-García, R; Hernández-Barrera, V; Ji, ZC; de Miguel-Yanes, JM; López-Herranz, M; López-de-Andrés, A. *Sex Differences in the Effects of COPD on Incidence and Outcomes of Patients Hospitalized with ST and Non-ST Elevation Myocardial Infarction: A Population-Based Matched-Pair Analysis in Spain (2016-2018)*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(4). FI: 4.964. Cuartil: 2. (Article).
- Rubio-Rivas, M; Corbella, X; Formiga, F; Fernández, EM; Escalante, MDM; Fernández, IB; Fernández, FA; Del Corral-Beamonte, E; Lalueza, A; Virto, AP; Vallejo, ER; Loureiro-Amigo, J; Suárez, AMA; Abadía-Otero, J; De La Chica, MN; González, RE; Milian, AH; M. *Risk Categories in COVID-19 Based on Degrees of Inflammation: Data on More Than 17,000 Patients from the Spanish SEMI-COVID-19 Registry*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(10). FI: 4.964. Cuartil: 2. (Article).
- de Miguel-Díez, J; López-Herranz, M; Jiménez-García, R; Hernández-Barrera, V; Jiménez-Trujillo, I; de Miguel-Yanes, JM; de Andrés, AL. *Effect of COPD on the Hospital Outcomes and Mortality among Hemorrhagic Stroke Patients. Sex Differences in a Population-Based Study*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(11). FI: 4.964. Cuartil: 2. (Article).
- de-Miguel-Díez, J; Jiménez-García, R; Hernández-Barrera, V; de-Miguel-Yanes, JM; Carabantes-Alarcón, D; López-de-Andrés, A. *Assessing the Impact of Gender and COPD on the Incidence and Mortality of Hospital-Acquired Pneumonia. A Retrospective Cohort Study Using the Spanish National Dis-*



charge Database (2016-2019). JOURNAL OF CLINICAL MEDICINE. 2021; 10(22). FI: 4.964. Cuartil: 2. (Article).

- de Miguel-Yanes, JM; López-de-Andrés, A; Jiménez-García, R; Hernández-Barrera, V; de Miguel-Díez, J; Carabantes-Alarcón, D; Pérez-Farinos, N; Warnberg, J. *Incidence, Outcomes and Sex-Related Disparities in Pneumonia: A Matched-Pair Analysis with Data from Spanish Hospitals (2016-2019)*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(19). FI: 4.964. Cuartil: 2. (Article).
- López-de-Andrés, A; Jiménez-García, R; Hernández-Barrera, V; de Miguel-Díez, J; de Miguel-Yanes, JM; Carabantes-Alarcón, D; Zamorano-León, JJ; Sanz-Rojas, S; López-Herranz, M. *Sex-Related Disparities in the Incidence and Outcomes of Community-Acquired Pneumonia among Type 2 Diabetes Patients: A Propensity Score-Matching Analysis Using the Spanish National Hospital Discharge Database for the Period 2016-2019*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(17). FI: 4.964. Cuartil: 2. (Article).
- de Miguel-Yanes, JM; López-de-Andrés, A; Jiménez-García, R; Hernández-Barrera, V; de Miguel-Díez, J; Méndez-Bailón, M; Pérez-Farinos, N; Muñoz-Rivas, N; Carabantes-Alarcón, D; López-Herranz, M. *Incidence and Outcomes of Hemorrhagic Stroke among Adults in Spain (2016-2018) According to Sex: A Retrospective, Cohort, Observational, Propensity Score Matched Study*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(16). FI: 4.964. Cuartil: 2. (Article).
- de Miguel-Díez, J; López-Herranz, M; Hernández-Barrera, V; De Miguel-Yanes, JM; Pérez-Farinos, N; Warnberg, J; Carabantes-Alarcón, D; Jiménez-García, R; López-de-Andrés, A. *Community-Acquired Pneumonia among Patients with COPD in Spain from 2016 to 2019. Cohort Study Assessing Sex Differences in the Incidence and Outcomes Using Hospital Discharge Data*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(21). FI: 4.964. Cuartil: 2. (Article).
- Balaz, D; Wikman-Jorgensen, PE; Galván, VG; Rubio-Rivas, M; Campo, BD; López, MN; Caleyá, JFL; Huelgas, RG; Fontán, PMP; Bailón, MM; Fernández-Garcés, M; Cruz, AF; García, GMG; Rhyman, N; Corral-Gudino, L; Rodríguez-Mancheno, AL; De la Chica, MN; García. *Evolution of the Use of Corticosteroids for the Treatment of Hospitalised COVID-19 Patients in Spain between March and November 2020: SEMI-COVID National Registry*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(19). FI: 4.964. Cuartil: 2. (Article).
- Bikdeli, B; Jiménez, D; del Toro, J; Piazza, G; Rivas, A; Fernández-Reyes, JL; Samperiz, A; Otero, R; Surinach, JM; Siniscalchi, C; Martín-Guerra, JM; Castro, J; Muriel, A; Lip, GYH; Goldhaber, SZ; Monreal, M; RIETE Investigators. *Association Between Preexisting Versus Newly Identified Atrial Fibrillation and Outcomes of Patients With Acute Pulmonary Embolism*. JOURNAL OF THE AMERICAN HEART ASSOCIATION. 2021; 10(17). FI: 6.106. Cuartil: 2. (Article).
- Blondon, M; Jiménez, D; Robert-Ebadi, H; Del Toro, J; López-Jiménez, L; Falga, C; Skride, A; Font, L; Vázquez, FJ; Bounameaux, H; Monreal, M; RIETE Investigators. *Comparative clinical prognosis of massive and non-massive pulmonary embolism: A registry-based cohort study*. JOURNAL OF THROMBOSIS AND HAEMOSTASIS. 2021; 19(2) 408-416. FI: 16.036. Cuartil: 1. (Article).
- Demelo-Rodríguez, P; Farfán-Sedano, AI; Pedrajas, JM; Llamas, P; Sigüenza, P; Jaras, MJ; Quintana-Díaz, M; Fernández-Capitán, C; Bikdeli, B; Jiménez, D; Monreal, M; RIETE-BLEEDING Investigators. *Bleeding risk in hospitalized patients with COVID-19 receiving intermediate- or therapeutic doses of thromboprophylaxis*. JOURNAL OF THROMBOSIS AND HAEMOSTASIS. 2021; 19(8) 1981-1989. FI: 16.036. Cuartil: 1. (Article).
- García-García, A; Oblitas, CM; Galeano-Valle, F; Olmos-Nieto, A; Ortega-Soudant, A; Demelo-Rodríguez, P. *May-Thurner syndrome and deep vein thrombosis: A series of 8 patients*. MEDICINA CLINICA. 2021; 156(12) 622-624. FI: 3.2. Cuartil: 2. (Editorial Material).
- Ordieres-Ortega, L; Fernández-Llamazares, GS; Gabarro-López, N. *Good's syndrome: Case report*. MEDICINA CLINICA. 2021; 156(6) 309-309. FI: 3.2. Cuartil: 2. (Letter).
- Galeano-Valle, F; del-Toro-Cervera, J; Demelo-Rodríguez, P. *Post-thrombotic syndrome after deep vein thrombosis: The role of follow-up Doppler ultrasound*. MEDICINA CLINICA. 2021; 156(5) 251-252. FI: 3.2. Cuartil: 2. (Letter).
- Ausin-García, C; Cervilla-Muñoz, E; Millán-Núñez-Cortés, J. *Long-term consequences of SARS-COV2 infection: Long-Covid patterns and possible public health implications*. MEDICINA CLINICA. 2021; 157(7) 293-294. FI: 3.2. Cuartil: 2. (Letter).
- Alonso-Beato, R; Galeano-Valle, F; Demelo-Rodríguez, P. *Idiopathic retroperitoneal fibrosis (Ormond's disease) as a transient risk factor for venous thromboembolism*. MEDICINA CLINICA. 2021; 157(2) 87-88. FI: 3.2. Cuartil: 2. (Letter).
- Méndez-Bailón, M; Iguaran-Bermúdez, R; López-García, L; Sánchez-Sauce, B; Pérez-Mateos, P; Barrado-Cuchillo, J; Villar-Martínez, M; Fernández-Castelao,



2.06. BLOOD LIPIDS AND CARDIOVASCULAR RISK

- S; García-Klepzig, JL; Fuentes-Ferrer, ME; García-García, A; Vilacosta, I; de Miguel-Yanes, JM; Casas-R. *Prognostic Value of the PROFUND Index for 30-Day Mortality in Acute Heart Failure*. MEDICINA-LITHUANIA. 2021; 57(11). FI: 2.948. Cuartil: 3. (Article).
- Calderón-Parra, J; Muino-Míguez, A; Bendala-Estrada, AD; Ramos-Martínez, A; Munez-Rubio, E; Carracedo, EF; Montes, JT; Rubio-Rivas, M; Arnalich-Fernández, F; Beato Pérez, JL; Brunen, JMG; Beamonte, ED; Fontán, PMP; Carmona, MD; Martínez, RFM; García, AG. *Inappropriate antibiotic use in the COVID-19 era: Factors associated with inappropriate prescribing and secondary complications. Analysis of the registry SEMI-COVID*. PLOS ONE. 2021; 16(5). FI: 3.752. Cuartil: 2. (Article).
 - Salinero-Fort, MA; San Andrés-Rebollo, FJ; Cardenas-Valladolid, J; Méndez-Bailón, M; Chico-Moraleja, RM; de Santa Pau, EC; Jiménez-Trujillo, I; Gómez-Campelo, I; de Burgos Lunar, C; de Miguel-Yanes, JM; MADIABETES. *Cardiovascular risk factors associated with acute myocardial infarction and stroke in the MADIABETES cohort*. SCIENTIFIC REPORTS. 2021; 11(1) 15245-15245. FI: 4.996. Cuartil: 2. (Article).
 - Fernández-Capitán, C; Barba, R; Díaz-Pedroche, MD; Siguenza, P; Demelo-Rodríguez, P; Siniscalchi, C; Pedrajas, JM; Farfán-Sedano, AI; Olivera, PE; Gómez-Cuervo, C; Llamas, P; Villares, P; Sánchez, O; López-Reyes, R; Catella, J; Bickdeli, B; Weinberg, I; Ta. *Presenting Characteristics, Treatment Patterns, and Outcomes among Patients with Venous Thromboembolism during Hospitalization for COVID-19*. SEMINARS IN THROMBOSIS AND HEMOSTASIS. 2021; 47(04) 351-361. FI: 6.398. Cuartil: 1. (Article).
 - Oblitas, CM; Galeano-Valle, F; Ramírez-Navarro, J; López-Cano, J; Monterrubio-Manrique, A; García-Gamiz, M; Sancho-González, M; Arenal-López, S; Walther, LAAS; Demelo-Rodríguez, P. *Mid-Regional Pro-Adrenomedullin, Methemoglobin and Carboxyhemoglobin as Prognosis Biomarkers in Critically Ill Patients with COVID-19: An Observational Prospective Study*. VIRUSES-BASEL. 2021; 13(12). FI: 5.818. Cuartil: 2. (Article).
 - Demelo-Rodríguez P; Galeano-Valle F; Ordieres-Ortega L; Siniscalchi C; Martín Del Pozo M; Fidalgo Á; Gil-Díaz A; Lobo JL; De Ancos C; Monreal M; For The Riete-Bleeding Investigators. *Validation of a Prognostic Score to Identify Hospitalized Patients with COVID-19 at Increased Risk for Bleeding*. VIRUS-ES-BASEL. 2021; 13(11). FI: 5.818. Cuartil: 2. (Article).
- Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor**
- Núñez-Cortés, JM; Pedro-Botet, J. *Atherogenic dyslipemia: the other pandemic, associated with diabetes*. CLINICA E INVESTIGACION EN ARTERIOSCLEROSIS. 2021; 33(1) 30-32. (Editorial Material).
 - Pedro-Botet, J; Climent, E; Gabarro, N; Millán, J. *Y Familial combined hyperlipidaemia/polygenic mixed hyperlipidaemia*. CLINICA E INVESTIGACION EN ARTERIOSCLEROSIS. 2021; 33 43-49. (Article).
 - Ordieres-Ortega, L; Demelo-Rodríguez, P. *Venous thromboembolic disease in specific populations: much to learn*. GALICIA CLINICA. 2021; 82(4) 184-185. (Editorial Material).
 - de Lorenzo-Pinto, A; García-Sánchez, R; Ortega-Navarro, C; De Miguel-Yanes, JM. *Comments on prescription of antihypertensives pro re nata*. JOURNAL OF HEALTHCARE QUALITY RESEARCH. 2021; 36(2) 117-118. (Letter).
- Other publications**
- Ausín-García C; Cervilla-Muñoz E; Millán-Núñez-Cortés J. *Long-term consequences of SARS-COV2 infection: Long-Covid patterns and possible public health implications*. MEDICINA CLINICA (ENGLISH ED.). 2021; 157(7). (Article).
 - Lavilla Olleros C; López-Rubio M; Fanciulli C; González-Munera A; Millán Núñez-Cortés J. *Diplejía facial aislada como variante atípica del síndrome de Guillain-Barré tras sospecha de infección por SARS-CoV-2*. REVISTA DE LA FACULTAD DE CIENCIAS MEDICAS DE CORDOBA. 2021; 78(4) 405-407. (Article).

2.07. Acute cerebral ischemia. Stroke

Group Head: **ANTONIO GIL NÚÑEZ**

Organisms involved: **HGUGM**

Type: **Emerging group**

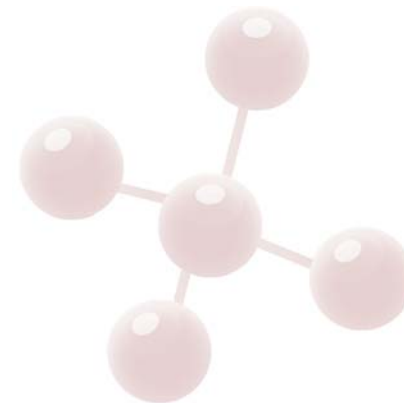
Research lines

- ▶ L1: Epidemiologic, clinical, and therapeutic aspects of cerebral ischemic disease.
- ▶ L2: WEBICTUS II.
- ▶ L3: Diagnosis and therapy in cardioembolic cerebral ischemia.
- ▶ L4: CAOS study.
- ▶ L5: Neurologic intervention in acute stroke.
- ▶ L6: Teleictus for the area.
- ▶ L7: Study on stroke code for delay times.
- ▶ L8: ESUS GM study.
- ▶ L9: Implementation of IV thrombolysis in central retinal artery occlusion.
- ▶ L10: Hidden FA detection in ESOS.
- ▶ L11: Stroke in cancer.
- ▶ L12: Advanced Practice Nurse for Continued Care in Secondary Prevention.

Research group of the Vascular Neurology Section - Stroke Center on all aspects of cerebrovascular disease with participation in multidisciplinary and multicenter studies.

Group members

- **Díaz Otero, Fernando:** R1. First Stage Researcher.
- **Fernández Bullido, Yolanda:** R1. First Stage Researcher.
- **García Pastor, Andrés:** R2. Recognised Researcher.
- **Gil Núñez, Antonio:** R4. Leading Researcher.
- **Iglesias Mohedano, Ana M^a:** R2. Recognised Researcher.
- **Vales Montero, Marta:** R1. First Stage Researcher.
- **Vázquez Alen, Pilar:** R1. First Stage Researcher.



2.07. ACUTE CEREBRAL ISCHEMIA. STROKE

Clinical Practice Guidelines

Authors	Title	Journal/Reference
García Pastor ¹ , E López-Cancio Martínez ² , M Rodríguez-Yáñez ³ , M Alonso de Leciñana ⁴ , S Amaro ⁵ , JF Arenillas ⁶ , O Ayo Martín ⁷ , M Castellanos ⁸ , B Fuentes ⁴ , MM Freijo ⁹ , M Gomis ¹⁰ , M Gómez Chocó ¹¹ , P Martínez Sánchez ¹² , Morales ¹³ , EJ Palacio-Portilla ¹⁴ , Segura ⁷ , J Serena ¹⁵ , J Vivancos-Mora ¹⁶ , J Roquer ¹⁷ , Comité ad hoc del Grupo de Estudio de Enfermedades Cerebrovasculares de la Sociedad Española de Neurología	Recomendaciones de la Sociedad Española de Neurología para la prevención del ictus. Intervenciones sobre el estilo de vida y la contaminación del aire	PMID: 34714236 DOI: 10.1016/j.nrleng.2020.05.020
M Rodríguez-Yáñez ¹ , M Gómez-Chocó ² , E López-Cancio ³ , S Amaro ⁴ , M Alonso de Leciñana ⁵ , JF Arenillas ⁶ , O Ayo Martín ⁷ , M Castellanos ⁸ , MM Freijo ⁹ , A García-Pastor ¹⁰ , M Gomis ¹¹ , P Martínez Sánchez ¹² , Morales ¹³ , EJ Palacio-Portilla ¹⁴ , J Roquer ¹⁵ , Segura ⁷ , J Serena ¹⁶ , J Vivancos-Mora ¹⁷ , B Fuentes ⁵ , comité ad hoc del Grupo de Estudio de Enfermedades Cerebrovasculares de la Sociedad Española de Neurología	Prevención del ictus en pacientes con hipertensión arterial: recomendaciones del Grupo de Estudio del Ictus de la Sociedad Española de Neurología	PMID: 34238528 DOI: 10.1016/j.nrleng.2020.04.023
B Fuentes ¹ , S Amaro ² , M Alonso de Leciñana ³ , JF Arenillas ⁴ , O Ayo Martín ⁵ , M Castellanos ⁶ , M Freijo ⁷ , A García-Pastor ⁸ , M Gomis ⁹ , M Gómez Chocó ¹⁰ , E López-Cancio ¹¹ , P Martínez Sánchez ¹² , Morales ¹³ , EJ Palacio-Portilla ¹⁴ , M Rodríguez-Yáñez ¹⁵ , J Roquer ¹⁶ , Segura ⁵ , J Serena ¹⁷ , J Vivancos-Mora ¹⁸ , Comité ad hoc del Grupo de Estudio de Enfermedades Cerebrovasculares de la Sociedad Española de Neurología	Prevención del ictus en pacientes con diabetes tipo 2 o prediabetes. Recomendaciones del Grupo de Estudio de Enfermedades Cerebrovasculares de la Sociedad Española de Neurología	PMID: 32981775 DOI: 10.1016/j.nrl.2020.04.030

Authors	Title	Journal/Reference
A Gil-Núñez ¹ , J Masjuan ² , J Montaner ³ , M Castellanos ⁴ , Segura ⁵ , P Cardona ⁶ , JI Tembl ⁷ , F Purroy ⁸ , J Arenillas ⁹ , E Palacio ¹⁰	Inhibidores de la proproteína convertasa subtilisina/kexina tipo 9 en la prevención secundaria de eventos vasculares en pacientes con accidente cerebrovascular: documento de consenso y guía práctica	PMID: 33358061 DOI: 10.1016/j.nrl.2020.11.006

Publications

Total Impact Factor: 64.1

	Nº	IF
Own publications	3	14.1
Joint publications	9	50.0
First decile publications	1	10.2
First quartile publications	9	55.7
Second quartile publications	0	0.0
Third quartile publications	2	6.1
Fourth quartile publications	1	2.3
Nonindexed publications / No IF	2	-
Total publications (including those without IF)	14	64.1



Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Velilla-Alonso, G; García-Pastor, A; Rodríguez-López, A; Gómez-Roldos, A; Sánchez-Soblechero, A; Amaya-Pascasio, L; Díaz-Otero, F; Fernández-Bullido, Y; Iglesias-Mohedano, AM; Vázquez-Alen, P; Vales-Montero, M; Gil-Núñez, AC. *Acute Stroke Care during the COVID-19 Pandemic: Reduction in the Number of Admissions of Elderly Patients and Increase in Prehospital Delays*. CEREBROVASCULAR DISEASES. 2021; 50(3) 310-316. FI: 3.104. Cuartil: 3. (Article).
- Portela-Sánchez, S; Sánchez-Soblechero, A; Otalora, PJM; López, AR; Alonso, GV; Palacios-Mendoza, MA; Caramé, CC; Pascasio, LA; Serrano, MM; Masot-Tarrus, A; De La Casa-Fages, B; Díaz-Otero, F; Catalina, I; Domínguez, JMG; Pérez-Sánchez, JR; Muñoz-Blanco. *Neurological complications of COVID-19 in hospitalized patients: The registry of a neurology department in the first wave of the pandemic*. EUROPEAN JOURNAL OF NEUROLOGY. 2021; 28(10) 3339-3347. FI: 6.288. Cuartil: 1. (Article).
- Fuentes, B; de Lecinana, MA; Rigual, R; García-Madrona, S; Díaz-Otero, F; Aguirre, C; Calleja, P; Egido-Herrero, JA; Carneado-Ruiz, J; Ruiz-Ares, G; Rodríguez-Pardo, J; Rodríguez-López, A; Ximénez-Carrillo, A; de Felipe, A; Ostos, F; González-Ortega, G; S. *Fewer COVID-19-associated strokes and reduced severity during the second COVID-19 wave: The Madrid Stroke Network*. EUROPEAN JOURNAL OF NEUROLOGY. 2021; 28(12) 4078-4089. FI: 6.288. Cuartil: 1. (Article).
- Quintas, S; Zapata-Wainberg, G; Arias-Rivas, S; Ximénez-Carrillo, A; Castillo, J; Fernández, LB; Vallejo, JM; Guerrero, MDF; Egido, J; Pastor, AG; Cardona, P; Lago, A; Rodrigo, MC; Fuentes, B; Sobrado, M; Vivancos, J. *Time Trends in Intracerebral Hemorrhage Associated with Oral Anticoagulation and Its Risks Factors in Spain from 2008 to 2015*. EUROPEAN NEUROLOGY. 2021; 84(1) 16-21. FI: 2.292. Cuartil: 4. (Article).
- Rodríguez-Yáñez, M; Gómez-Choco, M; López-Cancio, E; Amaro, S; de Lecinana, MA; Arenillas, JF; Ayo-Martín, O; Castellanos, M; Freijo, MM; García-Pastor, A; Gomis, M; Sánchez, PM; Morales, A; Palacio-Portilla, EJ; Roquer, J; Segura, T; Serena, J; Vivancos-. *Stroke prevention in patients with arterial hypertension: Recommendations of the Spanish Society of Neurology's Stroke Study Group*. NEUROLOGIA. 2021; 36(6) 462-471. FI: 5.486. Cuartil: 1. (Article).
- Pastor, AG; Martínez, ELC; Rodríguez-Yáñez, M; de Lecinana, MA; Amaro, S; Arenillas, JF; Ayo-Martín, O; Castellanos, M; Fuentes, B; Freijo, MM; Gomis, M; Choco, MG; Sánchez, PM; Morales, A; Palacio-Portilla, EJ; Segura, T; Serena, J; Vivancos-Mora, J; Roq. *Recommendations of the Spanish Society of Neurology for the prevention of stroke. Interventions on lifestyle and air pollution*. NEUROLOGIA. 2021; 36(5) 377-387. FI: 5.486. Cuartil: 1. (Article).
- Fuentes, B; Amaro, S; de Lecinana, MA; Arenillas, JF; Ayo-Martín, O; Castellanos, M; Freijo, M; García-Pastor, A; Gomis, M; Choco, MG; López-Cancio, E; Sánchez, PM; Morales, A; Palacio-Portilla, EJ; Rodríguez-Yáñez, M; Roquer, J; Segura, T; Serena, J; Viv. *Stroke prevention in patients with type 2 diabetes or prediabetes. Recommendations from the Cerebrovascular Diseases Study Group, Spanish Society of Neurology*. NEUROLOGIA. 2021; 36(4) 305-323. FI: 5.486. Cuartil: 1. (Article).
- Masjuan, J; Gallego, J; Aguilera, JM; Arenillas, JF; Castellanos, M; Díaz, F; Portilla, JC; Purroy, F. *Use of cardiovascular polypills for the secondary prevention of cerebrovascular disease*. NEUROLOGIA. 2021; 36(1) 1-8. FI: 5.486. Cuartil: 1. (Article).
- Anguita, SL; Mohedano, AMI; Mendoza, MAP; Blanco, JLM. *Charcot-Marie-Tooth 4C and bilateral spinal dissection: Causal or coincidental relationship?*. NEUROLOGIA. 2021; 36(8) 643-644. FI: 5.486. Cuartil: 1. (Letter).
- Iglesias Mohedano AM; García Pastor A; Díaz Otero F; Vázquez Alen P; Martín Gómez MA; Simon Campo P; Salgado Cámara P; Esteban de Antonio E; Lazaro García E; Funes Molina C; Del Valle Dieguez M; Saura Lorente J; Fernández Bullido Y; Gil Núñez A. *A new protocol reduces median door-to-needle time to the benchmark of 30 minutes in acute stroke treatment*. NEUROLOGIA. 2021; 36(7) 487-494. FI: 5.486. Cuartil: 1. (Article).
- Palacios-Mendoza, MA; Pastor, AG; Gil-Núñez, A; Ramírez-Moreno, JM; González-Nafria, N; Moniche, F; Portilla-Cuenca, JC; Fuentes, B; Gameiro-García, MA; de Lecinana, MA; Masjuan, J; Verge, DC; Aladro, Y; Lago, A; de Arce-Borda, AM; Usero-Ruiz, M; Delgado-M. *Ultrasonographic and hemodynamic characteristics of patients with symptomatic carotid near-occlusion: results from a multicenter registry study*. NEURORADIOLOGY. 2021; 63(5) 705-711. FI: 2.995. Cuartil: 3. (Article).
- Fuentes, B; de Lecinana, MA; García-Madrona, S; Díaz-Otero, F; Aguirre, C; Calleja, P; Egido, JA; Carneado-Ruiz, J; Ruiz-Ares, G; Rodríguez-Pardo, J; Ro-

2.07. ACUTE CEREBRAL ISCHEMIA. STROKE

dríguez-López, A; Ximénez-Carrillo, A; de Felipe, A; Ostos, F; González-Ortega, G; Simal, P; Escalonill. *Stroke Acute Management and Outcomes During the COVID-19 Outbreak A Cohort Study From the Madrid Stroke Network*. STROKE. 2021; 52(2) 552-562. FI: 10.17. Cuartil: 1. (Article).

Other publications

- Iglesias Mohedano AM; García Pastor A; Díaz Otero F; Vázquez Alen P; Martín Gómez MA; Simón Campo P; Salgado Cámara P; Esteban de Antonio E; Lázaro García E; Funes Molina C; Del Valle Diéguez M; Saura Lorente J; Fernández

Bullido Y; Gil Nuñez A. *A new protocol reduces median door-to-needle time to the benchmark of 30 minutes in acute stroke treatment*. NEUROLOGIA (BARCELONA, SPAIN). 2021; 36(7) 487-494. (Article).

- Rodríguez-Yáñez M; Gómez-Choco M; López-Cancio E; Amaro S; Alonso de Leciñana M; Arenillas JF; Ayo-Martín O; Castellanos M; Freijo MM; García-Pastor A; Gomis M; Martínez Sánchez P; Morales A; Palacio-Portilla EJ; Roquer J; Segura T; Serena J; Vivancos-Mor. *Stroke prevention in patients with arterial hypertension: Recommendations of the Spanish Society of Neurology's Stroke Study Group*. NEUROLOGIA (BARCELONA, SPAIN). 2021; 36(6) 462-471. (Article).



NEUROSCIENCE AND MENTAL HEALTH

Area coordinator:
Celso Arango López



One of the main research lines in the area of neuroscience is the study of the etiology and pathogenesis of neurodevelopmental disorders, such as autism spectrum disorders, schizophrenia, and other psychotic disorders.

The psychiatry group of this area participates and collaborates in national and international multicenter projects associated with environmental and genetic risk factors, functional and structural imaging studies, and intermediate mechanisms such as the search for endophenotypes and the biological bases of neuropsychology.

The relevance of the work carried out resides in the group's ability to perform longitudinal studies of unusual types of patient, such as those with early-onset first psychotic episodes or children and adolescents at risk of severe psychiatric disease. Research to date has been multidisciplinary and translational and oriented toward resolving findings associated with the clinical activity of these diseases. In fact, currently established clinical programs for these diseases are being investigated and benefiting from close coordination between clinical practice and research. One of the main associated research lines concerns developmental neuropsychopharmacology, which includes projects on pharmacogenetics and pharmacovigilance, as well as phase II/III clinical trials financed using competitive public funds and private funds.

Finally, a further 2 lines of interest for this group are research on the empirical evaluation of psychotherapeutic approaches during early-onset first psychotic episodes and research into quality of services and evaluation of programs.

The success of the group has been particularly apparent in recent European calls for projects and its coordination of the Centro de Investigación Biomédica en Red de Salud Mental (CIBERSAM [Networked Center for Biomedical Research in Mental Health]). Furthermore, activity in neuroscience and mental health has been increasing in several emerging groups in fields such as neuroimmunology and movement disorders.

Groups in Area 3

CARDIOVASCULAR DISEASES

- ▶ 3.01. Neurobiological and psychological bases of mental disorders.
Disorders of neurodevelopment
- ▶ 3.03B. Neurological diseases

3.01. Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment

Group Head: CELSO ARANGO LÓPEZ

Organisms involved: HGUGM / UCM

Type: Consolidated Group

Research lines

Axis 1: Consolidation of research networks and alliances in neuroscience

- ▶ L1: Consolidation of a network for the evaluation of new therapeutic strategies in Autism Spectrum Disorders. Leader: Mara Parellada and Celso Arango
- ▶ L2: More efficient integration of the basic research developed at the UCM and the clinical one developed at the HGUGM through collaborative projects and the use of animal models. Leaders: Celso Arango. Carmen Moreno.
- ▶ L3: Increase the capacity and complementarity of our group within CIBERSAM to ensure extension of the samples necessary to reach significant results in collaborative studies. Leaders: Celso Arango. Covadonga Martínez and Carmen Moreno.

Axis 2: Consolidation of research lines in neuroscience

- ▶ L1: Consolidation of the line of research on populations at high risk of developing mental disorders and neurodevelopmental disorders. Leader: Dolores Moreno. Celso Arango. Covadonga Martínez and Carmen Moreno.

- ▶ L2: Extension of additional sources of funding; autonomous communities, national, international. Leaders: Celso Arango. Covadonga Martínez and Carmen Moreno.
- ▶ L3: Increase scientific output in the Neurodevelopmental Disorders program. Leaders: Celso Arango. Covadonga Martínez.
- ▶ L4: Increase in scientific production in basic research. Leader: Celso Arango.
- ▶ L5: Continuation and promotion of transnational and collaborative research in schizophrenia and other psychoses. Leaders: Celso Arango.

Axis 3: Consolidation of the teaching plan in neurosciences

- ▶ L1: Consolidation of the group's teaching plan with a stable offer of courses, training placements and preparation of doctoral theses. Leaders: Celso Arango. Covadonga Martínez.

Axis 4: Consolidation of infrastructure

- ▶ L1: Extension of laboratory structures and equipment; consolidation of the Psychiatry Laboratory. Leaders: Celso Arango.



3.01. NEUROBIOLOGICAL AND PSYCHOLOGICAL BASES OF MENTAL DISORDERS. DISORDERS OF NEURODEVELOPMENT

The group "Neurobiological and psychological underpinnings of mental disorders. Neurodevelopmental disorders", led by Dr. Celso Arango, has developed a prolific research activity in collaboration with national and international groups during the past 20 years. This group is one of the few to gain international recognition in the field of childhood- and adolescent-onset schizophrenia and early-onset psychosis, as well as in neuropsychopharmacology in neurodevelopmental disorders. The quality of its scientific output is reflected by the number of projects with external evaluation with competitive public and private funding (e.g., Instituto de Salud Carlos III, Spanish Ministries of Health and Education, BBR Foundation, Fundación Mutua Madrileña, Fundación Alicia Koplowitz), predoctoral and postdoctoral researchers with contracts funded by public competitive funds, publications, and collaborations, including development of several novel research lines in collaboration with other departments at the Hospital and IISGM (e.g., biochemistry, medical imaging, experimental medicine, cardiology, genetics, and nutrition, among others). The research team also has broad experience in training in research through a systematic training plan with regular quality checks as part of the EFQM quality assurance program implemented in the Institute of Psychiatry and Mental Health, which has achieved a "+500" classification in the EFQM programme. Several members of the group participate or have participated in 10 projects funded by the European Union Seventh Framework Programme, 3 projects funded by the Innovative Medicines Call of Horizon 2020, 3 projects funded by the EU Horizon Europe Programme, and three projects funded by the United States National Institute of Mental Health (NIMH). The group has published numerous articles in high-impact journals (e.g., Nature, Nature Genetics, PNAS, American Journal of Psychiatry, World Psychiatry, JAMA Psychiatry, Lancet Psychiatry, British Journal of Psychiatry, Schizophrenia Bulletin, Journal of the American Academy of Child and Adolescent Psychiatry, etc.) in the fields of schizophrenia, autism spectrum disorders, and other neurodevelopmental disorders. The scientific activity of the research group has also been translated to clinical practice through several clinical trials and the development and publication of clinical practice guidelines for the management of children and adolescents with neurodevelopmental disorders and other conditions including psychosis, bipolar disorder, and autism spectrum disorder.

Group members

- **Abregu Crespo, Renzo:** R1. First Stage Researcher.
- **Abrokwa:** R2. Recognised Researcher.
- **Andreu Bernabeu, Álvaro:** R1. First Stage Researcher.
- **Arango López, Celso:** R4. Leading Researcher.
- **Arango Victoria, Manuel Jovino:** Otros. Data Manager.
- **Ayora Rodríguez, Miriam:** R1. First Stage Researcher.
- **Baeza Muñoz, Cristina:** Other.
- **Baltasar Tello, Itziar:** R2. Recognised Researcher.
- **Barcenilla González, Miguel Ángel:** Other. Project Manager.
- **Boada Muñoz, Leticia:** Other.
- **Boi, Sara:** R1. First Stage Researcher.
- **Bravo Sánchez, Marta:** R2. Recognised Researcher.
- **Burdeus Olavarrieta, Mónica:** R1. First Stage Researcher.
- **Calvo Calvo, Ana Belén:** R2. Recognised Researcher.
- **Carballo Belloso, Juan José:** R3. Established Researcher.
- **Caserini, Chiara:** R1. First Stage Researcher.
- **Cavone, Vito:** R1. First Stage Researcher.
- **Cerezo Román, Lourdes:** R1. First Stage Researcher.
- **Civeira Marín, Ignacio:** Other.
- **Colomar Molla, Laura:** R1. First Stage Researcher.
- **Conejo Galindo, Javier:** R1. First Stage Researcher.
- **Corral Zarapuz, Azucena:** Other.
- **Cuesta Santamaría, María Luisa:** Other. Nurse.
- **Cunillera Llorente, Alicia:** Other.
- **De Diego Ruiz, Héctor:** R1. First Stage Researcher.
- **Del Fresno Cerezo, Rafael:** R1. First Stage Researcher.
- **De Matteis, Mario:** R1. First Stage Researcher.

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Group members (cont.)

- De Portugal Fernández del Rivero, Enrique: R2. Recognised Researcher.
- Delgado Lacosta, Carlos: R2. Recognised Researcher.
- Dorado Martínez, M^a Luisa: R2. Recognised Researcher.
- Durán Cutillas, Manuel: R1. First Stage Researcher.
- Esguevillas Cuesta, Álvaro: R2. Recognised Researcher.
- Espliego Felipe, Ana: R1. First Stage Researcher.
- Ferre Navarrete, Francisco: R2. Recognised Researcher.
- Galván García, Joaquín: R1. First Stage Researcher.
- García Alcón, Alicia: R1. First Stage Researcher.
- García Bernardo, Enrique: R2. Recognised Researcher.
- García Cabeza, Ignacio: R2. Recognised Researcher.
- Garibi Pérez, Ainhoa: R2. Recognised Researcher.
- Garriz Luis, Alexandra: Other. Project Manager.
- Gil Molina, Santiago: R2. Recognised Researcher.
- González Lois, Noemí: R1. First Stage Researcher.
- González Luis, Julio: R2. Recognised Researcher.
- González Peñas, Javier: R2. Recognised Researcher.
- Guil Gallego, Ana: R1. First Stage Researcher.
- Gurriarán Bas, Xaquín: R2. Recognised Researcher.
- Hernández Álvarez, Fabián: R1. First Stage Researcher.
- Hernández Jurdado, Patricia: R2. Recognised Researcher.
- Huertas Patón, Abigail: R2. Recognised Researcher.
- Huete Diego, Miguel Á.: Other. Data manager.
- Janssen Jeucken, Joost: R2. Recognised Researcher.
- Laorden Nieto, Alejandra Teresa: R2. Recognised Researcher.
- Llorente Sarabia, Cloe: R2. Recognised Researcher.
- López Carpintero, Beatriz: R1. First Stage Researcher.
- López Moreno, Laura: R1. First Stage Researcher.

- López Morinigo, Javier David: R2. Recognised Researcher.
- Lucas Sánchez, María: Other. Nurse.
- Magaz Muñoz, Ana María: R2. Recognised Researcher.
- Martín Martínez, Nuria: R1. First Stage Researcher.
- Martínez Díaz-Caneja, M^a Covadonga: R2. Recognised Researcher.
- Martínez Rodríguez, Kenia: R3. Established Researcher.
- Martínez Villar, Sofía: Other.
- Mayoral Aragón, María: R3. Established Researcher.
- Mendez Hernández, María Andreína: Other. Project Manager.
- Merchán Naranjo, Jessica: Other.
- Merchán Ribera, Susana: Other. Data Manager.
- Molina García, M^a Dolores: R1. First Stage Researcher.
- Monleón Pérez, Nieves: Other.
- Moreno Moreno, Beatriz: Other. Laboratory Support Technician.
- Moreno Pardillo, M^a Dolores: R2. Recognised Researcher.
- Moreno Ruiz, Carmen: R2. Recognised Researcher.
- Morillas Muñoz, Aida: Other. Laboratory Support Technician.
- Munilla Suárez, Estrella: R2. Recognised Researcher.
- Olmeda García, M^a Soledad: R1. First Stage Researcher.
- Ordás Díaz, Celia: R1. First Stage Researcher.
- Panadero Gómez, Rocío: R1. First Stage Researcher.
- Parellada Redondo, M^a José: R3. Established Researcher.
- Parro Torres, Carlos: R2. Recognised Researcher.
- Penzol Alonso, M^a José: R2. Recognised Researcher.
- Peña Grager, M^a Mercedes: Other.
- Picouto González, M^a Dolores: R2. Recognised Researcher.
- Pina Camacho, Laura: R2. Recognised Researcher.
- Ramírez Cardesín, María: R1. First Stage Researcher.
- Rapado Castro, Marta: R3. Established Researcher.

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3.01. NEUROBIOLOGICAL AND PSYCHOLOGICAL BASES OF MENTAL DISORDERS. DISORDERS OF NEURODEVELOPMENT

Group members (*cont.*)

- Recio Lamparero, Sandra: Other. Laboratory Support Technician.
- Rivas Cambroner, Eva: R2. Recognised Researcher.
- Rodríguez Latorre, Pamela: Other.
- Roldán Díaz, Laura: R2. Recognised Researcher.
- Roncero Rodríguez, Marisol: R1. First Stage Researcher.
- Salas Pérez, Sara: Other.
- Salazar de Pablo, Gonzalo: R2. Recognised Researcher.
- San José Cáceres, Antonia: R2. Recognised Researcher.
- Sánchez Díaz, Emilio Ignacio: R2. Recognised Researcher.
- Sánchez Gutiérrez, Teresa: R2. Recognised Researcher.
- Santos Fernández, Laura: R1. First Stage Researcher.
- Schnack, Hugo: R3. Established Researcher.
- Sepúlveda Palomo, Marta: R1. First Stage Researcher.
- Sevilla Cermeño, Laura: R2. Recognised Researcher.
- Sevillano Bermejo, Ana: Other. Data manager.
- Sípós Gálvez, Lourdes: Other. Recognised Researcher.
- Solís Olcese, Andrea Ximena: R1. First Stage Researcher.
- Sepúlveda Palomo, Marta: R1. First Stage Researcher.
- Stella, Carol: R1. First Stage Researcher.
- Szerman Bolotner, Néstor: Other.
- Torrero Alía, María: Other. Laboratory Support Technician.
- Urbiola Merina, Elena: R1. First Stage Researcher.
- Valencia Agudo, Fátima: Other.
- Verdura Vizcaíno, José Ernesto: R2. Recognised Researcher.
- Vicente Moreno, Raquel Pilar: R1. First Stage Researcher.
- Vicente Sánchez, Isabel: R1. First Stage Researcher.
- Vidal de la Fuente, Jorge: Other.

Research Projects – Competitive Calls

Competitive projects

- Title: **ProNET: Psychosis-Risk Outcomes Network**. NIH-2020/4040-0001
Directo: Arango López, Celso
Funding body: National Institutes of Health (NIH)
Type of project: Observational study
Start date: 01/09/2020
End date: 30/09/2025
- Title: **H2020 Autism Innovative Medicine Studies – 2 – Trials**. H2020 AIMS-2-TRIALS
Directo: Arango López, Celso
Funding body: European Union
Type of project: H2020 European research project
Start date: 01/05/2018
End date: 01/05/2022
- Title: **Conect4children (Collaborative Network for European Clinical Trials for Children)**. H2020 c4c-777389
Directo: Moreno Ruíz, Carmen
Funding body: European Union
Type of project: H2020 European research project
Start date: 01/05/2019
End date: 01/05/2024
- Title: **Estudio longitudinal de una cohorte representativa: superando la heterogeneidad clínica y biológica en primeros episodios psicóticos** PI20/00721
Directo: Martínez Díaz-Caneja, María Covadonga
Funding body: Instituto de Salud Carlos III
Type of project: Research project
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Mecanismos epigénicos implicados en la génesis y curso de trastornos del neurodesarrollo en prematuros extremos: estudio de seguimiento a 4 años** PI20/01342



Directo: Pina Camacho, Laura
 Funding body: Instituto de Salud Carlos III
 Type of project: Research project
 Start date: 01/01/2021
 End date: 31/12/2023

- Title: **Bases neurobiológicas de las trayectorias diferenciales de los Trastornos del Espectro Autista** PI20/01382
 Directo: Parellada Redondo, M^a José
 Funding body: Instituto de Salud Carlos III
 Type of project: Research project
 Start date: 01/01/2021
 End date: 31/12/2023
- Title: **Enfoque integral y traslacional para el diagnóstico genético de TEA. Caracterización clínica.** PI19/01024
 Directo: Arango López, Celso
 Funding body: Instituto de Salud Carlos III
 Type of project: Research project
 Start date: 01/01/2020
 End date: 01/01/2022
- Title: **Estudio de seguimiento de niños y adolescentes con diabetes mellitus tipo 1 : mecanismos epigenéticos y comorbilidad afectiva** PI18/01819
 Directo: Carballo Belloso, Juan José
 Funding body: Instituto de Salud Carlos III
 Type of project: Research project
 Start date: 01/01/2019
 End date: 31/12/2021
- Title: **Características comunes y diferenciales en hijos de pacientes con esquizofrenia diagnosticados de TDAH, hijos de padres sanos diagnosticados de TDAH y controles.** PI18/01119
 Directo: Moreno Pardillo, M^a Dolores
 Funding body: Instituto de Salud Carlos III
 Type of project: Research project
 Start date: 01/01/2019
 End date: 31/12/2021

- Title: **Estudio longitudinal de marcadores oxidativos y neuroinflamatorios de la función cognitiva en primeros episodios de psicosis adolescente.** PI18/00753
 Directo: Rapado Castro, Marta
 Funding body: Instituto de Salud Carlos III
 Type of project: Research project
 Start date: 01/01/2019
 End date: 31/12/2021
- Title: **Factores pronósticos y trayectorias de desarrollo del trastorno bipolar de inicio en la infancia y la adolescencia. Estudio longitudinal de seguimiento a 5 año.** PI17/02227
 Directo: MORENO RUIZ, CARMEN
 Funding body: Instituto de Salud Carlos III
 Type of project: Research project
 Start date: 01/01/2018
 End date: 30/06/2022
- Title: **Estudio de seguimiento de prematuros extremos: mecanismos epigenéticos implicados en la génesis de trastornos del espectro autista.** PI17/01997
 Directo: Pina Camacho, Laura
 Funding body: Instituto de Salud Carlos III
 Type of project: Research project
 Start date: 01/01/2018
 End date: 30/06/2022
- Title: **La relación entre cambios estructurales cerebrales y medicación antipsicótica en una muestra nacional y longitudinal de pacientes con primer episodio de psicosis.** PI17/01249
 Directo: JANSSEN JEUCKEN, JOOST
 Funding body: Instituto de Salud Carlos III
 Type of project: Research project
 Start date: 01/01/2018
 End date: 30/06/2022
- Title: **Estudio observacional en jóvenes con estados mentales de alto riesgo. Perfiles diferenciales e influencia de experiencias traumáticas y variables biológicas en el desarrollo de la psicosis.** PI17/00997



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Directo: MAYORAL Aragón, MARIA
Funding body: Instituto de Salud Carlos III
Type of project: Research project
Start date: 01/01/2018
End date: 30/06/2022

- Title: **Biotipos en Trastornos del Especto Autista: relación con evolución clínica y respuesta a fármacos** PI17/00819
Directo: Parellada Redondo, M^a José
Funding body: Instituto de Salud Carlos III
Type of project: Research project
Start date: 01/01/2018
End date: 30/06/2022
- Title: **Envejecimiento celular asociado con exposición temprana a acontecimientos estresantes den el síndrome de delección 22q11.2** PI17/00481
Directo: FRAGUAS HERRAEZ, DAVID
Funding body: Instituto de Salud Carlos III
Type of project: Research project
Start date: 01/01/2018
End date: 30/06/2022
- Title: **Ambiente y Genes en Esquizofrenia (AGES-CM 2)** S2017/BMD-3740
Directo: Arango López, Celso
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Type of project: Research project
Start date: 01/01/2018
End date: 30/06/2022
- Title: **First Steps: estudio piloto aleatorizado para la implementación del programa de parentalidad Incredible Years® en preescolares con autismo y retraso del lenguaje en España** FAK20/01
Directo: Valencia Agudo, Fátima
Funding body: Fundación Alicia Koplowitz
Type of project: Research project
Start date: 01/01/2020
End date: 31/12/2021
- Title: **Biomarcadores de estrés oxidativo e inflamación en orina de recién nacidos prematuros extremos** FAK19/01

Directo: Pina Camacho, Laura
Funding body: Fundación Alicia Koplowitz
Type of project: Research project
Start date: 01/11/2019
End date: 31/10/2021

- Title: **Combinación de tratamiento con N-acetil Cisteína (NAC) y entrenamiento cognitivo para promover cambios en los patrones de activación conductuales y neurales que subyacen al déficit cognitivo en psicosis adolescente** FAK18/01
Directo: Rapado Castro, Marta
Funding body: Fundación Alicia Koplowitz
Type of project: Research project
Start date: 01/11/2018
End date: 31/11/2021
- Title: **Estudio de caracterización fenotípica y su relación con las alteraciones genéticas mediadoras del fenotipo en el síndrome de Phelan-McDermid (PMS o delección 22q13)** FIBHGM-CCA027-2020
Directo: Parellada Redondo, M^a José
Funding body: Fundación Alicia Koplowitz
Type of project: Research project
Start date: 20/09/2020
End date: 31/05/2023
- Title: **Convocatoria beca predoctoral en Neurociencias 2016** FTPGB16/01
Directo: Arango López, Celso
Funding body: Fundación Tatiana Pérez de Guzmán El Bueno
Type of project: Research project
Start date: 12/12/2016
End date: 01/03/2021

Human Resources

- Title: **Intesification contract** INT20/00043
Directo: Bermejo Thomas, Javier
Funding body: Instituto de Salud Carlos III
Project type: Human resources
Start date: 01/01/2021
End date: 31/12/2022



- Title: **Ramón y Cajal Contract** RYC-2017-23144
Directo: Rapado Castro, Marta
Funding body: MICINN
Type of project: Human resources
Start date: 01/09/2018
End date: 28/02/2022
- Title: **Beca de doctorado Fundación Bancaria La Caixa-** INPHINIT2018-CS
Directo: Arango López, Celso (Carol Stella)
Funding body: La Caixa
Type of project: Human resources
Start date: 29/10/2018
End date: 28/10/2021
- Title: **Sara Borrell Contract** CD20/00082
Directo: Alloza Romero, Clara
Funding body: Instituto de Salud Carlos III
Type of project: Human resources
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Sara Borrell Contract** CD20/00118
Directo: González Peñas, Javier
Funding body: Instituto de Salud Carlos III
Type of project: Human resources
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Río Hortega Contract** CM20/00114
Directo: Andreu Bernabéu, Álvaro
Funding body: Instituto de Salud Carlos III
Type of project: Human resources
Start date: 29/01/2021
End date: 28/01/2023
- Title: **PREDOCTORAL Contract** FI18/00233
Directo: Burdeus Olavarrieta, Mónica
Funding body: Instituto de Salud Carlos III (Ayudas Predoctorales de Formación en Investigación en Salud)
Type of project: Human resources
Start date: 01/01/2019
End date: 31/12/2022
- Title: **PREDOCTORAL Contract** FI17/00230
Directo: Abregu Crespo, Renzo
Funding body: Instituto de Salud Carlos III (Ayudas Predoctorales de Formación en Investigación en Salud)
Type of project: Human resources
Start date: 02/04/2018
End date: 01/04/2022
- Title: **Juan Rodés Contract** JR19/00024
Directo: Martínez Díaz-Caneja, María Covadonga
Funding body: Instituto de Salud Carlos III
Type of project: Human resources
Start date: 29/01/2020
End date: 28/01/2024
- Title: **Formación profesorado universitario** FPU20/07486
Directo: Abrokwa Acheampong, Hayford
Funding body: MICINN/MINECO
Type of project: Human resources
Start date: 13/12/2021
End date: 12/12/2025
- Title: **Formación profesorado universitario** FPU19/06877
Directo: Martín Martínez, Nuria
Funding body: MICINN/MINECO
Type of project: Human resources
Start date: 31/10/2020
End date: 31/10/2024
- Title: **Formación Profesorado Universitario** Fpu19/06752
Directo: Panadero Gómez, Rocío
Funding body: MICINN/MINECO
Type of project: Human resources
Start date: 01/12/2021
End date: 30/11/2025



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- Title: **Formación profesorado universitario** FPU18/06550
Directo: Rubio Fernández, Patricia
Funding body: MICINN
Type of project: Human resources
Start date: 29/10/2019
End date: 28/10/2023
- Title: **Formación profesorado universitario** FPU17/06467
Directo: Colomar Molla, Laura
Funding body: MICINN
Type of project: Human resources
Start date: 26/10/2018
End date: 25/10/2022
- Title: **Formación profesorado universitario** FPU16/01740
Directo: García Alcón, Alicia
Funding body: MICINN/MINECO
Type of project: Human resources
Start date: 24/10/2017
End date: 23/10/2021
- Title: **Contratación de investigadores Predoctorales cofinanciadas por Fondo Social Europeo, a través del Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI)** PEJD-2018-PRE/BMD-8487
Directo: Arango López, Celso
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Type of project: Human resources
Start date: 02/02/2019
End date: 01/02/2021
- Title: **Young employment contract. Ayudante investigación** PEJ-2020-AI/BMD-18635
Directo: Janssen Jeucken, Joost
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Type of project: Human resources
Start date: 01/03/2021
End date: 28/02/2023

- Title: **Young employment contract. Ayudante investigación** PEJ-2019-AI/SAL-15702
Directo: Moreno Ruiz, Carmen
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Type of project: Human resources
Start date: 01/02/2020
End date: 31/01/2022

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of network	Role
CIBER	CIBERSAM (CIBER de Salud Mental)	Coordinating group
Other	Ambiente y genes en esquizofrenia AGES-CM2	Associated group

Doctoral theses. Bachelor thesis and Master theses

Type	Candidate	Title	Name/s Director/s	University	Date defended
Ph Thesis	Lucía Rodríguez Blanco	Conducta autolesiva no suicida en adolescentes: Factores relacionados con el seguimiento en salud mental y aplicación de la evaluación ecológica momentánea	Enrique Baca García, Juan José Carballo Belloso	Universidad Autónoma de Madrid	28/05/2021



Clinical Practice Guidelines

Authors	Title	Journal/ Reference
Imaz Roncero, C.; González Serrano F.; Martínez de Salazar Arboles, A.; Arango López, C.; Psiquiatra. Bellido Zanin, G.; Payá González, B.	Salud Mental en la Infancia y la Adolescencia en la era del COVID-19: Evidencias y Recomendaciones de las Asociaciones Profesionales de Psiquiatría y Psicología Clínica	ISBN: 84-09-21734-2
Jongs, N.; Jagesar, R.; van Haren, N.; Penninx, B.; Reus, L.; Visser, P. J.; van der Wee, N.; Koning, I. M.; Arango, C.; Sommer, I.; Eijkemans, M.; Vorstman, J. A.; Kas, M.	A framework for assessing neuropsychiatric phenotypes by using smartphone-based location data	32612118
McAllister-Williams, RH.; Arango, C.; Blier, P.; Demyttenaere, K.; Falkai, P.; Gorwood, P.; Hopwood, M.; Javed, A.; Kasper, S.; Malhi, GS.; Soares, JC.; Vieta, E.; Young, AH.; Papadopoulos, A.; Rush, AJ.	The identification, assessment and management of difficult-to-treat depression: An international consensus statement	32217227
Moreno, C.; Wykes, T.; Galderisi, S.; Nordentoft, M.; Crossley, N.; Jones, N.; Cannon, M.; Correll, C.; Byrne, L.; Carr, S.; Chen, E.; Gorwood, P.; Johnson, S.; Kärkkäinen, H.; Krystal, J.; Lee, J.; Lieberman, J.; López-Jaramillo, C.; Männikkö, M.; Phillips, M.; Uchida, H.; Vieta, E.; Vita, A.; Arango, C.	How mental health care should change as a consequence of the COVID-19 pandemic	32682460
Lahera, G.; Cid, J.; Gonzalez-Pinto, A.; Cabrera, A.; Mariner, C.; Vieta, E.; Arango, C.; Crespo-Facorro, B.	Needs of people with psychosis and their caregivers: «In their own voice»	31937434
Cardoner Álvarez, Narcis (Coord.) Pautas de actuación y seguimiento: Depresión. Organización Médica Colegial, International Marketing & Communication (IM&C). Madrid, 2021. ISBN: 978-84-7867-796-2	Abordajes específicos: infanto-juvenil	ISBN: 978-84-7867-796-2
Lázaro, Luisa; Moreno, Dolores; Rubio, Belén (coord.)	Manual de Psiquiatría de la Infancia y la Adolescencia	ISBN 978-84-9113-847-1

Publications

Total Impact Factor: 1087.8

	Nº	IF
Own publications	38	354,4
Joint publications	69	733,4
First decile publications	27	654,4
First quartile publications	68	932,8
Second quartile publications	26	125,4
Third quartile publications	7	19,8
Fourth quartile publications	6	9,9
Nonindexed publications / No IF	3	-
Total publications (including those without IF)	110	1087,8

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Salagre, E; Grande, I; Jiménez, E; Mezquida, G; Cuesta, MJ; Llorente, C; Amoretti, S; Lobo, A; González-Pinto, A; Carballo, JJ; Corripio, I; Verdolini, N; Castro-Fornieles, J; Legido, T; Carvalho, AF; Vieta, E; Bernardo, M; PEPs Grp. *Trajectories of suicidal ideation after first-episode psychosis: a growth mixture modeling approach*. ACTA PSYCHIATRICA SCANDINAVICA. 2021; 143(5) 418-433. FI: 7.734. Cuartil: 1. (Article).
- Arango, C; Pina-Camacho, L. *Trends in utilisation of hypnotics among Scandinavian young people*. ACTA PSYCHIATRICA SCANDINAVICA. 2021; 144(2) 97-99. FI: 7.734. Cuartil: 1. (Editorial Material).
- Marín-Navarrete, R; Fernández-Caceres, C; de León, EM; Sánchez-Huesca, R; Díaz-Negrete, B; Rodríguez-Kuri, S; Sánchez-Domínguez, R; Pérez-López, A; Hernández-Álvarez, D; Szerman, N. *Characterization of dual disorders in addiction treatment-seekers at mexican outpatient centers*. ACTAS ESPANOLAS DE PSIQUIATRIA. 2021; 49(1) 1-10. FI: 1.667. Cuartil: 4. (Article).
- Szerman, N; Arias, F; Algorta, J; Basurte, I; Vega, P; Roncero, C; Martínez-Raga, J; Grau-López, L. *Effectiveness of tianeptine in patients with major depressive*



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- disorder and substance use disorder*. ACTAS ESPAÑOLAS DE PSIQUIATRÍA. 2021; 49(4) 135-144. FI: 1.667. Cuartil: 4. (Article).
- Colom, J; Szerman, N; Sabater, E; Ferre, F; Pascual, F; Gilabert-Perramon, A; Casado, MA; Bobes, J; Grp Trabajo MCDA-OD. *Study to determine relevant health outcome measures in opioid use disorder: Multicriteria decision analysis*. ADICCIONES. 2021; 33(2) 109-120. FI: 4.102. Cuartil: 2. (Article).
 - Mancebo, JG; García-Loygorri, CF; Romero, AI; López, PV; García, AR; Pardillo, RM; Soc Espanola Urgencias Pedit RiSE. *Ocular trauma in the Pediatric Emergency Departments, characteristics and risk factors of immediate sequelae*. ANALES DE PEDIATRÍA. 2021; 94(3) 161-172. FI: 2.377. Cuartil: 3. (Article).
 - Pina-Camacho, L; Vidal, J; Picouto, MD; Ortiz, EJ; Jaaskelainen, FDM; Moreno, C; Arango, C; Hernández-Sampelayo, T; Parellada, M; Grupo Conflpadres. *Patient care, right to information and consent for minors in situations of parental conflict. Clinical guidelines in the context of Spanish legislation*. ANALES DE PEDIATRÍA. 2021; 94(5). FI: 2.377. Cuartil: 3. (Article).
 - Oakley, BFM; Tillmann, J; Ahmad, J; Crawley, D; Caceres, ASJ; Holt, R; Charman, T; Banaschewski, T; Buitelaar, J; Simonoff, E; Murphy, D; Loth, E. *How do core autism traits and associated symptoms relate to quality of life? Findings from the Longitudinal European Autism Project*. AUTISM. 2021; 25(2) 389-404. FI: 6.684. Cuartil: 1. (Article).
 - Arango, C. *Reply to: Another Vision From the Coronavirus Health Crisis in Spain: The Perspective From the Plena inclusion Developmental Disabilities Associative Movement*. BIOLOGICAL PSYCHIATRY. 2021; 89(4) 19-20. FI: 12.81. Cuartil: 1. (Letter).
 - Siafis, S; Rodolico, A; Ciray, O; Murphy, DG; Parellada, M; Arango, C; Leucht, S. *Imputing the Number of Responders from the Mean and Standard Deviation of CGI-Improvement in Clinical Trials Investigating Medications for Autism Spectrum Disorder*. BRAIN SCIENCES. 2021; 11(7). FI: 3.333. Cuartil: 3. (Article).
 - Salazar de Pablo G; Woods SW; Drymonitou G; de Diego H; Fusar-Poli P. *Prevalence of Individuals at Clinical High-Risk of Psychosis in the General Population and Clinical Samples: Systematic Review and Meta-Analysis*. BRAIN SCIENCES. 2021; 11(11). FI: 3.333. Cuartil: 3. (Article).
 - Valencia, F; Penelo, E; de la Osa, N; Navarro, JB; Ezpeleta, L. *Prospective association of parental and child internalizing symptoms: Mediation of parenting practices and irritability*. BRITISH JOURNAL OF DEVELOPMENTAL PSYCHOLOGY. 2021; 39(3) 363-379. FI: 2.148. Cuartil: 3. (Article).
 - Díaz-Caneja, CM; Alloza, C; Gordaliza, PM; Fernández-Pena, A; de Hoyos, L; Santonja, J; Buimer, EEL; van Haren, NEM; Cahn, W; Arango, C; Kahn, RS; Pol, HEH; Schnack, HG; Janssen, J. *Sex Differences in Lifespan Trajectories and Variability of Human Sulcal and Gyrus Morphology*. CEREBRAL CORTEX. 2021; 31(11) 5107-5120. FI: 4.861. Cuartil: 2. (Article).
 - Mortier, P; Vilagut, G; Ferrer, M; Serra, C; Molina, JD; López-Fresneña, N; Puig, T; Pelayo-Terán, JM; Pijoan, JI; Emparanza, JI; Espuga, M; Plana, N; González-Pinto, A; Ortí-Lucas, RM; de Salazar, AM; Rius, C; Aragonés, E; del Cura-González, I; Aragón-Pe. *Thirty-day suicidal thoughts and behaviors among hospital workers during the first wave of the Spain COVID-19 outbreak*. DEPRESSION AND ANXIETY. 2021; 38(5) 528-544. FI: 8.128. Cuartil: 1. (Article).
 - de Pablo, GS; Besana, F; Arienti, V; Catalán, A; Vaquerizo-Serrano, J; Cabras, A; Pereira, J; Soardo, L; Coronelli, F; Kaur, S; da Silva, J; Oliver, D; Petros, N; Moreno, C; González-Pinto, A; Díaz-Caneja, CM; Shin, JI; Politi, P; Solmi, M; Borgatti, R; M. *Longitudinal outcome of attenuated positive symptoms, negative symptoms, functioning and remission in people at clinical high risk for psychosis: a meta-analysis*. ECLINICALMEDICINE. 2021; 36 100909-100909. FI: 17.033. Cuartil: 1. (Article).
 - Rapado-Castro, M; Arango, C. *Building up resilience in an uncertain world: mental health challenges in the aftermath of the first modern pandemic*. EUROPEAN ARCHIVES OF PSYCHIATRY AND CLINICAL NEUROSCIENCE. 2021; 271(6) 1001-1003. FI: 5.76. Cuartil: 1. (Editorial Material).
 - Moreno, C. *Diagnostic overlap and exploration of risk factors in child psychiatry*. EUROPEAN CHILD & ADOLESCENT PSYCHIATRY. 2021; 30(4) 493-495. FI: 5.349. Cuartil: 1. (Editorial Material).
 - Werhahn, JE; Mohl, S; Willinger, D; Smigielski, L; Roth, A; Hofstetter, C; Stampfli, P; Naaijen, J; Mulder, LM; Glennon, JC; Hoekstra, PJ; Dietrich, A; Deters, RK; Aggensteiner, PM; Holz, NE; Baumeister, S; Banaschewski, T; Saam, MC; Schulze, UME; Lythgoe. *Aggression subtypes relate to distinct resting state functional connectivity in children and adolescents with disruptive*



behavior. EUROPEAN CHILD & ADOLESCENT PSYCHIATRY. 2021; 30(8) 1237-1249. FI: 5.349. Cuartil: 1. (Article).

- De la Serna, E; Ilzarbe, D; Sugranyes, G; Baeza, I; Moreno, D; Rodríguez-Toscano, E; Espliego, A; Ayora, M; Romero, S; Sánchez-Gistau, V; Castro-Fornieles, J. *Lifetime psychopathology in child and adolescent offspring of parents diagnosed with schizophrenia or bipolar disorder: a 2-year follow-up study*. EUROPEAN CHILD & ADOLESCENT PSYCHIATRY. 2021; 30(1) 117-129. FI: 5.349. Cuartil: 1. (Article).
- Peñuelas-Calvo, I; Palomar-Ciria, N; Porras-Segovia, A; Miguélez-Fernández, C; Baltasar-Tello, I; Pérez-Colmenero, S; Delgado-Gómez, D; Carballo, JJ; Baca-García, E. *Impact of ADHD symptoms on family functioning, family burden and parents' quality of life in a hospital area in Spain*. EUROPEAN JOURNAL OF PSYCHIATRY. 2021; 35(3) 166-172. FI: 1.288. Cuartil: 4. (Article).
- Díaz-Caneja, CM; State, MW; Hagerman, RJ; Jacquemont, S; Marín, O; Bagni, C; Umbricht, D; Simonoff, E; de Andrés-Trelles, F; Kaale, A; Pandina, G; Gómez-Mancilla, B; Wang, P; Cusak, J; Siafis, S; Leucht, S; Parellada, M; Loth, E; Charman, T; Buitelaar, JK. *A white paper on a neurodevelopmental framework for drug discovery in autism and other neurodevelopmental disorders*. EUROPEAN NEUROPSYCHOPHARMACOLOGY. 2021; 48 49-88. FI: 5.415. Cuartil: 1. (Review).
- Arango, C. *Drug development in ASD, an ISCTM-ECNP joint adventure*. EUROPEAN NEUROPSYCHOPHARMACOLOGY. 2021; 48 1-2. FI: 5.415. Cuartil: 1. (Editorial Material).
- Amoretti, S; Verdolini, N; Mezquida, G; Rabelo-da-Ponte, FD; Cuesta, MJ; Pina-Camacho, L; Gómez-Ramiro, M; De-la-Cámara, C; González-Pinto, A; Díaz-Caneja, CM; Corripio, I; Vieta, E; de la Serna, E; Mane, A; Solé, B; Carvalho, AF; Serra, M; Bernardo, M. *Identifying clinical clusters with distinct trajectories in first-episode psychosis through an unsupervised machine learning technique*. EUROPEAN NEUROPSYCHOPHARMACOLOGY. 2021; 47 112-129. FI: 5.415. Cuartil: 1. (Article).
- Amoretti, S; Mezquida, G; Rosa, AR; Bioque, M; Cuesta, MJ; Pina-Camacho, L; García-Rizo, C; Barcones, F; González-Pinto, A; Merchán-Naranjo, J; Corripio, I; Vieta, E; Baeza, I; Cortizo, R; Bonnin, CM; Torrent, C; Bernardo, M; PEPs Grp. *The functioning assessment short test (FAST) applied to first-episode*

psychosis: Psychometric properties and severity thresholds. EUROPEAN NEUROPSYCHOPHARMACOLOGY. 2021; 47 98-111. FI: 5.415. Cuartil: 1. (Article).

- Casquero-Veiga, M; Romero-Miguel, D; MacDowell, KS; Torres-Sánchez, S; García-Partida, JA; Lamanna-Rama, N; Gómez-Rangel, V; Romero-Miranda, A; Berrocoso, E; Leza, JC; Arango, C; Desco, M; Soto-Montenegro, ML. *Omega-3 fatty acids during adolescence prevent schizophrenia-related behavioural deficits: Neurophysiological evidences from the prenatal viral infection with PolyI:C*. EUROPEAN NEUROPSYCHOPHARMACOLOGY. 2021; 46 14-27. FI: 5.415. Cuartil: 1. (Article).
- McCracken, JT; Anagnostou, E; Arango, C; Dawson, G; Farchione, T; Mantua, V; McPartland, J; Murphy, D; Pandina, G; Veenstra-VanderWeele, J; ISCTM ECNP ASD Working Grp. *Drug development for Autism Spectrum Disorder (ASD): Progress, challenges, and future directions*. EUROPEAN NEUROPSYCHOPHARMACOLOGY. 2021; 48 3-31. FI: 5.415. Cuartil: 1. (Article).
- Pallanti, S; Marras, A; Dickson, SL; Adan, RA; Vieta, E; Osso, BD; Arango, C; Fusar-Poli, P; Soriano-Mas, C; Carmi, L; Lindenberg, AM; Zohar, J. *Manifesto for an ECNP Neuromodulation Thematic Working Group (TWG): Non-invasive brain stimulation as a new Super-subspecialty*. EUROPEAN NEUROPSYCHOPHARMACOLOGY. 2021; 52 72-83. FI: 5.415. Cuartil: 1. (Article).
- Verdolini, N; Amoretti, S; Mezquida, G; Cuesta, MJ; Pina-Camacho, L; García-Rizo, C; Lobo, A; González-Pinto, A; Merchán-Naranjo, J; Corripio, I; Salagre, E; Baeza, I; Berge, D; Garriga, M; Bioque, M; Vallespir, C; Serra, M; Vieta, E; Bernardo, M. *The effect of family environment and psychiatric family history on psychosocial functioning in first-episode psychosis at baseline and after 2 years*. EUROPEAN NEUROPSYCHOPHARMACOLOGY. 2021; 49 54-68. FI: 5.415. Cuartil: 1. (Article).
- Fraguas, D; Díaz-Caneja, CM. *First episode psychosis longitudinal cohort studies: The CIBERSAM FEP cohort*. EUROPEAN NEUROPSYCHOPHARMACOLOGY. 2021; 51 132-133. FI: 5.415. Cuartil: 1. (Letter).
- Erzin, G; Pries, LK; van Os, J; Fusar-Poli, L; Delespaul, P; Kenis, G; Luykx, JJ; Lin, BD; Richards, AL; Akdede, B; Binbay, T; Altinyazar, V; Yalincetin, B; Gumus-Akay, G; Cihan, B; Soygur, H; Ulas, H; Cankurtaran, ES; Kaymak, SU; Mihaljevic, MM; Andric-P. *Examining the association between exposome score*



3.01. NEUROBIOLOGICAL AND PSYCHOLOGICAL BASES OF MENTAL DISORDERS. DISORDERS OF NEURODEVELOPMENT

for schizophrenia and functioning in schizophrenia, siblings, and healthy controls: Results from the EUGEI study. *EUROPEAN PSYCHIATRY*. 2021; 64(1). Fl: 7.156. Cuartil: 1. (Article).

- Galderisi, S; De Hert, M; Del Prato, S; Fagiolini, A; Gorwood, P; Leucht, S; Maggioni, AP; Mucci, A; Arango, C. *Identification and management of cardiometabolic risk in subjects with schizophrenia spectrum disorders: A Delphi expert consensus study*. *EUROPEAN PSYCHIATRY*. 2021; 64(1). Fl: 7.156. Cuartil: 1. (Article).
- de Arriba-Enriquez, J; Sanz-Casado, E; Vieta, E; Rapado-Castro, M; Arango, C. *Quality of care in psychiatry is related to research activity*. *EUROPEAN PSYCHIATRY*. 2021; 64(1). Fl: 7.156. Cuartil: 1. (Article).
- Kuzman, MR; Vahip, S; Fiorillo, A; Beezhold, J; da Costa, MP; Skugarevsky, O; Dom, G; Pajevic, I; Peles, AM; Mohr, P; Kleinberg, A; Chkonia, E; Balazs, J; Flannery, W; Mazaliauskiene, R; Chihai, J; Samochowiec, J; Cozman, D; Mihajlovic, G; Izakova, L; Ara. *Mental health services during the first wave of the COVID-19 pandemic in Europe: Results from the EPA Ambassadors Survey and implications for clinical practice*. *EUROPEAN PSYCHIATRY*. 2021; 64(1). Fl: 7.156. Cuartil: 1. (Article).
- Catalán, A; Richter, A; de Pablo, GS; Vaquerizo-Serrano, J; Mancebo, G; Pedruzo, B; Aymerich, C; Solmi, M; González-Torres, MA; Gil, P; McGuire, P; Fusar-Poli, P. *Proportion and predictors of remission and recovery in first-episode psychosis: Systematic review and meta-analysis*. *EUROPEAN PSYCHIATRY*. 2021; 64(1). Fl: 7.156. Cuartil: 1. (Review).
- de Pablo, GS; Davies, C; de Diego, H; Solmi, M; Shin, JI; Carvalho, AF; Radua, J; Fusar-Poli, P. *Transition to psychosis in randomized clinical trials of individuals at clinical high risk of psychosis compared to observational cohorts: a systematic review and meta-analysis*. *EUROPEAN PSYCHIATRY*. 2021; 64(1). Fl: 7.156. Cuartil: 1. (Review).
- de Pablo, GS; Guinart, D; Correll, CU. *What are the physical and mental health implications of duration of untreated psychosis?*. *EUROPEAN PSYCHIATRY*. 2021; 64(1). Fl: 7.156. Cuartil: 1. (Editorial Material).
- Vaquerizo-Serrano, J; de Pablo, GS; Singh, J; Santosh, P. *Catatonia in autism spectrum disorders: A systematic review and meta-analysis*. *EUROPEAN PSYCHIATRY*. 2021; 65(1). Fl: 7.156. Cuartil: 1. (Review).
- Díaz-Caneja, CM; Martín-Babarro, J; Abregu-Crespo, R; Huete-Diego, MA; Giménez-Dasi, M; Serrano-Marugan, I; Arango, C. *Efficacy of a Web-Enabled, School-Based, Preventative Intervention to Reduce Bullying and Improve Mental Health in Children and Adolescents: Study Protocol for a Cluster Randomized Controlled Trial*. *FRONTIERS IN PEDIATRICS*. 2021; 9 628984-628984. Fl: 3.569. Cuartil: 2. (Article).
- Martínez-Pinteno, A; Gasso, P; Prohens, L; Segura, AG; Parellada, M; Saiz-Ruiz, J; Cuesta, MJ; Bernardo, M; Lafuente, A; Mas, S; Rodríguez, N. *Identification of EP300 as a Key Gene Involved in Antipsychotic-Induced Metabolic Dysregulation Based on Integrative Bioinformatics Analysis of Multi-Tissue Gene Expression Data*. *FRONTIERS IN PHARMACOLOGY*. 2021; 12 729474-729474. Fl: 5.988. Cuartil: 1. (Article).
- Peris, L; Szerman, N. *Partial Agonists and Dual Disorders: Focus on Dual Schizophrenia*. *FRONTIERS IN PSYCHIATRY*. 2021; 12 769623-769623. Fl: 5.435. Cuartil: 2. (Article).
- Parellada, M; Caceres, ASJ; Palmer, M; Delorme, R; Jones, EJJ; Parr, JR; Anagnostou, E; Murphy, DGM; Loth, E; Wang, PP; Charman, T; Strydom, A; Arango, C; AIMS-2-TRIALS-CT1 Grp. *A Phase II Randomized, Double-Blind, Placebo-Controlled Study of the Efficacy, Safety, and Tolerability of Arbaclofen Administered for the Treatment of Social Function in Children and Adolescents With Autism Spectrum Disorders: Study Protocol for AIMS-2-T*. *FRONTIERS IN PSYCHIATRY*. 2021; 12 701729-701729. Fl: 5.435. Cuartil: 2. (Article).
- Marín-Navarrete, R; Torrens, M; Toledo-Fernández, A; Mestre-Pinto, JI; Sánchez-Domínguez, R; Pérez-López, A; Saracco-Álvarez, R; Madrigal-De León, EA; Szerman, N. *Developing an App to Screen for Dual Disorders: A Tool for Improving Treatment Services in Mexico*. *FRONTIERS IN PSYCHIATRY*. 2021; 12 697598-697598. Fl: 5.435. Cuartil: 2. (Article).
- Martín-Babarro, J; Toldos, MP; Paredes-Becerra, L; Abregu-Crespo, R; Fernández-Sánchez, J; Díaz-Caneja, CM. *Association of Different Forms of Child Maltreatment With Peer Victimization in Mexican Children and Adolescents*. *FRONTIERS IN PSYCHOLOGY*. 2021; 12 662121-662121. Fl: 4.232. Cuartil: 1. (Article).
- de Pablo, GS; De Micheli, A; Solmi, M; Oliver, D; Catalán, A; Verdino, V; Di Maggio, L; Bonoldi, I; Radua, J; Boy, OB; Provenzano, U; Ruzzi, F; Calorio, F;



- Nosari, G; Di Marco, B; Famularo, I; Montealegre, I; Signorini, L; Molteni, S; Filosi, E; Mensi, M. *Universal and Selective Interventions to Prevent Poor Mental Health Outcomes in Young People: Systematic Review and Meta-analysis*. HARVARD REVIEW OF PSYCHIATRY. 2021; 29(3) 196-215. FI: 3.868. Cuartil: 3. (Review).
- Izquierdo, A; Cabello, M; Leal, I; Ayora, M; Rodríguez-Jiménez, R; Ibáñez, A; Díaz-Marsa, M; Bravo-Ortiz, MF; Baca-García, E; Madrigal, JLM; Fares-Otero, NE; Díaz-Caneja, CM; Arango, C; Mateos, JLA; AGES-CM grp. *How does neighbourhood socio-economic status affect the interrelationships between functioning dimensions in first episode of psychosis? A network analysis approach*. HEALTH & PLACE. 2021; 69 102555-102555. FI: 4.931. Cuartil: 2. (Article).
 - Fraguas, D; Díaz-Caneja, CM; Ayora, M; Durán-Cutilla, M; Abregu-Crespo, R; Ezquiaga-Bravo, I; Martín-Babarro, J; Arango, C. *Assessment of School Anti-Bullying Interventions A Meta-analysis of Randomized Clinical Trials*. JAMA PEDIATRICS. 2021; 175(1) 44-55. FI: 26.796. Cuartil: 1. (Article).
 - Fraguas, D; Díaz-Caneja, CM; Arango, C. *Methodologic and Reporting Issues in Published Meta-analysis-Reply*. JAMA PEDIATRICS. 2021; 175(6) 644-. FI: 26.796. Cuartil: 1. (Letter).
 - Catalán, A; de Pablo, GS; Aymerich, C; Damiani, S; Sordi, V; Radua, J; Oliver, D; McGuire, P; Giuliano, AJ; Stone, WS; Fusar-Poli, P. *Neurocognitive Functioning in Individuals at Clinical High Risk for Psychosis A Systematic Review and Meta-analysis*. JAMA PSYCHIATRY. 2021; 78(8) 859-867. FI: 25.911. Cuartil: 1. (Article).
 - Patel, Y; Parker, N; Shin, J; Howard, D; French, L; Thomopoulos, SI; Pozzi, E; Abe, Y; Abe, C; Anticevic, A; Alda, M; Alemán, A; Alloza, C; Alonso-Lana, S; Ameis, SH; Anagnostou, E; McIntosh, AA; Arango, C; Arnold, PD; Asherson, P; Assogna, F; Auzias, G. *Virtual Histology of Cortical Thickness and Shared Neurobiology in 6 Psychiatric Disorders*. JAMA PSYCHIATRY. 2021; 78(1) 47-63. FI: 25.911. Cuartil: 1. (Article).
 - de Pablo, GS; Radua, J; Pereira, J; Bonoldi, I; Arienti, V; Besana, F; Soardo, L; Cabras, A; Fortea, L; Catalán, A; Vaquerizo-Serrano, J; Coronelli, F; Kaur, S; Da Silva, J; Shin, JI; Solmi, M; Brondino, N; Politi, P; McGuire, P; Fusar-Poli, P. *Probability of Transition to Psychosis in Individuals at Clinical High Risk An Updated Meta-analysis*. JAMA PSYCHIATRY. 2021; 78(9) 970-978. FI: 25.911. Cuartil: 1. (Article).
 - Valli, I; De La Serna, E; Borrás, R; Ilzarbe, D; Baeza, I; Picouto, MD; Baltasar, I; Moreno, D; Bernardo, M; Young, AH; Vieta, E; Sugranyes, G; Castro-Fornieles, J. *Cognitive heterogeneity in the offspring of patients with schizophrenia or bipolar disorder: a cluster analysis across family risk*. JOURNAL OF AFFECTIVE DISORDERS. 2021; 282 757-765. FI: 6.533. Cuartil: 1. (Article).
 - de Pablo, GS; Solmi, M; Vaquerizo-Serrano, J; Radua, J; Passina, A; Mosillo, P; Correll, CU; Borgwardt, S; Galderisi, S; Bechdolf, A; Pfennig, A; Bauer, M; Kessing, LV; van Amelsvoort, T; Nieman, DH; Domschke, K; Krebs, MO; Sand, M; Vieta, E; McGuire, P. *Primary prevention of depression: An umbrella review of controlled interventions*. JOURNAL OF AFFECTIVE DISORDERS. 2021; 294 957-970. FI: 6.533. Cuartil: 1. (Review).
 - Crutel, V; Lambert, E; Penelaud, PF; Severo, CA; Fuentes, J; Rosier, A; Hervás, A; Marret, S; Oliveira, G; Parellada, M; Kyaga, S; Gouttefangeas, S; Bertrand, M; Ravel, D; Falissard, B. *Bumetanide Oral Liquid Formulation for the Treatment of Children and Adolescents with Autism Spectrum Disorder: Design of Two Phase III Studies (SIGN Trials)*. JOURNAL OF AUTISM AND DEVELOPMENTAL DISORDERS. 2021; 51(8) 2959-2972. FI: 4.345. Cuartil: 2. (Article).
 - Catalán, A; de Pablo, GS; Serrano, JV; Mosillo, P; Baldwin, H; Fernández-Rivas, A; Moreno, C; Arango, C; Correll, CU; Bonoldi, I; Fusar-Poli, P. *Annual Research Review: Prevention of psychosis in adolescents - systematic review and meta-analysis of advances in detection, prognosis and intervention*. JOURNAL OF CHILD PSYCHOLOGY AND PSYCHIATRY. 2021; 62(5) 657-673. FI: 8.265. Cuartil: 1. (Review).
 - Sugranyes, G; de la Serna, E; Ilzarbe, D; Pariente, JC; Borrás, R; Romero, S; Rosa, M; Baeza, I; Moreno, MD; Bernardo, M; Vieta, E; Castro-Fornieles, J. *Brain structural trajectories in youth at familial risk for schizophrenia or bipolar disorder according to development of psychosis spectrum symptoms*. JOURNAL OF CHILD PSYCHOLOGY AND PSYCHIATRY. 2021; 62(6) 780-789. FI: 8.265. Cuartil: 1. (Article).
 - Molina-García, M; Fraguas, D; del Rey-Mejías, A; Mezquida, G; Sánchez-Torres, AM; Amoretti, S; Lobo, A; González-Pinto, A; Andreu-Bernabeu, A; Corripio, I; Vieta, E; Baeza, I; Mane, A; Cuesta, M; de la Serna, E; Paya, B; Zorrilla, I; Arango, C; Bernardo. *The Role of Premorbid IQ and Age of Onset as Useful Predictors of Clinical, Functional Outcomes, and Recovery of Individuals with a First Episode of Psychosis*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(11). FI: 4.964. Cuartil: 2. (Article).



3.01. NEUROBIOLOGICAL AND PSYCHOLOGICAL BASES OF MENTAL DISORDERS. DISORDERS OF NEURODEVELOPMENT

- Salagre, E; Grande, I; Solé, B; Mezquida, G; Cuesta, MJ; Díaz-Caneja, CM; Amoretti, S; Lobo, A; González-Pinto, A; Moreno, C; Pina-Camacho, L; Corripio, I; Baeza, I; Berge, D; Verdolini, N; Carvalho, AF; Vieta, E; Bernardo, M; PEPs Grp. *Exploring Risk and Resilient Profiles for Functional Impairment and Baseline Predictors in a 2-Year Follow-Up First-Episode Psychosis Cohort Using Latent Class Growth Analysis*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(1). FI: 4.964. Cuartil: 2. (Article).
- Canal-Rivero, M; Ayesa-Arriola, R; Setien-Suero, E; Crespo-Facorro, B; Arango, C; Dutta, R; López-Morinigo, JD. *Understanding the Influence of Personality Traits on Risk of Suicidal Behaviour in Schizophrenia Spectrum Disorders: A Systematic Review*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(19). FI: 4.964. Cuartil: 2. (Review).
- Rapado-Castro, M; Villar-Arenzana, M; Janssen, J; Fraguas, D; Bombin, I; Castro-Fornieles, J; Mayoral, M; González-Pinto, A; de la Serna, E; Parellada, M; Moreno, D; Paya, B; Graell, M; Baeza, I; Pantelis, C; Arango, C. *Fronto-Parietal Gray Matter Volume Loss Is Associated with Decreased Working Memory Performance in Adolescents with a First Episode of Psychosis*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(17). FI: 4.964. Cuartil: 2. (Article).
- Marqués-Feixa, L; Moya-Higueras, J; Romero, S; Santamarina-Pérez, P; Rapado-Castro, M; Zorrilla, I; Martín, M; Anglada, E; Lobato, MJ; Ramírez, M; Moreno, N; Mayoral, M; Marín-Vila, M; Arias, B; Fananas, L. *Risk of Suicidal Behavior in Children and Adolescents Exposed to Maltreatment: The Mediating Role of Borderline Personality Traits and Recent Stressful Life Events*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(22). FI: 4.964. Cuartil: 2. (Article).
- Baeza, I; de la Serna, E; Amoretti, S; Cuesta, MJ; Díaz-Caneja, CM; Mezquida, G; Lobo, A; González-Pinto, A; Corripio, I; Vieta, E; Puig, O; Legido, T; Bioque, M; Garcia-Rizo, C; Bernardo, M; Castro-Fornieles, J; PEPs Grp. *Premorbid Characteristics as Predictors of Early Onset Versus Adult Onset in Patients With a First Episode of Psychosis*. JOURNAL OF CLINICAL PSYCHIATRY. 2021; 82(6). FI: 5.906. Cuartil: 2. (Article).
- Balhara, YPS; Szerman, N; Singh, S; Raga, JM; Salom, C; Peris, L; Ganesh, R. *Treatment Needs and Service Delivery for Patients with Dual Disorders During the COVID-19 Pandemic: Findings From the WADD Survey*. JOURNAL OF DUAL DIAGNOSIS. 2021; 17(3) 248-256. FI: 2.324. Cuartil: 3. (Article).
- Burdeus-Olavarrieta, M; San José-Cáceres, A; García-Alc'ón, A; González-Penas, J; Hernández-Jusdado, P; Parellada-Redondo, M. *Characterisation of the clinical phenotype in Phelan-McDermid syndrome*. JOURNAL OF NEURODEVELOPMENTAL DISORDERS. 2021; 13(1) 26-26. FI: 4.074. Cuartil: 2. (Article).
- Izquierdo, A; Cabello, M; Leal, I; Mellor-Marsa, B; Ayora, M; Bravo-Ortiz, MF; Rodríguez-Jiménez, R; Ibáñez, A; MacDowell, KS; Malpica, N; Díaz-Marsa, M; Baca-García, E; Fares-Otero, NE; Melero, H; López-García, P; Díaz-Caneja, CM; Arango, C; Ayuso-Mateos. *The interplay between functioning problems and symptoms in first episode of psychosis: An approach from network analysis*. JOURNAL OF PSYCHIATRIC RESEARCH. 2021; 136 265-273. FI: 5.25. Cuartil: 2. (Article).
- Boi, S; García-Malo, C; Rodríguez, CI. *Oculogyric crisis: a rare type of dystonia*. JOURNAL OF PSYCHIATRY & NEUROSCIENCE. 2021; 46(4) 429-430. FI: 5.699. Cuartil: 1. (Editorial Material).
- Hernández-Huerta, D; Parro-Torres, C; Madoz-Gürpide, A; Pérez-Eliás, MJ; Moreno-Guillén, S; Ochoa-Mangado, E. *Personality and adherence to antiretroviral therapy in HIV-infected adult patients*. JOURNAL OF PSYCHOSOMATIC RESEARCH. 2021; 144 110413-110413. FI: 4.62. Cuartil: 2. (Article).
- McAllister-Williams, RH; Arango, C; Blier, P; Demyttenaere, K; Falkai, P; Gorwood, P; Hopwood, M; Javed, A; Kasper, S; Malhi, GS; Soares, JC; Vieta, E; Young, AH; Papadopoulos, A; Rush, AJ. *Reconceptualising treatment-resistant depression as difficult-to-treat depression*. LANCET PSYCHIATRY. 2021; 8(1) 14-15. FI: 77.056. Cuartil: 1. (Letter).
- Pretzsch, CM; Floris, DL; Voinescu, B; Elsahib, M; Méndez, MA; Wichers, R; Ajram, L; Ivin, G; Heasman, M; Pretzsch, E; Williams, S; Murphy, DGM; Daly, E; McAlonan, GM. *Modulation of striatal functional connectivity differences in adults with and without autism spectrum disorder in a single-dose randomized trial of cannabidiol*. MOLECULAR AUTISM. 2021; 12(1) 49-49. FI: 6.476. Cuartil: 1. (Article).
- Velthorst, E; Mollon, J; Murray, RM; de Haan, L; Germeys, IM; Glahn, DC; Arango, C; van der Ven, E; Di Forti, M; Bernardo, M; Guloksuz, S; Delespaul, P; Mezquida, G; Amoretti, S; Bobes, J; Saiz, PA; García-Portilla, MP; Santos, JL;



Jiménez-López, E; Sanju. *Cognitive functioning throughout adulthood and illness stages in individuals with psychotic disorders and their unaffected siblings*. MOLECULAR PSYCHIATRY. 2021; 26(8) 4529-4543. FI: 13.437. Cuartil: 1. (Article).

- Cleynen, I; Engchuan, W; Hestand, MS; Heung, T; Holleman, AM; Johnston, HR; Monfeuga, T; McDonald-McGinn, DM; Gur, RE; Morrow, BE; Swillen, A; Vorstman, JAS; Bearden, CE; Chow, EWC; van den Bree, M; Emanuel, BS; Vermeesch, JR; Warren, ST; Owen, MJ; Chopra. *Genetic contributors to risk of schizophrenia in the presence of a 22q11.2 deletion*. MOLECULAR PSYCHIATRY. 2021; 26(8) 4496-4510. FI: 13.437. Cuartil: 1. (Article).
- Mantua, V; Arango, C; Balabanov, P; Butlen-Ducuing, F. *Digital health technologies in clinical trials for central nervous system drugs: an EU regulatory perspective*. NATURE REVIEWS DRUG DISCOVERY. 2021; 20(2) 83-84. FI: 112.288. Cuartil: 1. (Editorial Material).
- Bralten, J; Mota, NR; Klemann, CJHM; De Witte, W; Laing, E; Collier, DA; de Kluiver, H; Bauduin, SEEC; Arango, C; Ayuso-Mateos, JL; Fabbri, C; Kas, MJ; van der Wee, N; Penninx, BWJH; Serretti, A; Franke, B; Poelmans, G. *Genetic underpinnings of sociability in the general population*. NEUROPSYCHOPHARMACOLOGY. 2021; 46(9) 1627-1634. FI: 8.294. Cuartil: 1. (Article).
- Solmi, M; Dragioti, E; Arango, C; Radua, J; Ostinelli, E; Kilic, O; Yilmaz, UE; Yalcinay-Inan, M; Soares, FC; Mariano, L; Mosillo, P; Cortese, S; Correll, CU; Carvalho, AF; Shin, JI; Fusar-Poli, P. *Risk and protective factors for mental disorders with onset in childhood/adolescence: An umbrella review of published meta-analyses of observational longitudinal studies*. NEUROSCIENCE AND BIOBEHAVIORAL REVIEWS. 2021; 120 565-573. FI: 9.052. Cuartil: 1. (Review).
- Loth, E; Ahmad, J; Chatham, C; López, B; Carter, B; Crawley, D; Oakley, B; Hayward, H; Cooke, J; Caceres, ASJ; Bzdok, D; Jones, E; Charman, T; Beckmann, C; Bourgeron, T; Toro, R; Buitelaar, J; Murphy, D; Dumas, G. *The meaning of significant mean group differences for biomarker discovery*. PLOS COMPUTATIONAL BIOLOGY. 2021; 17(11). FI: 4.779. Cuartil: 1. (Article).
- Persico, AM; Ricciardello, A; Lamberti, M; Turriziani, L; Cucinotta, F; Brogna, C; Vitiello, B; Arango, C. *The pediatric psychopharmacology of autism spectrum disorder: A systematic review - Part I: The past and the present*. PROGRESS IN NEURO-PSYCHOPHARMACOLOGY & BIOLOGICAL PSYCHIATRY. 2021; 110 110326-110326. FI: 5.201. Cuartil: 2. (Review).
- Rodríguez-Blanco, L; Carballo-Belloso, JJ; de León, S; Baca-García, E. *A longitudinal study of adolescents engaged in Non-Suicidal Self Injury (NSSI): clinical follow-up from adolescence to young adulthood*. PSYCHIATRY RESEARCH. 2021; 297 113711-113711. FI: 11.225. Cuartil: 1. (Article).
- Portengen, CM; Sprooten, E; Zwiers, MP; Hoekstra, PJ; Dietrich, A; Holz, NE; Aggensteiner, PM; Banaschewski, T; Schulze, UME; Saam, MC; Craig, MC; Sethi, A; Santosh, P; Ouriaghli, IS; Castro-Fornieles, J; Rosa, M; Arango, C; Penzol, MJ; Werhahn, JE; Brand. *Reward and Punishment Sensitivity are Associated with Cross-disorder Traits*. PSYCHIATRY RESEARCH. 2021; 298 113795-113795. FI: 11.225. Cuartil: 1. (Article).
- Tripoli, G; Quattrone, D; Ferraro, L; Gayer-Anderson, C; Rodríguez, V; La Cascia, C; La Barbera, D; Sartorio, C; Seminerio, F; Tarricone, I; Berardi, D; Szoke, A; Arango, C; Tortelli, A; Llorca, PM; de Haan, L; Velthorst, E; Bobes, J; Bernardo, M; Sanjuan. *Jumping to conclusions, general intelligence, and psychosis liability: findings from the multi-centre EU-GEI case-control study*. PSYCHOLOGICAL MEDICINE. 2021; 51(4) 623-633. FI: 10.592. Cuartil: 1. (Article).
- Quattrone, D; Ferraro, L; Tripoli, G; La Cascia, C; Quigley, H; Quattrone, A; Jongsma, HE; Del Peschio, S; Gatto, G; Gayer-Anderson, C; Jones, PB; Kirkbride, JB; La Barbera, D; Tarricone, I; Berardi, D; Tosato, S; Lasalvia, A; Szoke, A; Arango, C; Bernard. *Daily use of high-potency cannabis is associated with more positive symptoms in first-episode psychosis patients: the EU-GEI case-control study*. PSYCHOLOGICAL MEDICINE. 2021; 51(8) 1329-1337. FI: 10.592. Cuartil: 1. (Article).
- Ballesteros, A; Torres, AMS; López-Ilundain, J; Mezquida, G; Lobo, A; González-Pinto, A; Pina-Camacho, L; Corripio, I; Vieta, E; de la Serna, E; Mane, A; Bioque, M; Moreno-Izco, L; Espliego, A; Lorente-Omenaca, R; Amoretti, S; Bernardo, M; Cuesta, MJ; PEP. *The longitudinal effect of antipsychotic burden on psychosocial functioning in first-episode psychosis patients: the role of verbal memory*. PSYCHOLOGICAL MEDICINE. 2021; 51(12) 2044-2053. FI: 10.592. Cuartil: 1. (Article).
- Sami, M; Quattrone, D; Ferraro, L; Tripoli, G; La Cascia, E; Gayer-Anderson, C; Seltén, JP; Arango, C; Bernardo, M; Tarricone, I; Tortelli, A; Gatto, G; del Peschio, S; Del-Ben, CM; Rutten, BP; Jones, PB; van Os, J; de Haan, L; Morgan, C; Lewis, C; Bhatta. *Association of extent of cannabis use and psychotic like*



3.01. NEUROBIOLOGICAL AND PSYCHOLOGICAL BASES OF MENTAL DISORDERS. DISORDERS OF NEURODEVELOPMENT

intoxication experiences in a multi-national sample of first episode psychosis patients and controls. PSYCHOLOGICAL MEDICINE. 2021; 51(12) 2074-2082. FI: 10.592. Cuartil: 1. (Article).

- Jongsma, HE; Gayer-Anderson, C; Tarricone, I; Velthorst, E; van der Ven, E; Quattrone, D; di Forti, M; Menezes, PR; Del-Ben, CM; Arango, C; Lasalvia, A; Berardi, D; La Cascia, C; Bobes, J; Bernardo, M; Sanjuaan, J; Santos, JL; Arrojo, M; de Haan, L; Torte. *Social disadvantage, linguistic distance, ethnic minority status and first-episode psychosis: results from the EU-GEI case-control study.* PSYCHOLOGICAL MEDICINE. 2021; 51(9) 1536-1548. FI: 10.592. Cuartil: 1. (Article).
- Arnaiz, JA; Rodrigues-Silva, C; Mezquida, G; Amoretti, S; Cuesta, MJ; Fraguas, D; Lobo, A; González-Pinto, A; Díaz-Caneja, MC; Corripio, I; Vieta, E; Baeza, I; Mane, A; García-Rizo, C; Bioque, M; Saiz, J; Bernardo, M; Mas, S; PEPs Grp. *The usefulness of Olanzapine plasma concentrations in monitoring treatment efficacy and metabolic disturbances in first-episode psychosis.* PSYCHOPHARMACOLOGY. 2021; 238(3) 665-676. FI: 4.415. Cuartil: 2. (Article).
- García, GS; Blanco, AJ; Pascual, AC; López, MV; de Castro, PC; Belloso, JJC; Camacho, LP; Herrero, MCM. *Quality of life and psychiatric comorbidities in pediatric patients with Gilles de la Tourette syndrome.* REVISTA DE NEUROLOGIA. 2021; 73(10) 339-344. FI: 1.235. Cuartil: 4. (Article).
- Solerdelcoll, M; Arango, C; Sugranyes, G. *Calling for the integration of children's mental health and protection into COVID-19 responses.* REVISTA DE PSIQUIATRIA Y SALUD MENTAL. 2021; 14(2) 113-116. FI: 6.795. Cuartil: 1. (Article).
- Alonso, J; Vilagut, G; Mortier, P; Ferrer, M; Alayo, I; Aragón-Pena, A; Aragonés, E; Campos, M; Cura-González, ID; Emparanza, JI; Espuga, M; Forjaz, MJ; González-Pinto, A; Haro, JM; López-Fresneña, N; de Salazar, ADM; Molina, JD; Ortí-Lucas, RM; Parellada. *Mental health impact of the first wave of COVID-19 pandemic on Spanish healthcare workers: A large cross-sectional survey.* REVISTA DE PSIQUIATRIA Y SALUD MENTAL. 2021; 14(2) 90-105. FI: 6.795. Cuartil: 1. (Article).
- Bernardo, M; Amoretti, S; Cuesta, MJ; Parellada, M; Mezquida, G; 2EPs Grp. *The prevention of relapses in first episodes of schizophrenia: The 2EPs Project, background, rationale and study design.* REVISTA DE PSIQUIATRIA Y SALUD MENTAL. 2021; 14(3) 164-176. FI: 6.795. Cuartil: 1. (Article).
- de Pablo, GS; Studerus, E; Vaquerizo-Serrano, J; Irving, J; Catalán, A; Oliver, D; Baldwin, H; Danese, A; Fazel, S; Steyerberg, EW; Stahl, D; Fusar-Poli, P. *Implementing Precision Psychiatry: A Systematic Review of Individualized Prediction Models for Clinical Practice.* SCHIZOPHRENIA BULLETIN. 2021; 47(2) 284-297. FI: 7.348. Cuartil: 1. (Review).
- Janssen, J; Díaz-Caneja, CM; Alloza, C; Schippers, A; de Hoyos, L; Santonja, J; Gordaliza, PM; Buimer EEL; van Haren NEM; Cahn, W; Arango, C; Kahn, RS; Hulshoff Pol HE; Schnack, HG. *Dissimilarity in Sulcal Width Patterns in the Cortex can be Used to Identify Patients With Schizophrenia With Extreme Deficits in Cognitive Performance.* SCHIZOPHRENIA BULLETIN. 2021; 47(2) 552-561. FI: 7.348. Cuartil: 1. (Article).
- Dazzan, P; Lawrence, AJ; Reinders, AATS; Egerton, A; van Haren, NEM; Merritt, K; Barker, GJ; Pérez-Iglesias, R; Sendt, KV; Demjaha, A; Nam, KW; Sommer, IE; Pantelis, C; Fleischhacker, WW; van Rossum, IW; Galderisi, S; Mucci, A; Drake, R; Lewis, S; Weiser. *Symptom Remission and Brain Cortical Networks at First Clinical Presentation of Psychosis: The OPTiMiSE Study.* SCHIZOPHRENIA BULLETIN. 2021; 47(2) 444-455. FI: 7.348. Cuartil: 1. (Article).
- Pignon, B; Lajnef, M; Kirkbride, JB; Peyre, H; Ferchiou, A; Richard, JR; Baudin, G; Tosato, S; Jongsma, H; de Haan, L; Tarricone, I; Bernardo, M; Velthorst, E; Braca, M; Arango, C; Arrojo, M; Bobes, J; Del-Ben, CM; Di Forti, M; Gayer-Anderson, C; Jones, P. *The Independent Effects of Psychosocial Stressors on Subclinical Psychosis: Findings From the Multinational EU-GEI Study.* SCHIZOPHRENIA BULLETIN. 2021; 47(6) 1674-1684. FI: 7.348. Cuartil: 1. (Article).
- Alameda, L; Christy, A; Rodríguez, V; De Pablo, GS; Thrush, M; Shen, Y; Alameda, B; Spinazzola, E; Iacoponi, E; Trotta, G; Carr, E; Veguilla, MR; Aas, M; Morgan, C; Murray, RM. *Association Between Specific Childhood Adversities and Symptom Dimensions in People With Psychosis: Systematic Review and Meta-Analysis.* SCHIZOPHRENIA BULLETIN. 2021; 47(4) 975-985. FI: 7.348. Cuartil: 1. (Review).
- Ajnakina, O; Rodríguez, V; Quattrone, D; di Forti, M; Vassos, E; Arango, C; Berardi, D; Bernardo, M; Bobes, J; de Haan, L; Del-Ben, CM; Gayer-Anderson, C; Jongsma, HE; Lasalvia, A; Tosato, S; Llorca, PM; Menezes, PR; Rutten, BP; Santos, JL; Sanjuan, J; Se. *Duration of Untreated Psychosis in First-Episode Psychosis is not Associated With Common Genetic Variants for Major Psychiatric*



Conditions: Results From the Multi-Center EU-GEI Study. SCHIZOPHRENIA BULLETIN. 2021; 47(6) 1653-1662. FI: 7.348. Cuartil: 1. (Article).

- Berendsen, S; Kapitein, P; Schirmbeck, F; van Tricht, MJ; McGuire, P; Morgan, C; Gayer-Anderson, C; Kempton, MJ; Valmaggia, L; Quattrone, D; di Forti, M; van der Gaag, M; Kirkbride, JB; Jongsma, HE; Jones, PB; Parellada, M; Arango, C; Arrojo, M; Bernardo. *Pre-training inter-rater reliability of clinical instruments in an international psychosis research project.* SCHIZOPHRENIA RESEARCH. 2021; 230 104-107. FI: 4.662. Cuartil: 2. (Letter).
- Hoffmann, C; Zong, SH; Mane-Damas, M; Stevens, J; Malyavantham, K; Kucukali, CI; Tuzun, E; De Hert, M; van Beveren, NJM; González-Vioque, E; Arango, C; Damoiseaux, JGMC; Rutten, BP; Molenaar, PC; Losen, M; Martínez-Martínez, P. *The search for an autoimmune origin of psychotic disorders: Prevalence of autoantibodies against hippocampus antigens, glutamic acid decarboxylase and nuclear antigens.* SCHIZOPHRENIA RESEARCH. 2021; 228 462-471. FI: 4.662. Cuartil: 2. (Article).
- Fraguas, D; Díaz-Caneja, CM; Pina-Camacho, L; van Rossum, IW; Baandrup, L; Sommer, IE; Glenthøj, B; Kahn, RS; Leucht, S; Arango, C. *The role of depression in the prediction of a "late" remission in first-episode psychosis: An analysis of the OPTiMISE study.* SCHIZOPHRENIA RESEARCH. 2021; 231 100-107. FI: 4.662. Cuartil: 2. (Article).
- Ferraro, L; La Cascia, C; La Barbera, D; Sánchez-Gutiérrez, T; Tripoli, G; Seminerio, F; Sartorio, C; Marrazzo, G; Sideli, L; Arango, C; Arrojo, M; Bernardo, M; Bobes, J; Del-Ben, CM; Gayer-Anderson, C; Jongsma, HE; Kirkbride, JB; Lasalvia, A; Tosato, S. *The relationship of symptom dimensions with premorbid adjustment and cognitive characteristics at first episode psychosis: Findings from the EU-GEI study.* SCHIZOPHRENIA RESEARCH. 2021; 236 69-79. FI: 4.662. Cuartil: 2. (Article).
- Amoretti, S; Rabelo-da-Ponte, FD; Rosa, AR; Mezquida, G; Sánchez-Torres, AM; Fraguas, D; Cabrera, B; Lobo, A; González-Pinto, A; Pina-Camacho, L; Corripio, I; Vieta, E; Torrent, C; de la Serna, E; Berge, D; Bioque, M; Garriga, M; Serra, M; Cuesta, MJ; Ber. *Cognitive clusters in first-episode psychosis.* SCHIZOPHRENIA RESEARCH. 2021; 237 31-39. FI: 4.662. Cuartil: 2. (Article).
- González-Blanco, L; García-Portilla, MP; Gutiérrez, M; Mezquida, G; Cuesta, MJ; Urbiola, E; Amoretti, S; Barcones, F; González-Pinto, A; Pina-Camacho, L; Corripio, I; Vieta, E; Baeza, I; Toll, A; Saiz, PA; Bobes, J; Bernardo, M; PEPs Grp.

Impact of previous tobacco use with or without cannabis on first psychotic experiences in patients with first-episode psychosis. SCHIZOPHRENIA RESEARCH. 2021; 236 19-28. FI: 4.662. Cuartil: 2. (Article).

- Alonso-González, A; Calaza, M; Amigo, J; González-Penas, J; Martínez-Regueiro, R; Fernández-Prieto, M; Parellada, M; Arango, C; Rodríguez-Fontenla, C; Carracedo, A. *Exploring the biological role of postzygotic and germinal de novo mutations in ASD.* SCIENTIFIC REPORTS. 2021; 11(1) 319-319. FI: 4.996. Cuartil: 2. (Article).
- Noel, GJ; Nelson, RM; Bucci-Rechtweg, C; Portman, R; Miller, T; Green, DJ; Snyder, D; Moreno, C; Hovinga, C; Connor, E. *Inclusion of Adolescents in Adult Clinical Trials: Report of the Institute for Advanced Clinical Trials for Children's Pediatric Innovation Research Forum.* THERAPEUTIC INNOVATION & REGULATORY SCIENCE. 2021; 55(4) 773-778. FI: 1.337. Cuartil: 4. (Article).
- de Pablo, GS; Estrade, A; Cutroni, M; Andlauer, O; Fusar-Poli, P. *Establishing a clinical service to prevent psychosis: What, how and when? Systematic review.* TRANSLATIONAL PSYCHIATRY. 2021; 11(1) 43-43. FI: 7.989. Cuartil: 1. (Review).
- Gasso, P; Rodríguez, N; Martínez-Pinteno, A; Mezquida, G; Ribeiro, M; González-Penas, J; Zorrilla, I; Martínez-Sadurni, L; Rodríguez-Jiménez, R; Corripio, I; Sarro, S; Ibáñez, A; Usall, J; Lobo, A; Moren, C; Cuesta, MJ; Parellada, M; González-Pinto, A; Be. *A longitudinal study of gene expression in first-episode schizophrenia; exploring relapse mechanisms by co-expression analysis in peripheral blood.* TRANSLATIONAL PSYCHIATRY. 2021; 11(1) 539-539. FI: 7.989. Cuartil: 1. (Article).
- Quattrone, D; Reininghaus, U; Richards, AL; Tripoli, G; Ferraro, L; Quattrone, A; Marino, P; Rodríguez, V; Spinazzola, E; Gayer-Anderson, C; Jongsma, HE; Jones, PB; La Cascia, C; La Barbera, D; Tarricone, I; Bonora, E; Tosato, S; Lasalvia, A; Szoke, A; Ar. *The continuity of effect of schizophrenia polygenic risk score and patterns of cannabis use on transdiagnostic symptom dimensions at first-episode psychosis: findings from the EU-GEI study.* TRANSLATIONAL PSYCHIATRY. 2021; 11(1). FI: 7.989. Cuartil: 1. (Article).
- Valencia, F; Urbiola, E; Romero-González, M; Navas, I; Elías, M; Garriz, A; Ramírez, A; Villalta, L. *Protocol for a randomized pilot study (FIRST STEPS): implementation of the Incredible Years-ASLD (R) program in Spanish children with autism and preterm children with communication and/or socialization difficulties.* TRIALS. 2021; 22(1) 291-291. FI: 2.728. Cuartil: 4. (Article).



3.01. NEUROBIOLOGICAL AND PSYCHOLOGICAL BASES OF MENTAL DISORDERS. DISORDERS OF NEURODEVELOPMENT

- Fusar-Poli, P; Correll, CU; Arango, C; Berk, M; Patel, V; Ioannidis, JPA. *Preventive psychiatry: a blueprint for improving the mental health of young people*. WORLD PSYCHIATRY. 2021; 20(2) 200-221. FI: 79.683. Cuartil: 1. (Article).
- Arango, C; Dragioti, E; Solmi, M; Cortese, S; Domschke, K; Murray, RM; Jones, PB; Uher, R; Carvalho, AF; Reichenberg, A; Shin, JI; Andreassen, OA; Correll, CU; Fusar-Poli, P. *Risk and protective factors for mental disorders beyond genetics: an evidence-based atlas*. WORLD PSYCHIATRY. 2021; 20(3) 417-436. FI: 79.683. Cuartil: 1. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- González, MM; Hualpa, JCP; Moreno, DM; Albarran, OG. *A case of type 1 diabetes mellitus in a woman with Shwachman-Diamond syndrome*. PRACTICAL DIABETES. 2021; 38(6) 41-43. (Article).

Other publications

- Crutel, V; Lambert, E; Penelaud, PF; Severo, CA; Fuentes, J; Rosier, A; Hervas, A; Marret, S; Oliveira, G; Parellada, M; Kyaga, S; Gouttefangeas, S; Bertrand, M;

Ravel, D; Falissard, B. *Bumetanide Oral Liquid Formulation for the Treatment of Children and Adolescents with Autism Spectrum Disorder: Design of Two Phase III Studies (SIGN Trials)* (Nov, 10.1007/s10803-020-04709-8, 2020). JOURNAL OF AUTISM AND DEVELOPMENTAL DISORDERS. 2021; 51(8) 2973-2973. FI: 4.345. Cuartil: 2. (Correction).

- Alonso J; Vilagut G; Mortier P; Ferrer M; Alayo I; Aragón-Peña A; Aragonès E; Campos M; Cura-González ID; Emparanza JI; Espuga M; Forjaz MJ; González-Pinto A; Haro JM; López-Fresneña N; Salázar ADM; Molina JD; Ortí-Lucas RM; Parellada M; Pelayo-Terán JM. *Mental health impact of the first wave of COVID-19 pandemic on Spanish healthcare workers: A large cross-sectional survey*. REVISTA DE PSIQUIATRIA Y SALUD MENTAL. 2021; 14(2) 90-105. (Article).
- Bernardo M; Amoretti S; Cuesta MJ; Parellada M; Mezquida G; 2EPs Group; González-Pinto A; Bergé D; Lobo A; Aguilar EJ; Usall J; Corripio I; Bobes J; Rodríguez-Jiménez R; Sarró S; Contreras F; Ibáñez Á; Gutiérrez M; Micó JA. *The prevention of relapses in first episodes of schizophrenia: The 2EPs Project, background, rationale and study design*. REVISTA DE PSIQUIATRIA Y SALUD MENTAL. 2021; 14(3) 164-176. (Article).

3.03B. Neurological diseases

Group Head: FRANCISCO GRANDAS PÉREZ

Organisms involved: HGUGM

Type: Emerging Group

Research lines

Axis 1: Parkinson's disease and movement disorders

- ▶ L1: Pathophysiology and treatment of Parkinson's disease. Leader: Francisco Grandas.
- ▶ L2: Pathophysiology and treatment of dysphonia. Leader: Francisco Grandas.
- ▶ L3: Balance and gait disorders. Leader: Francisco Grandas.

Axis 2: Dementia

- ▶ L1: Alzheimer's disease. Leader: Javier Olazarán.

Axis 3: Neuroinflammation

- ▶ L1: Neuroinflammation in neurodegenerative diseases. Leader: M^a Concepción Guisasaola.
- ▶ L2: Multiple sclerosis. Leader: José Manuel García Domínguez.

Axis 4: Neuromuscular diseases

- ▶ L1: Amyotrophic lateral sclerosis. Leader: José Luis Muñoz Blanco.

The «Neurological diseases» consists mostly of the medical assistants of the Neurology. Neurosurgery. Neuroradiology. Neurophysiology and Neuropediatrics service.

Group members

- Alba Suárez, Eda María.
- Catalina Álvarez, Irene.
- Contreras Chicote, Ana.
- Cuello, Juan Pablo.
- De Castro De Castro, Pedro: R2. Recognised Researcher.
- De la Casa Fages, Beatriz: R2. Recognised Researcher.
- Ezpeleta Echavarri, David.
- Fernández Carballal, Carlos: R1. First Stage Researcher.
- Fernández García, M^a Pilar.
- García Domínguez, José Manuel: R1. First Stage Researcher.
- Goicoechea Briceño, Haydee: Other. Support Technician.
- González Sánchez, Miguel.
- Grandas Pérez, Francisco Javier: R4. Leading Researcher.
- Guisasaola Zulueta, M^a Concepción: R3. Established Researcher.
- Higuera Hernández, Yolanda: R2. Recognised Researcher.
- Lozano Ros, Alberto: R1. First Stage Researcher.
- Luque Buzo, Elisa.
- Mari Hualde, Amaia: R1. First Stage Researcher.
- Martínez Ginés, M^a Luisa: R1. First Stage Researcher.
- Massot Tarrus, Andreu: R2. Recognised Researcher.
- Mateo Sierra, Olga.
- Meldaña Rivera, Ariana.

Continued on next page



Group members (*cont.*)

- Miranda Herrero, M^a Concepción: R2. Recognised Researcher.
- Muñoz Blanco, José Luis: R1. First Stage Researcher.
- Muñoz González, Adriana.
- Muñoz Rubio, Nicolasa.
- Olazarán Rodríguez, Francisco Javier: R2. Recognised Researcher.
- Pérez González de Apodaca, Pilar.
- Pérez Rivas, M^a de los Ángeles.
- Pérez Sánchez, Javier Ricardo: R1. First Stage Researcher.
- Pérez Vivas, M^a del Mar.
- Portela Sánchez, Sofía.
- Prieto Montalvo, Julio Ignacio: R2. Recognised Researcher.
- Romero Martínez, Julia: R1. First Stage Researcher.
- Sánchez Fernández, M^a Jesús.
- Sánchez Soblechero, Antonio.
- Secada García, Sergio.
- Traba López, Alfredo: R1. First Stage Researcher.

Research Projects – Competitive Calls

Competitive projects

- Title: **BRinging Artificial INTElligence home for a better cAre of amyotrophic lateral sclerosis and multiple SclERosis (BRAINTEASER)** H2020 BRAINTEASER 101017598
Directo: Muñoz Blanco, José Luis
Funding body: EU/PRG. MARCO
Project type: European Research project
Start date: 01/01/2021
End date: 31/12/2024
- Title: **H2020 EXTEND 779982. Bidirectional Hyer-Connected Neural System** H2020 EXTEND 779982
Directo: Grandas Pérez, Francisco Javier
Funding body: EU/PRG. MARCO
Project type: European Research project
Start date: 01/01/2018
End date: 31/12/2021
- Title: **Evaluación objetiva de la marcha y de la postura mediante sensores inerciales en pacientes con enfermedad de Parkinson. Desarrollo de un índice global de locomoción y equilibrio** PI17/02007
Directo: Grandas Pérez, Francisco Javier
Funding body: EU/PRG. MARCO
Project type: Research project
Start date: 01/01/2018
End date: 31/12/2021



3.03B. NEUROLOGICAL DISEASES

- radiotherapy: A report of two illustrative cases. *CANCER RADIOTHERAPIE*. 2021; 25(8) 786-789. FI: 1.217. Cuartil: 4. (Article).
- Velilla-Alonso, G; García-Pastor, A; Rodríguez-López, A; Gómez-Roldos, A; Sánchez-Soblechero, A; Amaya-Pascasio, L; Díaz-Otero, F; Fernández-Bullido, Y; Iglesias-Mohedano, AM; Vázquez-Alen, P; Vales-Montero, M; Gil-Núñez, AC. *Acute Stroke Care during the COVID-19 Pandemic: Reduction in the Number of Admissions of Elderly Patients and Increase in Prehospital Delays*. *CEREBROVASCULAR DISEASES*. 2021; 50(3) 310-316. FI: 3.104. Cuartil: 3. (Article).
 - Miranda-Herrero, MC; Vázquez-López, M; Barredo-Valderrama, E; de Castro, PD; Chacon-Pascual, A; Pascual-Pascual, SI. *Visuospatial functions in preterm schoolchildren without cognitive delay: Using Pascual's Graphomotor test as a screening method*. *EARLY HUMAN DEVELOPMENT*. 2021; 161 105454-105454. FI: 2.699. Cuartil: 2. (Article).
 - Massot-Tarrus, A; Yu, YJ; AlKhateeb, M; Mirsattari, SM. *Predicting outcome of patients with psychogenic nonepileptic seizures after diagnosis in an epilepsy monitoring unit*. *EPILEPSY & BEHAVIOR*. 2021; 120 108004-108004. FI: 3.337. Cuartil: 2. (Article).
 - Portela-Sánchez, S; Sánchez-Soblechero, A; Otalora, PJM; López, AR; Alonso, GV; Palacios-Mendoza, MA; Caramé, CC; Pascasio, LA; Serrano, MM; Massot-Tarrus, A; De La Casa-Fages, B; Díaz-Otero, F; Catalina, I; Domínguez, JMG; Pérez-Sánchez, JR; Muñoz-Blanco. *Neurological complications of COVID-19 in hospitalized patients: The registry of a neurology department in the first wave of the pandemic*. *EUROPEAN JOURNAL OF NEUROLOGY*. 2021; 28(10) 3339-3347. FI: 6.288. Cuartil: 1. (Article).
 - Moreno-Torres, I; Lallana, VM; Costa-Frossard, L; Oreja-Guevara, C; Aguirre, C; Suárez, EMA; Moreno, MG; Canelo, LB; Muñoz, JS; Aladro, Y; Carcamo, A; García, ER; Cuello, JP; Monreal, E; de la Maza, SS; Parra, FP; Rojas, FV; de Miguel, CLD; Casanova, I; G. *Risk and outcomes of COVID-19 in patients with multiple sclerosis*. *EUROPEAN JOURNAL OF NEUROLOGY*. 2021; 28(11) 3712-3721. FI: 6.288. Cuartil: 1. (Article).
 - Meca-Lallana, V; Berenguer-Ruiz, L; Carreres-Polo, J; Eichau-Madueno, S; Ferrer-Lozano, J; Forero, L; Higuera, Y; Lara, NT; Vidal-Jordana, A; Pérez-Mirallas, FC. *Deciphering Multiple Sclerosis Progression*. *FRONTIERS IN NEUROLOGY*. 2021; 12 608491-608491. FI: 4.086. Cuartil: 2. (Review).
 - Fernández, O; Costa-Frossard, L; Martínez-Ginés, ML; Montero, P; Prieto-González, JM; Ramio-Torrenta, L. *Integrated Management of Multiple Sclerosis Spasticity and Associated Symptoms Using the Spasticity-Plus Syndrome Concept: Results of a Structured Specialists' Discussion Using the Workmat(R) Methodology*. *FRONTIERS IN NEUROLOGY*. 2021; 12 722801-722801. FI: 4.086. Cuartil: 2. (Article).
 - Agüera-Ortiz, L; García-Ramos, R; Pérez, FJG; López-Álvarez, J; Rodríguez, JMM; Rodríguez, FJO; Pueyo, JO; Valero, CP; Porta-Etessam, J. *Depression in Alzheimer's Disease: A Delphi Consensus on Etiology, Risk Factors, and Clinical Management*. *FRONTIERS IN PSYCHIATRY*. 2021; 12 638651-638651. FI: 5.435. Cuartil: 2. (Article).
 - Muniz, R; López-Álvarez, J; Agüera-Ortiz, L; Perea, L; Olazarán, J. *Syndrome-Based Prescription to Optimize Psychotropics: Are CHROME Criteria a Game Changer?*. *FRONTIERS IN PSYCHIATRY*. 2021; 12 662228-662228. FI: 5.435. Cuartil: 2. (Article).
 - Pascual-Valdunciel, A; González-Sánchez, M; Muceli, S; Adán-Barrientos, B; Escobar-Segura, V; Pérez-Sánchez, JR; Jung, MK; Schneider, A; Hoffmann, KP; Moreno, JC; Grandas, F; Farina, D; Pons, JL; Barroso, FO. *Intramuscular Stimulation of Muscle Afferents Attains Prolonged Tremor Reduction in Essential Tremor Patients*. *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING*. 2021; 68(6) 1768-1776. FI: 4.756. Cuartil: 2. (Article).
 - Bermejo-Pareja, F; Contador, I; del Ser, T; Olazaán, J; Llamas-Velasco, S; Vega, S; Benito-León, J. *Predementia constructs: Mild cognitive impairment or mild neurocognitive disorder? A narrative review*. *INTERNATIONAL JOURNAL OF GERIATRIC PSYCHIATRY*. 2021; 36(5) 743-755. FI: 3.85. Cuartil: 2. (Review).
 - Romero-Moreno, R; Márquez-González, M; Barrera-Caballero, S; Vara-García, C; Olazarán, J; Pedroso-Chaparro, MD; Jiménez-Gonzalo, L; Losada-Baltar, A. *Depressive and Anxious Comorbidity and Treatment Response in Family Caregivers of People with Dementia*. *JOURNAL OF ALZHEIMERS DISEASE*. 2021; 83(1) 395-405. FI: 4.16. Cuartil: 2. (Article).
 - Hubschmann, OK; Mohr, A; Friedman, J; Manti, F; Horvath, G; Cortés-SaladelaFont, E; Mercimek-Andrews, S; Yildiz, Y; Pons, R; Kulhanek, J; Oppeboen, M; Koht, JA; Podzamecz-Valls, I; Domingo-Jiménez, R; Ibáñez, S; Alcoverro-Fortuny, O; Gómez-Aleman, T; de. *Brain MR patterns in inherited disorders*



of monoamine neurotransmitters: An analysis of 70 patients. JOURNAL OF INHERITED METABOLIC DISEASE. 2021; 44(4) 1070-1082. FI: 4.75. Cuartil: 2. (Article).

- Navas-Sánchez, FJ; Fernández-Pena, A; de Blas, DM; Alemán-Gómez, Y; Marcos-Vidal, L; Guzmán-de-Villoria, JA; Fernández-García, P; Romero, J; Catalina, I; Lillo, L; Muñoz-Blanco, JL; Ordóñez-Ugalde, A; Quintáns, B; Pardo, J; Sobrido, MJ; Carmona, S; Granda. *Thalamic atrophy in patients with pure hereditary spastic paraplegia type 4.* JOURNAL OF NEUROLOGY. 2021; 268(7) 2429-2440. FI: 6.682. Cuartil: 1. (Article).
- Natera-de Benito, D; Aguilera-Albesa, S; Costa-Comellas, L; García-Romero, M; Miranda-Herrero, MC; Olives, JR; García-Campos, O; del Val, EM; García, MJM; Martínez, IM; Cancho-Candela, R; Fernández-García, MA; Pascual-Pascual, SI; Gómez-Andrés, D; Nascime. *COVID-19 in children with neuromuscular disorders.* JOURNAL OF NEUROLOGY. 2021; 268(9) 3081-3085. FI: 6.682. Cuartil: 1. (Article).
- Avelleda, F; Higuera, Y; Marinis, T; Bose, A; Pliatsikas, C; Meldana-Rivera, A; Martínez-Ginés, ML; García-Domínguez, JM; Lozano-Ros, A; Cuello, JP; Goicochea-Briceno, H. *Multiple sclerosis and bilingualism Some initial findings.* LINGUISTIC APPROACHES TO BILINGUALISM. 2021; 11(4) 551-577. FI: 1.815. Cuartil: 2. (Article).
- Pérez-Miralles, F; Prefasi, D; García-Merino, A; Ara, JR; Izquierdo, G; Meca-Lallana, V; Gascón-Giménez, F; Martínez-Ginés, ML; Ramio-Torrenta, L; Costa-Frossard, L; Fernández, O; Moreno-García, S; Medrano, N; Maurino, J; Casanova, B. *Short-term data on disease activity, cognition, mood, stigma and employment outcomes in a cohort of patients with primary progressive multiple sclerosis (UPPMS study).* MULTIPLE SCLEROSIS AND RELATED DISORDERS. 2021; 50 102860-102860. FI: 4.808. Cuartil: 2. (Article).
- Domingo-Santos, A; Labiano-Fontcubert, A; Aladro-Benito, Y; Martínez-Ginés, ML; Ayuso-Peralta, L; Puertas-Martín, V; Cerezo-García, M; Higuera-Hernández, Y; Mato-Abad, V; Álvarez-Linera, J; Hernández-Tamames, JA; Benito-León, J. *Predicting conversion to multiple sclerosis by assessing cognitive impairment in radiologically isolated syndrome.* MULTIPLE SCLEROSIS AND RELATED DISORDERS. 2021; 49. FI: 4.808. Cuartil: 2. (Letter).
- Rosas, I; Martínez, C; Coto, E; Clarimon, J; Lleó, A; Illán-Gala, I; Dols-Icardo, O; Borroni, B; Almeida, MR; van der Zee, J; Van Broeckhoven, C; Bruni, AC;

Anfossi, M; Bernardi, L; Maletta, R; Serpente, M; Galimberti, D; Scarpini, E; Rossi, G; Caroppo, P. *Genetic variation in APOE, GRN, and TP53 are phenotype modifiers in frontotemporal dementia.* NEUROBIOLOGY OF AGING. 2021; 99. FI: 5.133. Cuartil: 2. (Article).

- Afonso, AM; Juretschke, FR; Rodríguez-Alvarez, RG; Sierra, OM; Vallejo, BI; Leal, RG; Mele, MV; Hernando, VC; Poveda, JMH; Carballal, CF. *DREZotomy in the treatment of deafferentation pain: review of results and analysis of predictive factors for success.* NEUROCHIRURGIA. 2021; 32(1) 1-9. FI: 0.817. Cuartil: 4. (Review).
- Santos-García, D; Catalán, MJ; Puente, V; Valdeoriola, F; Regidor, I; Mir, P; Matias-Arbelo, J; Parra, JC; Grandas, F. *Continuous intestinal infusion of levodopa-carbidopa in patients with advanced Parkinson's disease in Spain: Subanalysis by autonomous community.* NEUROLOGIA. 2021; 36(2) 101-111. FI: 5.486. Cuartil: 1. (Article).
- Otero-Romero, S; Rodríguez-García, J; Vilella, A; Ara, JR; Brieva, L; Calles, C; Carmona, O; Casanova, V; Costa-Frossard, L; Eichau, S; García-Merino, JA; García-Vidal, C; González-Platas, M; Llana, M; Martínez-Ginés, M; Meca-Lallana, JE; Prieto, JM; Ro. *Recommendations for vaccination in patients with multiple sclerosis who are eligible for immunosuppressive therapies: Spanish consensus statement.* NEUROLOGIA. 2021; 36(1) 50-60. FI: 5.486. Cuartil: 1. (Article).
- Sánchez-Soblechero, A; Ros, AL; Roldos, AG; Montoya-Aguirre, G; Massot-Tarrus, A. *E200K familial Creutzfeldt-Jakob disease. MRI, EEG, PET and neuropathological correlation in a family.* NEUROLOGIA. 2021; 36(5) 399-401. FI: 5.486. Cuartil: 1. (Letter).
- Abildua, MJA; Atienza, S; Monteiro, GC; Aguirre, MEE; Aguayo, LI; Álvarez, EF; García-Azorin, D; Montesinos, IGO; Lezama, LBL; Pérez, MPN; Sánchez, JRP; Delgado, FR; Serrano, BS; Vitorica, EV; Echavarrri, DE. *Encephalopathy and encephalitis during acute SARS-CoV-2 infection. Spanish Society of Neurology COVID-19 Registry.* NEUROLOGIA. 2021; 36(2) 127-134. FI: 5.486. Cuartil: 1. (Article).
- Anguita, SL; Mohedano, AMI; Mendoza, MAP; Blanco, JLM. *Charcot-Marie-Tooth 4C and bilateral spinal dissection: Causal or coincidental relationship?* NEUROLOGIA. 2021; 36(8) 643-644. FI: 5.486. Cuartil: 1. (Letter).



3.03B. NEUROLOGICAL DISEASES

- Valdeoriola, F; Grandas, F; Arbelo, JM; Blázquez Estrada M; Calopa Garriga M; Campos-Arillo, VM; García Ruiz PJ; Gómez Esteban JC; Leiva Santana C; Martínez Castrillo JC; Mir, P; Salvador Aliaga A; Vivancos Matellano F; Yáñez Bana RM. *Spanish expert consensus on the use of safinamide in Parkinson's disease*. NEUROLOGIA. 2021; 36(9) 666-672. FI: 5.486. Cuartil: 1. (Article).
- Meca-Lallana, V; Gascón-Giménez, F; Ginestal-López, RC; Higuera, Y; Tellez-Lara, N; Carreres-Polo, J; Eichau-Madueno, S; Romero-Imbroda, J; Vidal-Jordana, A; Pérez-Miralles, F. *Cognitive impairment in multiple sclerosis: diagnosis and monitoring*. NEUROLOGICAL SCIENCES. 2021; 42(12) 5183-5193. FI: 3.83. Cuartil: 2. (Article).
- Arrambide, G; Llana-González, MA; Franca, LCF; Meca-Lallana, V; Fernández-Díaz, E; Moreno-Torres, I; García-Domínguez, JM; Ortega-Suero, G; Ayuso-Peralta, L; Gómez-Moreno, M; Sotoca-Fernández, JJ; Caminero-Rodríguez, AB; de Antonio, LAR; Corujo-Suárez. *SARS-CoV-2 Infection in Multiple Sclerosis Results of the Spanish Neurology Society Registry*. NEUROLOGY-NEUROIMMUNOLOGY & NEUROINFLAMMATION. 2021; 8(5). FI: 11.36. Cuartil: 1. (Article).
- Brox-Torrecilla, N; Arhip, L; Miguélez-González, M; Castellano-Gasch, S; Contreras-Chicote, A; Rodríguez-Ferrero, ML; Motilla-de la Cámara, ML; Serrano-Moreno, C; Compes, CC. *Late-onset methylmalonic acidemia and homocysteinemia*. NUTRICION HOSPITALARIA. 2021; 38(4) 871-875. FI: 1.169. Cuartil: 4. (Article).
- Agüera-Ortiz, L; García-Ramos, R; Pérez, FGJ; López-Álvarez, J; Rodríguez, JMM; Rodríguez, FJO; Pueyo, JO; Valero, CP; Porta-Etessam, J. *Focus on Depression in Parkinson's Disease: A Delphi Consensus of Experts in Psychiatry, Neurology, and Geriatrics*. PARKINSONS DISEASE. 2021; 2021 6621991-6621991. FI: 3.17. Cuartil: 3. (Article).
- Meca-Lallana, JE; Prefasi, D; Pérez-Miralles, F; Forero, L; Sepulveda, M; Calles, C; Martínez-Ginés, ML; González-Suárez, I; Boyero, S; Romero-Pinel, L; Sempere, AP; Meca-Lallana, V; Querol, L; Costa-Frossard, L; De Castro-Trapiello, H; Canal, N; Maurino. *Perception of Stigma in Patients with Neuromyelitis Optica Spectrum Disorder*. PATIENT PREFERENCE AND ADHERENCE. 2021; 15 713-719. FI: 2.314. Cuartil: 3. (Article).
- Meca-Lallana, JE; Maurino, J; Pérez-Miralles, F; Forero, L; Sepulveda, M; Calles, C; Martínez-Ginés, ML; González-Suárez, I; Boyero, S; Romero-Pinel, L; Sempere, AP; Meca-Lallana, V; Querol, L; Costa-Frossard, L; Prefasi, D; Gómez-Ballesteros, R; Balleste. *Quantifying the patient's perspective in neuromyelitis optica spectrum disorder: Psychometric properties of the SymptoMScreen questionnaire*. PLOS ONE. 2021; 16(7). FI: 3.752. Cuartil: 2. (Article).
- Barrera-Caballero, S; Romero-Moreno, R; Pedros-Chaparro, MD; Olmos, R; Vara-García, C; Gallego-Alberto, L; Cabrera, I; Márquez-González, M; Olazarán, J; Losada-Baltar, A. *Stress, Cognitive Fusion and Comorbid Depressive and Anxiety Symptomatology in Dementia Caregivers*. PSYCHOLOGY AND AGING. 2021; 36(5) 667-676. FI: 4.201. Cuartil: 1. (Article).
- Fernández, O; Montalbán, X; Aladro, Y; Alonso, A; Arroyo, R; Calles, C; Castillo-Trivino, T; Comabella, M; Costa-Frossard, L; Forero, L; Ginestal, R; Landete, L; Llana, M; Llufrí, S; Martínez-Ginés, ML; Meca-Lallana, J; Mendib, M; Oreja-Guevara, C; Ot. *13th Post-ECTRIMS Meeting: review of the new developments presented at the 2020 ECTRIMS Congress (I)*. REVISTA DE NEUROLOGIA. 2021; 72(11) 397-406. FI: 1.235. Cuartil: 4. (Article).
- Fernández-Monteagudo, B; Miranda-Herrero, MC; Chacon-Pascual, A; Vozquez-López, M. *VI and VII cranial nerve injury secondary to intracranial idiopathic hypertension in a pediatric patient*. REVISTA DE NEUROLOGIA. 2021; 72(12) 443-443. FI: 1.235. Cuartil: 4. (Article).
- Costa-Frossard, L; García-Domínguez, JM; Moreno-Torres, I; Fortun, J; Villar, LM; Meca-Lallana, V. *Vaccination against SARS-CoV-2 in patients with multiple sclerosis*. REVISTA DE NEUROLOGIA. 2021; 72(7) 250-260. FI: 1.235. Cuartil: 4. (Article).
- Fernández, O; Montalbán, X; Aladro, Y; Alonso, A; Arroyo, R; Calles, C; Castillo-Trivino, T; Comabella, M; Costa-Frossard, L; Forero, L; Ginestal, R; Landete, L; Llana, M; Llufrí, S; Martínez-Ginés, ML; Meca-Lallana, J; Mendib, M; Oreja-Guevara, C; Ot. *13th Post-ECTRIMS Meeting: review of the new developments presented at the 2020 ECTRIMS Congress (II)*. REVISTA DE NEUROLOGIA. 2021; 72(12) 433-442. FI: 1.235. Cuartil: 4. (Article).
- García, GS; Blanco, AJ; Pascual, AC; López, MV; de Castro, PC; Belloso, JJC; Camacho, LP; Herrero, MCM. *Quality of life and psychiatric comorbidities in pediatric patients with Gilles de la Tourette syndrome*. REVISTA DE NEUROLOGIA. 2021; 73(10) 339-344. FI: 1.235. Cuartil: 4. (Article).



- Alungulese, AL; Lebieziejewski, JAGD; Montalvo, JP. *Spectrum of neuroimaging findings following drug abuse*. REVUE NEUROLOGIQUE. 2021; 177(3) 323-325. FI: 4.313. Cuartil: 2. (Letter).
- Pérez-Pérez, S; Cuello, JP; Martínez-Ginés, M; Pardo-Rodríguez, B; García-Domínguez, JM; Domínguez-Mozo, MI; Lozano-Ros, A; García-Martínez, MA; Higuera, Y; Meldana-Rivera, A; Goicochea-Briceno, H; Tejeda-Velarde, A; Fernández-Velasco, JI; Medina, S; Arr. *Evolution of antibody titres against Epstein-Barr virus and human herpesvirus 6A/B and expression of multiple sclerosis-associated retrovirus in the serum of pregnant multiple sclerosis patients*. SCIENTIFIC REPORTS. 2021; 11(1). FI: 4.996. Cuartil: 2. (Article).
- Jiménez-Gonzalo, L; Romero-Moreno, R; Pedroso-Chaparro, MD; Gallego-Alberto, L; Barrera-Caballero, S; Olazarán, J; Losada-Baltar, A. *Psychometric properties of the Insomnia Severity Index in a sample of family dementia caregivers*. SLEEP MEDICINE. 2021; 82 65-70. FI: 4.842. Cuartil: 2. (Article).

Other publications

- Muñiz R; López-Álvarez J; Perea L; Rivera S; González L; Olazarán J. *CHROME Criteria and Quality of Life: A Pilot Study from Maria Wolff-Albertia*. JOURNAL OF ALZHEIMER'S DISEASE REPORTS. 2021; 5(1) 613-624. (Article).
- Valdeoriola F; Grandas F; Arbelo JM; Blázquez Estrada M; Calopa Garriga M; Campos-Arillo VM; García Ruiz PJ; Gómez Esteban JC; Leiva Santana C; Martínez Castrillo JC; Mir P; Salvador Aliaga A; Vivancos Matellano F; Yáñez Baña RM. *Spanish expert consensus on the use of safinamide in Parkinson's disease*. NEUROLOGIA (BARCELONA, SPAIN). 2021; 36(9) 666-672. (Article).



CLINICAL MICROBIOLOGY: INFECTIOUS DISEASES AND AIDS

Area coordinator:

Patricia Muñoz García de Paredes



Despite considerable advances in our knowledge of infectious diseases in recent years, infection continues to be the main health problem facing society today. The spectrum of infection has been modified by the appearance of new infectious diseases, the increase in the number of immunosuppressed patients with their corresponding opportunistic infections, resistance to antibiotics, and the increased frequency of severe fungal infections. Hence the need for a priority research area in infectious diseases and AIDS at the IISGM. Essentially, this area carries out its research around two consolidated groups that generate considerable activity both in clinical practice and in laboratory research. In particular, the groups of the area form part of the Centro de Investigación Biomédica Enfermedades Respiratorias (CIBERES [*Networked Center for Biomedical Research in Respiratory Disease*]), promote and lead cooperative networks in transplantation (RESITRA), and manage different multicenter cohorts in the field of AIDS (GESIDA [*AIDS Study Group*]).

The fact that the area runs several research lines covering the broad spectrum of infectious diseases has not prevented it from generating considerable scientific and academic output during the last 5 years. Of note, a strength of this area is its ability to obtain human resources through competitive calls.

Undoubtedly, the future of this area is based on the maintenance of those aspects of translational research that have characterized its activity to date. Basic research laboratory work has increased, and new molecular epidemiology systems based on direct sample analysis have been implemented. The area has also promoted cooperative epidemiological studies aimed at analyzing aspects such as the extent of antifungal resistance or at optimizing the treatment of infectious complications in transplant recipients.

In summary, the Area of Infectious Diseases and AIDS maintains the commitment to research that has marked its history. This commitment is based on the conviction that no medical activity of excellence can be envisaged without a structured approach to the most pressing issues affecting daily clinical practice.

Groups in Area 4

BIOMEDICAL ENGINEERING

- ▶ 4.01. Infectious diseases and AIDS
- ▶ 4.02. Clinical and epidemiological aspects of HIV and associated conditions

4.01. Infectious diseases and AIDS

Group Head: PATRICIA MUÑOZ GARCÍA DE PAREDES

Organisms involved: HGUGM

Type: Consolidated Group

Research lines

Axis 1: Cardiovascular infection

- ▶ L1.1: Endocarditis.
- ▶ L1.2: Endovascular catheters.

Axis 2: Pneumonia

- ▶ L2.1: Ventilator-associated pneumonia (VAP).
- ▶ L2.2: Severe non-ventilator-associated pneumonia.

Axis 3. Infections in immunodepressed patients

- ▶ L3.1: Influenza and its clinical impact.
- ▶ L3.2: BK Virus.
- ▶ L3.3: Infections in transplant recipients.

Axis 4. Mycobacterial infection

- ▶ L4.1: Clonal complexity of tuberculosis.
- ▶ L4.2: Molecular epidemiology of tuberculosis.
- ▶ L4.3: Development of new molecular diagnosis techniques.
- ▶ L4.4: Characterization of infectivity.
- ▶ L4.5: QuantiFERON line.

Axis 5. Bone and joint infection

- ▶ L5.1: Infection of joint prostheses.

Axis 6. Invasive nosocomial mycosis

- ▶ L6.1: Optimization of the diagnosis of invasive aspergillosis.
- ▶ L6.2: Prevention of nosocomial aspergillosis through control of the quality of room air.
- ▶ L6.3: Treatment of invasive aspergillosis.
- ▶ L6.4: Technological development in the diagnosis of invasive candidiasis.

- ▶ L6.5: Treatment of invasive candidiasis.
- ▶ L6.6: Less common fungal pathogens.
- ▶ L6.7: Antifungal stewardship.
- ▶ L6.8: Fungal infection: animal models.
- ▶ L6.9: Studies of virulence and biofilm production.
- ▶ L6.10: Molecular characterization study.

Axis 7. Patógenos y antimicrobianos e impacto clínico del laboratorio de Microbiología clínica

- ▶ L7.1: Intestinal microbiota in severely ill patients.
- ▶ L7.2: *Clostridium difficile*.
- ▶ L7.3: *Staphylococcus aureus*.
- ▶ L7.4: Multiresistant gram-negative rods.
- ▶ L7.5: Rapid diagnostic techniques in sepsis.

The group is coordinated by Prof. Emilio Bouza and Dr. Patricia Muñoz and is part of the Department of Clinical Microbiology and Infectious Diseases of Hospital G.U. Gregorio Marañón, which came into being in 1984.

The group has broad experience in the training of research staff in a multidisciplinary group including biologists, physicians and pharmacists who are constantly involved in the diagnosis, prevention and treatment of infectious diseases.

The group is home to both research staff and health professionals managing highly complex patients, in particular, immunodepressed patients with nosocomial diseases, thus enriching training capacity and ensuring the link with day-to-day patient care and the identification of translational problems.

The group's scientific output has made it one of the world's leading research groups.



Group members

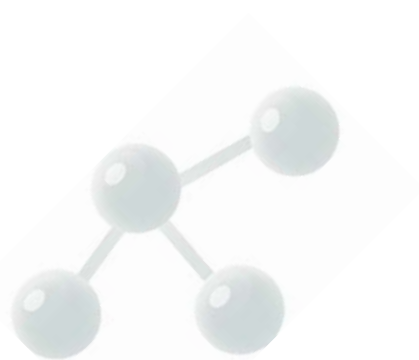
- Acosta García, Fermín: R1. First Stage Researcher.
- Adan Rodríguez, Iván.
- Adrados Ruiz, Daniel: R3. Established Researcher.
- Agnelli Bento, Caroline: R1. First Stage Researcher.
- Alcalá Hernández, Luis: R3. Established Researcher.
- Alonso Alegría, Nerea.
- Alonso Fernández, Beatriz: R1. First Stage Researcher.
- Alonso Fernández, Roberto: R3. Established Researcher.
- Alonso Menchen, David.
- Álvarez Romasanta, Beatriz: R2. Recognised Researcher.
- Álvarez Valdivieso, José Miguel.
- Álvarez-Uria Miyares, Ana M^a: R2. Recognised Researcher.
- Arroyo Pedrero, Luis Antonio: R2. Recognised Researcher.
- Barraco Benito, Mónica.
- Bordallo Cardona, M^a Ángeles: R1. First Stage Researcher.
- Bouza Santiago, Emilio: R4. Leading Researcher.
- Buenestado Serrano, Sergio.
- Burillo Albizua, Almudena: R3. Established Researcher.
- Cabrero Ballesteros, Inmaculada.
- Candela González, Ana: R2. Recognised Researcher.
- Cercenado Mansilla, Emilia: R2. Recognised Researcher.
- Cobos Fernández, Alejandro.
- De Egea Garabano, Viviana.
- Díaz García, Judith.
- Díaz Pérez, Nadire M^a: Other. Lab Technician.
- Escalera Bladerrama, Iván.
- Escribano Martos, Pilar: R3. Established Researcher.
- Estévez Prieto, Agustín: R2. Recognised Researcher.
- Fernández Rey, Rocío: Other. Management.
- Fillaos Mora, Esther Susana.
- Galar Recalde, Alicia.
- García Morales, Paula: Other. Support Technician.
- García de Viedma del Álamo, Darío: R3. Established Researcher.
- Gijón Vidaurreta, Paloma: R3. Established Researcher.

- Gómez Núñez, Ana: Other. Support Technician.
- González Saez, Adolfo.
- Goyanes Galán, M^a José: R1. First Stage Researcher.
- Guembe Ramírez, María: R3. Established Researcher.
- Guillén Zabala, Helmuth.
- Guinea Ortega, Jesús Vicente: R3. Established Researcher.
- Haces Pinto, Vanessa: R2. Recognised Researcher.
- Herranz Martín, Marta: R1. First Stage Researcher.
- Hortal Iglesias, Francisco Javier: R2. Recognised Researcher.
- Irigoyen Von Sierakowski, Álvaro.
- Jiménez Navarro, Laura: Other. Lab Technician.
- Kestler Hernández, Martha Jeannette: R2. Recognised Researcher.
- Losada Machuca, Carmen Narcisa: R2. Recognised Researcher.
- Lozano García, Nuria.
- Machado Vilchez, Marina: R1. First Stage Researcher.
- Marín Arriaza, María de las Mercedes: R2. Recognised Researcher.
- Martín López, Adoración: R2. Recognised Researcher.
- Martín-Rabadán Caballero, Pablo: R2. Recognised Researcher.
- Mesquida Marcos, Aina Catalina.
- Mezquita García, Sergio.
- Muñoz García-Paredes, Patricia: R4. Leading Researcher.
- Navarro García, Yurena de los Ángeles.
- Olmedo Samperio, María: R2. Recognised Researcher.
- Padilla Ortega, Belén: R2. Recognised Researcher.
- Palomino Cabrera, Rosalía.
- Palomo Lastras, María: R2. Recognised Researcher.
- Pérez García, Laura: R2. Recognised Researcher.
- Pérez Granda, M^a Jesús: Other. Nursing.
- Quiroga Maroto, Lidia: Other. Lab Technician.
- Reigadas Ramírez, Elena Manuela: R2. Recognised Researcher.
- Rincón Sanz, Cristina.
- Rodríguez Fernández, Sara: Other. Nursing.
- Rodríguez Grande, Cristina.
- Rodríguez Grande, Jorge.



Group members (*cont.*)

- Rodríguez Maus, Sandra: Other. Support Technician.
- Rodríguez Sánchez, Belén: R3. Established Researcher.
- Rodríguez Temporal, David.
- Rojas Wetting, Loreto.
- Ruiz Serrano, M^a Jesús: R2. Recognised Researcher.
- Sánchez Cueto, María.
- Sánchez Somolinos, Mar: R2. Recognised Researcher.
- Serrano Lobo, Julia.
- Soriano Martín-Nieto, Ana.
- Urbina, Luciana Valeria.
- Valenzuela Medina, M^a Flor.
- Valerio Minero, Maricela: R2. Recognised Researcher.
- Vázquez Cuesta, Silvia Noemí: Other. Lab Technician.
- Veintimilla Yáñez, M^a Cristina: R2. Recognised Researcher.
- Vesperinas Neira, Lara.
- Villa Martínez, Sofía: R2. Recognised Researcher.
- Villar Gomara, Laura: R1. First Stage Researcher.
- Zamora Cintas, M^a Isabel: R2. Recognised Researcher.



Research Projects – Competitive Calls

Competitive projects

- Title: **Enhancing Whole Genome Sequencing (WGS) and/or Reverse Transcription Polymerase Chain Reaction (RT-PCR) national infrastructures and capacities to respond to the COVID-19 pandemic in the EU and EEA)** ECDC/HERA/2021/024
Director: García De Viedma del Álamo, Dario
Project type: Research project
Funding body: European Commission
Start date: 01/09/2021
End date: 30/09/2022
- Title: **Tratamiento preventivo del CMV en pacientes inmunocompetentes de alto riesgo con cirugía cardíaca mayor. Ensayo clínico multicéntrico, doble ciego, aleatorizado, fase III (gan-car)** IC119/00079
Director: Muñoz García-Paredes, Patricia
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2023
- Title: **Nuevos métodos diagnósticos para identificar la candidemia relacionada a catéter en pacientes con catéter in situ. ¿Es posible personalizar el manejo de la candidemia? Estudio CANDICATH.** PI20/00575
Director: Muñoz García-Paredes, Patricia
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Nuevos métodos diagnósticos para identificar la candidemia relacionada a catéter en pacientes con catéter in situ. ¿Es posible personalizar el manejo de la candidemia? Estudio CANDICATH.** PI20/01201
Director: Burillo Albizua, Almudena
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2021
End date: 31/12/2023



- Title: **Proyecto de Alerta en Neumonía Grave (PANG). Impacto de un bundle multidisciplinar de intervención diagnóstica y terapéutica.** PI20/01350
Director: Galar Recalde, Alicia
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Proyecto de Alerta en Neumonía Grave (PANG). Impacto de un bundle multidisciplinar de intervención diagnóstica y terapéutica.** PI20/01381
Director: Reigadas Ramírez, Elena Manuela
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2021
End date: 31/12/2023
- Title: **El papel de la nueva tecnología de diagnóstico microbiológico e imagen en el diagnóstico de la infección de dispositivos electrocardíacos. Proyecto mirada.** PI20/01438
Director: Valerio Minero, Maricela
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2021
End date: 31/12/2023
- Title: **La cavidad abdominal como reservorio de cepas de Candida spp causantes de candidemia : aplicación del genotipado como herramienta de detección de genotipos capaces de alcanzar el torrente circulatorio.** PI19/00074
Director: Escribano Martos, Pilar
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Aplicación de estrategias basadas en tecnologías de secuenciación de nueva generación para solucionar problemas derivados de la globalización de la tuberculosis.** PI19/00331
Director: Pérez García, Laura
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Impacto del uso de 3 apósitos en la prevención de infección de herida quirúrgica en pacientes de Cirugía Cardíaca: estudio clínico, prospectivo y randomizado** PI18/01741
Director: Pérez Granda, María Jesús
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2019
End date: 31/12/2022
- Title: **Estudio CANDIMAD, una perspectiva microbiológica de la candidiasis invasora diagnosticada en Madrid: etiología causal, sensibilidad a antifúngicos y clones circulantes** PI18/01155
Director: Guinea Ortega, Jesús Vicente
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Optimización de la técnica de Espectrometría de Masas MALDI-TOF como Herramienta de Identificación Rápida de Hongos Filamentosos** PI18/00997
Director: Rodríguez Sánchez, María Belén
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2019
End date: 31/12/2022
- Title: **Plataforma avanzada para optimizar el diagnóstico y vigilancia epidemiológica de la tuberculosis** PI18/00599
Director: García De Viedma Del Álamo, Dario
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2019
End date: 31/12/2021



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- Title: **Impacto de la implementación de un "bundle" para disminuir complicaciones asociadas al uso de catéteres venosos periféricos en pacientes ingresados en Medicina Interna** PI18/00045
Director: GUEMBE Ramírez, MARÍA
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Influencia de la gripe en los eventos cardiacos agudos y búsqueda de virus gripales cardiotrópicos. Estudio INFLUCAR** PI17/00061
Director: Muñoz García-Paredes, Patricia
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2018
End date: 30/06/2022
- Title: **Dalbavancina como tratamiento local para las complicaciones infecciosas tras fracturas de alta energía ¿fake o esperanza?.** FMM21/01
Director: Guembe Ramírez, María
Project type: Research project
Funding body: Mutua Madrileña Foundation
Start date: 01/07/2021
End date: 30/06/2024
- Title: **Preddoctoral contract.** FI20/00089
Director: Mesquida Marcos, Aina Catalina
Funding body: Instituto de Salud Carlos III
Project type: Human resources
Start date: 01/01/2021
End date: 31/12/2024
- Title: **Preddoctoral contract.** FI20/00129
Director: Rodríguez Grande, Cristina
Funding body: Instituto de Salud Carlos III
Project type: Human resources
Start date: 01/01/2021
End date: 31/12/2024
- Title: **Preddoctoral contract.** FI19/00021
Director: Díaz García, Judith
Funding body: Instituto de Salud Carlos III
Project type: Human resources
Start date: 01/01/2020
End date: 31/12/2023
- Title: **Juan Rodes Contract** JR18/00030
Director: Galar Recalde, Alicia
Funding body: Instituto de Salud Carlos III
Project type: Human resources
Start date: 01/12/2018
End date: 31/12/2021
- Title: **Miguel Servet II Contract** CPII20/00015
Director: Escribano Martos, Pilar
Funding body: Instituto de Salud Carlos III
Project type: Human resources
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Miguel Servet II Contract** CP20/00001
Director: Pérez García, Laura
Funding body: Instituto de Salud Carlos III
Project type: Human resources
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Miguel Servet II Contract** CPII19/00002
Director: Rodríguez Sánchez, María Belén
Funding body: Instituto de Salud Carlos III
Project type: Human resources
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Young employment contract** PEJ-2020-AI/BMD-17971
Director: Guembe Ramírez, María
Funding body: Comunidad Autónoma de Madrid
Project type: Human resources
Start date: 01/01/2021
End date: 31/12/2022



- Title: **Young employment contract** PEJ-2020-AI/BMD-18120
Director: GARCÍA DE VIEDMA Del Álamo, DARIO
Funding body: Comunidad Autónoma de Madrid
Project type: Human resources
Start date: 01/01/2021
End date: 31/12/2022
- Title: **Young employment contract** PEJ-2020-AI/BMD-19547
Director: Muñoz García-Paredes, Patricia
Funding body: Comunidad Autónoma de Madrid
Project type: Human resources
Start date: 01/01/2021
End date: 31/12/2022
- Title: **Young employment contract** PEJ-2020-TL/BMD-19052
Director: Pérez García, LAURA
Funding body: Comunidad Autónoma de Madrid
Project type: Human resources
Start date: 01/01/2021
End date: 31/12/2022
- Title: **Young employment contract** PEJ-2020-TL/BMD-18351
Director: Escribano Martos, Pilar
Funding body: Comunidad Autónoma de Madrid
Project type: Human resources
Start date: 01/01/2021
End date: 31/12/2022
- Title: **Young employment contract** . PEJ-2019-TL/BMD-13146
Director: García De Viedma del Álamo, Dario
Funding body: Comunidad Autónoma de Madrid
Project type: Human resources
Start date: 01/01/2020
End date: 30/04/2022
- Title: **Young employment contract** . PEJ-2019-TL/BMD-15599
Director: Marín Arriaza, María de las Mercedes
Funding body: Comunidad Autónoma de Madrid
Project type: Human resources
Start date: 01/01/2020
End date: 30/06/2022
- Title: **Young employment contract**. PEJ2018-004613-A
Director: Escribano Martos, Pilar
Funding body: MICINN
Project type: Human resources
Start date: 01/01/2019
End date: 31/10/2021
- Title: **Young employment contract: Laboratory technician**. PEJ-2018-TL/BMD-10671
Director: Escribano Martos, Pilar
Funding body: Conserjería de Educación Comunidad de Madrid
Project type: Human resources
Start date: 04/03/2019
End date: 02/04/2021
- Title: **Young employment contract: Postdoctoral contract**. PEJD-2018-POST/BMD-8664
Director: García de Viedma del Álamo, Dario
Funding body: Conserjería de Educación Comunidad de Madrid
Project type: Human resources
Start date: 01/01/2019
End date: 31/12/2021



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Industrial and intellectual property registrations

Industrial property

Title	Reference*	Owner	Inventors
Compuestos radiactivos basados en proteínas selectivas de bacteriemias para la detección no invasiva de focos infecciosos	P 202030838 (2 patents)	FIBHGM-UC3M	Beatriz Salinas, Manuel Desco, Patricia Muñoz, Emilio Bouza
Dispositivo para prevenir la neumonía asociada a ventilación mecánica	U 2014 30814	FIBHGM	Juan Francisco del Cañizo, Emilio Bouza, Mª Jesús Pérez

* Reference: P (Patent), PCT (international patent), EP (European patent), US (USA patent), U (Utility model), M (Trademark).

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Title	Reference*	Owner	Inventors
Estudio de impacto clínico de un plan docente de formación continuada sobre las infecciones asociadas a dispositivos intravasculares	Nº Asiento Registral: 16/2013/4798	FIBHGM	Emilio Bouza, María Guembe, Patricia Muñoz, Mª Jesús Pérez, Mª del Mar San Segundo
Recomendaciones sobre el manejo de Infecciones Fúngicas Invasoras (IFIs)	Nº Asiento Registral: 16/2014/5265	FIBHGM	Patricia Muñoz, Emilio Bouza, María Sanjurjo, Carmen Rodríguez, Maricela Valerio
Material docente para la infección relacionada con el catéter	Nº Asiento Registral: 16/2014/6113	FIBHGM	María Guembe, Emilio Bouza, María Jesús Pérez
Optimización en el Diagnóstico Microbiológico de los Reservorios Totalmente Implantables	Nº Asiento Registral: 16/2015/2094	FIBHGM	María Guembe, Pablo Martín-Rabadán, Emilio Bouza, Mª Luisa Rivera, Teresa Vicente
Tolerancia cero a la bacteriemia relacionada con el catéter: optimización de la prevención con nuevos sistemas de vigilancia de las vías endovasculares	Nº Asiento Registral: 16/2015/2983	FIBHGM	María Guembe, Emilio Bouza, Mª Jesús Pérez Granda
Documento de registro para vigilancia durante la inserción y el mantenimiento de los catéteres intravasculares	Nº Asiento Registral: 16/2015/2984	FIBHGM	María Guembe, Emilio Bouza, Mª Jesús Pérez Granda
Cultivo de conectores cerrados. Nueva alternativa de diagnóstico conservador de infección relacionada con el catéter	Nº Asiento Registral: 16/2017/517	FIBHGM	Emilio Bouza, María Guembe, Mª Jesús Pérez, Pablo Martín-Rabadán
Base de datos de perfiles de proteínas correspondientes a distintas especies de hongos filamentosos para mejorar su identificación mediante la técnica de espectrometría de masas MALDI-TOF	Nº Asiento Registral: 16/2019/6180	FIBHGM	Belén Rodríguez, Estreya Zvezdanova, Pilar Escribano, Patricia Muñoz
Preparación de muestras de hongos filamentosos para identificación mediante MALDI-TOF. Vídeo con instrucciones	Nº Asiento Registral: 16/2021/2779	FIBHGM	Belén Rodríguez, Estreya Zvezdanova, Patricia Muñoz

- Transferred Intellectual Property.



Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of network	Role
CIBER	CIBERES	Collaborating group
RETIC	REIPI	Others: active researchers
Plataforma ISCIII	Plataforma española de EECC	Collaborating group
Others	RESITRA (Red Cooperativa de Infección en Paciente trasplantado)	Collaborating group

Publications

Total Impact Factor: 1147.3

	Nº	IF
Own publications	55	392.3
Joint publications	65	754.9
First decile publications	33	666.6
First quartile publications	77	977.1
Second quartile publications	27	130.7
Third quartile publications	13	34.1
Fourth quartile publications	3	5.4
Nonindexed publications / No IF	6	-
Total publications (including those without IF)	126	1147.3

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Mayo-Prieto, S; Porteous-Álvarez, AJ; Mezquita-García, S; Rodríguez-González, A; Carro-Huerga, G; del Ser-Herrero, S; Gutiérrez, S; Casquero, PA. *Influence of Physicochemical Characteristics of Bean Crop Soil in Trichoderma spp. Development*. AGRONOMY-BASEL. 2021; 11(2). FI: 3.949. Cuartil: 1. (Article).
- Caballero-Marcos, A; Salcedo, M; Alonso-Fernández, R; Rodríguez-Perálvarez, M; Olmedo, M; Morales, JG; Cuervas-Mons, V; Cachero, A; Loinaz-Seguro, C; Inarrairaegui, M; Castells, L; Pascual, S; Vinaixa-Aunes, C; González-Grande, R; Otero, A; Tome, S; Tej. *Changes in humoral immune response after SARS-CoV-2 infection in liver transplant recipients compared to immunocompetent patients*. AMERICAN JOURNAL OF TRANSPLANTATION. 2021; 21(8) 2876-2884. FI: 9.369. Cuartil: 1. (Article).
- Galar, A; Valerio, M; Catalán, P; García-González, X; Burillo, A; Fernández-Cruz, A; Zataráin, E; Sousa-Casasnovas, I; Anaya, F; Rodríguez-Ferrero, ML; Muñoz, P; Bouza, E. *Valganciclovir-Ganciclovir Use and Systematic Therapeutic Drug Monitoring. An Invitation to Antiviral Stewardship*. ANTIBIOTICS-BASEL. 2021; 10(1). FI: 5.222. Cuartil: 1. (Article).
- Buzón-Martín, L; Zollner-Schwetz, I; Tobudic, S; Cercenado, E; Lora-Tamayo, J. *Dalbavancin for the Treatment of Prosthetic Joint Infections: A Narrative Review*. ANTIBIOTICS-BASEL. 2021; 10(6). FI: 5.222. Cuartil: 1. (Review).
- Gómez-Junyent, J; Lora-Tamayo, J; Baraia-Etxaburu, J; Sánchez-Somolinos, M; Iribarren, JA; Rodríguez-Pardo, D; Praena-Segovia, J; Sorli, L; Bahamonde, A; Riera, M; Rico, A; del Toro, MD; Morata, L; Cobo, J; Falgueras, L; Benito, N; Munez, E; Jover-Saenz. *Implant Removal in the Management of Prosthetic Joint Infection by Staphylococcus aureus: Outcome and Predictors of Failure in a Large Retrospective Multicenter Study*. ANTIBIOTICS-BASEL. 2021; 10(2). FI: 5.222. Cuartil: 1. (Article).
- Díaz-García, J; Mesquida, A; Sánchez-Carrillo, C; Reigadas, E; Muñoz, P; Escribano, P; Guinea, J. *Monitoring the Epidemiology and Antifungal Resistance of Yeasts Causing Fungemia in a Tertiary Care Hospital in Madrid, Spain: Any Relevant Changes in the Last 13 Years?*. ANTIMICROBIAL AGENTS AND CHEMOTHERAPY. 2021; 65(4). FI: 5.938. Cuartil: 1. (Article).



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- Serrano-Lobo, J; Gómez, A; Sánchez-Yebra, W; Fajardo, M; Lorenzo, B; Sánchez-Reus, F; Vidal, I; Fernández-Torres, M; Sánchez-Romero, I; de Alegría-Puig, CR; del Pozo, JL; Muñoz P; Escribano, P; Guinea, J. *Azole and Amphotericin B MIC Values against Aspergillus fumigatus: High Agreement between Spectrophotometric and Visual Readings Using the EUCAST EDef 9.3.2 Procedure*. ANTIMICROBIAL AGENTS AND CHEMOTHERAPY. 2021; 65(1). FI: 5.938. Cuartil: 1. (Article).
- Serrano-Lobo, J; Gómez, A; Rodríguez-Sánchez, B; Muñoz, P; Escribano, P; Guinea, J. *Azole-Resistant Aspergillus fumigatus Clinical Isolate Screening in Azole-Containing Agar Plates (EUCAST E.Def 10.1): Low Impact of Plastic Trays Used and Poor Performance in Cryptic Species*. ANTIMICROBIAL AGENTS AND CHEMOTHERAPY. 2021; 65(8). FI: 5.938. Cuartil: 1. (Article).
- Albasanz-Puig, A; Gudiol, C; Puerta-Alcalde, P; Ayaz, CM; Machado, M; Herrera, F; Martín-Dávila, P; Laporte-Amargos, J; Cardozo, C; Akova, M; Álvarez-Uría, A; Torres, D; Fortun, J; García-Vidal, C; Muñoz, P; Bergas, A; Pomares, H; Mercadal, S; Dura-Mirall. *Impact of the Inclusion of an Aminoglycoside to the Initial Empirical Antibiotic Therapy for Gram-Negative Bloodstream Infections in Hematological Neutropenic Patients: a PropensityMatched Cohort Study (AMINOLACTAM Study)*. ANTIMICROBIAL AGENTS AND CHEMOTHERAPY. 2021; 65(8). FI: 5.938. Cuartil: 1. (Article).
- Díaz-García, J; Mesquida, A; Gómez, A; Machado, M; Martín-Rabadán, P; Alcalá, L; Sánchez-Carrillo, C; Reigadas, E; Vicente, T; Muñoz, P; Escribano, P; Guinea, J. *Antifungal Susceptibility Testing Identifies the Abdominal Cavity as a Source of Candida glabrata-Resistant Isolates*. ANTIMICROBIAL AGENTS AND CHEMOTHERAPY. 2021; 65(12). FI: 5.938. Cuartil: 1. (Article).
- Gutiérrez-Gutiérrez, B; Pérez-Nadales, E; Pérez-Galera, S; Fernández-Ruiz, M; Carratala, J; Oriol, I; Cordero, E; Lepe, JA; Tan, BH; Corbella, L; Paul, M; Natera, AM; David, MD; Montejo, M; Iyer, RN; Pierrotti, LC; Merino, E; Steinke, SM; Rana, MM; Muñoz. *Propensity Score and Desirability of Outcome Ranking Analysis of Ertapenem for Treatment of Nonsevere Bacteremic Urinary Tract Infections Due to Extended-Spectrum-Beta-Lactamase-Producing Enterobacterales in Kidney Transplant Recipients*. ANTIMICROBIAL AGENTS AND CHEMOTHERAPY. 2021; 65(11). FI: 5.938. Cuartil: 1. (Article).
- Espinel-Ingroff, A; Sasso, M; Turnidge, J; Arendrup, M; Botterel, F; Bourgeois, N; Bouteille, B; Cantón, E; Cassaing, S; Dannaoui, E; Dehais, M; Delhaes, L; Dupont, D; Fekkar, A; Fuller, J; García-Effron, G; García, J; González, GM; Govender, NP; Guegan. *Etest ECVs/ECOFFs for Detection of Resistance in Prevalent and Three Nonprevalent Candida spp. to Triazoles and Amphotericin B and Aspergillus spp. to Caspofungin: Further Assessment of Modal Variability*. ANTIMICROBIAL AGENTS AND CHEMOTHERAPY. 2021; 65(11). FI: 5.938. Cuartil: 1. (Article).
- María, LT; Alejandro, GS; Jesús, PGM. *Central venous catheter insertion: Review of recent evidence*. BEST PRACTICE & RESEARCH-CLINICAL ANAESTHESIOLOGY. 2021; 35(1) 135-140. FI: 3.813. Cuartil: 2. (Review).
- Pérez-Lago, L; Aldamiz-Echevarría, T; García-Martínez, R; Pérez-Latorre, L; Herranz, M; Sola-Campoy, P; Suárez-González, J; Martínez-Laperche, C; Comas, I; González-Candelas, F; Catalán, P; Muñoz, P; de Viedma, DG; Gregorio Marañon Microbiology-ID. *Different Within-Host Viral Evolution Dynamics in Severely Immunosuppressed Cases with Persistent SARS-CoV-2*. BIOMEDICINES. 2021; 9(7). FI: 4.757. Cuartil: 2. (Article).
- Vicent, L; Bruña, V; Devesa, C; Sousa-Casasnovas, I; Juárez, M; Alcalá, L; Muñoz, P; Fernández-Avilés, F; Martínez-Sellés, M. *Ticagrelor and Infection Risk in Patients with Coronary Artery Disease*. CARDIOLOGY. 2021; 146(6) 698-704. FI: 2.342. Cuartil: 3. (Article).
- Cantenys-Molina, S; Fernández-Cruz, E; Francos, P; de Quirós, JCLB; Muñoz, P; Gil-Herrera, J. *Lymphocyte subsets early predict mortality in a large series of hospitalized COVID-19 patients in Spain*. CLINICAL AND EXPERIMENTAL IMMUNOLOGY. 2021; 203(3) 424-432. FI: 5.732. Cuartil: 2. (Article).
- Pujol, M; Miró, JM; Shaw, E; Aguado, JM; San-Juan, R; Puig-Asensio, M; Pigrau, C; Calbo, E; Montejo, M; Rodríguez-Álvarez, R; García-Pais, MJ; Pintado, V; Escudero-Sánchez, R; López-Contreras, J; Morata, L; Montero, M; Andrés, M; Pasquau, J; Arenas, MDM. *Daptomycin Plus Fosfomycin Versus Daptomycin Alone for Methicillin-resistant Staphylococcus aureus Bacteremia and Endocarditis: A Randomized Clinical Trial*. CLINICAL INFECTIOUS DISEASES. 2021; 72(9) 1517-1525. FI: 20.999. Cuartil: 1. (Article).
- Giannella, M; Freire, M; Rinaldi, M; Abdala, E; Rubin, A; Mularoni, A; Gruttadauria, S; Grossi, P; Shbaklo, N; Tandoi, F; Ferrarese, A; Burra, P; Fernandes, R; Camargo, LFA; Asensio, A; Alagna, L; Bandera, A; Simkins, J; Abbo, L; Halpern, M; Girao, ES; Va. *Development of a Risk Prediction Model for Carbapenem-resistant Enterobacteriaceae Infection After Liver Transplantation: A Multinational*



Cohort Study. CLINICAL INFECTIOUS DISEASES. 2021; 73(4) 955-966. FI: 20.999. Cuartil: 1. (Article).

- Pericas, JM; Hernández-Meneses, M; Muñoz, P; Martínez-Sellés, M; Álvarez-Uría, A; De Alarcón, A; Gutiérrez-Carretero, E; Goenaga, MA; Zarauza, MJ; Falces, C; Rodríguez-Esteban, MA; Hidalgo-Tenorio, C; Hernández-Cabrera, M; Miró, JM; Grp Apoyo Manejo Endoc. *Characteristics and Outcome of Acute Heart Failure in Infective Endocarditis: Focus on Cardiogenic Shock*. CLINICAL INFECTIOUS DISEASES. 2021; 73(5) 765-774. FI: 20.999. Cuartil: 1. (Article).
- Melero, R; Mijaylova, A; Rodríguez-Benítez, P; Macías, N; Aragoncillo, I; Rodríguez-Ferrero, ML; García-Prieto, A; Bascunana, A; Acosta, A; González-Rojas, A; de Morales, AM; Carbayo, J; Sánchez-Cámara, L; Verdalles, U; Abad, S; Vega, A; Verde, E; Arroyo. *Renal long-term outcome of critically ill COVID-19 patients with acute kidney failure and continuous renal replacement therapy*. CLINICAL KIDNEY JOURNAL. 2021; 14(11) 2449-2450. FI: 5.86. Cuartil: 1. (Letter).
- Mesquida, A; Vicente, T; Reigadas, E; Palomo, M; Sánchez-Carrillo, C; Muñoz, P; Guinea, J; Escribano, P. *In vitro activity of ibrexafungerp and comparators against Candida albicans genotypes from vaginal samples and blood cultures*. CLINICAL MICROBIOLOGY AND INFECTION. 2021; 27(6). FI: 13.31. Cuartil: 1. (Article).
- Arendrup, MC; Kahlmeter, G; Guinea, J; Meletiadiis, J; Subcommittee on Antifungal Susceptibility Testing (AFST) of the ESCMID European. *How to: perform antifungal susceptibility testing of microconidia-forming dermatophytes following the new reference EUCAST method E.Def 11.0, exemplified by Trichophyton*. CLINICAL MICROBIOLOGY AND INFECTION. 2021; 27(1) 55-60. FI: 13.31. Cuartil: 1. (Review).
- Fariñas, MC; González-Rico, C; Fernández-Martínez, M; Fortún, J; Escudero-Sánchez, R; Moreno, A; Bodro, M; Muñoz, P; Valerio, M; Montejo, M; Nieto, J; Millán, JCRS; Casafont-Morencos, F; Martínez-Martínez, L; Fariñas-Álvarez, C. *Oral decontamination with colistin plus neomycin in solid organ transplant recipients colonized by multidrug-resistant Enterobacterales: a multicentre, randomized, controlled, open-label, parallel-group clinical trial*. CLINICAL MICROBIOLOGY AND INFECTION. 2021; 27(6) 856-863. FI: 13.31. Cuartil: 1. (Article).
- Abascal, E; Herranz, M; Ruiz Serrano MJ; Fernández-González, F; Muñoz P; Gotuzzo, E; García de Viedma D. *In-depth analysis of a mixed Mycobacterium tuberculosis infection involving a multidrug-resistant strain and a susceptible strain*. CLINICAL MICROBIOLOGY AND INFECTION. 2021; 27(4) 641-643. FI: 13.31. Cuartil: 1. (Letter).
- Giannella, M; Bouza, E; Viale, P. *Time to first antibiotic dose for community-acquired pneumonia: a challenging balance Comment*. CLINICAL MICROBIOLOGY AND INFECTION. 2021; 27(3) 322-324. FI: 13.31. Cuartil: 1. (Editorial Material).
- Merino, P; Guinea, J; Muñoz-Gallego, I; González-Donapetry, P; Galán, JC; Antona, N; Cilla, G; Hernáez-Crespo, S; Díaz-de Tuesta, JL; Gual-de Torrella, A; González-Romo, F; Escribano, P; Sánchez-Castellano, MA; Sota-Busselo, M; Delgado-Iribarren, A; Garci. *Multicenter evaluation of the Panbio (TM) COVID-19 rapid antigen-detection test for the diagnosis of SARS-CoV-2 infection*. CLINICAL MICROBIOLOGY AND INFECTION. 2021; 27(5) 758-761. FI: 13.31. Cuartil: 1. (Article).
- Reigadas, E; van Prehn, J; Falcone, M; Fitzpatrick, F; Vehreschild, MJGT; Kuijper, EJ; Bouza, E; European Soc Clinical Microbiology; Study Grp Host Microbiota Interact. *How to: prophylactic interventions for prevention of Clostridioides difficile infection*. CLINICAL MICROBIOLOGY AND INFECTION. 2021; 27(12) 1777-1783. FI: 13.31. Cuartil: 1. (Review).
- Fernández-Felix, BM; Barca, LV; García-Esquinas, E; Correa-Pérez, A; Fernández-Hidalgo, N; Muriel, A; López-Alcalde, J; Álvarez-Díaz, N; Pijoan, JI; Ribera, A; Elorza, EN; Muñoz, P; Fariñas, MD; Goenaga, MA; Zamora, J. *Prognostic models for mortality after cardiac surgery in patients with infective endocarditis: a systematic review and aggregation of prediction models*. CLINICAL MICROBIOLOGY AND INFECTION. 2021; 27(10) 1422-1430. FI: 13.31. Cuartil: 1. (Review).
- Rodríguez-Grande, C; Hurtado, JC; Rodríguez-Maus, S; Casas, I; Castillo, P; Navarro, M; Rakislova, N; García-Basteiro, A; Carrilho, C; Fernandes, F; Lovane, L; Jordao, D; Ismail, MR; Lorenzoni, C; Cossa, A; Mandomando, I; Bassat, Q; Menéndez, C; Ordi, J. *High within-host diversity found from direct genotyping on post-mortem tuberculosis specimens in a high-burden setting*. CLINICAL MICROBIOLOGY AND INFECTION. 2021; 27(10). FI: 13.31. Cuartil: 1. (Article).



4.01. INFECTIOUS DISEASES AND AIDS

- van Prehn J; Reigadas E; Vogelzang EH; Bouza E; Hristea A; Guery B; Krutova M; Norén T; Allerberger F; Coia JE; Goorhuis A; van Rossen TM; Ooijsvaar RE; Burns K; Scharvik Olesen BR; Tschudin-Sutter S; Wilcox MH; Vehreschild MJGT; Fitzpatrick F; Kuijper EJ. *European Society of Clinical Microbiology and Infectious Diseases: 2021 update on the treatment guidance document for Clostridioides difficile infection in adults*. CLINICAL MICROBIOLOGY AND INFECTION. 2021; 27 Suppl 2 1-21. FI: 13.31. Cuartil: 1. (Article).
- Escribano, P; Rodríguez-Sánchez, B; Díaz-García, J; Martín-Gómez, MT; Ibáñez E; Rodríguez-Mayo, M; Peláez, T; García-Gómez de la Pedrosa E; Tejero-García, R; Marimón, JM; Reigadas, E; Rezusta, A; Labayru-Echeverría, C; Pérez-Ayala, A; Ayats, J; Cobo, F; P. *Azole resistance survey on clinical Aspergillus fumigatus isolates in Spain*. CLINICAL MICROBIOLOGY AND INFECTION. 2021; 27(8). FI: 13.31. Cuartil: 1. (Article).
- Burillo, A; Bouza, E. *The eternal dilemma of antitoxin antibiotics for skin and soft tissue infection*. CURRENT OPINION IN INFECTIOUS DISEASES. 2021; 34(2) 80-88. FI: 4.968. Cuartil: 2. (Review).
- Bouza, E; Muñoz, P; Burillo, A. *Gram-negative endocarditis: disease presentation, diagnosis and treatment*. CURRENT OPINION IN INFECTIOUS DISEASES. 2021; 34(6) 672-680. FI: 4.968. Cuartil: 2. (Review).
- Estévez, A; Catalán, P; Alonso, R; Marín, M; Bouza, E; Muñoz, P; Alcalá, L. *Sample pooling is efficient in PCR testing of SARS-CoV-2: a study in 7400 healthcare professionals*. DIAGNOSTIC MICROBIOLOGY AND INFECTIOUS DISEASE. 2021; 100(1) 115330-115330. FI: 2.983. Cuartil: 3. (Article).
- López-Roa, P; Martín-Higuera, C; Ruiz-Serrano, MJ; Toro, C; Tato, M; Simón, M; Domingo, D; Esteban, J. *Performance of Xpert MTB/RIF Ultra assay on respiratory and extra-respiratory samples in a high-resource setting with a low tuberculosis prevalence*. DIAGNOSTIC MICROBIOLOGY AND INFECTIOUS DISEASE. 2021; 99(2) 115235-115235. FI: 2.983. Cuartil: 3. (Article).
- Catalán, P; Alonso, R; Alcalá, L; Marín, M; Moure, Z; Pescador, P; Bouza, E; Muñoz, P; Gregorio Marañón Microbiology-ID C. *The challenge of COVID-19 for a Clinical Microbiology Department*. DIAGNOSTIC MICROBIOLOGY AND INFECTIOUS DISEASE. 2021; 101(2) 115426-115426. FI: 2.983. Cuartil: 3. (Article).
- Oviano, M; Ingebreetsen, A; Steffensen, AK; Croxatto, A; Prod'hom, G; Quiroga, L; Bou, G; Greub, G; Rodríguez-Temporal, D; Rodríguez-Sánchez, B. *Multicenter Evaluation of Rapid BACpro(R) II for the Accurate Identification of Microorganisms Directly from Blood Cultures Using MALDI-TOF MS*. DIAGNOSTICS. 2021; 11(12). FI: 3.992. Cuartil: 2. (Article).
- Pérez-Nadales, E; Alastruey-Izquierdo, A; Linares-Sicilia, MJ; Soto-Debrán, JC; Abdala, E; García-Rodríguez, J; Montejó, M; Muñoz, P; Lleti, MS; Rezusta, A; de Pipaon, MRP; Yáñez, L; Merino, E; Campos-Herrero, MI; Costa-Mateo, JM; Fortun, J; García-Lozano. *Invasive Fusariosis in Nonneutropenic Patients, Spain, 2000-2015*. EMERGING INFECTIOUS DISEASES. 2021; 27(1) 26-35. FI: 16.126. Cuartil: 1. (Article).
- Salmantón-García, J; Sprute, R; Stemler, J; Bartoletti, M; Dupont, D; Valerio, M; García-Vidal, C; Falces-Romero, I; Machado, M; de la Villa, S; Schroeder, M; Hoyo, I; Hanses, F; Ferreira-Paim, K; Jacobbe, DR; Meis, JF; Gangneux, JP; Rodríguez-Guardado. *COVID-19-Associated Pulmonary Aspergillosis, March-August 2020*. EMERGING INFECTIOUS DISEASES. 2021; 27(4) 1077-1086. FI: 16.126. Cuartil: 1. (Article).
- Pérez-Granda, MJ; Barrio, JM; Cruces, R; Alonso, B; Martín-Rabadán, P; Collado, I; Guembe, M. *How should microbiology laboratories interpret cultures of the sonicate of closed needleless connectors?*. ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA. 2021; 39(2) 72-77. FI: 1.994. Cuartil: 4. (Article).
- Oviaño M; Rodríguez-Sánchez, B. *MALDI-TOF mass spectrometry in the 21st century clinical microbiology laboratory*. ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA. 2021; 39(4) 192-200. FI: 1.994. Cuartil: 4. (Review).
- Peghin, M; Bouza, E; Fabris, M; De Martino, M; Palese, A; Bontempo, G; Graziano, E; Gerussi, V; Bressan, V; Sartor, A; Isola, M; Tascini, C; Curcio, F. *Low risk of reinfections and relation with serological response after recovery from the first wave of COVID-19*. EUROPEAN JOURNAL OF CLINICAL MICROBIOLOGY & INFECTIOUS DISEASES. 2021; 40(12) 2597-2604. FI: 5.103. Cuartil: 2. (Article).
- Martínez-Sellés, M; Valerio-Minero, M; Fariñas, MC; Rodríguez-Abella, H; Rodríguez, ML; de Alarcón, A; Gutiérrez-Carretero, E; Cobo-Belaustegui, M; Goenaga, MA; Moreno-Camacho, A; Domínguez, F; García-Pérez, L; Domínguez-Pérez, L; Muñoz, P; GAMES. *Infective endocarditis in patients with solid organ transplantation. A nationwide descriptive study*. EUROPEAN JOURNAL OF INTERNAL MEDICINE. 2021; 87 59-65. FI: 7.749. Cuartil: 1. (Article).



- Parra, JC; De Castro-Campos, D; García, PM; Samperio, MO; Arriaza, MM; De Alarcón, A; Gutiérrez-Carretero, E; Álvarez, MCF; Meda, JMM; Sánchez, MAG; García, RR; Burgos, GO; Valcarce-González, Z; Ramos-Martínez, A. *Non-HACEK gram negative bacilli endocarditis: Analysis of a national prospective cohort*. EUROPEAN JOURNAL OF INTERNAL MEDICINE. 2021; 92 71-78. FI: 7.749. Cuartil: 1. (Article).
- Chamorro-de-Vega, E; Rodríguez-González, CG; Manrique-Rodríguez, S; Lobato-Matilla, E; García-Moreno, F; Olmedo, M; Correa-Rocha, R; Valerio, M; Aldamiz-Echevarría, T; Machado, M; Sancho-González, M; López-Bernaldo-de-Quirós, JC; Ruiz-Briones, P; Romero-J. *Clinical course of severe patients with COVID-19 treated with tocilizumab: report from a cohort study in Spain*. EXPERT REVIEW OF CLINICAL PHARMACOLOGY. 2021; 14(2) 249-260. FI: 4.108. Cuartil: 2. (Article).
- Alcalá, L; Marín, M; Ruiz, A; Quiroga, L; Zamora-Cintas, M; Fernández-Chico, MA; Muñoz, P; Rodríguez-Sánchez, B. *Identifying Anaerobic Bacteria Using MALDI-TOF Mass Spectrometry: A Four-Year Experience*. FRONTIERS IN CELLULAR AND INFECTION MICROBIOLOGY. 2021; 11 521014-521014. FI: 6.073. Cuartil: 1. (Article).
- Gil, S.; Carbonell, D.; López, L.; Miguens, I.; Alonso, R.; Buño, I.; Muñoz, P.; Ochando Cano, Jordi; Pion, M.; Correa, R. *Induction of high levels of specific humoral and cellular responses to SARS-CoV-2 after the administration of Covid-19 mRNA vaccines requires several days*. FRONTIERS IN IMMUNOLOGY. 2021; 12 726960-726960. FI: 8.786. Cuartil: 1. (Article).
- Mama, OM; Aspiroz, C; Ruiz-Ripa, L; Ceballos, S; Íñiguez-Barrio, M; Cercenado, E; Azcona, JM; López-Cerero, L; Seral, C; López-Calleja, AI; Belles-Belles, A; Berdonces, P; Siller, M; Zarazaga, M; Torres, C. *Prevalence and Genetic Characteristics of Staphylococcus aureus CC398 Isolates From Invasive Infections in Spanish Hospitals, Focusing on the Livestock-Independent CC398-MSSA Clade*. FRONTIERS IN MICROBIOLOGY. 2021; 12 623108-623108. FI: 6.064. Cuartil: 1. (Article).
- Ascenzioni, F; Cloeckert, A; Di Domenico, EG; Dunyach-Remy, C; Guembe, M. *Editorial: Microbial Biofilms in Chronic and Recurrent Infections*. FRONTIERS IN MICROBIOLOGY. 2021; 12 803324-803324. FI: 6.064. Cuartil: 1. (Editorial Material).
- Quintana-Villamandos, B; Barranco, M; Fernández, I; Ruiz, M; del Cañizo, JF. *New Advances in Monitoring Cardiac Output in Circulatory Mechanical Assistance Devices. A Validation Study in a Porcine Model*. FRONTIERS IN PHYSIOLOGY. 2021; 12 634779-634779. FI: 4.755. Cuartil: 1. (Article).
- Cuenod, A; Wuthrich, D; Seth-Smith, HMB; Ott, C; Gehringer, C; Foucault, F; Mouchet, R; Kassim, A; Revathi, G; Vogt, DR; von Felten, S; Bassetti, S; Tschudin-Sutter, S; Hettich, T; Schlotterbeck, G; Homberger, C; Casanova, C; Morán-Gilad, J; Sagi, O; Rodr. *Whole-genome sequence-informed MALDI-TOF MS diagnostics reveal importance of Klebsiella oxytoca group in invasive infections: a retrospective clinical study*. GENOME MEDICINE. 2021; 13(1) 150-150. FI: 15.266. Cuartil: 1. (Article).
- Barca, LV; Vidal-Bonnet, L; Fariñas, MC; Muñoz, P; Minero, MV; de Alarcón, A; Carretero, EG; Cuadra, MG; Camacho, AM; Urkola, XK; Agirre, JG; Burgos, GO; López-Cortés, LE; Azpiroz, JCP; López-Menéndez, J; GAMES Investigators. *Analysis of sex differences in the clinical presentation, management and prognosis of infective endocarditis in Spain*. HEART. 2021; 107(21) 1717-1724. FI: 7.365. Cuartil: 1. (Article).
- Los-Arcos, I; Iacoboni, G; Aguilar-Guisado, M; Alsina-Manrique, L; de Heredia, CD; Fortuny-Guasch, C; García-Cadenas, I; García-Vidal, C; González-Vicent, M; Hernani, R; Kwon, M; Machado, M; Martínez-Gómez, X; Maldonado, VO; Pla, CP; Pinana, JL; Pomar, V. *Recommendations for screening, monitoring, prevention, and prophylaxis of infections in adult and pediatric patients receiving CAR T-cell therapy: a position paper*. INFECTION. 2021; 49(2) 215-231. FI: 7.455. Cuartil: 1. (Review).
- Pulido-Pérez, A; Bergón-Sendín, M; Suárez-Fernández, R; Muñoz-Martín, P; Bouza, E. *Skin and sepsis: contribution of dermatology to a rapid diagnosis*. INFECTION. 2021; 49(4) 617-629. FI: 7.455. Cuartil: 1. (Review).
- Ruiz-Antoran, B; Sancho-López, A; Torres, F; Moreno-Torres, V; de Pablo-López, I; García-López, P; Abad-Santos, F; Rosso-Fernández, CM; Aldea-Perona, A; Montane, E; Aparicio-Hernández, RM; Llop-Rius, R; Pedros, C; Gijón, P; Hernández-Carballo, C; Pedrosa-. *Combination of Tocilizumab and Steroids to Improve Mortality in Patients with Severe COVID-19 Infection: A Spanish, Multicenter, Cohort Study*. INFECTIOUS DISEASES AND THERAPY. 2021; 10(1) 347-362. FI: 6.119. Cuartil: 2. (Article).



4.01. INFECTIOUS DISEASES AND AIDS

- Gutiérrez-Villanueva, A; Muñoz, P; Delgado-Montero, A; Olmedo-Samperio, M; de Alarcón, A; Gutiérrez-Carretero, E; Zarauza, J; Pares, DGI; Goenaga, MA; Ojeda-Burgos, G; Goikoetxea-Agirre, AJ; Reguera-Iglesias, JM; Ramos, A; Fernández-Cruz, A. *Mural Endocarditis: The GAMES Registry Series and Review of the Literature*. INFECTIOUS DISEASES AND THERAPY. 2021; 10(4) 2749-2764. FI: 6.119. Cuartil: 2. (Review).
- Gómez-Zorrilla, S; Becerra-Aparicio, F; Montesinos, IL; de Gopegui, ER; Grau, I; Pintado, V; Padilla, B; Benito, N; Boix-Palop, L; Fariñas, MC; Peñaranda, M; Gamallo, MR; Martínez, JA; Morte-Romea, E; Del Pozo, JL; Durán-Jorda, X; Díaz-Regañón, J; López-M. *A Large Multicenter Prospective Study of Community-Onset Healthcare Associated Bacteremic Urinary Tract Infections in the Era of Multidrug Resistance: Even Worse than Hospital Acquired Infections?*. INFECTIOUS DISEASES AND THERAPY. 2021; 10(4) 2677-2699. FI: 6.119. Cuartil: 2. (Article).
- Rodríguez-González, CG; Chamorro-de-Vega, E; Valerio, M; Amor-García, MA; Tejerina, F; Sancho-González, M; Narrillos-Moraza, A; Giménez-Manzorro, A; Manrique-Rodríguez, S; Machado, M; Olmedo, M; Escudero-Vilaplana, V; Villanueva-Bueno, C; Torroba-Sanz, B. *COVID-19 in hospitalised patients in Spain: a cohort study in Madrid*. INTERNATIONAL JOURNAL OF ANTIMICROBIAL AGENTS. 2021; 57(2) 106249-106249. FI: 15.441. Cuartil: 1. (Article).
- Martínez-Sellés, M; Tattevin, P; Valerio-Minero, M; de Alarcón, A; Fariñas MC; Mirabet-Pérez, S; Lavie-Badie, Y; Ambrosi, P; Chabanne, C; Duval, X; Lecomte, R; López-Vilella, R; Uribarri, A; Vinuesa, D; Muñoz P. *Infective endocarditis in patients with heart transplantation*. INTERNATIONAL JOURNAL OF CARDIOLOGY. 2021; 328 158-162. FI: 4.039. Cuartil: 2. (Article).
- Galar, A; Martín-Rabadán, P; Marín, M; Cercenado, E; Sánchez-Carrillo, C; Valerio, M; Bouza, E; Muñoz, P. *Revisiting nocardiosis at a tertiary care institution: Any change in recent years?*. INTERNATIONAL JOURNAL OF INFECTIOUS DISEASES. 2021; 102 446-454. FI: 12.074. Cuartil: 1. (Article).
- Rubio-Alarcón, M; Cámara-Checa, A; Dago, M; Crespo-García, T; Nieto-Marín, P; Marín, M; Merino, JL; Toquero, J; Salguero-Bodes, R; Tamargo, J; Cebrian, J; Delpon, E; Caballero, R; Invest. *Zfhx3 Transcription Factor Represses the Expression of SCN5A Gene and Decreases Sodium Current Density (I-Na)*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(23). FI: 6.208. Cuartil: 1. (Article).
- Van Rie, A; de Viedma, DG; Meehan, C; Comas, I; Heupink, TH; De Vos, E; de Onate, WA; Mathys, V; Ceyssens, PJ; Groenen, G; González-Candelas, F; Forier, A; Juengst, E. *Whole-genome sequencing for TB source investigations: principles of ethical precision public health*. INTERNATIONAL JOURNAL OF TUBERCULOSIS AND LUNG DISEASE. 2021; 25(3) 222-. FI: 3.427. Cuartil: 3. (Article).
- Brito-Zerón, P; Pérez-Álvarez, R; Feijoo-Massó, C; Gracia-Tello, B; González-García, A; Gómez-de-la-Torre, R; Alguacil, A; López-Dupla, M; Robles, A; García-Morillo, S; Bonet, M; Cruz-Caparrós, G; Fonseca-Aizpuru, E; Akasbi, M; Callejas, JL; de Miguel-Cam. *Coexistence of immune-mediated diseases in sarcoidosis. Frequency and clinical significance in 1737 patients*. JOINT BONE SPINE. 2021; 88(6) 105236-105236. FI: 5.263. Cuartil: 2. (Article).
- Crespo Quirós J; Tornero Molina P; Martín-Rabadán, P; Cuevas Bravo C; Baeza Ochoa de Ocariz ML. *Sphingomonas ginsenosidimutans and Bacillus cereus: New agents associated with hypersensitivity pneumonitis*. JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY-IN PRACTICE. 2021; 9(2) 1035-. FI: 11.022. Cuartil: 1. (Letter).
- Hernández-García, M; García-Castillo, M; García-Fernández, S; Melo-Cristino, J; Pinto, MF; Goncalves, E; Alves, V; Vieira, AR; Ramalheira, E; Sancho, L; Diogo, J; Ferreira, R; Silva, T; Chaves, C; Bou, G; Cercenado, E; Delgado-Valverde, M; Oliver, A; Pita. *Distinct epidemiology and resistance mechanisms affecting ceftolozane/tazobactam in Pseudomonas aeruginosa isolates recovered from ICU patients in Spain and Portugal depicted by WGS*. JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY. 2021; 76(2) 370-379. FI: 5.758. Cuartil: 1. (Article).
- Latorre, MC; Pérez-Granda, MJ; Savage, PB; Alonso, B; Martín-Rabadán, P; Samaniego, R; Bouza, E; Muñoz, P; Guembe, M. *Endotracheal tubes coated with a broad-spectrum antibacterial ceragenin reduce bacterial biofilm in an in vitro bench top model*. JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY. 2021; 76(5) 1168-1173. FI: 5.758. Cuartil: 1. (Article).
- Fernández-Cuenca, F; López-Hernández, I; Cercenado, E; Conejo, C; Tormo, N; Gimeno, C; Pascual, A. *Reporting antimicrobial susceptibilities and resistance phenotypes in Staphylococcus spp.: a nationwide proficiency study*. JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY. 2021; 76(5) 1187-1196. FI: 5.758. Cuartil: 1. (Article).



- Bouza, E. *The role of new carbapenem combinations in the treatment of multidrug-resistant Gram-negative infections*. JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY. 2021; 76(Suppl 4). FI: 5.758. Cuartil: 1. (Article).
- Mama, OM; Aspiroz, C; Lozano, C; Ruiz-Ripa, L; Azcona, JM; Seral, C; Cercenado, E; López-Cerero, L; Palacian, P; Belles-Belles, A; Berdonces, P; Siller, M; Aguirre-Quinonero, A; Zarazaga, M; Torres, C. *Penicillin susceptibility among invasive MSSA infections: a multicentre study in 16 Spanish hospitals*. JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY. 2021; 76(10) 2519-2527. FI: 5.758. Cuartil: 1. (Article).
- Escudero-Sánchez, R; Ruiz-Ruigómez, M; Fernández-Fradejas, J; Fernández, SG; Samperio, MO; Yuste, AC; Alijo, AV; Díaz-Pollán, B; Hernández, MJR; De Lucas, EM; Segarra, OM; Bejar, CS; Castillo, CA; Gutiérrez-Gutiérrez, B; Rodríguez-Pardo, D; Ramos-Martínez. *Real-World Experience with Bezlotoxumab for Prevention of Recurrence of Clostridioides difficile Infection*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(1). FI: 4.964. Cuartil: 2. (Article).
- Calderón-Parra, J; Kestler, M; Ramos-Martínez, A; Bouza, E; Valerio, M; de Alarcón, A; Luque, R; Goenaga, MA; Echeverría, T; Fariñas, MC; Pericas, JM; Ojeda-Burgos, G; Fernández-Cruz, A; Plata, A; Vinuesa, D; Muñoz, P; GAMES Investigators. *Clinical Factors Associated with Reinfection versus Relapse in Infective Endocarditis: Prospective Cohort Study*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(4). FI: 4.964. Cuartil: 2. (Article).
- Bouza, E; de Alarcón, A; Fariñas, MC; Gálvez, J; Goenaga, MA; Gutiérrez-Díez, F; Hortal, J; Lasso, J; Mestres, CA; Miró, JM; Navas, E; Nieto, M; Parra, A; de la Sota, EP; Rodríguez-Abella, H; Rodríguez-Creixems, M; Rodríguez-Roda, J; Espin, GS; Sousa, D. *Prevention, Diagnosis and Management of Post-Surgical Mediastinitis in Adults Consensus Guidelines of the Spanish Society of Cardiovascular Infections (SEICAV), the Spanish Society of Thoracic and Cardiovascular Surgery (SECTCV) and the Biomedical Research*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(23). FI: 4.964. Cuartil: 2. (Article).
- Rodríguez-Grande, C; Adán-Jiménez, J; Catalán, P; Alcalá, L; Estévez, A; Muñoz, P; Pérez-Lago, L; de Viedma, DG; Gregorio Marañón Microbiology-ID C. *Inference of Active Viral Replication in Cases with Sustained Positive Reverse Transcription-PCR Results for SARS-CoV-2*. JOURNAL OF CLINICAL MICROBIOLOGY. 2021; 59(2). FI: 11.677. Cuartil: 1. (Article).
- Peghin, M; De Martino, M; Fabris, M; Palese, A; Visintini, E; Graziano, E; Gerussi, V; Bontempo, G; D'Aurizio, F; Biasotto, A; Sartor, A; Pipan, C; Marzinotto, S; Curcio, F; Bouza, E; Isola, M; Tascini, C. *The Fall in Antibody Response to SARS-CoV-2: a Longitudinal Study of Asymptomatic to Critically Ill Patients Up to 10 Months after Recovery*. JOURNAL OF CLINICAL MICROBIOLOGY. 2021; 59(11). FI: 11.677. Cuartil: 1. (Article).
- Gato, E; Constanso, IP; Candela, A; Galán, F; Rodino-Janeiro, BK; Arroyo, MJ; Méndez, G; Mancera, L; Alioto, T; Gut, M; Gut, I; Álvarez-Tejado, M; Rodríguez-Sánchez, B; Bou, G; Oviano, M. *An Improved Matrix-Assisted Laser Desorption Ionization-Time of Flight Mass Spectrometry Data Analysis Pipeline for the Identification of Carbapenemase-Producing Klebsiella pneumoniae*. JOURNAL OF CLINICAL MICROBIOLOGY. 2021; 59(7). FI: 11.677. Cuartil: 1. (Article).
- Medina, N; Soto-Debrán, JC; Seidel, D; Akyar, I; Badali, H; Barac, A; Bretagne, S; Cag, Y; Cassagne, C; Castro, C; Chakrabarti, A; Dannaoui, E; Cardozo, C; García-Rodríguez, J; Guitard, J; Hamal, P; Hoenigl, M; Jagielski, T; Khodavaisy, S; Lo Cascio, G; M. *MixInYeast: A Multicenter Study on Mixed Yeast Infections*. JOURNAL OF FUNGI. 2021; 7(1). FI: 5.724. Cuartil: 1. (Article).
- Machado, M; de Vega, EC; Martínez-Jiménez, MD; Rodríguez-González, CG; Vena, A; Navarro, R; Zamora-Cintas, MI; Agnelli, C; Olmedo, M; Galar, A; Guinea, J; Fernández-Cruz, A; Alonso, R; Bouza, E; Muñoz, P; Valerio, M. *Utility of 1,3 beta-d-Glucan Assay for Guidance in Antifungal Stewardship Programs for Oncologic Patients and Solid Organ Transplant Recipients*. JOURNAL OF FUNGI. 2021; 7(1). FI: 5.724. Cuartil: 1. (Article).
- Álvarez-Uría, A; Escribano, P; Parra-Blanco, V; Cano-Lira, JF; Stchigel, AM; Oarbeascoa, G; Muñoz, P; Guinea, J. *First Report of an Invasive Infection by Cephalotrichum gorgonifer in a Neutropenic Patient with Hematological Malignancy under Chemotherapy*. JOURNAL OF FUNGI. 2021; 7(12). FI: 5.724. Cuartil: 1. (Article).
- Cercenado, E; Cardenoso, L; Penín, R; Longshaw, C; Henriksen, AS; Pascual, A. *In vitro activity of cefiderocol and comparators against isolates of Gram-negative bacterial pathogens from a range of infection sources: SIDERO-WT-2014-2018 studies in Spain*. JOURNAL OF GLOBAL ANTIMICROBIAL RESISTANCE. 2021; 26 292-300. FI: 4.349. Cuartil: 2. (Article).
- Pagáno, L; Salmanton-García, J; Marchesi, F; Busca, A; Corradini, P; Hoenigl, M; Klimko, N; Koehler, P; Pagliuca, A; Passamonti, F; Verga, L; Visek, B; Ilhan,

4.01. INFECTIOUS DISEASES AND AIDS

- O; Nadali, G; Weinbergerova, B; Cordoba-Mascunano, R; Marchetti, M; Collins, GP; Farina, F; Catt. *COVID-19 infection in adult patients with hematological malignancies: a European Hematology Association Survey (EPICOVIDEHA)*. JOURNAL OF HEMATOLOGY & ONCOLOGY. 2021; 14(1) 168-168. FI: 23.168. Cuartil: 1. (Article).
- Nieto-Benito, LM; Rodríguez-Lomba, E; Martín-Rabadán-Caballero, P; Pérez, AP. *First report of Autochthonous Furuncular Myiasis caused by Dermatobia Hominis in Europe*. JOURNAL OF INFECTION. 2021; 83(1) 143-145. FI: 38.637. Cuartil: 1. (Letter).
 - Berastegui-Cabrera, J; Salto-Alejandro, S; Valerio, M; Pérez-Palacios, P; Arnaiz-De Las Revillas, F; Abelenda-Alonso, G; Oteo-Revuelta, JA; Carretero-Ledesma, M; Muñoz, P; Pascual, A; Gozalo, M; Rombauts, A; Alba, J; García-Díaz, E; Rodríguez-Ferrero, ML. *SARS-CoV-2 RNAemia is associated with severe chronic underlying diseases but not with nasopharyngeal viral load*. JOURNAL OF INFECTION. 2021; 82(3) 38-41. FI: 38.637. Cuartil: 1. (Letter).
 - Gudíol, C; Durà-Miralles, X; Aguilar-Company, J; Hernández-Jiménez, P; Martínez-Cutillas, M; Fernández-Avilés, F; Machado, M; Vázquez, L; Martín-Dávila, P; de Castro, N; Abdala, E; Sorli, L; Andermann, TM; Márquez-Gómez, I; Morales, H; Gabilán, F; Ayaz, C. *Co-infections and superinfections complicating COVID-19 in cancer patients: A multicentre, international study*. JOURNAL OF INFECTION. 2021; 83(3) 306-313. FI: 38.637. Cuartil: 1. (Article).
 - Paez-Vega, A; Cantisan, S; Agüera, ML; Suner, M; Facundo, C; Yuste, JR; Fernández-Ruiz, M; Montejo, M; Redondo-Pachón, D; López-Oliva, MO; Fernández-Rodríguez, A; Fariñas, MC; Hernández, D; Len, O; Muñoz, P; Valle-Arroyo, J; Rodelo-Haad, C; Cordero, E; To. *Pretransplant CMV-Specific T-Cell Immunity But Not Dose of Antithymocyte Globulin Is Associated With Recovery of Specific Immunity After Kidney Transplantation*. JOURNAL OF INFECTIOUS DISEASES. 2021; 223(7) 1205-1213. FI: 7.759. Cuartil: 1. (Article).
 - Pérez-Lago L; Martínez-Lozano H; Pajares Díaz JA; Díaz Gómez A; Machado M; Sola-Campoy PJ; Herranz M; Buenestado-Serrano S; Valerio M; Olmedo M; Andrés Zayas C; Comas I; González Candelas F; Bañares R; Catalán P; Muñoz P; García de Viedma D. *Proper Assignment of Reactivation in a COVID-19 Recurrence Initially Interpreted as a Reinfection*. JOURNAL OF INFECTIOUS DISEASES. 2021; 224(5) 788-792. FI: 7.759. Cuartil: 1. (Article).
 - Martínez-Lirola M; Jajou R; Mathys V; Martín A; Cabibbe AM; Valera A; Sola-Campoy PJ; Abascal E; Rodríguez-Maus S; Garrido-Cárdenas JA; Bonillo M; Chiner-Oms Á; López B; Vallejo-Godoy S; Comas I; Muñoz P; Cirillo DM; van Soolingen D; Pérez-Lago L; García. *Integrative transnational analysis to dissect tuberculosis transmission events along the migratory route from Africa to Europe*. JOURNAL OF TRAVEL MEDICINE. 2021; 28(4). FI: 39.194. Cuartil: 1. (Article).
 - Pérez-Lago L; Sola Campoy PJ; Buenestado-Serrano S; Pharmacy PC; Estévez A; de la Cueva Technician VM; López MG; Tecnichian MH; Suárez-González J; Alcalá L; Comas I; González-Candelas F; Muñoz P; García de Viedma D. *Epidemiological, clinical and genomic snapshot of the first 100 B.1.1.7 SARS-CoV-2 cases in Madrid*. JOURNAL OF TRAVEL MEDICINE. 2021; 28(4). FI: 39.194. Cuartil: 1. (Article).
 - Chen, SCA; Perfect, J; Colombo, AL; Cornely, OA; Groll, AH; Seidel, D; Albus, K; de Almedia, JN; García-Effron, G; Gilroy, N; Lass-Flörl, C; Ostrosky-Zeichner, L; Pagano, L; Papp, T; Rautema-Richardson, R; Salmanton-García, J; Spec, A; Steinmann, J; Arik. *Global guideline for the diagnosis and management of rare yeast infections: an initiative of the ECMM in cooperation with ISHAM and ASM*. LANCET INFECTIOUS DISEASES. 2021; 21(12) 375-386. FI: 71.421. Cuartil: 1. (Review).
 - Pericas, JM; Ambrosioni, J; Muñoz, P; de Alarcón, A; Kestler, M; Mari-Hualde, A; Moreno, A; Goenaga, MA; Fariñas, MC; Rodríguez-Álvarez, R; Ojeda-Burgos, G; Gálvez-Acebal, J; Hidalgo-Tenorio, C; Noureddine, M; Miró, JM; GAMES Investigators. *Prevalence of Colorectal Neoplasms Among Patients With Enterococcus faecalis Endocarditis in the GAMES Cohort (2008-2017)*. MAYO CLINIC PROCEEDINGS. 2021; 96(1) 132-146. FI: 11.104. Cuartil: 1. (Article).
 - Serrano-Lobo J; Gómez A; Muñoz P; Escribano P; Guinea J. *Spectrophotometric azole and amphotericin B MIC readings against Aspergillus fumigatus sensu lato using the EUCAST 9.3.2 methodology. Are =90 and =95% fungal growth inhibition endpoints equally suitable?*. MEDICAL MYCOLOGY. 2021; 60(1). FI: 3.747. Cuartil: 1. (Article).
 - Guinea J; Mezquita S; Gómez A; Padilla B; Zamora E; Sánchez-Luna M; Sánchez-Carrillo C; Muñoz P; Escribano P. *Whole genome sequencing confirms Candida albicans and Candida parapsilosis microsatellite sporadic*



and persistent clones causing outbreaks of candidemia in neonates. MEDICAL MYCOLOGY. 2021; 60(1). FI: 3.747. Cuartil: 1. (Article).

- Muñoz, P; De la Villa, S; Martínez-Sellés, M; Goenaga, MA; Reviejo-Jaka, K; de las Revillas, FA; García-Cuello, L; Hidalgo-Tenorio, C; Rodríguez-Esteban, MA; Antorrena, I; Castelo-Corral, L; García-Vázquez, E; De la Torre, J; Bouza, E; Grp Apoyo Manejo En. *Linezolid for infective endocarditis A structured approach based on a national database experience*. MEDICINE. 2021; 100(51). FI: 1.817. Cuartil: 3. (Article).
- Losada, C; Rico-Luna, C; Otero-Sobrino, A; Molero-Salinas, A; Buenestado-Serrano, S; Candela, A; Pérez-Lago, L; Muñoz, P; Catalán, P; de Viedma, DG; Gregorio Maranon Microbiology-ID C. *Shared Mutations in Emerging SARS-CoV-2 Circulating Variants May Lead to Reverse Transcription-PCR (RT-PCR)-Based Misidentification of B.1.351 and P.1 Variants of Concern*. MICROBIOLOGY SPECTRUM. 2021; 9(2). FI: 9.043. Cuartil: 1. (Article).
- Rodríguez-Grande, C; Buenestado-Serrano, S; Alcalá, L; Sola-Campoy, PJ; Molero-Salinas, A; Otero-Sobrino, A; Rodríguez-Grande, J; García, VMD; Adan-Jiménez, J; Rico-Luna, C; Losada, C; Catalán, P; Muñoz, P; Pérez-Lago, L; de Viedma, DG; Gregorio Maranon M. *SARS-CoV-2 B.1.1.7 Decline Is Not Driven by the Introduction of a More Successful Variant*. MICROBIOLOGY SPECTRUM. 2021; 9(3). FI: 9.043. Cuartil: 1. (Article).
- Galar, A; Catalán, P; Vesperinas, L; Miguens, I; Muñoz, I; García-Espona, A; Sevillano, JA; Andueza, JA; Bouza, E; Muñoz, P. *Use of Saliva Swab for Detection of Influenza Virus in Patients Admitted to an Emergency Department*. MICROBIOLOGY SPECTRUM. 2021; 9(1). FI: 9.043. Cuartil: 1. (Article).
- Pérez Lago L; Pérez Latorre L; Herranz M; Tejerina F; Sola-Campoy PJ; Sicilia J; Suárez-González J; Andrés-Zayas C; Chiner-Oms A; Jiménez-Serrano S; García-González N; Comas I; González-Candelas F; Martínez-Laperche C; Catalán P; Muñoz P; García de Viedma. *Complete Analysis of the Epidemiological Scenario around a SARS-CoV-2 Reinfection: Previous Infection Events and Subsequent Transmission*. MSPHERE. 2021; 6(5). FI: 5.029. Cuartil: 2. (Article).
- Lozano, N; Lanza, VF; Suárez-González, J; Herranz, M; Sola-Campoy, PJ; Rodríguez-Grande, C; Buenestado-Serrano, S; Ruiz-Serrano, MJ; Tundo, G; Alcaide, F; Muñoz, P; de Viedma, DG; Pérez-Lago, L. *Detection of Minority Variants and Mixed Infections in Mycobacterium tuberculosis by Direct*

Whole-Genome Sequencing on Noncultured Specimens Using a Specific-DNA Capture Strategy. MSPHERE. 2021; 6(6). FI: 5.029. Cuartil: 2. (Article).

- Pérez-Lago L; Martínez-Lozano H; Pajares-Díaz JA; Díaz-Gómez A; Machado M; Sola-Campoy PJ; Herranz M; Valerio M; Olmedo M; Suárez-González J; Quesada-Cubo V; Gómez-Ruiz MDM; López-Fresneña N; Sánchez-Arcilla I; Comas I; González-Candelas F; García de San. *Overlapping of Independent SARS-CoV-2 Nosocomial Transmissions in a Complex Outbreak*. MSPHERE. 2021; 6(4). FI: 5.029. Cuartil: 2. (Article).
- Machado, M; Valerio, M; Álvarez-Uría, A; Olmedo, M; Veintimilla, C; Padilla, B; De la Villa, S; Guinea, J; Escribano, P; Ruiz-Serrano, MJ; Reigadas, E; Alonso, R; Guerrero, JE; Hortal, J; Bouza, E; Muñoz, P. *Invasive pulmonary aspergillosis in the COVID-19 era: An expected new entity*. MYCOSES. 2021; 64(2) 132-143. FI: 4.931. Cuartil: 1. (Review).
- Gioia, F; Filigheddu, E; Corbella, L; Fernández-Ruiz, M; López-Medrano, F; Pérez-Ayala, A; Aguado, JM; Fariñas, MC; Arnaiz, F; Calvo, J; Cifrian, JM; González-Rico, C; Vidal, E; Torre-Cisneros, J; Ras, MM; Pérez, S; Sabe, N; López-Soria, LM; Rodríguez-Alv. *Invasive aspergillosis in solid organ transplantation: Diagnostic challenges and differences in outcome in a Spanish national cohort (Diaspersot study)*. MYCOSES. 2021; 64(11) 1334-1345. FI: 4.931. Cuartil: 1. (Article).
- Berkell, M; Mysara, M; Xavier, BB; van Werkhoven, CH; Monsieurs, P; Lammens, C; Ducher, A; Vehreschild, MJGT; Goossens, H; de Gunzburg, J; Bonten, MJM; Malhotra-Kumar, S; Engbers, A; de Regt, M; Biehl, LM; Cornely, OA; Jazmati, N; Bouverne, MN; Sablier-Ga. *Microbiota-based markers predictive of development of Clostridioides difficile infection*. NATURE COMMUNICATIONS. 2021; 12(1). FI: 17.694. Cuartil: 1. (Article).
- López, MG; Chiner-Oms, A; de Viedma, DG; Ruiz-Rodríguez, P; Bracho, MA; Cancino-Muñoz, I; D'Auria, G; de Marco, G; García-González, N; Goig, GA; Gómez-Navarro, I; Jiménez-Serrano, S; Martínez-Priego, L; Ruiz-Hueso, P; Ruiz-Roldán, L; Torres-Puente, M; Alb. *The first wave of the COVID-19 epidemic in Spain was associated with early introductions and fast spread of a dominating genetic variant*. NATURE GENETICS. 2021; 53(10) 1405-1414. FI: 41.307. Cuartil: 1. (Article).
- Escrihuela-Vidal F; López-Cortés LE; Escolà-Vergé L; De Alarcón González A; Cuervo G; Sánchez-Porto A; Fernández-Hidalgo N; Luque R; Montejo M; Miró

4.01. INFECTIOUS DISEASES AND AIDS

- JM; Goenaga MÁ; Muñoz P; Valerio M; Ripa M; Sousa-Regueiro D; Gurgui M; Fariñas-Álvarez MC; Mateu L; Garcí. *Clinical Features and Outcomes of Streptococcus anginosus Group Infective Endocarditis: A Multicenter Matched Cohort Study*. OPEN FORUM INFECTIOUS DISEASES. 2021; 8(6). FI: 4.423. Cuartil: 2. (Article).
- Pérez-Lago, L; Machado, M; Herranz, M; Sola-Campoy, PJ; Suárez-González, J; Martínez-Laperche, C; Comas, I; Alcalá, L; Catalán, P; Muñoz, P; de Viedma, DC; Adan-Jiménez, J. *Host Genetic Analysis Should Be Mandatory for Proper Classification of COVID-19 Reinfections*. OPEN FORUM INFECTIOUS DISEASES. 2021; 8(9). FI: 4.423. Cuartil: 2. (Letter).
 - Moreno-García, E; Puerta-Alcalde, P; Gariup, G; Fernández-Ruiz, M; Cortés, LEL; Cuervo, G; Salavert, M; Merino, P; Machado, M; Guinea, J; García-Rodríguez, J; Garnacho-Montero, J; Cardozo, C; Peman, J; Montejo, M; Fortun, J; Almirante, B; Castro, C; Rodri. *Early Stepdown From Echinocandin to Fluconazole Treatment in Candidemia: A Post Hoc Analysis of Three Cohort Studies*. OPEN FORUM INFECTIOUS DISEASES. 2021; 8(6). FI: 4.423. Cuartil: 2. (Article).
 - Pericàs JM; Hernández-Meneses M; Muñoz P; Álvarez-Uría A; Pinilla-Llorente B; de Alarcón A; Reviejo K; Fariñas MC; Falces C; Goikoetxea-Agirre J; Gálvez-Acebal J; Hidalgo-Tenorio C; Gómez-Nebreda E; Miró JM. *Outcomes and Risk Factors of Septic Shock in Patients With Infective Endocarditis: A Prospective Cohort Study*. OPEN FORUM INFECTIOUS DISEASES. 2021; 8(6). FI: 4.423. Cuartil: 2. (Article).
 - Salto-Alejandre, S; Jiménez-Jorge, S; Sabe, N; Ramos-Martínez, A; Linares, L; Valerio, M; Martín-Dávila, P; Fernández-Ruiz, M; Fariñas, MC; Blanes-Julia, M; Vidal, E; Palacios-Baena, ZR; Hernández-Gallego, R; Carratala, J; Calderón-Parra, J; Angeles Marco. *Risk factors for unfavorable outcome and impact of early post-transplant infection in solid organ recipients with COVID-19: A prospective multicenter cohort study*. PLOS ONE. 2021; 16(4). FI: 3.752. Cuartil: 2. (Article).
 - Bouza, E; Cobo, J; Rodríguez-Hernández, MJ; Salavert, M; Horcajada, JP; Iribarren, JA; Obi, E; Lozano, V; Maratia, S; Cuesta, M; Uría, E; Limón, E. *Economic burden of recurrent Clostridioides difficile infection in adults admitted to Spanish hospitals. A multicentre retrospective observational study*. REVISTA ESPANOLA DE QUIMIOTERAPIA. 2021; 34(2) 126-135. FI: 2.515. Cuartil: 3. (Article).
 - Cantón, R; Loza, E; Arcay, RM; Cercenado, E; Castillo, FJ; Cisterna, R; Gálvez-Benítez, L; Romo, FG; Hernández-Cabezas, A; Rodríguez-Lozano, J; Suárez-Barrenechea, AI; Tubau, F; Díaz-Reganon, J; López-Mendoza, D. *Antimicrobial activity of ceftolozane-tazobactam against Enterobacterales and Pseudomonas aeruginosa recovered during the Study for Monitoring Antimicrobial Resistance Trends (SMART) program in Spain (2016-2018)*. REVISTA ESPANOLA DE QUIMIOTERAPIA. 2021; 34(3) 228-237. FI: 2.515. Cuartil: 3. (Article).
 - Bouza, E; Jiménez, MM; Alemany, L; Arribas, J; Bañares, R; Barragán, MB; Bouza, JME; Felip, E; Fernández-Capetillo, O; Gracia, D; López-Vélez, R; Mollar, JB; Muñoz, P; Paz-Ares, L; Torne, A; Tovar, J; Valencia, E; Palomo, E. *Overview of virus and cancer relationships. Position paper*. REVISTA ESPANOLA DE QUIMIOTERAPIA. 2021; 34(6) 525-555. FI: 2.515. Cuartil: 3. (Review).
 - Bouza, E; Moreno, RC; Ramos, PD; García-Botella, A; García-Lledó, A; Gómez-Pavón, J; del Castillo, JG; Hernández-Sampelayo, T; Martín-Delgado, MC; Sánchez, FJM; Martínez-Sellés, M; García, JMM; Guillén, SM; Rodríguez-Artalejo, FJ; Ruiz-Galiana, J; Bruhlma. *Post-COVID syndrome: A reflection and opinion paper*. REVISTA ESPANOLA DE QUIMIOTERAPIA. 2021; 34(4) 269-279. FI: 2.515. Cuartil: 3. (Review).
 - Ruiz-Galiana, J; Cantón, R; Ramos, PD; García-Botella, A; García-Lledó, A; Gómez-Pavón, J; del Castillo, JG; Hernández-Sampelayo, T; Martín-Delgado, MC; Sánchez, FJM; Martínez-Sellés, M; García, JMM; Guillén, SM; Rodríguez-Artalejo, F; Bouza, E. *COVID-19 vaccination: the reality after clinical trials*. REVISTA ESPANOLA DE QUIMIOTERAPIA. 2021; 34(5) 408-418. FI: 2.515. Cuartil: 3. (Review).
 - Cantón, R; Ramos, PD; García-Botella, A; García-Lledó, A; Gómez-Pavón, J; del Castillo, JG; Hernández-Sampelayo, T; Martín-Delgado, MC; Sánchez, FJM; Martínez-Sellés, M; García, JMM; Guillén, SM; Rodríguez-Artalejo, F; Ruiz-Galiana, J; Bouza, E. *New variants of SARS-CoV-2*. REVISTA ESPANOLA DE QUIMIOTERAPIA. 2021; 34(5) 419-428. FI: 2.515. Cuartil: 3. (Review).
 - Cercenado, E. *What happened to microbiological diagnosis in 2020 beyond COVID-19?*. REVISTA ESPANOLA DE QUIMIOTERAPIA. 2021; 34(Suppl1) 2-7. FI: 2.515. Cuartil: 3. (Article).
 - Díaz-García, J; Arendrup, MC; Cantón, R; García-Rodríguez, J; de la Pedrosa, EGG; Parisi, G; Peman, J; Posteraro, B; Sanguinetti, M; Da Matta, DA; Colombo, AL; Muñoz, P; Sánchez-Carrillo, C; Guinea, J; Escribano, P. *Lack of relationship*



between genotype and virulence in *Candida* species. REVISTA IBEROAMERICANA DE MICOLOGIA. 2021; 38(1) 9-11. FI: 1.385. Cuartil: 4. (Article).

- Abascal, E; Genestet, C; Valera, A; Herranz, M; Martínez-Lirola, M; Muñoz, P; Dumitrescu, O; de Viedma, DG. *Assessment of closely related Mycobacterium tuberculosis variants with different transmission success and in vitro infection dynamics*. SCIENTIFIC REPORTS. 2021; 11(1) 11041-11041. FI: 4.996. Cuartil: 2. (Article).
- Romero-Cristóbal, M; Clemente-Sánchez, A; Pineiro, P; Cedeno, J; Rayón, L; del Rio, J; Ramos, C; Hernández, DA; Cova, M; Caballero, A; Garutti, I; García-Olivares, P; Hortal, J; Guerrero, JE; García, R; Bañares, R; Rincón, D. *Possible unrecognised liver injury is associated with mortality in critically ill COVID-19 patients*. THERAPEUTIC ADVANCES IN GASTROENTEROLOGY. 2021; 14. FI: 4.802. Cuartil: 2. (Article).
- Acosta, F; Norman, A; Sambrano, D; Batista, V; Mokrousov, I; Shitikov, E; Jurado, J; Mayrena, M; Luque, O; Garay, M; Solís, L; Muñoz, P; Folkvardsen, DB; Lillebaek, T; Pérez-Lago, L; Goodridge, A; de Viedma, DG. *Probable long-term prevalence for a predominant Mycobacterium tuberculosis clone of a Beijing genotype in Colon, Panama*. TRANSBOUNDARY AND EMERGING DISEASES. 2021; 68(4) 2229-2238. FI: 4.521. Cuartil: 1. (Article).
- Rodríguez-Grande, C; Catalán, P; Alcalá, L; Buenestado-Serrano, S; Adán-Jiménez, J; Rodríguez-Maus, S; Herranz, M; Sicilia, J; Acosta, F; Pérez-Lago, L; Muñoz, P; de Viedma, DG; Gregorio Marañón M. *Different dynamics of mean SARS-CoV-2 RT-PCR Ct values between the first and second COVID-19 waves in the Madrid population*. TRANSBOUNDARY AND EMERGING DISEASES. 2021; 68(6) 3103-3106. FI: 4.521. Cuartil: 1. (Article).
- Genestet, C; Perdigo, J; Herranz, M; Maus, SR; Berland, JL; Chiner-Oms, A; Comas, I; Muñoz, P; Portugal, I; Dumitrescu, O; Pérez-Lago, L; de Viedma, DG. *Expanded tracking of a Beijing Mycobacterium tuberculosis strain involved in an outbreak in France*. TRAVEL MEDICINE AND INFECTIOUS DISEASE. 2021; 44. FI: 20.441. Cuartil: 1. (Editorial Material).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Valerio, M; Vasquez, V; Álvarez-Uría, A; Zatarain-Nicolás, E; Pavone, P; Martínez-Jiménez, MD; Barrio-Gutiérrez, JM; Cuerpo, G; Guinea-Ortega, J; Vena, A;

Peligros-Gómez, MI; Bouza, E; Muñoz, P. *Disseminated lomentosporiosis in a heart transplant recipient: Case report and review of the literature*. TRANSPLANT INFECTIOUS DISEASE. 2021; 23(4). (Review).

- Sarmiento, E; Jiménez, M; di Natale, M; Rodríguez-Ferrero, M; Anaya, F; López-Hoyos, M; Rodrigo, E; Arias, M; Perelló, M; Seron, D; Karanovic, B; Ezzahouri, I; Mezzano, S; Jaramillo, M; Calahorra, L; Alarcón, A; Navarro, J; Muñoz, P; Carbone, J. *Secondary antibody deficiency is associated with development of infection in kidney transplantation: Results of a multicenter study*. TRANSPLANT INFECTIOUS DISEASE. 2021; 23(2). (Article).
- Pierrotti, LC; Pérez-Nadales, E; Fernández-Ruiz, M; Gutiérrez-Gutiérrez, B; Tan, BH; Carratala, J; Oriol, I; Paul, M; Cohen-Sinai, N; López-Medrano, F; San-Juan, R; Montejo, M; Freire, MP; Cordero, E; David, MD; Merino, E; Steinke, SM; Grossi, PA; Cano, A. *Efficacy of beta-lactam/beta-lactamase inhibitors to treat extended-spectrum beta-lactamase-producing Enterobacterales bacteremia secondary to urinary tract infection in kidney transplant recipients (INCREMENT-SOT Project)*. TRANSPLANT INFECTIOUS DISEASE. 2021; 23(3). (Article).
- de la Villa, S; Valerio, M; Salcedo, M; Ortiz-Bautista, C; Catalán, P; Padilla, B; Romero, M; Blaquez-Bermejo, Z; Pedraz, A; López-Baena, JA; Hortal, J; Bouza, E; Alonso, R; Muñoz, P. *Heart and liver transplant recipients from donor with positive SARS-CoV-2 RT-PCR at time of transplantation*. TRANSPLANT INFECTIOUS DISEASE. 2021; 23(5). (Letter).

Other publications

- Menardo F; Rutaiwa LK; Zwyrer M; Borrell S; Comas I; Conceição EC; Coscolla M; Cox H; Joloba M; Dou HY; Feldmann J; Fenner L; Fyfe J; Gao Q; Garcia de Viedma D; García-Basteiro AL; Gygli SM; Hella J; Hiza H; Jugheli L; Kamwela L; Kato-Maeda M; Liu Q; Ley. *Local adaptation in populations of Mycobacterium tuberculosis endemic to the Indian Ocean Rim*. F1000 RESEARCH. 2021; 10 60-60. (Article).
- O'Toole Á; Hill V; Pybus OG; Watts A; Bogoch II; Khan K; Messina JP; COVID-19 Genomics UK (COG-UK) consortium; Network for Genomic Surveillance in South Africa (NGS-SA); Brazil-UK CADDE Genomic Network; Tegally H; Lessells RR; Giandhari J; Pillay S; Tumed. *Tracking the international spread of SARS-CoV-2 lineages B.1.1.7 and B.1.351/501Y-V2*. WELLCOME OPEN RESEARCH. 2021; 6 121-121. (Article).

4.02. Clinical and epidemiological aspect of HIV and associated conditions

Group Head: **JUAN BERENGUER BERENGUER**

Organisms involved: **HGUGM**

Type: **Consolidated Group**

Research lines

Axis 1: HIV infection

- ▶ L1: Immunopathogenesis of HIV infection.
- ▶ L2: Observational research.
- ▶ L3: Clinical drug trials.
- ▶ L4: Vaccine research.
- ▶ L5: HIV infection in primary care.
- ▶ L6: Screening and access to the health care system.

Axis 2: Viral hepatitis

- ▶ L1: Hepatitis C immunopathogenesis.
- ▶ L2: Epidemiology of HIV/HCV coinfection.
- ▶ L3: Epidemiology of HIV/HBV coinfection.
- ▶ L4: Acute hepatitis and HCV reinfections.
- ▶ L5: Noninvasive markers of liver fibrosis.

Axis 3: COVID-19

- ▶ L1: Observational research.
- ▶ L2: COVID-19 and HIV interaction.
- ▶ L3: Immune response against SARS-CoV-2.
- ▶ L4: Chronic Covid.

Group members

- **Aldamiz-Echavarría Lois, M^a Teresa:** R2. Recognised Researcher.
- **Berenguer Berenguer, Juan:** R4. Leading Researcher.
- **Díez Romero, Cristina:** R2. Recognised Researcher.
- **Fanciulli, Chiara:** R1. First Stage Researcher.
- **Fredes González, Camila:** R1. First Stage Researcher.
- **Gutiérrez Cuéllar, Isabel:** Other. Research Nurse.
- **López Bernaldo de Quirós, Juan Carlos:** R3. Established Researcher.
- **Pérez Latorre, Leire:** R2. Recognised Researcher.
- **Ramírez Schacke, Margarita:** Other. Research Nurse.
- **Ryan Murua, Pablo:** R2. Recognised Researcher.
- **Tejerina Picado, Francisco:** R1. First Stage Researcher.

Research Projects – Competitive Calls

Competitive projects

- Title: **Infección por COVID-19 en pacientes infectados por VIH incluidos en CoRIS.** COV20/00108
Director: Berenguer Berenguer, Juan
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 25/03/2020
End date: 30/06/2021
- Title: **Infecciones agudas/recientes y reinfecciones por VHC en hombres que tienen sexo con hombres con y sin VIH..** PI20/00474
Director: Berenguer Berenguer, Juan
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 25/03/2021
End date: 31/12/2023
- Title: **Morbilidad y mortalidad a largo plazo tras la erradicación del VHC en pacientes coinfectados por VIH/VHC con fibrosis hepática avanzada/cirrosis.** PI17/00657
Director: Berenguer Berenguer, Juan
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2018
End date: 30/06/2021

- Title: **Juan Rodés contract.** JR19/00021
Director: Pérez Latorre, Leire
Funding body: Instituto de Salud Carlos III
Project type: Human resources
Start date: 01/01/2020
End date: 31/12/2021
- Title: **Río Hortega contract.** CM20/00086
Director: Fanciulli, Chiara
Funding body: Instituto de Salud Carlos III
Project type: Human resources
Start date: 01/01/2021
End date: 31/12/2022

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of network	Role
CIBER	CIBER ENF. INFECCIOSAS	Collaborating group
RETIC	Red Española de Investigación en SIDA	Collaborating group



4.02. CLINICAL AND EPIDEMIOLOGICAL ASPECT OF HIV AND ASSOCIATED CONDITIONS

Clinical Practice Guidelines

Authors	Title	Journal / Reference
Juan Berenguer	EACS Guidelines 2021	https://www.eacsociety.org/media/final2021eacsguidelinesv11.0_oct2021.pdf

Publications

Total Impact Factor: 342.4

	Nº	IF
Own publications	10	98.3
Joint publications	23	244.1
First decile publications	11	227.9
First quartile publications	19	282.5
Second quartile publications	10	48.7
Third quartile publications	3	9.5
Fourth quartile publications	1	1.7
Nonindexed publications / No IF	1	-
Total publications (including those without IF)	34	342.4

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor:

- García, M; Morcilla, V; Navarrete-Muñoz, MA; Fisher, K; Cabello, A; López-Bernaldo, JC; De la Hera, F; Barros, C; Fernández-Guerrero, M; Estrada, V; Górgolas, M; Benito, JM; Palmer, S; Rallón, N. *HIV-DNA content in pTfh cells is associated with residual viremia in elite controllers*. AIDS. 2021; 35(3) 393-398. FI: 4.632. Cuartil: 2. (Article).
- Pérez-Lago, L; Aldamiz-Echevarría, T; García-Martínez, R; Pérez-Latorre, L; Herranz, M; Sola-Campoy, P; Suárez-González, J; Martínez-Laperche, C; Comas, I; González-Candelas, F; Catalán, P; Muñoz, P; de Viedma, DG; Gregorio Marañon Microbiology-ID. *Different Within-Host Viral Evolution Dynamics in Severely Immunosuppressed Cases with Persistent SARS-CoV-2*. BIOMEDICINES. 2021; 9(7). FI: 4.757. Cuartil: 2. (Article).
- Ruiz-Alguero, M; Hernando, V; Marcos, H; Gutiérrez, G; Pérez-Elías, MJ; de Quirós, JCLB; Pulido, F; Górgolas, M; Sanz, J; Suárez-García, I; Fernández, MT; Losa, JE; Pérez, JL; Ladrero, MO; Prieto, MA; González, G; Izquierdo, A; Viloria, LJ; López, I; Mart. *Self-rated health among people living with HIV in Spain in 2019: a cross-sectional study*. BMC INFECTIOUS DISEASES. 2021; 21(1) 129-129. FI: 3.667. Cuartil: 3. (Article).
- Suárez-García, I; Alejos, B; Pérez-Elías, MJ; Iribarren, JA; Hernando, A; Ramírez, M; Tásias, M; Pascual, M; Jarrin, I; Hernando, V; CoRIS Cohort. *How do women living with HIV experience menopause? Menopausal symptoms, anxiety and depression according to reproductive age in a multicenter cohort*. BMC WOMENS HEALTH. 2021; 21(1) 223-223. FI: 2.742. Cuartil: 3. (Article).
- Cantenys-Molina, S; Fernández-Cruz, E; Francos, P; de Quirós, JCLB; Muñoz, P; Gil-Herrera, J. *Lymphocyte subsets early predict mortality in a large series of hospitalized COVID-19 patients in Spain*. CLINICAL AND EXPERIMENTAL IMMUNOLOGY. 2021; 203(3) 424-432. FI: 5.732. Cuartil: 2. (Article).
- Deutschmann, E; Bucher, HC; Jaeckel, S; Gibbons, S; McAllister, K; Scherrer, AU; Braun, DL; Cavassini, M; Hachfeld, A; Calmy, A; Battegay, M; Cipriani, M; Elzi, L; Young, J; López-Centeno, B; Berenguer, J; Khoo, S; Moffa, G; Marzolini, C; Swiss HIV Cohort. *Prevalence of Potential Drug-Drug Interactions in Patients of the Swiss HIV Cohort Study in the Era of HIV Integrase Inhibitors*. CLINICAL INFECTIOUS DISEASES. 2021; 73(7) 2145-2152. FI: 20.999. Cuartil: 1. (Article).



- Carrero, A; Berenguer, J; Hontanón, V; Guardiola, JM; Navarro, J; von Wichmann, MA; Téllez, MJ; Quereda, C; Santos, I; Sanz, J; Galindo, MJ; Hernández-Quero, J; Jiménez-Sousa, MA; Pérez-Latorre, L; Bellón, JM; Resino, S; Esteban, H; Martínez, E; González-. *Effects of Hepatitis C Virus (HCV) Eradication on Bone Mineral Density in Human Immunodeficiency Virus/HCV-Coinfected Patients*. CLINICAL INFECTIOUS DISEASES. 2021; 73(7) 2026-2033. FI: 20.999. Cuartil: 1. (Article).
- Rodríguez-Baño J; Pachón J; Carratalà J; Ryan P; Jarrín I; Yllescas M; Arribas JR; Berenguer J; Fundación SEIMC-GESIDA; Hospital Universitario La Paz; Hospital Universitario Gregorio Marañón; Hospital Infanta Leonor; Complejo Hospitalario Virgen de la Sal. *Treatment with tocilizumab or corticosteroids for COVID-19 patients with hyperinflammatory state: a multicentre cohort study (SAM-COVID-19)*. CLINICAL MICROBIOLOGY AND INFECTION. 2021; 27(2) 244-252. FI: 13.31. Cuartil: 1. (Article).
- Berenguer, J; Díez, C; Martín-Vicente, M; Micán, R; Pérez-Elías, MJ; García-Fraile, LJ; Vidal, F; Suárez-García, I; Podzamczek, D; Del Romero, J; Pulido, F; Iribarren, JA; Gutiérrez, F; Poveda, E; Galera, C; Izquierdo, R; Asensi, V; Portilla, J; López, JC. *Prevalence and factors associated with SARS-CoV-2 seropositivity in the Spanish HIV Research Network Cohort*. CLINICAL MICROBIOLOGY AND INFECTION. 2021; 27(11) 1678-1684. FI: 13.31. Cuartil: 1. (Article).
- Tedim, AP; Almansa, R; Domínguez-Gil, M; González-Rivera, M; Micheloud, D; Ryan, P; Méndez, R; Blanca-López, N; Pérez-García, F; Bustamante, E; Gómez, JM; Doncel, C; Trapiello, W; Kelvin, AA; Booth, R; Ostadgavahi, AT; Oneizat, R; Puertas, C; Barbe, F; Fe. *Comparison of real-time and droplet digital PCR to detect and quantify SARS-CoV-2 RNA in plasma*. EUROPEAN JOURNAL OF CLINICAL INVESTIGATION. 2021; 51(6). FI: 5.722. Cuartil: 1. (Article).
- Pérez-Latorre, L; Berenguer, J; Micán, R; Montero, M; Cifuentes, C; Puig, T; Sanz, J; Ferrero, OL; de la Fuente, B; Rodríguez, C; Reus, S; Hernández-Quero, J; Gaspar, G; Pérez-Martínez, L; García, C; Force, L; Veloso, S; De Miguel, M; Jarrín, I; González-. *HIV/HBV coinfection: temporal trends and patient characteristics, Spain, 2002 to 2018*. EUROSURVEILLANCE. 2021; 26(25). FI: 21.286. Cuartil: 1. (Article).
- Chamorro-de-Vega, E; Rodríguez-González, CG; Manrique-Rodríguez, S; Lobato-Matilla, E; García-Moreno, F; Olmedo, M; Correa-Rocha, R; Valerio, M; Aldamiz-Echevarría, T; Machado, M; Sancho-González, M; López-Bernaldo-de-Quirós, JC; Ruiz-Briones, P; Romero-J. *Clinical course of severe patients with COVID-19 treated with tocilizumab: report from a cohort study in Spain*. EXPERT REVIEW OF CLINICAL PHARMACOLOGY. 2021; 14(2) 249-260. FI: 4.108. Cuartil: 2. (Article).
- Brochado-Kith, O; Martínez, I; Berenguer, J; González-García, J; Salguero, S; Sepulveda-Crespo, D; Díez, C; Hontanón, V; Ibáñez-Samaniego, L; Pérez-Latorre, L; Fernández-Rodríguez, A; Jiménez-Sousa, MA; Resino, S. *HCV Cure With Direct-Acting Antivirals Improves Liver and Immunological Markers in HIV/HCV-Coinfected Patients*. FRONTIERS IN IMMUNOLOGY. 2021; 12 723196-723196. FI: 8.786. Cuartil: 1. (Article).
- Medrano, LM; Berenguer, J; Salguero, S; González-García, J; Díez, C; Hontanón, V; García-Brancano, P; Ibáñez-Samaniego, L; Bellón, JM; Jiménez-Sousa, MA; Resino, S. *Successful HCV Therapy Reduces Liver Disease Severity and Inflammation Biomarkers in HIV/HCV-Coinfected Patients With Advanced Cirrhosis: A Cohort Study*. FRONTIERS IN MEDICINE. 2021; 8 615342-615342. FI: 5.058. Cuartil: 2. (Article).
- Pérez-García, F; Bailén, R; Torres-Macho, J; Fernández-Rodríguez, A; Jiménez-Sousa, MA; Jiménez, E; Pérez-Butragueño, M; Cuadros-González, J; Cadinanos, J; García-García, I; Jiménez-González, M; Ryan, P; Resino, S. *Age-Adjusted Endothelial Activation and Stress Index for Coronavirus Disease 2019 at Admission Is a Reliable Predictor for 28-Day Mortality in Hospitalized Patients With Coronavirus Disease 2019*. FRONTIERS IN MEDICINE. 2021; 8 736028-736028. FI: 5.058. Cuartil: 2. (Article).
- Díez, C; Del Romero-Raposo, J; Micán, R; López, JC; Blanco, JR; Calzado, S; Samperiz, G; Portilla, J; García-Fraile, LJ; Gutiérrez, F; Gómez-Sirvent, JL; Suárez-García, I; Amador, C; Novella, M; Arribas, JR; Moreno, S; González-García, J; Jarrín, I; Beren. *COVID-19 in hospitalized HIV-positive and HIV-negative patients: A matched study*. HIV MEDICINE. 2021; 22(9) 867-876. FI: 3.094. Cuartil: 3. (Article).
- Teira, R; Díaz-Cuervo, H; Aragao, F; Muñoz, J; Galindo, P; Merino, M; de la Fuente, B; Sepulveda, MA; Domingo, P; García, J; Castano, M; Ribera, E; Geijo, P; Romero, A; Peraire, J; Deig, E; Roca, B; Martínez, E; Estrada, V; Montero, M; Berenguer, J; Espin. *eGFR-EPI changes among HIV patients who switch from F/TDF to F/TAF while maintaining the same third agent in the Spanish VACH*

4.02. CLINICAL AND EPIDEMIOLOGICAL ASPECT OF HIV AND ASSOCIATED CONDITIONS

cohort. HIV RESEARCH & CLINICAL PRACTICE. 2021; 22(3) 78-85. FI: 1.676. Cuartil: 4. (Article).

- Maggiolo, F; Rizzardini, G; Molina, JM; Pulido, F; De Wit, S; Vandekerckhove, L; Berenguer, J; D'Antoni, ML; Blair, C; Chuck, SK; Piontkowsky, D; Martín, H; Haubrich, R; McNicholl, IR; Gallant, J. *Bictegravir/Emtricitabine/Tenofovir Alafenamide in Virologically Suppressed People with HIV Aged >= 65 Years: Week 48 Results of a Phase 3b, Open-Label Trial*. INFECTIOUS DISEASES AND THERAPY. 2021; 10(2) 775-788. FI: 6.119. Cuartil: 2. (Article).
- Ryan, P; Valencia, J; Cuevas, G; Troya, J; Torres-Macho, J; Muñoz-Gómez, MJ; Muñoz-Rivas, N; Canorea, I; Vázquez-Moron, S; Resino, S. *HIV screening and retention in care in people who use drugs in Madrid, Spain: a prospective study*. INFECTIOUS DISEASES OF POVERTY. 2021; 10(1) 111-111. FI: 10.485. Cuartil: 1. (Article).
- Rodríguez-González, CG; Chamorro-de-Vega, E; Valerio, M; Amor-García, MA; Tejerina, F; Sancho-González, M; Narrillos-Moraza, A; Giménez-Manzorro, A; Manrique-Rodríguez, S; Machado, M; Olmedo, M; Escudero-Vilaplana, V; Villanueva-Bueno, C; Torroba-Sanz, B. *COVID-19 in hospitalised patients in Spain: a cohort study in Madrid*. INTERNATIONAL JOURNAL OF ANTIMICROBIAL AGENTS. 2021; 57(2) 106249-106249. FI: 15.441. Cuartil: 1. (Article).
- Ryan, P; Valencia, J; Cuevas, G; Troya, J; Ramón, C; Rodríguez, A; Torres-Macho, J; Muñoz-Gómez, MJ; Canorea, I; Vázquez-Moron, S; Resino, S. *HCV screening based on dried blood samples and linkage to care in people who use drugs: A prospective study*. INTERNATIONAL JOURNAL OF DRUG POLICY. 2021; 92 103134-103134. FI: 5.931. Cuartil: 1. (Article).
- Ryan, P; Valencia, J; Cuevas, G; Torres-Macho, J; Troya, J; Pueyo, A; Muñoz-Gómez, MJ; Muñoz-Rivas, N; Vázquez-Moron, S; Martínez, I; Lazarus, JV; Resino, S. *Detection of active hepatitis C in a single visit and linkage to care among marginalized people using a mobile unit in Madrid, Spain*. INTERNATIONAL JOURNAL OF DRUG POLICY. 2021; 96 103424-103424. FI: 5.931. Cuartil: 1. (Article).
- de Ory, SJ; Beltrán-Pávez, C; Gutiérrez-López, M; Santos, MD; Prieto, L; Sainz, T; Guillén, S; Aguilera-Alonso, D; Díez, C; Bernardino, JI; Mellado, MJ; Ramos, JT; Holguín, A; Navarro, M. *Prevalence of M184V and K65R in proviral DNA from PBMCs in HIV-infected youths with lamivudine/emtricitabine exposure*.

JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY. 2021; 76(7) 1886-1892. FI: 5.758. Cuartil: 1. (Article).

- Brochado, O; Martínez, I; Berenguer, J; Medrano, L; González-García, J; Jiménez-Sousa, MA; Carrero, A; Hontanón, V; Navarro, J; Guardiola, JM; Fernández-Rodríguez, A; Resino, S. *HCV eradication with IFN-based therapy does not completely restore gene expression in PBMCs from HIV/HCV-coinfected patients*. JOURNAL OF BIOMEDICAL SCIENCE. 2021; 28(1) 23-23. FI: 12.771. Cuartil: 1. (Article).
- Martínez-Sanz, J; Blanco, JR; Muriel, A; Pérez-Eliás, MJ; Rubio-Martín, R; Berenguer, J; Peraire, J; Bernal, E; Martínez, OJ; Serrano-Villar, S; Moreno, S; CoRIS. *Weight changes after antiretroviral therapy initiation in CoRIS (Spain): a prospective multicentre cohort study*. JOURNAL OF THE INTERNATIONAL AIDS SOCIETY. 2021; 24(5). FI: 6.707. Cuartil: 1. (Article).
- Carrasco, I; Tarancón-Díez, L; Vázquez-Alejo, E; de Ory, SJ; Sainz, T; Apilánez, M; Epalza, C; Guillén, S; Ramos, JT; Díez, C; Bernardino, JI; Iribarren, JA; Zamora, A; Muñoz-Fernández, MA; Navarro, ML. *Innate and adaptive abnormalities in youth with vertically acquired HIV through a multicentre cohort in Spain*. JOURNAL OF THE INTERNATIONAL AIDS SOCIETY. 2021; 24(10). FI: 6.707. Cuartil: 1. (Article).
- Gutiérrez-Gutiérrez, B; del Toro, MD; Borobia, AM; Carcas, A; Jarrín, I; Yllescas, M; Ryan, P; Pachón, J; Carratala, J; Berenguer, J; Arribas, JR; Rodríguez-Bano, J; REIPI-SEIMC COVID-19 Grp; COVID HULP Grp. *Identification and validation of clinical phenotypes with prognostic implications in patients admitted to hospital with COVID-19: a multicentre cohort study*. LANCET INFECTIOUS DISEASES. 2021; 21(6) 783-792. FI: 71.421. Cuartil: 1. (Article).
- Pérez Lago L; Pérez Latorre L; Herranz M; Tejerina F; Sola-Campoy PJ; Sicilia J; Suárez-González J; Andrés-Zayas C; Chiner-Oms A; Jiménez-Serrano S; García-González N; Comas I; González-Candelas F; Martínez-Laperche C; Catalán P; Muñoz P; García de Viedma. *Complete Analysis of the Epidemiological Scenario around a SARS-CoV-2 Reinfection: Previous Infection Events and Subsequent Transmission*. MSPHERE. 2021; 6(5). FI: 5.029. Cuartil: 2. (Article).
- Frontzek, F; Staiger, AM; Zapukhlyak, M; Xu, WD; Bonzheim, I; Borgmann, V; Sander, P; Baptista, MJ; Heming, JN; Berning, P; Wullenkord, R; Erdmann, T; Lutz, M; Veratti, P; Ehrenfeld, S; Wienand, K; Horn, H; Goodlad, JR; Wilson, MR; Anagnostopoulos, I; Lam. *Molecular and functional profiling identifies*



therapeutically targetable vulnerabilities in plasmablastic lymphoma. NATURE COMMUNICATIONS. 2021; 12(1) 5183–5183. FI: 17.694. Cuartil: 1. (Article).

- Valencia, J; Troya, J; Lazarus, JV; Cuevas, G; Álvaro-Meca, A; Torres, J; Gardeta, C; Lozano, D; Moreno, S; Ryan, P. *Recurring Severe Injection-Related Infections in People Who Inject Drugs and the Need for Safe Injection Sites in Madrid, Spain.* OPEN FORUM INFECTIOUS DISEASES. 2021; 8(7). FI: 4.423. Cuartil: 2. (Article).
- Teira, R; Díaz-Cuervo, H; Aragao, F; Marguet, S; de la Fuente, B; Muñoz, MJ; Abdulghani, N; Ribera, E; Domingo, P; Deig, E; Peraire, J; Roca, B; Montero, M; Galindo, MJ; Romero, A; Espinosa, N; Lozano, F; Merino, MD; Martínez, E; Geijo, P; Estrada, V; Gar. *Real world effectiveness of standard of care triple therapy versus two-drug combinations for treatment of people living with HIV.* PLOS ONE. 2021; 16(4). FI: 3.752. Cuartil: 2. (Article).
- Berenguer, J; Borobia, AM; Ryan, P; Rodríguez-Bano, J; Bellón, JM; Jarrín, I; Carratala, J; Pachón, J; Carcas, AJ; Yllescas, M; Arribas, JR; COVID 19 Spain

Grp. *Development and validation of a prediction model for 30-day mortality in hospitalised patients with COVID-19: the COVID-19 SEIMC score.* THORAX. 2021; 76(9) 920–929. FI: 9.102. Cuartil: 1. (Article).

- De Gonzalo-Calvo, D; Benítez, ID; Pinilla, L; Carratala, A; Moncusi-Moix, A; Gort-Paniello, C; Molinero, M; González, J; Torres, G; Bernal, M; Pico, S; Almansa, R; Jorge, N; Ortega, A; Bustamante-Munguira, E; Gómez, JM; González-Rivera, M; Micheloud, D; R. *Circulating microRNA profiles predict the severity of COVID-19 in hospitalized patients.* TRANSLATIONAL RESEARCH. 2021; 236 147–159. FI: 10.171. Cuartil: 1. (Article).

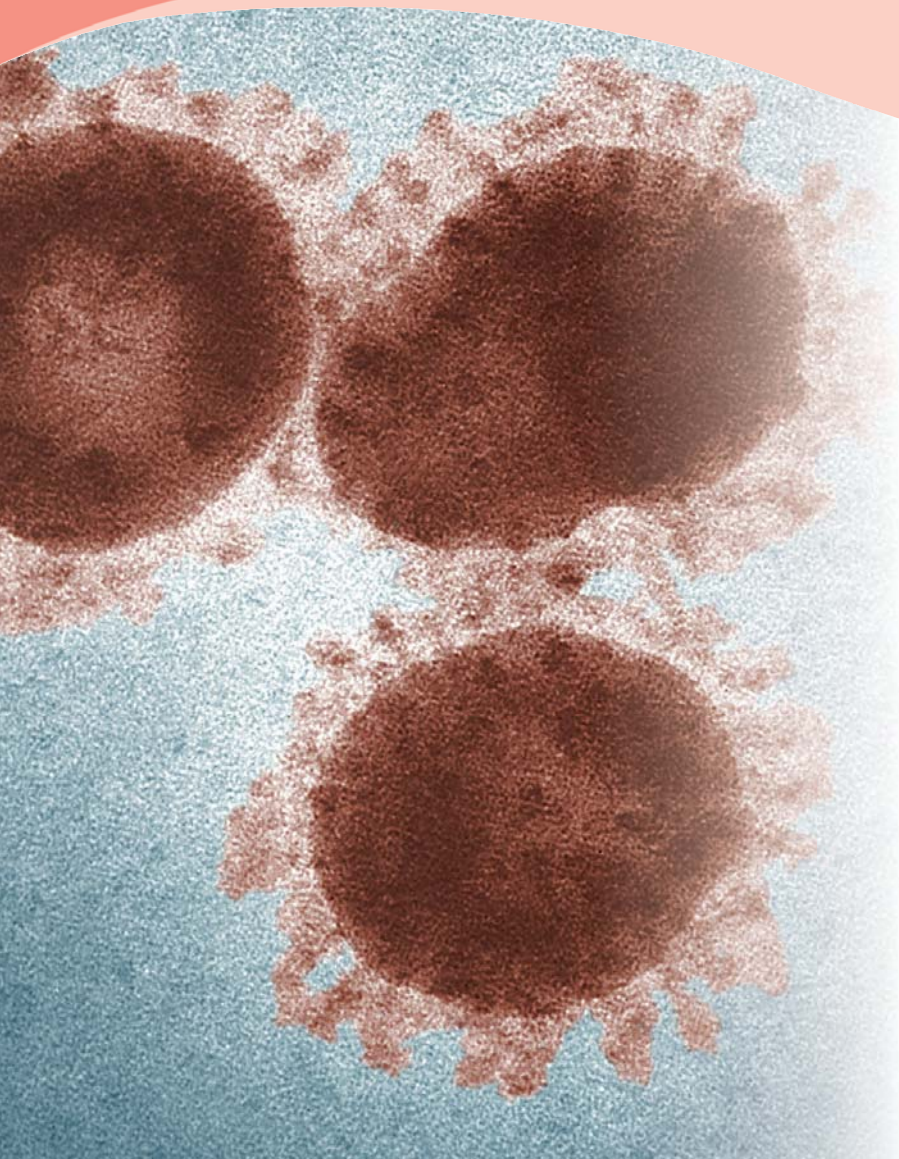
Other publications

- Lavilla Olleros C; López-Rubio M; Fanciulli C; González-Munera A; Millán Núñez-Cortés J. *Diplejía facial aislada como variante atípica del síndrome de Guillain-Barré tras sospecha de infección por SARS-CoV-2.* REVISTA DE LA FACULTAD DE CIENCIAS MEDICAS DE CORDOBA. 2021; 78(4) 405–407. (Article).

DISEASES OF THE IMMUNE SYSTEM

Area coordinator:

Eduardo Fernández-Cruz Pérez



Immunology could be considered the medical discipline in which the most relevant advances have been made in recent years. These advances are evidenced by the many Nobel Prizes awarded to researchers in the field, it is no surprise. Therefore, that the IISGM has a dedicated immunology research area. In addition to its scientific and social relevance, the importance of this area within the Institute can be seen in its cutting-edge scientific output, the wide variety of its research lines, and its collaborations with other research areas, such as basic and clinical immunology, rheumatology, Allergology, gynecology and obstetrics, cardiology, pneumology, pharmacogenetics, hematology and neurology.

The participation of this Area in numerous publications by groups belonging to other areas of the Institute clearly highlights its philosophy of cooperative research, the cornerstone of any health research institute. There can be no doubt that the Area is perfectly situated for setting down the strategic lines for its continued growth. As a result, collaboration agreements have been proposed with prestigious international institutions, groups from the IISGM itself, and groups from outside the IISGM (Madrid Science and Technology Park, FHL Study Group, Transfusion Center of Comunidad de Madrid), School of Medicine of Universidad Complutense de Madrid (Department of Microbiology I) and companies active in the field (Binding Site, Izasa, Inmunotek, Grifols).

The area has set itself the strategic objectives of expanding the core activity of its more clinical groups, training undergraduate and postgraduate staff in order to consolidate and improve scientific output, and expanding the number of principal investigators able to successfully apply for competitive calls.

Groups in Area 5

DISEASES OF THE IMMUNE SYSTEM

- ▶ 5.01. Pathophysiology and clinical investigation of chronic inflammatory and immune diseases
- ▶ 5.02. Molecular biology of HIV
- ▶ 5.03. Autoimmune systemic diseases
- ▶ 5.05. Pathogenesis of the immunoallergic response
- ▶ 5.06. Immune homeostasis and regulation in diseases associated with the immune system
- ▶ 5.07. Infectious diseases in pediatric patients

5.01. Pathophysiology and clinical investigation of chronic inflammatory and immune diseases

Group Head: EDUARDO FERNÁNDEZ-CRUZ PÉREZ

Organisms involved: HGUGM

Type: Consolidated Group

Research lines

Axis 1: Immunotherapy and immunomodulation with immunogens in the treatment of diseases of the immune system

- ▶ L1: Evaluation of the clinical and immunological response to mucosal polybacterial vaccines in the prevention of infections in chronic lung diseases, COPD (COPD/Bactek clinical trial under evaluation). Leader: Eduardo Fernández-Cruz Pérez.
- ▶ L2: Immunotherapy with specific hyper-immune vaccines and immunoglobulins in chronic inflammatory pathologies mediated by immune dysregulation and infections by influenza A and B viruses and SARS-CoV2 (research in clinical trial). Leader: Eduardo Fernández-Cruz Pérez.
- ▶ L3: National Multicenter Study of Secondary Immunodeficiency on the production of antibodies against Salmonella typhi Vaccine (SIMPATY-2). Leader: Eduardo Fernández-Cruz Pérez.
- ▶ L4: Innovation in treatments with immunotherapy, autovaccines to bacteria antigens and/or polyvalent immunoglobulins (IVIG) in severe hidradenitis with immunological disorders. Leaders: Eduardo Fernández-Cruz Pérez, Cristina Ciudad and Ricardo Suárez Fernández.

Axis 2: Studies on the mechanisms of the immune response to SARS-CoV2

- ▶ L1: Characterization of immune responses to SARS-CoV-2 for clinical evaluation in the prevention (vaccination) of COVID-19 and severe forms of the disease. Leaders: Juana Gil and Eduardo Fernandez-Cruz.

Axis 3: Transplant Immunology

- ▶ L1: Immunology of infections and rejection in solid organ transplantation: risk biomarkers. Leader: Javier Carbone Campoverde.

- ▶ L2: Study of immunomodulation and reconstitution of the immune response in post-transplant immunodeficiency. Leader: Javier Carbone Campoverde.

Axis 4: Immunology of Reproduction

- ▶ L1: HLA-G immunogenetic studies in reproductive failure. Leaders: Carmen Rodríguez Sainz y Eduardo Fernández-Cruz
- ▶ L2: Study of immunophenotypic and immunogenotypic markers in diseases of the reproductive system. Leader: Juana Gil Herrera
- ▶ L3: Cellular and humoral alterations in women with recurrent reproductive failure. Leader: Javier Carbone Campoverde

Axis 5: Primary immunodeficiencies: pathogenesis, classification and treatment

- ▶ L1: Diagnosis and classification of primary immunodeficiencies due to immune dysregulation. Leader: Juana Gil Herrera
- ▶ L2: Neonatal Screening for Severe Combined Immunodeficiency. Leader: Juana Gil Herrera
- ▶ L3: National and international registry of patients with all types of primary immunodeficiencies. Leader: Juana Gil Herrera
- ▶ L4: Study of prognostic biomarkers in primary immunodeficiencies. Immunophenotypic studies. Leader: Javier Carbone Campoverde

Axis 6: Biomarkers

- ▶ L1: Study of prognostic biomarkers in patients with recurrent pneumonias, bronchiectasis and tuberculosis. immunophenotypic and immunogenotypic studies in diseases of the reproductive system. Leader: Javier Carbone Campoverde.



Continued on next page



Research lines (cont.)

Axis 7: Immunology of chronic inflammatory diseases

- ▶ L1: Immunophenotypic study of patients with antibody-antiphospholipid syndrome. Leader: Javier Carbone Campoverde.

Axis 8: Cell migration in cancer

- ▶ L1: Cell migration in cancer. Leaders: Javier Redondo-Muñoz and Paloma Sánchez-Mateos.

Axis 9: Role of macrophages in inflammatory diseases

- ▶ L1: Macrophage transcriptome polarization and phenotype in inflammatory diseases. Leader: Paloma Sánchez-Mateos
- ▶ L2: Molecular basis of the anti-inflammatory effect of methotrexate in macrophages. Biomarkers of response to methotrexate therapy. Leader: Amaya Puig Kröger.

Axis 10: Tumor macrophages in melanoma

- ▶ L1: Tumor macrophages in melanoma. Leaders: Paloma Sánchez-Mateos and Rafael Samaniego García.

Axis 11: Study of the efficacy of the combination of immunotherapy and radiotherapy in different human tumors

- ▶ L1: Study of the efficacy of the combination of immunotherapy and radiotherapy in different human tumors. Leaders: Paloma Sánchez-Mateos and Ignacio Melero.

Axis 12: Bullous autoimmune diseases

- ▶ L1: Treatment of pemphigus vulgaris (PV). Leader: Ricardo Suárez Fernández.
- ▶ L2: Pemphigus vulgaris: clinical and epidemiological studies. Leader: Ricardo Suárez Fernández.

Axis 13: Atopic dermatitis

- ▶ L1: Atopic dermatitis in adults. Innovations in treatment. Leader: Ricardo Suárez Fernández.

Axis 14: Dermatologic surgery

- ▶ L1: Mohs surgery in skin cancer. Leaders: Cristina Ciudad and Dr. Barchino.
- ▶ L2: Surgical treatment of hidradenitis. Leaders: Cristina Ciudad and Dr. Barchino.
- ▶ L3: Platelet-enriched plasma for chronic skin ulcers. Leaders: Cristina Ciudad and Dr. Barchino.

Axis 15: Cutaneous ulcers

- ▶ L1: Evaluation of the clinical safety and efficacy of the combination of negative pressure and nanoparticles coated with silver for the treatment of chronic ulcers. Leader: Luis Carlos Saez Martín.

Axis 16: Psoriasis

- ▶ L1: Modification of biologic doses in moderate-severe psoriasis. Leader: Ofelia Baniandrés.
- ▶ L2: Innovative treatments. Leader: Ofelia Baniandrés.
- ▶ L3: Study of IL-1 Receptor Antagonist Deficiency (DIRA) and IL-36 Receptor Antagonist Deficiency (DITRA) in patients with Generalized Pustular Psoriasis. Leader: Ofelia Baniandrés.
- ▶ L4: Spanish registry of systemic treatments in Psoriasis (BIOBADADERM). Leader: Ofelia Baniandrés.

Axis 17: Cutaneous oncology

- ▶ L1: Intralesional methotrexate for the neoadjuvant treatment of squamous cell skin cancer. Leader: Dr. Bergón.
- ▶ L2: Epidemiological and therapeutic control of basal cell carcinoma. Leader: Dr. Bergón.

Axis 18: Immunology and HLA

- ▶ L1: Immunology. Leaders: Antonio Arnaiz Villena and Manuel Martín Villa.
- ▶ L2: HLA genetics and pharmacogenetics in humans. Leaders: Antonio Arnaiz Villena and Manuel Martín Villa.



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5.01. PATHOPHYSIOLOGY AND CLINICAL INVESTIGATION OF CHRONIC INFLAMMATORY AND IMMUNE DISEASES

Research lines (*cont.*)

- ▶ L3: HLA-G evolution. Immunosuppression. Leaders: Antonio Arnaiz Villena and Manuel Martín Villa.
- ▶ L4: Evolution of HLA-G in primates and wild birds. Leaders: Antonio Arnaiz Villena and Manuel Martín Villa.

Axis 19: Population genetics

- ▶ L1: Population genetics and obesity. Leaders: Antonio Arnaiz Villena and Manuel Martín Villa.

Axis 20: Mucosal Immunity

- ▶ L1: Mucosal Immunity. Leaders: Antonio Arnaiz Villena and Manuel Martín Villa.

Axis 21: Molecular genetics and tumors

- ▶ L1: Molecular genetics and tumors. Leaders: Antonio Arnaiz Villena and Manuel Martín Villa.

Axis 22: Signal transduction

- ▶ L1: Signal transduction. Leader: Narcisa Martínez Quiles.

The pathophysiology and clinical research group of chronic immunogenic and inflammatory diseases is coordinated by the Head of Clinical Immunology Service, Prof. Dr. Eduardo Fernández-Cruz and is constituted on the basis of the different research lines established in 22 axis related above.

Group members

- **Alarcón Escudero, Alba:** R1. First Stage Researcher.
- **Alonso Armendáriz, Rocío:** R1. First Stage Researcher.
- **Arnaiz Villena, Antonio:** R3. Established Researcher.
- **Avilés Izquierdo, José Antonio:** R1. First Stage Researcher.
- **Baniandrés Rodríguez, Ofelia:** R1. First Stage Researcher.
- **Barchino Ortíz, Lucía:** R1. First Stage Researcher.
- **Barrio Alonso, Celia:** R1. First Stage Researcher.
- **Bergón Sendín, Marta:** R1. First Stage Researcher.
- **Carbone Campoverde, Javier Alberto:** R3. Established Researcher.
- **Ciudad Blanco, Cristina:** R1. First Stage Researcher.
- **Di Natale, Marisa.**
- **Estecha Palomero, Ana:** R2. Recognised Researcher.
- **Ezzahouri, Ikram:** R1. First Stage Researcher.
- **Fernández-Cruz Pérez, Eduardo:** R4. Leading Researcher.
- **Fuentelsaz Romero, Sara:** R1. First Stage Researcher.
- **García Jiménez, Sandra:** Other. Lab Technician.
- **García Martínez, Elena.**
- **García Nieto, Alicia.**
- **Gil Herrera, Juana:** R3. Established Researcher.
- **Gorroño Echevarría, Marina Begoña:** R2. Recognised Researcher.
- **Gutiérrez Seijo, Alba:** R1. First Stage Researcher.
- **Gutiérrez Calvo, Alberto:** R2. Recognised Researcher.
- **Jiménez Mora, Natalia:** Other. Lab Technician.
- **Juárez Martín-Delgado, Ignacio:** R1. First Stage Researcher.
- **López Nares, Adrián:** R1. First Stage Researcher.



Group members (*cont.*)

- **López Navarro, Baltasar.**
- **Lorente-Sorolla Martínez-Acitores, Clara:** R2. Recognised Researcher.
- **Martín Villa, José Manuel:** R3. Established Researcher.
- **Martínez Quiles, Narcisa:** R3. Established Researcher.
- **Molina Alejandro, Marta:** R1. First Stage Researcher.
- **Montánchez Mateo, Judith:** Other. Lab Technician.
- **Muñiz Sánchez, Esther:** R2. Recognised Researcher.
- **Navarro Caspistegui, Joaquín:** R2. Recognised Researcher.
- **Palacio Gruber, José:** R2. Recognised Researcher.
- **Pérez García, Yaiza:** R1. First Stage Researcher.
- **Puig Kröger, Amaya Rocío:** R3. Established Researcher.
- **Pulido Pérez, Ana:** R1. First Stage Researcher.
- **Ramos Ruiz, Ricardo:** R1. First Stage Researcher.
- **Rodríguez Sainz, Carmen:** R2. Recognised Researcher.
- **Samaniego García, Rafael:** R2. Recognised Researcher.
- **Sánchez-Mateos Rubio, Paloma:** R3. Established Researcher.
- **Sánchez Martín, Alicia.**
- **Sarmiento Marchese, Elizabeth Angélica:** R2. Recognised Researcher.
- **Suárez Fernández, Ricardo:** R3. First Stage Researcher.
- **Suárez Trujillo, Fabio:** R1. First Stage Researcher.
- **Torres Torresano, Mónica:** Other. Lab Technician.
- **Tur Gracia, Sara:** R1. First Stage Researcher.
- **Vaquerizo Lorenzo, Samuel:** R1. First Stage Researcher.
- **Vaquero Yuste, Christian:** R1. First Stage Researcher.
- **Villarejo Gómez, Julia:** Other. Nursing.



5.01. PATHOPHYSIOLOGY AND CLINICAL INVESTIGATION OF CHRONIC INFLAMMATORY AND IMMUNE DISEASES

Research Projects – Competitive Calls

Competitive projects

- Title: **Local immunoradiotherapy (LIRT).** CCA001-2020 (C18915/A29362)
Director: Sánchez-Mateos Rubio, Paloma
Project type: Research project
Funding body: ACCELERATOR AWARD. CANCER RESEARCH UK
Start date: 01/01/2020
End date: 31/12/2024
- Title: **Estudio piloto multicéntrico, aleatorizado, abierto y con grupos paralelos para evaluar la seguridad y eficacia de la inmunoglobulina intravenosa (IGIV) a altas dosis junto con tratamiento médico estándar (TME) en comparación con el TME sólo en sujetos hospitalizados con COVID-19.** EC-GC2004
Director: Carbone Campoverde, Javier Alberto
Project type: Clinical research project
Funding body: GRIFOLS
Start date: 18/05/2020
End date: 18/03/2021
- Title: **Ensayo en fase II aleatorizado, controlado con placebo, doble ciego, multicéntrico en el que se investiga la eficacia y la seguridad de la trimodulina (BT588) como complemento al tratamiento de referencia en sujetos adultos con COVID-19 grave.** EC 998
Director: Carbone Campoverde, Javier Alberto
Project type: Clinical research project
Funding body: BIOTEST
Start date: 31/08/2020
End date: 30/06/2021
- Title: **Variantes genéticas en HLA-G y niveles solubles de HLA-G asociados a los fallos reproductivos** PI20/00316
Director: Puig Kröger, Amaya Rocío
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Variantes genéticas en HLA-G y niveles solubles de HLA-G asociados a los fallos reproductivos** PI18/01695
Director: Fernández-Cruz Pérez, Eduardo
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Metotrexato en artritis reumatoide: inducción de tolerancia como mecanismo de su efecto anti-inflamatorio** PI17/00037
Director: Puig Kröger, Amaya Rocío
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2018
End date: 30/06/2021
- Title: **Significado pronóstico de la heterogeneidad del contexto inmune innato en melanoma primario cutáneo** PI17/01324
Director: Sánchez-Mateos Rubio, Paloma
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2018
End date: 30/06/2022
- Title: **Predoxal contract.** FI18/00109
Director: Fuentelsaz Romero, Sara
Funding body: Instituto de Salud Carlos III
Project type: Human resources
Start date: 01/01/2019
End date: 31/10/2021
- Title: **Young employment contract: Predoxal.** PEJD-2019PR-PRE/BMD-20190
Director: Samaniego García, Rafael
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project type: Human resources
Start date: 01/01/2021
End date: 31/07/2021



- Title: **Young employment contract: Predoctoral.** PEJD-2019-PRE/BMD-16143
Director: Samaniego García, Rafael
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project type: Human resources
Start date: 01/02/2020
End date: 31/07/2021
- Title: **Young employment contract: Technical researcher.** PEJ-2020-TL/BMD-19098
Director: Rodríguez Sainz, Maria Carmen
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project type: Human resources
Start date: 01/01/2011
End date: 31/12/2022
- Title: **Young employment contract: Ayudante de Investigación.** PEJ-2020-AI/BMD-19682
Director: Carbone Campoverde, Javier Alberto
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project type: Human resources
Start date: 01/01/2021
End date: 31/12/2022
- Title: **Ayudante de Investigación** PEJ-2019-AI/BMD-15479
Director: Carbone Campoverde, Javier Alberto
Project type: Human resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2020
End date: 30/06/2022

- Title: **Young employment Contract** PEJ2018-004617-A
Director: Carbone Campoverde, Javier Alberto
Project type: Human Resources
Funding body: MICINN
Start date: 01/10/2019
End date: 26/08/2022

Not managed by FIBHGM

- Title: **HLA-G: cáncer gástrico y su evolución** PI18/00626
Director: Martín Villa, José Manuel
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2019
End date: 31/12/2021
- Title: **HLA-G: Su importancia en epidemiología, medicina evolutiva y patología.** PI18/00721
Director: Arnaiz Villena, Antonio
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Nuevo mecanismo inhibidor de la polimerización de actina.** SAF 2017-82967-R
Director: Martínez Quilés, Narcisca
Funding body: MICINN
Project type: Research project
Start date: 01/01/2018
End date: 31/09/2021



5.01. PATHOPHYSIOLOGY AND CLINICAL INVESTIGATION OF CHRONIC INFLAMMATORY AND IMMUNE DISEASES

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
RETICS	Red de Investigación en Inflamación y Enfermedades Reumáticas. RIER RD16/0012/0007	Collaborating group
Other	International Network for Strategic Initiatives in Global HIV Trials (INSIGHT)	Collaborating group

Clinical Practice Guidelines

Authors	Title	Journal/Reference
Cordero, E; Goycochea-Valdivia, W; Mendez-Echevarria, A; Allende, LM; Alsina, L; Garcia-Morato, MB; Gil-Herrera, J; Gudíol, C; Len-Abad, O; Lopez-Medrano, F; Moreno-Perez, D; Munoz, P; Olbrich, P; Sanchez-Ramon, S; Soler-Palacin, P; Cros, CA; Arostegui, JI; Serra, IB; Carbone, J; Fortun, J; Gonzalez-Granado, LI; Lopez-Granados, E; Lucena, JM; Parody, R; Ramakers, J; Regueiro, JR; Riviere, JG; Roca-Oporto, C; Pena, RR; Santos-Perez, JL; Rodriguez-Gallego, C; Neth, O	Executive Summary of the Consensus Document on the Diagnosis and Management of Patients with Primary Immunodeficiencies	33161954
Cordero, E; Goycochea-Valdivia, W; Mendez-Echevarria, A; Allende, LM; Alsina, L; Garcia-Morato, MB; Gil-Herrera, J; Gudíol, C; Len-Abad, O; Lopez-Medrano, F; Moreno-Perez, D; Munoz, P; Olbrich, P; Sanchez-Ramon, S; Soler-Palacin, P; Cros, CA; Arostegui, JI; Serra, IB; Carbone, J; Fortun, J; Gonzalez-Granado, LI; Lopez-Granados, E; Lucena, JM; Parody, R; Ramakers, J; Regueiro, JR; Riviere, JG; Roca-Oporto, C; Pena, RR; Santos-Perez, JL; Rodriguez-Gallego, C; Neth, O	Executive Summary of the Consensus Document on the Diagnosis and Management of Patients with Primary Immunodeficiencies	33161963

Publications

Total Impact Factor: 265.3

	Nº	IF
Own publications	32	185.5
Joint publications	14	79.8
First decile publications	4	82.7
First quartile publications	16	166.0
Second quartile publications	18	74.5
Third quartile publications	9	21.4
Fourth quartile publications	3	3.4
Nonindexed publications / No IF	8	-
Total publications (including those without IF)	54	265.3

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Hernández-Fernández, CP; Carretero, G; Rivera, R; Ferrándiz, C; Dauden, E; De la Cueva, P; Belinchón, I; Gómez-García, FJ; Herrera-Acosta, E; Ruiz-Genao, DP; Ferrán, M; Alsina, M; Baniandrés-Rodríguez, O; Sánchez-Carazo, JL; Botella-Estrada, R; Sahuquillo. *Effect of Sex in Systemic Psoriasis Therapy: Differences in Prescription, Effectiveness and Safety in the BIOBADADERM Prospective Cohort*. ACTA DERMATO-VENEREOLOGICA. 2021; 101. FI: 3.875. Cuartil: 2. (Article).
- Tomas-Velázquez, A; Sanmartín-Jiménez, O; Garcés, JR; Rodríguez-Prieto, MA; Ruiz-Salas, V; De Eusebio-Murillo, E; Minano-Medrano, R; Escutia-Muñoz, B; Flórez-Menéndez, A; Artola-Igarza, JL; Alfaro-Rubio, A; Gil, P; Delgado-Jiménez, Y; Sánchez-Schmidt, JM. *Risk Factors and Rate of Recurrence after Mohs Surgery in Basal Cell and Squamous Cell Carcinomas: A Nationwide Prospective Cohort (REGESMOHS, Spanish Registry of Mohs Surgery)*. ACTA DERMATO-VENEREOLOGICA. 2021; 101. FI: 3.875. Cuartil: 2. (Article).



- Nieto-Benito, LM; Rosell-Díaz, AM; Pulido-Pérez, A; Suárez-Fernández, RM. *Tumor-like herpes simplex infection in an HIV patient*. ANAIS BRASILEIROS DE DERMATOLOGIA. 2021; 96(4) 485-486. FI: 2.113. Cuartil: 3. (Article).
- Rodríguez-Lomba, E; Lozano-Masdemont, B; Sánchez-Herrero, A; Avilés-Izquierdo, JA. *Dermal substitutes: an alternative for the reconstruction of large full-thickness defects in the plantar surface*. ANAIS BRASILEIROS DE DERMATOLOGIA. 2021; 96(6) 717-720. FI: 2.113. Cuartil: 3. (Article).
- Pulido-Pérez, A; Bergón-Sendín, M; Mateos-Mayo, A; Parra-Blanco, V; Suárez-Fernández, R; Carretero-López, F. *Cutaneous botryomycosis mimicking ecthyma gangrenosum in a patient treated with ibrutinib*. ANNALS OF HEMATOLOGY. 2021; 100(12) 3065-3066. FI: 4.03. Cuartil: 2. (Letter).
- Nieto-Benito, LM; Suárez-Fernández, RM; Barchino-Ortiz, L. *Black and white vulvar lesions: reticulate genital melanosis and vitiligo*. ARCHIVES OF GYNECOLOGY AND OBSTETRICS. 2021; 304(4) 1107-1108. FI: 2.493. Cuartil: 3. (Letter).
- Bergón-Sendín, M; Pulido-Pérez, A; Rosell-Díaz, AM; Nieto-Benito, LM; Suárez-Fernández, R. *Neoadjuvant intralesional methotrexate in small-sized cutaneous squamous cell carcinoma: a prospective study in 84 patients*. AUSTRALASIAN JOURNAL OF DERMATOLOGY. 2021; 62(2) 308-310. FI: 2.481. Cuartil: 3. (Letter).
- Nieto-Benito, LM; de la Torre-Ruiz, EH; Balaguer-Franch, I; Rosell-Díaz, AM; Mateos-Mayo, A; Herrero-Sánchez, A; Lacasta-Plasin, C; García-Piqueras, P; Barchino-Ortiz, L; Bergón-Sendín, M; Pulido-Pérez, A; Baniandrés-Rodríguez, O; Rodríguez-Lomba, E; Moli. *Histopathological findings in COVID-19-induced cutaneous lesions. Clinicopathological correlation of SARS-CoV-19 dermatologic patterns: review of the literature*. AUSTRALASIAN JOURNAL OF DERMATOLOGY. 2021; 62(1) 98-101. FI: 2.481. Cuartil: 3. (Review).
- Juárez, I; Toro-Fernández, JF; Vaquero-Yuste, C; Molina-Alejandre, M; Lasa, I; Gómez, R; López, A; Martín-Villa, JM; Gutiérrez, A. *A Reliable and Standardizable Differential PCR and qPCR Methodology Assesses HER2 Gene Amplification in Gastric Cancer*. BIOLOGY-BASEL. 2021; 10(6). FI: 5.168. Cuartil: 1. (Article).
- Gutiérrez-Seijo, A; García-Martínez, E; Barrio-Alonso, C; Pareja-Malagón, M; Acosta-Ocampo, A; Fernández-Santos, ME; Puig-Kroger, A; Parra-Blanco, V; Mercader, E; Márquez-Rodas, I; Avilés-Izquierdo, JA; Samaniego, R; Sánchez-Mateos, P. *CCL20/TNF/VEGFA Cytokine Secretory Phenotype of Tumor-Associated Macrophages Is a Negative Prognostic Factor in Cutaneous Melanoma*. CANCERS. 2021; 13(16). FI: 6.575. Cuartil: 1. (Article).
- Avilés-Izquierdo, JA; Mercader-Cidoncha, E; Escat-Cortés, JL; Márquez-Rodas, I; Parra-Blanco, V; Rodríguez-Lomba, E. *When is it worth performing lymphadenectomy in patients with melanoma micrometastases? A 20-year experience retrospective analysis*. CIRUGIA Y CIRUJANOS. 2021; 89(4) 457-460. FI: 0.416. Cuartil: 4. (Article).
- Balaguer-Franch, I; de la Torre-Ruiz, EH; Baniandrés-Rodríguez, O. *Generalized dermatophytosis and tinea capitis mimicking psoriasis in a patient with long-term infliximab treatment*. CLINICAL AND EXPERIMENTAL DERMATOLOGY. 2021; 46(4) 750-751. FI: 4.481. Cuartil: 1. (Letter).
- Cantenys-Molina, S; Fernández-Cruz, E; Francos, P; de Quirós, JCLB; Muñoz, P; Gil-Herrera, J. *Lymphocyte subsets early predict mortality in a large series of hospitalized COVID-19 patients in Spain*. CLINICAL AND EXPERIMENTAL IMMUNOLOGY. 2021; 203(3) 424-432. FI: 5.732. Cuartil: 2. (Article).
- Pulido-Pérez, A; Parra-Blanco, V; Bergón-Sendín, M; Carretero-López, F; Nieto-Benito, LM; Rosell-Díaz, A; Romero-Jiménez, R; Suárez-Fernández, R. *Intralesional cidofovir as neoadjuvant therapy in a squamous cell carcinoma of the nail bed*. DERMATOLOGIC THERAPY. 2021; 34(1). FI: 3.858. Cuartil: 2. (Letter).
- Dauden, E; de Lima, GPG; Armesto, S; Herrera-Acosta, E; Vidal, D; Villarasa, E; Rivera, R; de la Cueva, P; Martorell, A; Ballesca, F; Belinchón, I; Carretero, G; Rodríguez, L; Romero-Mate, A; Pujol-Montcusi, J; Salgado, L; Sahuquillo-Torralba, A; Coto-Seg. *Multicenter Retrospective Study of Secukinumab Drug Survival in Psoriasis Patients in a Daily Practice Setting: A Long-Term Experience in Spain*. DERMATOLOGY AND THERAPY. 2021; 11(6) 2207-2215. FI: 3.661. Cuartil: 2. (Article).
- Rodríguez-Lomba, E; Lozano-Masdemont, B; Nieto-Benito, LM; de la Torre, EH; Suárez-Fernández, R; Avilés-Izquierdo, JA. *Dermoscopic Predictors of Tumor Thickness in Cutaneous Melanoma: A Retrospective Analysis of 245 Melanomas*. DERMATOLOGY PRACTICAL & CONCEPTUAL. 2021; 11(3). FI: 2.753. Cuartil: 3. (Article).



5.01. PATHOPHYSIOLOGY AND CLINICAL INVESTIGATION OF CHRONIC INFLAMMATORY AND IMMUNE DISEASES

- Nieto-Benito, LM; Ruedas-Martínez, A; Suárez-Fernández, RM; Pulido-Pérez, A. *Painful furuncles and abscesses in the genital area associated with functional impairment*. ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA. 2021; 39(6) 300-301. FI: 1.994. Cuartil: 4. (Editorial Material).
- Lacasta-Plasin, C; Avilés-Izquierdo, JA. *sQuiz your knowledge! All that glitters is not gold*. EUROPEAN JOURNAL OF DERMATOLOGY. 2021; 31(5) 679-681. FI: 2.805. Cuartil: 2. (Editorial Material).
- de la Torre-Ruiz, EH; García-Piqueras, P; Parra-Blanco, V; Rodríguez-Lomba, E; Avilés-Izquierdo, JA; Rosell-Díaz, AM. *Dermopath & Clinic: Dermal melanocytic nevus associated with dermatofibroma*. EUROPEAN JOURNAL OF DERMATOLOGY. 2021; 31(4) 584-585. FI: 2.805. Cuartil: 2. (Editorial Material).
- García-Piqueras, P; Avilés-Izquierdo, JA; Almodovar-Real, A; Nieto-Benito, LM; Rodríguez-Lomba, E. *Clues in dermoscopy: White and yellow structures in balloon cell melanoma*. EUROPEAN JOURNAL OF DERMATOLOGY. 2021; 31(5) 676-677. FI: 2.805. Cuartil: 2. (Editorial Material).
- Rodríguez-Lomba, E; Lozano-Masdemont, B; Sánchez-Herrero, A; Suárez-Fernández, R; Avilés-Izquierdo, JA. *Dermosurgery: Reconstruction of a large dorsal hand defect with a dermal substitute matrix*. EUROPEAN JOURNAL OF DERMATOLOGY. 2021; 31(2) 302-304. FI: 2.805. Cuartil: 2. (Editorial Material).
- Estrada-Capetillo, L; Aragonese-Fenoll, L; Domínguez-Soto, A; Fuentelsaz-Romero, S; Nieto, C; Simón-Fuentes, M; Alonso, B; Portoles, P; Corbi, AL; Rojo, JM; Puig-Kroger, A. *CD28 is expressed by macrophages with anti-inflammatory potential and limits their T-cell activating capacity*. EUROPEAN JOURNAL OF IMMUNOLOGY. 2021; 51(4) 824-834. FI: 6.688. Cuartil: 2. (Article).
- Nieto-Benito, LM; Ciudad-Blanco, C; Sanmartín-Jiménez, O; Garcés, JR; Rodríguez-Prieto, MA; Vilarasa, E; de Eusebio-Murillo, E; Minano-Medrano, R; Escutia-Muñoz, B; González-Sixto, B; Artola-Igarza, JL; Rubio, AA; Redondo, P; Delgado-Jiménez, Y; Sánchez-. *Mohs micrographic surgery in dermatofibrosarcoma protuberans: Rate and risk factors for recurrence in a prospective cohort study from the Spanish Registry of Mohs Surgery (REGESMOHS) and review of the literature*. EXPERIMENTAL DERMATOLOGY. 2021; 30(5) 717-722. FI: 4.511. Cuartil: 1. (Review).
- Nieto-Benito, LM; Bergón-Sendín, M; Pulido-Pérez, A; Rosell-Díaz, AM; Parra-Blanco, V; Suárez-Fernández, R. *Defining dipeptidyl peptidase-4 inhibitors-related bullous pemphigoid: A single-centre retrospective study*. EXPERIMENTAL DERMATOLOGY. 2021; 30(9) 1345-1351. FI: 4.511. Cuartil: 1. (Article).
- González, MAM; Carbone, J. *How suitable is intravenous tocilizumab for the treatment of Graves' ophthalmopathy?*. EXPERT REVIEW OF CLINICAL IMMUNOLOGY. 2021; 17(11) 1151-1153. FI: 5.124. Cuartil: 2. (Editorial Material).
- Fuentelsaz-Romero, S; Cuervo, A; Estrada-Capetillo, L; Celis, R; García-Campos, R; Ramírez, J; Sastre, S; Samaniego, R; Puig-Kroger, A; Canete, JD. *GM-CSF Expression and Macrophage Polarization in Joints of Undifferentiated Arthritis Patients Evolving to Rheumatoid Arthritis or Psoriatic Arthritis*. FRONTIERS IN IMMUNOLOGY. 2021; 11 613975-613975. FI: 8.786. Cuartil: 1. (Article).
- López-Nevado, M; Docampo-Cordeiro, J; Ramos, JT; Rodríguez-Pena, R; Gil-López, C; Sánchez-Ramón, S; Gil-Herrera, J; Díaz-Madronero, MJ; Delgado-Martín, MA; Morales-Pérez, P; Paz-Artal, E; Magerus, A; Rieux-Laucat, F; Allende, LM. *Next Generation Sequencing for Detecting Somatic FAS Mutations in Patients With Autoimmune Lymphoproliferative Syndrome*. FRONTIERS IN IMMUNOLOGY. 2021; 12 656356-656356. FI: 8.786. Cuartil: 1. (Article).
- Vaquero-Yuste, C; Juárez, I; Molina-Alejandre, M; Molanes-López, EM; López-Nares, A; Suárez-Trujillo, F; Gutiérrez-Calvo, A; López-García, A; Lasa, I; Gómez, R; Fernández-Cruz, E; Rodríguez-Sainz, C; Arnaiz-Villena, A; Martín-Villa, JM. *HLA-G 3'UTR Polymorphisms Are Linked to Susceptibility and Survival in Spanish Gastric Adenocarcinoma Patients*. FRONTIERS IN IMMUNOLOGY. 2021; 12 698438-698438. FI: 8.786. Cuartil: 1. (Article).
- Fuentelsaz-Romero, S; Barrio-Alonso, C; Campos, RG; Torresano, MT; Muller, IB; Triguero-Martínez, A; Nuno, L; Villalba, A; García-Vicuna, R; Jansen, G; Miranda-Carus, ME; González-Álvaro, I; Puig-Kroger, A. *The Macrophage Reprogramming Ability of Antifolates Reveals Soluble CD14 as a Potential Biomarker for Methotrexate Response in Rheumatoid Arthritis*. FRONTIERS IN IMMUNOLOGY. 2021; 12 776879-776879. FI: 8.786. Cuartil: 1. (Article).
- Benede-Ubieto, R; Estévez-Vázquez, O; Guo, FF; Chen, CB; Singh, Y; Nakaya, HI; del Moral, MG; Lamas-Paz, A; Morán, L; López-Alcantara, N; Reissing, J; Bruns, T; Ávila, MA; Santamaría, E; Mazariegos, MS; Woitok, MM; Haas, U; Zheng, K; Juárez, I; Martín-Vil. *An Experimental DUAL Model of Advanced*



Liver Damage. HEPATOLOGY COMMUNICATIONS. 2021; 5(6) 1051-1068. FI: 5.701. Cuartil: 2. (Article).

- Martín, MC; Jurado, A; Abad-Molina, C; Orduña, A; Yarce, O; Navas, AM; Cunill, V; Escobar, D; Boix, F; Burillo-Sanz, S; Vegas-Sánchez, MC; Jiménez-de Las Pozas, Y; Melero, J; Aguilar, M; Sobieschi, OI; López-Hoyos, M; Ocejo-Vinyals, G; San Segundo, D; Alm. *The age again in the eye of the COVID-19 storm: evidence-based decision making*. IMMUNITY & AGEING. 2021; 18(1) 24-24. FI: 9.701. Cuartil: 1. (Article).
- Pulido-Pérez, A; Bergón-Sendín, M; Suárez-Fernández, R; Muñoz-Martín, P; Bouza, E. *Skin and sepsis: contribution of dermatology to a rapid diagnosis*. INFECTION. 2021; 49(4) 617-629. FI: 7.455. Cuartil: 1. (Review).
- Nieto-Benito, LM; Balaguer-Franch, I; Barchino-Ortiz, L. *Pearl necklace-like bullous and purpuric lesions*. INTERNAL MEDICINE JOURNAL. 2021; 51(9) 1551-1552. FI: 2.611. Cuartil: 3. (Letter).
- Arnaiz-Villena, A; Suárez-Trujillo, F; Palacio-Gruber, J; Rodríguez-Sainz, C; Fernández-Cruz, E; Martín-Villa, JM; Fragoso, JM. *HLA-G in Mayas from Yucatan: An evolutionary approach*. INTERNATIONAL JOURNAL OF IMMUNOGENETICS. 2021; 48(5) 403-408. FI: 2.385. Cuartil: 3. (Article).
- Latorre, MC; Pérez-Granda, MJ; Savage, PB; Alonso, B; Martín-Rabadán, P; Samaniego, R; Bouza, E; Muñoz, P; Guembe, M. *Endotracheal tubes coated with a broad-spectrum antibacterial ceragenin reduce bacterial biofilm in an in vitro bench top model*. JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY. 2021; 76(5) 1168-1173. FI: 5.758. Cuartil: 1. (Article).
- Tur-Gracia, S; Martínez-Quiles, N. *Emerging functions of cytoskeletal proteins in immune diseases*. JOURNAL OF CELL SCIENCE. 2021; 134(3). FI: 5.235. Cuartil: 2. (Review).
- Juárez, I; Gutiérrez, A; Vaquero-Yuste, C; Molanes-López, EM; López, A; Lasa, I; Gómez, R; Martín-Villa, JM. *TGFB1 polymorphisms and TGF-beta 1 plasma levels identify gastric adenocarcinoma patients with lower survival rate and disseminated disease*. JOURNAL OF CELLULAR AND MOLECULAR MEDICINE. 2021; 25(2) 774-783. FI: 5.295. Cuartil: 2. (Article).
- García-Martínez, FJ; Rull, EV; Salgado-Boquete, L; Martorell, A; Pascual, JC; Hernández-Martín, A; Silvente, C; Ciudad-Blanco, C; Esteban, EA; Alfageme-

Roldán, F. *Intralesional corticosteroid injection for the treatment of hidradenitis suppurativa: a multicenter retrospective clinical study*. JOURNAL OF DERMATOLOGICAL TREATMENT. 2021; 32(3) 286-290. FI: 3.23. Cuartil: 2. (Article).

- Nieto-Benito, LM; Rodríguez-Lomba, E; Martín-Rabadán-Caballero, P; Pérez, AP. *First report of Autochthonous Furuncular Myiasis caused by Dermatobia Hominis in Europe*. JOURNAL OF INFECTION. 2021; 83(1) 143-145. FI: 38.637. Cuartil: 1. (Letter).
- Baniandrés-Rodríguez, O; Vilar-Alejo, J; Rivera, R; Carrascosa, JM; Dauden, E; Herrera-Acosta, E; Sahuquillo-Torralba, A; Gómez-García, FJ; Nieto-Benito, LM; de la Cueva, P; López-Esteban, JL; Belinchón, I; Farres, MF; Alsina, M; Fernández-Freire, LR. *Incidence of severe COVID-19 outcomes in psoriatic patients treated with systemic therapies during the pandemic: A Biobadaderm cohort analysis*. JOURNAL OF THE AMERICAN ACADEMY OF DERMATOLOGY. 2021; 84(2) 513-517. FI: 15.487. Cuartil: 1. (Letter).
- Nieto-Benito, LM; Parra-Blanco, V; Gómez-Navarro, Y; Menárguez-Palanca, J; Pulido-Pérez, A. *Histopathological features and outcomes of DUSP22 rearrangement in primary cutaneous anaplastic large cell lymphoma: a case report and review of the literature*. JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY. 2021; 35(10) 670-672. FI: 9.228. Cuartil: 1. (Letter).
- Nieto-Benito, LM; Barchino-Ortiz, L. *Increased risk of vulvovaginal candidiasis in diabetic patients under treatment with SGLT2 inhibitors*. MEDICINA CLINICA. 2021; 157(1) 39-40. FI: 3.2. Cuartil: 2. (Letter).
- Nieto-Benito, LM; Molina-López, I; Feito-Rodríguez, M; Martínez-González, V; Suárez-Fernández, R; Campos-Domínguez, M. *Ectodermal dysplasia with congenital adermatoglyphia (Basan syndrome): Report of two cases presenting with extensive congenital milia*. PEDIATRIC DERMATOLOGY. 2021; 38(2) 530-532. FI: 1.997. Cuartil: 3. (Article).
- Wendt, CH; Castro-Pearson, S; Proper, J; Pett, S; Griffin, TJ; Kan, V; Carbone, J; Koulouris, N; Reilly, C; Neaton, JD; INSIGHT FLU003 Plus Study Grp. *Metabolite profiles associated with disease progression in influenza infection*. PLOS ONE. 2021; 16(4). FI: 3.752. Cuartil: 2. (Article).
- Soenksen, LR; Kassis, T; Conover, ST; Marti-Fuster, B; Birkenfeld, JS; Tucker-Schwartz, J; Naseem, A; Stavert, RR; Kim, CC; Senna, MM; Avilés-Izquierdo,



5.01. PATHOPHYSIOLOGY AND CLINICAL INVESTIGATION OF CHRONIC INFLAMMATORY AND IMMUNE DISEASES

J; Collins, JJ; Barzilay, R; Gray, ML. *Using deep learning for dermatologist-level detection of suspicious pigmented skin lesions from wide-field images*. SCIENCE TRANSLATIONAL MEDICINE. 2021; 13(581). FI: 19.319. Cuartil: 1. (Article).

- Gallego, A; Sarmiento, E; Sousa, I; Zataráin, E; Fernández-Yáñez, J; Navarro, J; Gil, J; Carbone, J. *Immunologic Abnormalities Associated With Health Status of Heart Recipients Long Term After Transplantation*. TRANSPLANTATION PROCEEDINGS. 2021; 53(9) 2724-2727. FI: 1.014. Cuartil: 4. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Boas, PV; Hernández-Aragues, I; Baniandrés-Rodríguez, O. *Erythematous Scaly Plaque*. ACTAS DERMO-SIFILOGRAFICAS. 2021; 112(2) 169-170. (Editorial Material).
- Nieto-Benito, LM; Pulido-Pérez, A; Bergón-Sendín, M. *Acquired Perforating Dermatitis: A Sign of Systemic Disease*. ACTAS DERMO-SIFILOGRAFICAS. 2021; 112 4-4. (Editorial Material).
- Sánchez-Herrero, A; Nieto-Benito, LM; Rosell-Díaz, AM; Pulido-Pérez, A. *False-Positive Serology for Hepatitis B After Intravenous Immunoglobulin Therapy for Toxic Epidermal Necrolysis*. ACTAS DERMO-SIFILOGRAFICAS. 2021; 112(5) 476-477. (Letter).
- Belinchón, I; Velasco, M; Ara-Martín, M; Alonso, SA; Rodríguez, OB; Pulido, LF; García-Bustinduy, M; Martínez-López, JA; Sánchez, NM; Ferriols, AP;

Pascual, EP; Díaz, RR; Ruiz-Villaverde, R; Ferrer, RT; Villa, AV; Carrascosa, JM. *Management of Psoriasis During Preconception, Pregnancy, Postpartum, and Breastfeeding: A Consensus Statement*. ACTAS DERMO-SIFILOGRAFICAS. 2021; 112(3) 225-241. (Article).

- Pérez, AP; Nieto-Benito, LM; Bergón-Sendín, M; Suárez-Fernández, R. *Comment on "Characteristics of Oral Lesions in Patients With Hansen Disease"*. ACTAS DERMO-SIFILOGRAFICAS. 2021; 112(4) 384-385. (Letter).
- Herranz, P; Trasobares, L; Mateu, A; Martínez, E; Ruiz-Villaverde, R; Baniandrés, O; Díaz, JM; Jiménez-Gómez, N; Serra, M; Genao, DPR; Rivera, N; Tercedor-Sánchez, J; García, C; Cordey, M; Herrera-Acosta, E. *Characterization and Outcomes in Patients Treated With Apremilast in Routine Clinical Practice in Spain: Results From the APPRECIATE Study*. ACTAS DERMO-SIFILOGRAFICAS. 2021; 112(9) 817-827. (Article).
- Pérez, AP; Bergón-Sendín, M; Hernández-Aragues, I; Suárez-Fernández, R. *Comet Sign in Dermatitis Due to Pyemotes Species*. ACTAS DERMO-SIFILOGRAFICAS. 2021; 112(10) 951-952. (Letter).
- Sarmiento, E; Jiménez, M; di Natale, M; Rodríguez-Ferrero, M; Anaya, F; López-Hoyos, M; Rodrigo, E; Arias, M; Perelló, M; Seron, D; Karanovic, B; Ezzahouri, I; Mezzano, S; Jaramillo, M; Calahorra, L; Alarcón, A; Navarro, J; Muñoz, P; Carbone, J. *Secondary antibody deficiency is associated with development of infection in kidney transplantation: Results of a multicenter study*. TRANSPLANT INFECTIOUS DISEASE. 2021; 23(2). (Article).



5.02. Molecular biology of HIV

Group Head: M^a ÁNGELES MUÑOZ FERNÁNDEZ

Organisms involved: HGUGM

Type: Consolidated Group

Research lines

Axis 1. Basic Research

- ▶ L1: The use of nanoparticles as miRNA delivery agents.
- ▶ L2: se of nanoparticles, mainly dendrimers, as microbicides against HIV-1, HSV and other sexually transmitted viruses.
- ▶ L3: Human cytomegalovirus and nanoparticles.
- ▶ L4: Zika virus (ZIKV) has produced a significant number of cases of fetal microcephaly.
- ▶ L5: Generation of organoids from human pluripotent stem cells: a platform for modeling infectious diseases. Nanotechnology-based therapies.

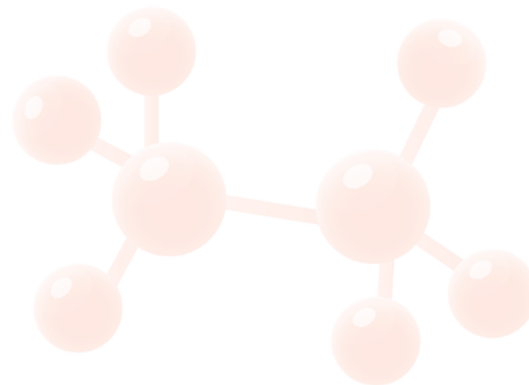
Axis 2. Clinical Research

- ▶ L1: Design of immunomodulators and therapeutic vaccines based on dendritic cells against HIV and other sexually transmitted viruses.

- ▶ L2: Pediatric infection by HIV and other viruses.
- ▶ L3: Study of SARS-CoV2 infection in adult population and HIV/SARS-Co2 coinfection.

Axis 3 BioBank

- ▶ L1: Participation in clinical trials
- ▶ L2: Private sample collections for specific projects and coordinated by the Director of the HGM HIV BB, Dr. Muñoz-Fernández, the HGUGM has several cohorts of patients, such as the broncholitis cohort, neonatology, nephrology, rare diseases, respiratory diseases, sepsis, tuberculosis and the recent GesNEO cohort (pregnant women infected by SARS-CoV2 and their newborns) with biological samples stored in the BioBank.



5.02. MOLECULAR BIOLOGY OF HIV

Dr. M^a Angeles Muñoz Fernández is Head of the Immunology Section of the Hospital General Universitario Gregorio Marañón (HGUGM), Laboratory of Molecular ImmunoBiology (LIBM) and Director of the HGM HIV BioBank with a long history of research and collaboration in infectious diseases, mainly HIV infection, HCV, ZIKA and currently with COVID-19.

The HGUGM LIBM, in addition to providing hospital care to patients, is one of the consolidated research groups at the IISGM led by Dr. Muñoz-Fernández. The research group and staff of the HGM HIV BioBank is made up of 15 people, 6 laboratory technicians, 5 pre-doctoral researchers, 3 post-doctoral researchers, and 1 senior researcher, directed by Dr. Muñoz-Fernández, who work in clinical and translational research and the HGM HIV BioBank.

Dr. Muñoz-Fernández has initiated her lines of research in publicly funded projects since 1992, both in children and adults, maintaining collaborations in national and international projects and with foundations. We have received a total of 76 National and International Projects as PI or Coordinator and PI. Of these 76 projects 18 are International as PI or coordinator and PI, 29 National Projects as PI, 15 Projects in National Research Networks as PI, 5 Research Projects of the Community of Madrid, 2 of them Networks of Excellence, and 8 Research Projects of Foundations (Mutua Madrileña, FIPSE, Eugenio Rodríguez Pascual,...). The group has always had national and international public funding, overlapping with projects of the Autonomous Community of Madrid and different foundations. In these projects we have worked on the study of mechanisms involved in the transmission of HIV-1 in children and adults, and factors that prevent the progression of HIV-1 infection and/or reconstitution of the immune system with potent antiviral treatments; host factors involved in conferring resistance to HIV-1 infection/progression; work on new therapeutic intervention

strategies against HIV-1 infection and other viruses in adult individuals and the role of dendrimers in infectious diseases, including HIV, HSV, CMV, ZIKA. ...

The research group has received continued funding in 18 FIS projects, being in force the Project: FIS PI19/01638 "Dendrimers as candidates for microbicides to prevent HIV and/or HSV-2 infections in women and men", 2020-2022 with funding of 320,347.50 € similar to the projects I have received previously, in other calls. The priority and feasible objective in this case is to achieve that the G2-S16 dendrimer prevents and inhibits virus infection, not only of HIV but also of other viruses at the vaginal level in women and rectally in men. Also, during this period of time, it has been achieved the reading of the Doctoral Thesis of 25 students at UCM or UAM from 2010 to 2020, all with outstanding Cum Lauden.

Dr. Muñoz-Fernández's group has acquired extensive research experience in immunology, virology, nanotechnology, molecular and cellular biology, and in the handling of animals, mainly mice, including humanized BLT mice, zebra fish and rabbits, being one of the most competitive groups of the IISGM. Dr. Muñoz-Fernández is in more than 445 publications, with a number h of 60 in google scholar. It is also important to mention that our group collaborates with numerous groups of excellence both nationally and internationally, in basic, clinical and translational research, thus placing great value on collaboration between basic research and clinical research in order to obtain translatable results in the clinical setting. The LIBM research group develops its work focusing on several lines of research in infectious pathologies and related to the immune system. It highlights its research work in infectious and immunological pathologies in adults and children, highlighting HIV-1 infection, herpes virus (HSV), Hepatitis C virus (HCV) and more recently with SARS-CoV2.



Group members

- Almalé Aso, M^a Ángeles: Other. Lab Technician.
- Cañadilla Martín, Vanessa.
- Espinar Buitrago, M^a de la Sierra: R1. First Stage Researcher.
- Gallego de la Fuente, Jorge Luis: Other. Lab Technician.
- García Alonso, Dolores: Other. Lab Technician.
- García Pérez de la Lastra, Cristina.
- Gómez Rico, Coral: Other. Lab Technician.
- Hernanz Lobo, Alicia: R1. First Stage Researcher.
- Jiménez Fuentes, José Luis: R3. Established Researcher.
- López-Francos Sanz, Lucía: Other. Lab Technician.
- Magro López, Esmeralda.
- Mauleon Azpilicueta, Elba: R2. Recognised Researcher.
- Muñoz Fernández, M^a Ángeles: R4. Leading Researcher.
- Rodríguez Izquierdo, Ignacio: R1. First Stage Researcher.
- Royo Rubio, Elena: R1. First Stage Researcher.
- Serramía Lobera, M^a Jesús: Other. Lab Technician.
- Tarancón Díez, Laura: R2. Recognised Researcher.
- Vázquez Alejo, Elena: R1. First Stage Researcher.



Research Projects – Competitive Calls

Competitive projects

- Title: **Aspectos clínicos e inmunoviroológicos de la infección por SARS-CoV2 en una cohorte de gestantes y recién nacidos.** COV20/00808
Director: Navarro Gómez, María Luisa
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 30/04/2020
End date: 30/04/2021
- Title: **Dendrimers as candidates for a microbicide to prevent HIV and/or HSV-2 infections in women and men.** PI20/01314
Director: Muñoz Fernández, M^a Ángeles
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Dendrimers as candidates for a microbicide to prevent HIV and/or HSV-2 infections in women and men.** PI19/01638
Director: Muñoz Fernández, M^a Ángeles
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Papel de la Nanomedicina en el desarrollo de una cura funcional para el VIH** PI17/01115
Director: Jiménez Fuentes, José Luis
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2018
End date: 31/03/2021
- Title: **NANODENDMED II-CM) Nanosistemas dendríticos como agentes y vectores terapéuticos en distintas aplicaciones biomédicas (II).** S2017/BMD-3703



5.02. MOLECULAR BIOLOGY OF HIV

Director: Jiménez Fuentes, Joé Luis

Project type: Research project

Funding body: Consejería de Educación e Investigación. Comunidad de Madrid

Start date: 01/10/2018

End date: 31/06/2022

- Title: **SARA BORREL Contract. CD20/00025**
Director: Tarancón Díez, Laura
Project type: Human Resources
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Young employment contract: Laboratory Technician. PEJ-2020-TL/BMD-19695**
Director: Muñoz Fernández, M^a Angeles
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project type: Human resources
Start date: 01/03/2021
End date: 31/12/2022
- Title: **Young employment contract: Research assistant. PEJD-2019-PRE/IND-16567**
Director: Jiménez Fuentes, Joé Luis
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project type: Human resources
Start date: 01/02/2020
End date: 31/01/2021
- Title: **Young employment contract: Laboratory Technician. PEJ-2018-TL/BMD-11529**
Director: Jiménez Fuentes, Joé Luis
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project type: Human resources
Start date: 01/03/2019
End date: 28/02/2021

Industrial and intellectual property registrations

Industrial property

Title	Reference*	Owner	Inventors
Group 5.02 Molecular biology of HIV	Nanopartículas metálicas estabilizadas con dendrones carbosilano y sus usos	P 2015 00669	Universidad de Alcalá de Henares - FIBHGM
Group 5.02 Molecular biology of HIV	Dendrones carbosilano funcionalizados con ácidos grasos: formación de micelas y usos	P 2016 00726	Universidad de Alcalá de Henares - FIBHGM
Group 5.02 Group Molecular biology of HIV	Dendrímeros carbosilanos catiónicos obtenidos mediante "click chemistry", su preparación y sus usos	P 2011 30804	FIBHGM -Universidad de Alcalá de Henares -Universidad de Navarra
Group 5.02 Molecular biology of HIV	Dendrímeros carbosilanos con un núcleo polifenólico y su uso como antivirales	P 20103 0450	Universidad de Alcalá de Henares - HGUGM
Group 5.02 Molecular biology of HIV	Dendrímeros carbosilanos y su uso como antivirales	P 20103 0233	Universidad de Alcalá de Henares - HGUGM
Compuestos dendríticos carbosilanos homo y hetero-funcionalizados	P 2012 31187	Universidad de Alcalá de Henares - FIBHGM	Francisco Javier de la Mata, Rafael Gómez, M ^a Ángeles Muñoz-Fernández, Javier Sánchez-Nieves, José Luis Jiménez, Silvia Fernández, Marta Galán, Raquel Lorente, Elena Fuentes, Javier Sánchez, Cornelia Peña, M ^a Jesús Serramía, Rosa Reguera

■ Transferred Industrial Property.

* Reference: P (Patent), PCT (international patent), EP (European patent), US (USA patent), U (Utility model), M (Trademark)



Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of network	Role
RETICS	RETIC-RIS - Red de Investigación en SIDA	Collaborating group
CIBER	CIBER BBN	Associated group
Other	RED IBEROAMERICANA DE CIENCIA Y TECNOLOGIA PARA EL DESARROLLO (CYTED)	Collaborating group
Other	Pediatric European Network for Treatment of AIDS (PENTA)	Collaborating group

Publications

Total Impact Factor: 85.2

	Nº	IF
Own publications	9	57.0
Joint publications	5	28.2
First decile publications	3	28.8
First quartile publications	10	68.9
Second quartile publications	1	5.0
Third quartile publications	3	11.2
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	1	-
Total publications (including those without IF)	15	85.2

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Sainz, T; Delgado, J; Méndez-Echevarría, A; Santiago, B; López-Varela, E; Aguilera-Alonso, D; Saavedra-Lozano, J; Rodríguez-Fernández, R; Holguín, A; Navarro, ML; Muñoz-Fernández, MA; Rivero-Calle, I; Solána, MJ; López-Herce, J; Calvo, C. *The clinical relevance of the microbiome when managing paediatric infectious diseases-Narrative review*. ACTA PAEDIATRICA. 2021; 110(2) 441-449. FI: 4.056. Cuartil: 1. (Review).
- Genebat, M; Tarancón-Díez, L; de Pablo-Bernal, R; Calderón, A; Muñoz-Fernández, MA; Leal, M. *Coronavirus Disease (COVID-19): A Perspective from Immunosenescence*. AGING AND DISEASE. 2021; 12(1) 3-6. FI: 9.968. Cuartil: 1. (Letter).
- Petit, E; Bosch, L; Costa, AM; Rodríguez-Izquierdo, I; Sepulveda-Crespo, D; Muñoz-Fernández, MA; Vilarrasa, J. *BMS Derivatives C7-Linked to beta-Cyclodextrin and Hyperbranched Polyglycerol Retain Activity against R5-HIV-1(NLAD8) Isolates and Can Be Deemed Potential Microbicides*. CHEMMEDCHEM. 2021; 16(14) 2217-2222. FI: 3.54. Cuartil: 3. (Article).
- Rodríguez-Fernández, R; González-Martínez, F; González-Sánchez, MI; Hernández-Sampelayo, T; Jiménez, JL; Muñoz-Fernández, MA; García-Martos, C; Mejías, A; Ramilo, O. *Longitudinal plasma cytokine concentrations and recurrent wheezing after RSV bronchiolitis*. CYTOKINE. 2021; 140 155434-155434. FI: 3.926. Cuartil: 3. (Article).
- Gasco, S; Muñoz-Fernández, MA. *A Review on the Current Knowledge on ZIKV Infection and the Interest of Organoids and Nanotechnology on Development of Effective Therapies against Zika Infection*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(1). FI: 6.208. Cuartil: 1. (Review).
- Relano-Rodríguez, I; Espinar-Buitrago, MD; Martín-Canadilla, V; Gómez-Ramírez, R; Muñoz-Fernández, MA. *G2-S16 Polyanionic Carbosilane Dendrimer Can Reduce HIV-1 Reservoir Formation by Inhibiting Macrophage Cell to Cell Transmission*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(16). FI: 6.208. Cuartil: 1. (Article).
- Magro-López E; Muñoz-Fernández MÁ. *The Role of BMP Signaling in Female Reproductive System Development and Function*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(21). FI: 6.208. Cuartil: 1. (Article).



5.02. MOLECULAR BIOLOGY OF HIV

- Aguilera-Alonso D; Sainz T; Jiménez de Ory S; Bernardino I; Díez C; Torres B; Merino D; Iribarren JA; Portilla I; Ríos MJ; Ibarra S; Sanz J; Bellón JM; Carrasco I; Muñoz-Fernández MÁ; Ramos JT; Navarro ML. *Clinical, Immunological and Virological Outcomes among youths with perinatal HIV after Transition to Adult Units in Spain from 1997 to 2016*. JAIDS-JOURNAL OF ACQUIRED IMMUNE DEFICIENCY SYNDROMES. 2021; 86(2) 240-247. FI: 3.771. Cuartil: 3. (Article).
- Tarancón-Díez L; Rull A; Herrero P; Vázquez-Alejo E; Peraire J; Guillén S; Navarro-Gómez ML; Viladés C; Muñoz-Fernández MÁ; Vidal F. *Early antiretroviral therapy initiation effect on metabolic profile in vertically HIV-1-infected children*. JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY. 2021; 76(11) 2993-3001. FI: 5.758. Cuartil: 1. (Article).
- Royo-Rubio, E; Rodríguez-Izquierdo, I; Moreno-Domene, M; Lozano-Cruz, T; de la Mata, FJ; Gómez, R; Muñoz-Fernández, MA; Jiménez, JL. *Promising PEGylated cationic dendrimers for delivery of miRNAs as a possible therapy against HIV-1 infection*. JOURNAL OF NANOBIO TECHNOLOGY. 2021; 19(1) 158-158. FI: 9.429. Cuartil: 1. (Article).
- Relano-Rodríguez, I; Espinar-Buitrago, MS; Martín-Canadilla, V; Gómez-Ramírez, R; Jiménez, JL; Muñoz-Fernández, MA. *Nanotechnology against human cytomegalovirus in vitro: polyanionic carboxilane dendrimers as antiviral agents*. JOURNAL OF NANOBIO TECHNOLOGY. 2021; 19(1) 65-65. FI: 9.429. Cuartil: 1. (Article).
- Carrasco, I; Tarancón-Díez, L; Vázquez-Alejo, E; de Ory, SJ; Sainz, T; Apilánez, M; Epalza, C; Guillén, S; Ramos, JT; Díez, C; Bernardino, JI; Iribarren, JA; Zamora, A; Muñoz-Fernández, MA; Navarro, ML. *Innate and adaptive abnormalities in youth with vertically acquired HIV through a multicentre cohort in Spain*. JOURNAL OF THE INTERNATIONAL AIDS SOCIETY. 2021; 24(10). FI: 6.707. Cuartil: 1. (Article).
- Rodríguez-Izquierdo, I; Cena-Díez, R; Serramia, MJ; Rodríguez-Fernández, R; Martínez, I; Muñoz-Fernández, M. *Role of G2-S16 Polyanionic Carboxilane Dendrimer in the Prevention of Respiratory Syncytial Virus Infection In Vitro and In Vivo in Mice*. POLYMERS. 2021; 13(13). FI: 4.967. Cuartil: 1. (Article).
- Consuegra, I; Gasco, S; Serramia, MJ; Jiménez, JL; Mellado, MJ; Muñoz-Fernández, MA. *Establishment of a miRNA profile in paediatric HIV-1 patients and its potential as a biomarker for effectiveness of the combined antiretroviral therapy*. SCIENTIFIC REPORTS. 2021; 11(1) 23477-23477. FI: 4.996. Cuartil: 2. (Article).

Other publications

- Carrasco I; Muñoz-Chapuli M; Vigil-Vázquez S; Aguilera-Alonso D; Hernández C; Sánchez-Sánchez C; Oliver C; Ríaza M; Pareja M; Sanz O; Pérez-Seoane B; López J; Márquez E; Domínguez-Rodríguez S; Hernanz-Lobo A; De León-Luis JA; Sánchez-Luna M; Navarro ML. *SARS-COV-2 infection in pregnant women and newborns in a Spanish cohort (GESNEO-COVID) during the first wave*. BMC PREGNANCY AND CHILDBIRTH. 2021; 21(1) 326-326. (Article).



5.03. Autoimmune systemic diseases

Group Head: JOSÉ MARÍA ÁLVARO GRACIA ÁLVARO

Organisms involved: HGUGM

Type: Consolidated Group

Research lines

Axis 1. Optimization of biological therapies

- ▶ L1: Biological therapy in rheumatoid arthritis, spondyloarthropathy, systemic lupus erythematosus, and Sjögren syndrome: optimization of treatment.
- ▶ L2: Study and characterization of the immune response in autoimmune diseases treated with biologics.

Axis 2. Imaging of rheumatic diseases

- ▶ L3: Imaging techniques applied to rheumatic diseases.
- ▶ L4: Capillaroscopy as a diagnostic and prognostic tool in systemic autoimmune disease.

Axis 3. Systemic autoimmune rheumatic diseases

- ▶ L5: Fertility and pregnancy in rheumatic disease.
- ▶ L6: Systemic autoimmune rheumatic diseases (SARDs).
- ▶ L7: Inflammatory myopathy.
- ▶ L8: Coagulation in patients with systemic lupus erythematosus.

Axis 4. Cardiovascular risk

- ▶ L9: Cardiovascular risk factors in rheumatoid arthritis, ankylosing spondylitis, and psoriatic arthritis.

Axis 5. Chronic pain

- ▶ L10: Chronic musculoskeletal pain of non-inflammatory origin.

Axis 6. Early Inflammatory Arthritis

- ▶ L11: Characterization and management of early inflammatory arthritis. Leader: Isabel Castrejón.

Axis 7. Outcome measures in Rheumatology

- ▶ L12: Validation of indexes and questionnaires for measuring disease activity. Leader: Isabel Castrejón.

Axis 8. Interstitial Pneumopathy in Rheumatologic Diseases

- ▶ L13: Early detection and optimization of treatment in RA-associated IDPS. Leader: Isabel Castrejón.

5.03. AUTOIMMUNE SYSTEMIC DISEASES

The professionals of the Rheumatology Service of the HGUGM have great experience and dedication especially in systemic autoimmune diseases and chronic arthritis of adults and children, as well as in the management of biological therapies and new small molecules. The Rheumatology service at the HGUGM has a broad portfolio of services. a high-quality Day Hospital. a Musculoskeletal Ultrasound Unit. Microscopy and Capilaroscopy, a Biological Therapy Unit, a Child Rheumatology Unit and a specialized fertility consultation in rheumatologic patients, who work with high coordination to improve patient care and enhance biomedical research activity. The teaching activity complements the care and research activity, with 8 Rheumatology residents in training, undergraduate students of the medical school and national and international external rotants who come to improve their training and skills in clinical management and techniques used in daily practice.

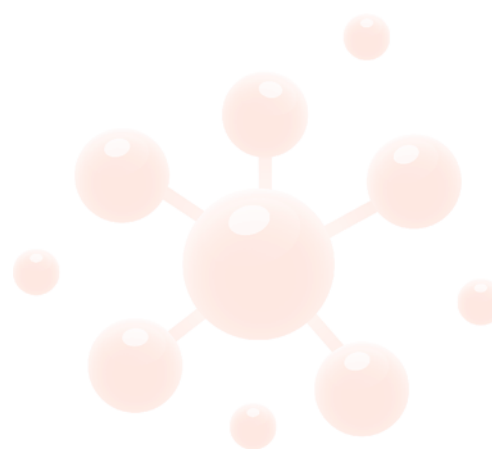
Group members

- **Álvaro-Gracia Álvaro, José María:** R4. Leading Researcher.
- **Castrejón Fernández, Isabel:** R3. Established Researcher.
- **Del Río Blasco, Tamara:** R1. First Stage Researcher.
- **González Fernández, Carlos Manuel:** R3. Established Researcher.
- **González Hernández, Teresa:** R1. First Stage Researcher.
- **López Longo, Francisco Javier.**
- **Martínez Barrio, Julia:** R2. Recognised Researcher.
- **Molina Collada, Juan:** R1. First Stage Researcher.
- **Nieto González, Juan Carlos:** R2.
- **Rivera Redondo, Francisco Javier:** R2. Recognised Researcher.
- **Santoyo Contreras, Luis Alejandro.**
- **Serrano Benavente, Belén:** R1. First Stage Researcher.

Research Projects – Competitive Calls

Competitive projects

- Title: **Consulta de Alta Resolución en Reumatología (Reu-CAR): Una iniciativa coordinada entre Atención Primaria/Reumatología para el diagnóstico precoz y mejor manejo de los pacientes con artritis inflamatoria.** PI20/00847
Director: Castrejón Fernández, Isabel
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Susceptibilidad y agresividad de la infección por SARS-CoV-2 en enfermedades reumáticas inmunomediadas.** COV20/01311-BIS
Director: Álvaro-Gracia Álvaro, José María
Funding body: Instituto de Salud Carlos III
Project type: Research project
Start date: 05/10/2020
End date: 31/12/2021



Industrial and intellectual property registrations

Copyright

Title	Reference	Owner	Inventors
Manual para la creación de una unidad funcional de terapias biológicas en pacientes con artritis crónicas	Nº Asiento Registral: 16/2013/5179	FIBHGM	Luis Carreño, Inmaculada de la Torre, Larissa Valor, Tamara del Río, Vicente Escudero, Diana Hernández, Carmen Rodríguez
Taller práctico de Técnicas de Laboratorio de Inmunología e interpretación clínica para médicos	Nº Asiento Registral: 16/2014/6111	FIBHGM	Larissa Valor, Luis Carreño, Diana Hernández
Taller práctico de Técnicas de Laboratorio de Inmunofluorescencia indirecta (IFI "Live") para médicos	Nº Asiento Registral: 16/2014/6112	FIBHGM	Larissa Valor, Fco. Javier López, Diana Hernández
Infiltraciones guiadas por ecografía en reumatología	Nº Asiento Registral: 16/2018/7393	FIBHGM	Juan Carlos Nieto González

■ Transferred Intellectual Property.

Publications

Total Impact Factor: 163.7

	Nº	IF
Own publications	12	47.1
Joint publications	15	116.6
First decile publications	2	48.8
First quartile publications	8	86.0
Second quartile publications	11	50.8
Third quartile publications	7	24.4
Fourth quartile publications	1	2.6
Nonindexed publications / No IF	4	-
Total publications (including those without IF)	31	163.7

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Masmitja, JG; Fernández, CMG; Castro, SG; Laserna, FJR. *Efficacy of Tofacitinib in the Treatment of Psoriatic Arthritis: A Systematic Review*. ADVANCES IN THERAPY. 2021; 38(2) 868-884. FI: 4.07. Cuartil: 2. (Review).
- Morla, RM; Li, TF; Castrejón, I; Luta, G; Pincus, T. *Multidimensional Health Assessment Questionnaire as an Effective Tool to Screen for Depression in Routine Rheumatology Care*. ARTHRITIS CARE & RESEARCH. 2021; 73(1) 120-129. FI: 5.178. Cuartil: 2. (Article).
- Collada, JM; Gloria, KL; Castrejón, I; Nieto-González, JC; Rivera, J; Montero, F; González, C; Álvaro-Gracia, JM. *Ultrasound in clinically suspect arthralgia: the role of power Doppler to predict rheumatoid arthritis development*. ARTHRITIS RESEARCH & THERAPY. 2021; 23(1) 299-299. FI: 5.606. Cuartil: 1. (Article).
- Riancho-Zarrabeitia, L; Martínez-Taboada, V; Rua-Figueroa, I; Alonso, F; Galindo-Izquierdo, M; Ovalles, J; Olive-Marqués, A; Vázquez, NM; Calvo-Alen, J; Menor-Almagro, R; Tomero-Muriel, E; Uriarte-Isacelaya, E; Botenau, A; Andrés, M; Freire-González, M; S. *Do all antiphospholipid antibodies confer the same risk for major organ involvement in systemic lupus erythematosus patients?*. CLINICAL AND EXPERIMENTAL RHEUMATOLOGY. 2021; 39(3) 555-563. FI: 4.862. Cuartil: 2. (Article).
- Rivera, J; Castrejón, I; Vallejo-Slocker, L; Offenbacher, M; Molina-Collada, J; Trives, L; López, K; Caballero, L; Hirsch, JK; Toussaint, L; Nieto, JC; Álvaro-Gracia, JM; Vallejo, MA. *Clinical impact of confinement due to the COVID-19 pandemic on patients with fibromyalgia: a cohort study*. CLINICAL AND EXPERIMENTAL RHEUMATOLOGY. 2021; 39(3) 78-81. FI: 4.862. Cuartil: 2. (Article).
- Fariñas, MC; González-Rico, C; Fernández-Martínez, M; Fortun, J; Escudero-Sánchez, R; Moreno, A; Bodro, M; Muñoz, P; Valerio, M; Montejo, M; Nieto, J; Millán, JCRS; Casafont-Morencos, F; Martínez-Martínez, L; Fariñas-Álvarez, C. *Oral decontamination with colistin plus neomycin in solid organ transplant recipients colonized by multidrug-resistant Enterobacterales: a multicentre, randomized, controlled, open-label, parallel-group clinical trial*. CLINICAL MICROBIOLOGY AND INFECTION. 2021; 27(6) 856-863. FI: 13.31. Cuartil: 1. (Article).



5.03. AUTOIMMUNE SYSTEMIC DISEASES

- Collada, JM; Macia-Villa, C; Plasencia, C; Álvaro-Gracia, JM; de Miguel, E. *Doppler enthesitis: a potential useful outcome in the assessment of axial spondyloarthritis and psoriatic arthritis*. CLINICAL RHEUMATOLOGY. 2021; 40(5) 2013-2020. FI: 3.65. Cuartil: 3. (Article).
- Collada, JM; Martínez-Barrio, J; Serrano-Benavente, B; Castrejón, I; Nieto-González, JC; Motta, LRC; Folguera, LT; Álvaro-Gracia, JM. *Subclavian artery involvement in patients with giant cell arteritis: do we need a modified Halo Score?*. CLINICAL RHEUMATOLOGY. 2021; 40(7) 2821-2827. FI: 3.65. Cuartil: 3. (Article).
- Julia, A; Martínez-Mateu, SH; Domenech, E; Canete, JD; Ferrándiz, C; Tornero, J; Gisbert, JP; Fernández-Nebro, A; Dauden, E; Barreiro-de Acosta, M; Pérez, C; Queiro, R; López-Longo, FJ; Carazo, JLS; Mendoza, JL; Alperi, M; Montilla, C; Venegas, JJP; Muñoz. *Food groups associated with immune-mediated inflammatory diseases: a Mendelian randomization and disease severity study*. EUROPEAN JOURNAL OF CLINICAL NUTRITION. 2021; 75(9) 1368-1382. FI: 4.884. Cuartil: 2. (Article).
- Rodríguez-García, SC; Montes, N; Ivorra-Cortés, J; Triguero-Martínez, A; Rodríguez-Rodríguez, L; Castrejón, I; Carmona, L; González-Álvaro, I. *Disease Activity Indices in Rheumatoid Arthritis: Comparative Performance to Detect Changes in Function, IL-6 Levels, and Radiographic Progression*. FRONTIERS IN MEDICINE. 2021; 8 669688-669688. FI: 5.058. Cuartil: 2. (Article).
- Nieto, JC; Arjol, C; Carmona, L; Marras, C; Cea-Calvo, L. *Adherence to subcutaneous biological therapies in patients with inflammatory rheumatic diseases and inflammatory bowel disease: a systematic review*. IMMUNOTHERAPY. 2021; 13(5) 433-458. FI: 4.04. Cuartil: 3. (Review).
- Vallejo, MA; Vallejo-Slocker, L; Offenbaecher, M; Hirsch, JK; Toussaint, LL; Kohls, N; Sirois, F; Rivera, J. *Psychological Flexibility Is Key for Reducing the Severity and Impact of Fibromyalgia*. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2021; 18(14). FI: 4.614. Cuartil: 1. (Article).
- Collada, JM; Castrejón, I; Pérez, M; Nieto-González, JC; González, T; Rivera, J; González, C; Álvaro-Gracia, JM. *Clinical impact of musculoskeletal ultrasound on rheumatoid arthritis in routine care*. INTERNATIONAL JOURNAL OF RHEUMATIC DISEASES. 2021; 24(3) 341-346. FI: 2.558. Cuartil: 4. (Article).
- Remuzgo-Martínez, S; Atienza-Mateo, B; Ocejó-Vinyals, JG; Pulito-Cueto, V; Prieto-Pena, D; Genre, F; Márquez, A; Llorca, J; Cuesta, VMM; Fernández, DI; Riesco, L; Ortego-Centeno, N; Gómez, NP; Mera, A; Martínez-Barrio, J; López-Longo, FJ; Lera-Gómez, L; M. *HLA association with the susceptibility to anti-synthetase syndrome*. JOINT BONE SPINE. 2021; 88(3) 105115-105115. FI: 5.263. Cuartil: 2. (Article).
- Saadoun, D; Vieira, M; Vautier, M; Baraliakos, X; Andreica, I; da Silva, JAP; Sousa, M; Luis, M; Khmelinskii, N; Gracia, JMA; Castrejón, I; González, JCN; Scire, CA; Silvagni, E; Bortoluzzi, A; Penn, H; Hamdulay, S; Machado, PM; Fautrel, B; Cacoub, P; Res. *SARS-CoV-2 outbreak in immune-mediated inflammatory diseases: the Euro-COVIMID multicentre cross-sectional study*. LANCET RHEUMATOLOGY. 2021; 3(7) 481-488. FI: 35.482. Cuartil: 1. (Article).
- Nieto-González, JC; Benavente, BS; Collada, JM. *Salivary gland ultrasound: Update*. MEDICINA CLINICA. 2021; 156(2) 81-87. FI: 3.2. Cuartil: 2. (Editorial Material).
- Alegre-Sancho, JJ; Juanola, X; Rodríguez-Heredia, JM; Manero, J; Villa-Blanco, I; Laiz, A; Arteaga, MJ; Cea-Calvo, L; González, CM. *Effectiveness and persistence of golimumab as a second biological drug in patients with spondyloarthritis A retrospective study*. MEDICINE. 2021; 100(13). FI: 1.817. Cuartil: 3. (Article).
- Clemente, D; Udaondo, C; de Inocencio, J; Nieto, JC; Del Rio, PG; Fernández, AG; Palomo, JA; Bachiller-Corral, J; Robledillo, JCL; Longo, CM; León, L; Abasolo, L; Boteanu, A. *Clinical characteristics and COVID-19 outcomes in a regional cohort of pediatric patients with rheumatic diseases*. PEDIATRIC RHEUMATOLOGY. 2021; 19(1) 162-162. FI: 3.413. Cuartil: 2. (Article).
- Frutos, AR; Holgado, S; Berge, AS; Casas, I; Olive, A; López-Longo, FJ; Calvo-Alen, J; Galindo, M; Fernández-Nebro, A; Pego-Reigosa, JM; Rua-Figueroa, I; RELESSER Grp. *Late-onset versus early-onset systemic lupus: characteristics and outcome in a national multicentre register (RELESSER)*. RHEUMATOLOGY. 2021; 60(4) 1793-1803. FI: 7.046. Cuartil: 1. (Article).
- Segura, BT; González, IA; Rua-Figueroa, I; Veiga, NP; Pérez, VD; Olive-Marqués, A; Galindo, M; Calvo, J; Ovalles-Bonilla, JG; Fernández-Nebro, A; Menor-Almagro, R; Tomero, E; del Amo, ND; Isacelaya, EU; Martínez-Taboada, VM; Andreu, JL; Boteanu, A; Narvae. *Relevance of gastrointestinal manifestations in a large Spanish cohort of patients with systemic lupus erythematosus*.



what do we know?. RHEUMATOLOGY. 2021; 60(11) 5329-5336. FI: 7.046. Cuartil: 1. (Article).

- Basiaga, ML; Stern, SM; Mehta, JJ; Edens, C; Randell, RL; Pomorska, A; Irga-Jaworska, N; Ibarra, MF; Bracaglia, C; Nicolai, R; Susic, G; Boneparth, A; Srinivasalu, H; Dizon, B; Kamdar, AA; Goldberg, B; Knupp-Oliveira, S; Antón, J; Mosquera, JM; Appenzelle. *Childhood Sjogren syndrome: features of an international cohort and application of the 2016 ACR/EULAR classification criteria*. RHEUMATOLOGY. 2021; 60(7) 3144-3155. FI: 7.046. Cuartil: 1. (Article).
- Álvaro-Gracia, JM; García-Llorente, JF; Valderrama, M; Gómez, S; Montoro, M. *Update on the Safety Profile of Tofacitinib in Rheumatoid Arthritis from Clinical Trials to Real-World Studies: A Narrative Review*. RHEUMATOLOGY AND THERAPY. 2021; 8(1) 17-40. FI: 4.081. Cuartil: 3. (Review).
- Offenbaecher, M; Kohls, N; Ewert, T; Sigl, C; Hieblinger, R; Toussaint, LL; Sirois, F; Hirsch, J; Vallejo, MA; Kramer, S; Rivera, J; Stucki, G; Schelling, J; Winkelmann, A. *Pain is not the major determinant of quality of life in fibromyalgia: results from a retrospective "real world" data analysis of fibromyalgia patients*. RHEUMATOLOGY INTERNATIONAL. 2021; 41(11) 1995-2006. FI: 3.58. Cuartil: 3. (Article).
- Gracia, JMA; Sánchez-Piedra, C; Manero, J; Ruiz-Lucea, ME; López-Vives, L; Bohorquez, C; Martínez-Barrio, J; Bonilla, G; Vela, P; García-Villanueva, MJ; Navio-Marco, MT; Pavia, M; Galindo, M; Erasquin, C; González-Gay, MA; Rua-Figueroa, I; Pego-Reigosa. *Role of targeted therapies in rheumatic patients on COVID-19 outcomes: results from the COVIDSER study*. RMD OPEN. 2021; 7(3). FI: 5.806. Cuartil: 1. (Article).
- Remuzgo-Martínez, S; Atienza-Mateo, B; Ocejó-Vinyals, JG; Genre, F; Pulito-Cueto, V; Mora-Cuesta, VM; Iturbe-Fernández, D; Lera-Gómez, L; Pérez-Fernández, R; Prieto-Pena, D; Irure, J; Romero-Bueno, F; Sánchez-Pernaute, O; Alonso-Moralejo, R; Nuno, L; Boni. *Role of MUC1 rs4072037 polymorphism and serum KL-6 levels in patients with antisynthetase syndrome*. SCIENTIFIC REPORTS. 2021; 11(1). FI: 4.996. Cuartil: 2. (Article).

- Nieto-González, JC; Trives-Folguera, L; Melgarejo-Ortuño, A; Ais, A; Serrano-Benavente, B; Sanjurjo, M; Álvaro-Gracia, JM; Sáez, IM. *Persistence and adherence to biologic therapies in juvenile idiopathic arthritis*. SCIENTIFIC REPORTS. 2021; 11(1) 16195-16195. FI: 4.996. Cuartil: 2. (Article).
- Motta, LRC; Alfaro, AMA; Janta, I; Collada, JM; Henao, YK; Pascual, RP; Álvaro-Gracia, JM; Nieto-González, JC. *Radiosynovectomy in routine care: an old tool with modern applications*. THERAPEUTIC ADVANCES IN MUSCULOSKELETAL DISEASE. 2021; 13. FI: 3.625. Cuartil: 3. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Collada, JM; Trives, L; Castrejón, I. *The Importance of Outcome Measures in the Management of Inflammatory Rheumatic Diseases*. OPEN ACCESS RHEUMATOLOGY-RESEARCH AND REVIEWS. 2021; 13 191-200. (Review).
- Cid, LAT; Soletto, KCY; Montoro-Álvarez, M; Tenorio, CS; Silva-Riveiro, A; López-Cerón, A; Alfaro, AMA; Motta, LRC; Benavente, BS; Martínez-Barrio, J; Ovalles-Bonilla, JG; Fernández, CMG; Sáez, IM; Nieto-González, JC. *Clinical impact of nailfold capillaroscopy in daily clinical practice*. REUMATOLOGIA CLINICA. 2021; 17(5) 258-262. (Article).

Other publications

- Rivera J; Castrejón I; Vallejo-Slocker L; Offenbächer M; Molina-Collada J; Trives L; López K; Caballero L; Hirsch JK; Toussaint L; Nieto JC; Álvaro-Gracia JM; Vallejo MA. *Clinical impact of confinement due to the COVID-19 pandemic on patients with fibromyalgia: a cohort study*. CLINICAL AND EXPERIMENTAL RHEUMATOLOGY. 2021; 39 Suppl 130(3) 78-81. (Article).
- Fernández Castro M; López-Pintor RM; Serrano J; Ramírez L; Sanz M; Andreu JL; Muñoz Fernández S. *Protocolised odontological assessment of patients with primary Sjögren's syndrome*. REUMATOLOGIA CLINICA. 2021; 17(1) 25-31. (Article).



5.05. Pathogenesis of the immunoallergic response

Group Head: JOSÉ MANUEL ZUBELDIA ORTUÑO

Organisms involved: HGUGM

Type: Emerging Group

Research lines

Axis 1: Basic and experimental allergology

- ▶ L1: Mechanisms of the allergic response and their regulation.
- ▶ L2: Transgenesis and phenotyping.
- ▶ L3: Hyperoxia-induced disease.
- ▶ L4: Allergenic characterization of noncommercial allergens.

Axis 2: Uncommon allergic diseases

- ▶ L1: Difficult-to-control asthma.
- ▶ L2: Hereditary angioedema.
- ▶ L3: Eosinophilic esophagitis.
- ▶ L4: Activation of mastocytes.

Axis 3: Pediatric allergy

- ▶ L1: Oral immunotherapy with foods.
- ▶ L2: Gastrointestinal allergy.
- ▶ L3: Anaphylaxis in children.
- ▶ L4: Use of social networks in food-allergic children.

Group members

- Alonso Navarro, Miren.
- Álvarez Perea, Alberto: R3. Established Researcher.
- Aray Morán, M^a Gabriela.
- Arrieta Antón, Enrique M^a.

- Baeza Ochoa de Ocariz, M^a Luisa: R3. Established Researcher.
- Crespo Quirós, Jimena.
- Cuevas Bravo, Cristina.
- De Catro Martínez, Francisco Javier.
- Domínguez Estirado, Alicia.
- Fernández Alonso, Ana.
- Fuentes Aparicio, Victoria: R1. First Stage Researcher.
- Infante Herrero, Sonsoles: R1. First Stage Researcher.
- Jover Walsh, Alejandra.
- Juárez Guerrero, Alba.
- Laínez Nuez, Ana.
- Letón Cabanillas, Patricia.
- López Tovar, Carlos.
- Muñoz de Baena Albarracín, María.
- Noguerado Mellado, Blanca.
- Palomino Lozano, Laura.
- Pelta Fernández, Roberto.
- Pérez Pallise, M^a Esperanza.
- Poli Pérez, Rodnel Enrique.
- Prieto García, Alicia: R3. Established Researcher.
- Rodríguez Hermida, Sandra.
- Rodríguez Mazariego, Marta Elena.
- Rojas Pérez Ezquerro, Patricia Eugenia: R1. First Stage Researcher.
- Skrabski, Filip.
- Tornero Molina, Pilar: R1. First Stage Researcher.
- Zambrano Ibarra, Gabriela Andrea.
- Zubeldía Ortuño, José Manuel: R4. Leading Researcher.



Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of network	Role
CIBER	Centro de Investigación Biomédica en Red CIBERER Group U761	Associated group

Publications

Total Impact Factor: 163.0

	Nº	IF
Own publications	13	93.1
Joint publications	9	69.9
First decile publications	3	25.2
First quartile publications	12	107.6
Second quartile publications	8	50.0
Third quartile publications	1	3.4
Fourth quartile publications	1	2.1
Nonindexed publications / No IF	5	-
Total publications (including those without IF)	27	163.0

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- de la Fuente, AG; Fuentes-Aparicio, V; Infante, S. *An unusual case of food protein-induced enterocolitis syndrome due to zucchini*. ALLERGOLOGIA ET IMMUNOPATHOLOGIA. 2021; 49(6) 39-41. FI: 2.094. Cuartil: 4. (Article).
- Guilarte, M; Sala-Cunill, A; Baeza, ML; Cabanas, R; Hernández, MD; Ibáñez, E; de Larramendi, CH; Lleonart, R; Lobera, T; Marqués, L; Pedro, BSD; Botha, J; Andresen, I; Caballero, T; IOS Study Grp. *Hereditary angioedema due to C1 inhibitor deficiency: real-world experience from the Icatibant Outcome Survey in Spain*. ALLERGY ASTHMA AND CLINICAL IMMUNOLOGY. 2021; 17(1) 137-137. FI: 3.373. Cuartil: 3. (Article).
- Abreu-Ramírez, MG; García-Gutiérrez, I; Seoane-Reula, ME; Infante, S. *Food protein-induced enterocolitis syndrome in monochorial monoamniotic twins*. ANNALS OF ALLERGY ASTHMA & IMMUNOLOGY. 2021; 127(2) 274-274. FI: 6.248. Cuartil: 2. (Letter).
- Vázquez-Ortiz, M; Infante, S. *Diagnostic criteria for food protein-induced enterocolitis syndrome Can we do better?*. ANNALS OF ALLERGY ASTHMA & IMMUNOLOGY. 2021; 126(5) 458-459. FI: 6.248. Cuartil: 2. (Editorial Material).
- Bird, JA; Barni, S; Brown-Whitehorn, TF; du Toit, G; Infante, S; Nowak-Węgrzyn, A. *Food protein-induced enterocolitis syndrome oral food challenge Time for a change?*. ANNALS OF ALLERGY ASTHMA & IMMUNOLOGY. 2021; 126(5) 506-515. FI: 6.248. Cuartil: 2. (Review).
- Bravo, CC; Quirós, JC; Mellado, BN; Pérez-Ezquerro, PR. *Furacin More than just contact dermatitis from nitrofurazone*. ANNALS OF ALLERGY ASTHMA & IMMUNOLOGY. 2021; 127(3) 389-390. FI: 6.248. Cuartil: 2. (Letter).
- Bravo, CC; Quirós, JC; Mellado, BN; Pérez-Ezquerro, PR. *More than just contact dermatitis from nitrofurazone*. ANNALS OF ALLERGY ASTHMA & IMMUNOLOGY. 2021; 127(3) 390-. FI: 6.248. Cuartil: 2. (Letter).
- Celaya, AM; Rodríguez-De la Rosa, L; Bermúdez-Muñoz, JM; Zubeldia, JM; Roma-Mateo, C; Avendaño, C; Pallardó, FV; Varela-Nieto, I. *IGF-1 Haploinsufficiency Causes Age-Related Chronic Cochlear Inflammation and Increases Noise-Induced Hearing Loss*. CELLS. 2021; 10(7). FI: 7.666. Cuartil: 2. (Article).



5.05. PATHOGENESIS OF THE IMMUNOALLERGIC RESPONSE

- Argiz, L; Infante, S; Machinena, A; Bracamonte, T; Echeverría, L; Prieto, A; Garriga, T; Vila, L; González-Delgado, P; García-Magan, C; García, E; Carballeira, I; Vázquez-Cortés, S; Mori, F; Barni, S; Arasi, S; Pascal, M; Boyle, RJ; Vázquez-Ortiz, M; BIO-. *Children with acute food protein-induced enterocolitis syndrome from Spain and Italy usually tolerate all other food groups.* CLINICAL AND EXPERIMENTAL ALLERGY. 2021; 51(9) 1238-1241. FI: 5.401. Cuartil: 2. (Letter).
- Álvarez-Perea, A; Dimov, V; Popescu, FD; Zubeldia, JM. *The applications of eHealth technologies in the management of asthma and allergic diseases.* CLINICAL AND TRANSLATIONAL ALLERGY. 2021; 11(7). FI: 5.657. Cuartil: 2. (Review).
- Zubeldia-Varela, E; Barker-Tejeda, TC; Blanco-Pérez, F; Infante, S; Zubeldia, JM; Pérez-Gordo, M. *Non-IgE-Mediated Gastrointestinal Food Protein-Induced Allergic Disorders. Clinical Perspectives and Analytical Approaches.* FOODS. 2021; 10(11). FI: 5.561. Cuartil: 1. (Review).
- Meyts, I; Bucciol, G; Quinti, I; Neven, B; Fischer, A; Seoane, E; López-Grandos, E; Gianelli, C; Robles-Marhuenda, A; Jeandel, PY; Paillard, C; Sankaran, VG; Demirdag, YY; Lougaris, V; Aiuti, A; Plebani, A; Milito, C; Dalm, VASH; Guevara-Hoyer, K; Sánchez. *Coronavirus disease 2019 in patients with inborn errors of immunity: An international study.* JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY. 2021; 147(2) 520-531. FI: 14.29. Cuartil: 1. (Article).
- Crespo Quirós J; Tornero Molina P; Martín-Rabadán, P; Cuevas Bravo C; Baeza Ochoa de Ocariz ML. *Sphingomonas ginsenosidimutans and Bacillus cereus: New agents associated with hypersensitivity pneumonitis.* JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY-IN PRACTICE. 2021; 9(2) 1035-. FI: 11.022. Cuartil: 1. (Letter).
- Crespo, J; Skrabski, F; Pérez-Pallise, ME; De Castro-Martínez, FJ; Zubeldia, JM; Infante, S. *Relevant features of adult-onset food protein-induced enterocolitis syndrome.* JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY-IN PRACTICE. 2021; 9(4) 1759-. FI: 11.022. Cuartil: 1. (Letter).
- Guerrero, AJ; Estirado, AD; Quirós, JC; Rojas-Pérez-Ezquerria, P. *Delayed cutaneous reactions after the administration of mRNA vaccines against COVID-19.* JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY-IN PRACTICE. 2021; 9(10) 3811-3813. FI: 11.022. Cuartil: 1. (Letter).
- Sabate-Bresco, M; Rodríguez-Garijo, N; Azofra, J; Baeza, ML; Donado, CD; Gaig, P; Guilarte, M; Herrera-Lasso, V; Labrador-Horrillo, M; Sala-Cunill, A; Veleiro, B; Gil, MP; Kaplan, A; Ferrer, M. *A Comparative Study of Sex Distribution, Autoimmunity, Blood, and Inflammatory Parameters in Chronic Spontaneous Urticaria with Angioedema and Chronic Histaminergic Angioedema.* JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY-IN PRACTICE. 2021; 9(6) 2284-2292. FI: 11.022. Cuartil: 1. (Article).
- Rojas-Pérez-Ezquerria, P; Quirós, JC; Molina, PT; de Ocariz, MLBO; Ortuño, JMZ. *Safety of New mRNA Vaccines Against COVID-19 in Severely Allergic Patients.* JOURNAL OF INVESTIGATIONAL ALLERGOLOGY AND CLINICAL IMMUNOLOGY. 2021; 31(2) 180-181. FI: 8.185. Cuartil: 1. (Editorial Material).
- Lainez-Nuez, A; Crespo, J; Noguerado-Mellado, B; Tejero-Alcalde, M; Tornero, P; Rojas-Pérez-Ezquerria, P. *Severe Delayed Hypersensitivity Reaction to Abiraterone Acetate.* JOURNAL OF INVESTIGATIONAL ALLERGOLOGY AND CLINICAL IMMUNOLOGY. 2021; 31(2) 168-170. FI: 8.185. Cuartil: 1. (Editorial Material).
- Miranda, TP; Prado, MJR; Calderón, AM; Porcel, IFD; Ibarra, GZ; Spanish Soc Allergology Immunology. *Descriptive Study of Job Opportunities in the Allergy Field.* JOURNAL OF INVESTIGATIONAL ALLERGOLOGY AND CLINICAL IMMUNOLOGY. 2021; 31(2) 184-186. FI: 8.185. Cuartil: 1. (Letter).
- Matito, A; Escribese, MM; Longo, N; Mayorga, C; Luengo-Sánchez, O; Pérez-Gordo, M; Matheu, V; Labrador-Horrillo, M; Pascal, M; Seoane-Reula, ME; Soc Espanola Alergologia Et Inmunol. *Clinical Approach to Mast Cell Activation Syndrome: A Practical Overview.* JOURNAL OF INVESTIGATIONAL ALLERGOLOGY AND CLINICAL IMMUNOLOGY. 2021; 31(6) 461-470. FI: 8.185. Cuartil: 1. (Review).
- Infante, S; Pérez-Pallise, E; Skrabski, F; Cabrera-Freitag, P; Morales-Cabeza, C; Fuentes-Aparicio, V; Álvarez-Perea, A; Zubeldia, JM. *Poor prognosis of food protein-induced enterocolitis syndrome to fish.* PEDIATRIC ALLERGY AND IMMUNOLOGY. 2021; 32(3) 560-565. FI: 5.464. Cuartil: 1. (Article).
- Pecoraro, L; Infante, S; Fuentes-Aparicio, V; Cabrera-Freitag, P; Antonucci, N; Álvarez-Perea, A. *IgE-mediated fish allergy in pediatric age: Does canned tuna have a chance for tolerance?.* PEDIATRIC ALLERGY AND IMMUNOLOGY. 2021; 32(5) 1114-1117. FI: 5.464. Cuartil: 1. (Letter).



Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- García-Gutiérrez, I; Medellín, DR; Noguerado-Mellado, B; Ordoñez, MCL; Abreu, MG; Nogales, LJ; Rojas-Pérez-Ezquerro, P. *Treatment with lipid transfer protein sublingual immunotherapy slowing down new sensitizations*. ASIA PACIFIC ALLERGY. 2021; 11(1). (Article).
- Pérez-Ezquerro, PR; Torrado-Español, I; Tejero-Alcalde, M; Cuevas-Bravo, C; Noguerado-Mellado, B. *Photoallergy to Naproxen*. CUREUS. 2021; 13(10). (Article).
- Quintana-Ortega, C; Seoane-Reula, E; Fernández, L; Camacho, M; Olbrich, P; Neth, O; Murias, S; Udaondo, C; Remesal, A; Calvo, C; Alcobendas, R. *Colchicine treatment in children with periodic fever, aphthous stomatitis,*

pharyngitis, and cervical adenitis (PFAPA) syndrome: A multicenter study in Spain. EUROPEAN JOURNAL OF RHEUMATOLOGY. 2021; 8(2) 73-78. (Article).

Other publications

- Wiehn E; Ricci C; Álvarez-Perea A; Perkin MR; Jones CJ; Akdis C; Bousquet J; Eigenmann P; Grattan C; Apfelbacher CJ; Genuneit J; Task Force 'Adherence to reporting guidelines in articles published in EAACI Jo. *Adherence to the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist in articles published in EAACI Journals: A bibliographic study*. ALLERGY. 2021; 76(12) 3581-3588. (Article).
- Cuevas Bravo C; Crespo Quirós J; Noguerado Mellado B; Rojas Pérez-Ezquerro P. *Furacin: More than just contact dermatitis from nitrofurazone*. ANNALS OF ALLERGY ASTHMA & IMMUNOLOGY. 2021; 127(3) 389-390. (Article).



5.06. Immune regulation and homeostasis in diseases of the immune system

Group Head: RAFAEL CORREA ROCHA & MARJORIE PION

Organisms involved: HGUGM

Type: Emerging Group

Research lines

Axis 1: Immunology of solid organ transplantation

- ▶ L1: Cellular immunotherapy with Treg cells in pediatric solid organ transplantation. Leader: Rafael Correa Rocha.

Axis 2: Immune regulation in pediatric patients

- ▶ L1: Regulation and Immunological Homeostasis in Pediatric Diseases. Leader: Rafael Correa Rocha.
- ▶ L2: Advanced immunotherapies in Pediatrics. Leader: Rafael Correa Rocha.

Axis 3: Advanced immunotherapies and genetic modification of immune cells

- ▶ L1: Development of genetically modified cells to induce immune tolerance. Leader: Marjorie Pion.
- ▶ L2: Exosomes and immune cell communication mechanisms. Leader: Marjorie Pion.
- ▶ L3: Follow-up of patients with CAR-T cell therapies. Leader: Marjorie Pion.

Axis 4: Immune deregulation and advanced cellular therapies in COVID-19

- ▶ L1: Characterization and therapeutic management of immune hyperactivation associated with mortality in COVID-19. Leader: Rafael Correa Rocha & Marjorie Pion.
- ▶ L2: Cellular immunotherapy with thyTreg cells in COVID19 patients with immune hyperactivation. Leader: Rafael Correa Rocha & Marjorie Pion.

Group members

- Bernaldo de Quirós Plaza, Esther: R1. First Stage Researcher.
- Campos Domínguez, Minia: R3. Established Researcher.
- Carbonell Muñoz, Diego: R1. First Stage Researcher.
- Cerezo Benichou, Elisa.
- Correa Rocha, Rafael: R4. Leading Researcher.
- Cozar Fernández, Beatriz: R1. First Stage Researcher.
- Fernández Castillo, Marta: R1. First Stage Researcher.
- Gallego Valle, Jorge: R1. First Stage Researcher.
- Hernández Flórez, Diana Carolina: R2. Recognised Researcher.
- Kennedy Batalla, Rebeca: R1. First Stage Researcher.
- López Esteban, Rocío: Other. Lab Technician.
- Martínez Bonet, Marta: R2. Recognised Researcher.
- Pérez Fernández, Verónica Astrid: Other. Lab Technician.
- Pion, Marjorie: R3. Established Researcher.
- Rodríguez Castejón, Beatriz: Other. Project Manager.
- Seoane Reula, M^a Elena: R3. Established Researcher.

The Immuno-regulation Laboratory (LIR) led by Rafael Correa Rocha constitutes an emerging group within the Gregorio Marañón Health Research Institute (IISGM), included in Area 5 (Pathology of the Immune System).

The group has focused its research on the study of the immunological mechanisms involved in different immune pathologies of pediatric patients.

These studies constitute an unpublished line in the center and have resulted in the development of a pioneering clinical trial in the world to prevent rejection in children transplanted from the heart through a therapy with Treg cells.

Another principal investigator of the group, Dr. Marjorie Pion, is developing a leading line of research on the genetic modification of immune cells for the development of advanced cellular immunotherapies.



Research Projects – Competitive Calls

Competitive projects

- Title: **Caracterización y manejo terapéutico de la hiperactivación inmunológica asociada a mortalidad en COVID-19.** COV20/00668
Director: Correa Rocha, Rafael
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 20/04/2020
End date: 30/01/2021
- Title: **Ensayo clínico para evaluar la eficacia de una terapia celular con células Treg obtenidas de tejido tímico (thyTreg) en la prevención de rechazo en niños trasplantados de corazón.** PI18/00495
Director: Correa Rocha, Rafael
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Generación de células Treg con receptor de Antígeno Quimérico (CAR-Treg) a partir de tejido tímico humano. Un nuevo arsenal terapéutico en Inmunoterapia Celular.** PI18/00506
Director: Pion, Marjorie
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2022
- Title: **Ensayo clínico para determinar la eficacia de una terapia con células thyTreg en la prevención de rechazo en niños trasplantados de corazón y de la enfermedad injerto contra receptor en adultos.** ICI20/00063
Director: Correa Rocha, Rafael
Project type: Clinical Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2024
- Title: **Desarrollo de una tecnología pionera basada en el uso terapéutico de células thyTreg como terapia avanzada en el tratamiento de diversas enfermedades inflamatorias.** FIPSE/3804-21
Director: Correa Rocha, Rafael
Project type: Research project
Funding body: Fundación para la Investigación y la Prospectiva en Salud en España (Fipse)
Start date: 03/04/2021
End date: 02/04/2022
- Title: **Comunicación por exosomas y otras vesículas extracelulares en la fisiología y fisiopatología hepática(EXOHEP-CM).** S2017/BMD-3727-1
Director: Pion, Marjorie
Project type: Research project
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/10/2018
End date: 31/12/2021
- Title: **Sara Borrell contract** CD18/00105
Director: Martínez Bonet, Marta
Project type: Human resources
Funding body: Instituto de Salud Carlos III
Start date: 29/01/2019
End date: 17/08/2022
- Title: **Predoctoral contract.** FI19/00120
Director: Fernández Castillo, Marta
Funding body: Instituto de Salud Carlos III
Project type: Human resources
Start date: 01/01/2020
End date: 31/12/2023
- Title: **Predoctoral contract.** FI19/00173
Director: Gallego Valle, Jorge
Funding body: Instituto de Salud Carlos III
Project type: Human resources
Start date: 01/07/2020
End date: 09/11/2022



5.06. IMMUNE HOMEOSTASIS AND REGULATION IN DISEASES ASSOCIATED WITH THE IMMUNE SYSTEM

- Title: **Ayudante de Investigación (Comunidad de Madrid)** PEJ-2020-AI/BMD-19507
Director: Correa Rocha, Rafael
Project type: Human Resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2021
End date: 31/12/2022
- Title: **Ayudante de Investigación (Comunidad de Madrid)** PEJ-2020-AI/BMD-17954
Director: Pion, Marjorie
Project type: Human Resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2021
End date: 31/12/2022

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of network	Role
Other	Private Network. CELLNEX TELECOM - ACT 4 COVID Celular Immunological Response to SARS-Cov2	Collaborating group

Publications

Total Impact Factor: 123.9

	Nº	IF
Own publications	5	24.8
Joint publications	12	99.1
First decile publications	2	33.7
First quartile publications	9	92.3
Second quartile publications	6	29.4
Third quartile publications	1	2.0
Fourth quartile publications	1	0.2
Nonindexed publications / No IF	3	-
Total publications (including those without IF)	20	123.9



Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Abreu-Ramírez, MG; García-Gutiérrez, I; Seoane-Reula, ME; Infante, S. *Food protein-induced enterocolitis syndrome in monochorial monoamniotic twins*. ANNALS OF ALLERGY ASTHMA & IMMUNOLOGY. 2021; 127(2) 274-274. FI: 6.248. Cuartil: 2. (Letter).
- Gallego-Valle, J; Gil-Manso, S; Pita, A; Bernaldo-de-Quirós, E; López-Esteban, R; Martínez-Bonet, M; Pérez-Fernández, VA; Pérez-Caballero, R; Pardo, C; Gil-Jaurena, JM; Correa-Rocha, R; Pion, M. *Ectopic FOXP3 Expression in Combination with TGF-beta 1 and IL-2 Stimulation Generates Limited Suppressive Function in Human Primary Activated Thymocytes Ex Vivo*. BIOMEDICINES. 2021; 9(5). FI: 4.757. Cuartil: 2. (Article).
- Chicano, M; Carbonell, D; Suárez-González, J; Lois, S; Ballesteros-Culebras, M; Andrés-Zayas, C; Muñiz, P; Rodríguez-Macias, G; Bastos-Oreiro, M; Font, P; Ballesteros, M; Kwon, M; Anguita, J; Díez-Martín, JL; Buño, I; Martínez-Laperche, C. *Next Generation Cytogenetics in Myeloid Hematological Neoplasms: Detection of CNVs and Translocations*. CANCERS. 2021; 13(12). FI: 6.575. Cuartil: 1. (Article).
- Lozano-Ojalvo, D; Cámara, C; López-Granados, E; Nozal, P; Del Pino-Molina, L; Bravo-Gallego, LY; Paz-Artal, E; Pion, M; Correa-Rocha, R; Ortiz, A; López-Hoyos, M; Erro Iribarren, Marta; Portoles, J; Rojo-Portoles, MP; Ojeda, G; Cervera, I; González-Pérez. *Differential effects of the second SARS-CoV-2 mRNA vaccine dose on T cell immunity in naive and COVID-19 recovered individuals*. CELL REPORTS. 2021; 36(8) 109570-109570. FI: 9.995. Cuartil: 1. (Article).
- Lacasta-Plasin, C; Martínez-Glez, V; Rodríguez-Laguna, L; Cervantes-Pardo, A; Martínez-Menchón, T; Sánchez-Jiménez, R; Campos-Domínguez, M. *KRAS mutation identified in a patient with melorheostosis and extended lymphangiomatosis treated with sirolimus and trametinib*. CLINICAL GENETICS. 2021; 100(4) 484-485. FI: 4.296. Cuartil: 2. (Letter).
- Berenguer, B; Lorca-García, C; San-Basilio, M; Campos, M; Lancharro, A; Agra, C. *Successful treatment of giant lymphatic malformation with symptomatic cutaneous vesicles by surgical excision and coverage with Integra (R)*. EUROPEAN JOURNAL OF PLASTIC SURGERY. 2021; 44(4) 543-548. FI: 0.24. Cuartil: 4. (Article).
- Chamorro-de-Vega, E; Rodríguez-González, CG; Manrique-Rodríguez, S; Lobato-Matilla, E; García-Moreno, F; Olmedo, M; Correa-Rocha, R; Valerio, M; Aldamiz-Echevarría, T; Machado, M; Sancho-González, M; López-Bernaldo-de-Quirós, JC; Ruiz-Briones, P; Romero-J. *Clinical course of severe patients with COVID-19 treated with tocilizumab: report from a cohort study in Spain*. EXPERT REVIEW OF CLINICAL PHARMACOLOGY. 2021; 14(2) 249-260. FI: 4.108. Cuartil: 2. (Article).
- Muñiz, P; Kwon, M; Carbonell, D; Chicano, M; Bailén, R; Oarbeascoa, G; Suárez-González, J; Andrés-Zayas, C; Menárguez, J; Dorado, N; Gómez-Centurión, I; Anguita, J; Díez-Martín, JL; Martínez-Laperche, C; Buño, I. *Clinical Utility of the Detection of the Loss of the Mismatched HLA in Relapsed Hematological Patients After Haploidentical Stem Cell Transplantation With High-Dose Cyclophosphamide*. FRONTIERS IN IMMUNOLOGY. 2021; 12 642087-642087. FI: 8.786. Cuartil: 1. (Article).
- Solán, L; Carbonell, D; Muñiz, P; Dorado, N; Landete, E; Chicano-Lavilla, M; Anguita, J; Gayoso, J; Kwon, M; Díez-Martín, JL; Martínez-Laperche, C; Buño, I. *Elafin as a Predictive Biomarker of Acute Skin Graft-Versus-Host Disease After Haploidentical Stem Cell Transplantation Using Post-Transplant High-Dose Cyclophosphamide*. FRONTIERS IN IMMUNOLOGY. 2021; 12 516078-516078. FI: 8.786. Cuartil: 1. (Article).
- Gil, S.; Carbonell, D.; López, L.; Miguens, I.; Alonso, R.; Buño, I.; Muñoz, P.; Ochando Cano, J.; Pion, M.; Correa, R. *Induction of high levels of specific humoral and cellular responses to SARS-CoV-2 after the administration of Covid-19 mRNA vaccines requires several days*. FRONTIERS IN IMMUNOLOGY. 2021; 12 726960-726960. FI: 8.786. Cuartil: 1. (Article).
- Meyts, I; Buccioli, G; Quinti, I; Neven, B; Fischer, A; Seoane, E; López-Grandos, E; Gianelli, C; Robles-Marhuenda, A; Jeandel, PY; Paillard, C; Sankaran, VG; Demirdag, YY; Lougaris, V; Aiuti, A; Plebani, A; Milito, C; Dalm, VASH; Guevara-Hoyer, K; Sánchez. *Coronavirus disease 2019 in patients with inborn errors of immunity: An international study*. JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY. 2021; 147(2) 520-531. FI: 14.29. Cuartil: 1. (Article).
- Levescot A; Chang MH; Schnell J; Nelson-Maney N; Yan J; Martínez-Bonet M; Grieshaber-Bouyer R; Lee PY; Wei K; Blaustein RB; Morris A; Wactor A; Iwakura Y; Lederer JA; Rao DA; Charles JF; Nigrovic PA. *IL-1β-driven osteoclastogenic T regulatory cells accelerate bone erosion in arthritis*. JOURNAL OF CLINICAL INVESTIGATION. 2021; 131(18). FI: 19.456. Cuartil: 1. (Article).

5.06. IMMUNE HOMEOSTASIS AND REGULATION IN DISEASES ASSOCIATED WITH THE IMMUNE SYSTEM

- Matito, A; Escribese, MM; Longo, N; Mayorga, C; Luengo-Sánchez, O; Pérez-Gordo, M; Matheu, V; Labrador-Horrillo, M; Pascal, M; Seoane-Reula, ME; Soc Espanola Alergologia & Inmunol. *Clinical Approach to Mast Cell Activation Syndrome: A Practical Overview*. JOURNAL OF INVESTIGATIONAL ALLERGOLOGY AND CLINICAL IMMUNOLOGY. 2021; 31(6) 461-470. FI: 8.185. Cuartil: 1. (Review).
- Andrés-Zayas, C; Suárez-González, J; Rodríguez-Macías, G; Dorado, N; Osorio, S; Font, P; Carbonell, D; Chicano, M; Muñiz, P; Bastos, M; Kwon, M; Díez-Martín, JL; Buño, I; Martínez-Laperche, C. *Clinical utility of targeted next-generation sequencing for the diagnosis of myeloid neoplasms with germline predisposition*. MOLECULAR ONCOLOGY. 2021; 15(9) 2273-2284. FI: 7.449. Cuartil: 1. (Article).
- Nieto-Benito, LM; Molina-López, I; Feito-Rodríguez, M; Martínez-González, V; Suárez-Fernández, R; Campos-Domínguez, M. *Ectodermal dysplasia with congenital adermatoglyphia (Basan syndrome): Report of two cases presenting with extensive congenital milia*. PEDIATRIC DERMATOLOGY. 2021; 38(2) 530-532. FI: 1.997. Cuartil: 3. (Article).
- López-Abente, J; Martínez-Bonet, M; Bernaldo-de-Quirós, E; Camino, M; Gil, N; Panadero, E; Gil-Jaurena, JM; Clemente, M; Urschel, S; West, L; Pion, M; Correa-Rocha, R. *Basiliximab impairs regulatory T cell (TREG) function and could affect the short-term graft acceptance in children with heart transplantation*. SCIENTIFIC REPORTS. 2021; 11(1) 827-827. FI: 4.996. Cuartil: 2. (Article).
- Bastos-Oreiro, M; Suárez-González, J; Andrés-Zayas, C; Carrión, NC; Moreno, S; Carbonell, D; Chicano, M; Muñiz, P; Sanz, L; Díaz-Crespo, FJ; Menárguez,

J; Díez-Martín, JL; Buño, I; Martínez-Laperche, C. *Incorporation of next-generation sequencing in clinical practice using solid and liquid biopsy for patients with non-Hodgkin's lymphoma*. SCIENTIFIC REPORTS. 2021; 11(1) 22815-22815. FI: 4.996. Cuartil: 2. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Cuenca-Barrales, C; Baselga-Torres, E; del Boz-González, J; Vicente, A; Palencia-Pérez, SI; Campos-Domínguez, M; Valdivieso-Ramos, M; Martín-Santiago, A; Monserrat-García, MT; Azon-Masoliver, A; Feito-Rodríguez, M; Domínguez-Cruz, JJ; Roe-Crespo, E; Salas. *Baseline Description of the Spanish Academy of Dermatology Infantile Haemangioma Nationwide Prospective Cohort. Comparison of Patients Treated with Propranolol in Routine Clinical Practice with Previous Pivotal Clinical Trial Data*. ACTAS Dermo-SIFILOGRAFICAS. 2021; 112(9) 806-816. (Article).
- Quintana-Ortega, C; Seoane-Reula, E; Fernández, L; Camacho, M; Olbrich, P; Neth, O; Murias, S; Udaondo, C; Remesal, A; Calvo, C; Alcobendas, R. *Colchicine treatment in children with periodic fever, aphthous stomatitis, pharyngitis, and cervical adenitis (PFAPA) syndrome: A multicenter study in Spain*. EUROPEAN JOURNAL OF RHEUMATOLOGY. 2021; 8(2) 73-78. (Article).
- Bernaldo-de-Quirós, E; López-Abente, J; Camino, M; Gil, N; Panadero, E; López-Esteban, R; Martínez-Bonet, M; Pion, M; Correa-Rocha, R. *The Presence of a Marked Imbalance Between Regulatory T Cells and Effector T Cells Reveals That Tolerance Mechanisms Could Be Compromised in Heart Transplant Children*. TRANSPLANTATION DIRECT. 2021; 7(5). (Article).



5.07. Infections in pediatric patients

Group Head: M^a LUISA NAVARRO GÓMEZ

Organisms involved: HGUGM

Type: Consolidated Group

Research lines

Axis 1: Bronchiolitis

- ▶ L1: Description of early markers of severity in bronchiolitis caused by RSV: IL-8 in respiratory secretions and plasma during admission and its value as a predictor of severity. Viral load will be determined in patients with RSV bronchiolitis, as will its predictive value. Lymphopenia will be evaluated as an early marker of severity during admission in infants with RSV bronchiolitis. Does the severity of RSV bronchiolitis depend on viral genotypes? Leader: Rosa Rodríguez.
- ▶ L2: RSV bronchiolitis. Humoral immune response to RSV. Determination of antibodies to RSV surface proteins F and G and their role in the preparation of vaccines against RSV. Study of humoral immunity against RSV proteins preF and postF and G in full-term infants and in premature infants. Leader: Rosa Rodríguez.
- ▶ L3: RSV bronchiolitis. Study of inflammatory mediators. Cytokines and their role in the subsequent development of recurrent wheezing. Description of the cytokine profile in RSV bronchiolitis during admission, at 1 month, and at 1 year after discharge. Description of a cytokine profile that makes it possible to predict the development of recurrent postbronchiolitis wheezing. Leader: Rosa Rodríguez.
- ▶ L4: Treatment of bronchiolitis in the hospitalized patient. High-flow oxygen therapy in the treatment of bronchiolitis. What is the ideal flow rate? Hypertonic saline solution in the treatment of bronchiolitis. Is it appropriate for all hospitalized patients? Leader: Rosa Rodríguez.
- ▶ L5: Impact of admission for RSV bronchiolitis on families. European RSV outcomes study. Estudio EROS Study. ab 140103. Leader: Rosa Rodríguez.
- ▶ L6: Evaluation of antiviral efficacy of Lumicitabine in children with respiratory syncytial virus infection. Leader: Rosa Rodríguez.

- ▶ L7: Needs for future pharmacoeconomic analysis of RSV vaccines: Assessing the burden of pediatric RSV disease and QALYs lost (Phase I: prospective study). Leaders: Rosa Rodríguez and Felipe González.

Axis 2: HIV infection

- ▶ L1: Study of the clinical characteristics, immunological-virological status, and associated comorbidities, including characteristics related to bone metabolism, cardiovascular system and lipodystrophy, as well as antiretroviral treatment strategies in patients from CoRISpe (infected Newborns, adolescents and young adults). Leader: María Luisa Navarro.
- ▶ L2: Determination of the HIV reservoir, inflammatory status, immunosenescence and immune function in pediatric patients, including intestinal microbiota and response to vaccines. Leader: María Luisa Navarro.
- ▶ L3: Evaluation of the current situation and outcome of pediatric HIV/HCV-coinfected patients. Liver function and response to treatment. Comparison with a cohort of HCV-monoinfected pediatric patients. Leader: María Luisa Navarro.
- ▶ L4: FARO project of CoRISpe: Evaluation of vertically infected adolescents and young adults who have been transferred to adult units. Identify factors associated with loss to follow-up, morbidity and mortality. Evaluation of stigma, quality of life, drug use and sexual and reproductive health in these patients, compared with other populations (controls and a horizontal cohort). Leader: María Luisa Navarro.
- ▶ L5: Evaluation of the results of neuroimaging and the neurocognitive profile of patients infected by HIV through vertical transmission. Evaluation of the quality of sleep in this population. Leader: María Luisa Navarro.
- ▶ L6: Analysis of the clinical situation and development of perinatal comorbidities in exposed noninfected children and the epidemiological

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Research lines (cont.)

characteristics of recently diagnosed pediatric patients. Leader: María Luisa Navarro.

- ▶ L7: Describe the characteristics of new HIV infections in adolescents in Spain. (FIS Project). . Leader: María Luisa Navarro.
- ▶ L8: Description and comparison of the characteristics of the different populations, mainly those in developing countries. Contribution of our data to cohorts from other countries. Evaluation of the virological parameters of HIV with respect to genotype and subtypes and resistance to antiretroviral drugs. Analysis and comparison of time trends in each of these areas between cohorts. Equatorial Guinea cohort. European cohort. Latin-American cohort. Leader: María Luisa Navarro.
- ▶ L9: Activation and immunosenescence during the maturation of the immune system in children infected vertically with HIV. Leader: María Luisa Navarro.

Axis 3: Tuberculosis

- ▶ L1: Determination of free cytokines in plasma and specific response to tuberculosis. Use as biomarkers in children with active disease and latent tuberculosis. Leader: Begoña Santiago.
- ▶ L2: Determination of the use of diagnostic tests (tuberculin skin test. QuantiFERON, chest x-ray, CT, microscopy, culture, PCR) in an outbreak of pediatric tuberculosis in a primary school. Leader: Begoña Santiago.
- ▶ L3: Pharmacokinetics (C max. area under the curve. time to maximum concentration) after administration of isoniazid (single daily dose of 10 mg/kg) in the study population, and its equivalent in neonates, infants aged 1-3 months and infants aged 3-6 months. Leader: Begoña Santiago.
- ▶ L4: Registration of cases of pediatric tuberculosis in Spain and description of clinical presentation, diagnosis, therapy, and outcome of cases of pediatric tuberculosis in hospitals belonging to the Spanish Network for the Study of Pediatric Tuberculosis. Leader: Begoña Santiago.
- ▶ L5: Creation of a national collection of samples from pediatric patients with tuberculosis, storage in biobanks. Leader: Begoña Santiago.
- ▶ L6: Prescription of antituberculosis medication in children in Spain (Phase I of the MAGISTRAL project) and drafting of a consensus document on

prescription of antituberculosis drugs in children (Phase II of the MAGISTRAL project). Leader: Begoña Santiago.

- ▶ L7: Determination of the sensitivity and specificity of the tuberculin skin test and IGRA in the diagnosis of nontuberculous mycobacterial peripheral adenitis in Spain and Europe. Leader: Begoña Santiago.
- ▶ L8: Comparison of the efficacy of different therapeutic approaches (medical and surgical) to nontuberculous mycobacterial peripheral adenitis in children. Leader: Begoña Santiago.
- ▶ L9: Evaluation of the efficacy and safety of treatment with linezolid against tuberculosis in the patient aged less than 18 years. Leader: Begoña Santiago.
- ▶ L10: Evaluation of risk factors, capacity for contagion and outcome after treatment of adult-type pulmonary TB in a cohort of children and adolescents with TB in a low-endemic country. Leader: Begoña Santiago.
- ▶ L11: Development of a European database in children with pediatric tuberculosis to describe its clinical presentation, diagnosis, therapy and outcome, as well as various diagnostic and therapeutic approaches throughout Europe. Leader: Begoña Santiago
- ▶ L12: Description of the clinical presentation, diagnosis, therapy and outcome of tuberculous meningitis in children in Europe Leader: Begoña Santiago.
- ▶ L13: ULTRATB-Xpert MTB/RIF Ultra for the diagnosis of paediatric TB in a low TB burden region. Leader: Begoña Santiago.
- ▶ L14: Implementation of a computer-assisted tool for the diagnosis of pediatric tuberculosis (CAD4PTB). Leads: Alicia Hernanz and Begoña Santiago.

Axis 4: Bone and joint infection in children

- ▶ L1: Clinical and epidemiological characteristics, laboratory data and outcome in children with bone and joint infection. Leader: Jesús Saavedra.
- ▶ L2: Etiología más frecuente de las IOA en niños y su repercusión en la presentación y evolución clínicas. Leader: Jesús Saavedra.
- ▶ L3: Evaluation of the diagnostic and medical-surgical approach in children with bone and joint infections at the various collaborating centers. Leader: Jesús Saavedra.

Continued on next page



Research lines (cont.)

- ▶ L4: Study of predictors of severity and sequelae in children with bone and joint infections. Leader: Jesús Saavedra.

Axis 5: Invasive infection by Group A Streptococcus

- ▶ L1: Evaluation of the incidence of invasive disease caused by group A Streptococcus over an 11-year period in the Autonomous Community of Madrid. Leader: Jesús Saavedra.
- ▶ L2: Epidemiological, clinical and analytical characteristics and outcome of children with invasive disease caused by group A Streptococcus. Leader: Jesús Saavedra.
- ▶ L3: Study of factors predicting severity in children with invasive disease caused by group A Streptococcus. Leader: Jesús Saavedra.
- ▶ L4: Study of factors predicting severity and sequelae in children with bone and joint infections. Leader: Jesús Saavedra.

Axis 6: Fever and neutropenia in the pediatric patient

- ▶ L1: Clinical characteristics, laboratory data, and outcome in children admitted with fever and neutropenia. Leader: Jesús Saavedra.
- ▶ L2: Epidemiological characteristics and etiologic agents in children admitted with fever and neutropenia. Leader: Jesús Saavedra.
- ▶ L3: Study of predictors of severity in children admitted with fever and neutropenia. Cytokine profile and proinflammatory response. Leader: Jesús Saavedra.

Axis 7: Infections in the patient with sickle cell disease

- ▶ L1: Retrospective Study (RETRO-DREP): a) Determine the incidence and epidemiological characteristics of infections in children with sickle cell disease in our setting. b) Determine the clinical characteristics and analytical parameters associated with a greater risk of presenting severe bacterial infection. c) Establish criteria for low risk of severe bacterial infection in order to select patients who could benefit from a more conservative approach. Leaders: Elena Rincón and M^a Luisa Navarro.
- ▶ L2: Prospective Study (F-DREP): a) Determine the incidence of viral infections in children with sickle cell disease admitted with fever in our setting using multiplex PCR with nasopharyngeal exudate. b) Determine

the profile of proinflammatory cytokine production in children with sickle cell disease according to the final diagnosis (viral or bacterial infection, vaso-occlusive crisis, other) and compare it with baseline production and c) Validate the criteria for low risk of severe bacterial infection proposed in the retrospective study. Leaders: Elena Rincón and M^a Luisa Navarro.

- ▶ L3: Study of biomarkers of risk of severe bacterial infection in children with sickle cell disease and fever. Determination of the profile of pro-inflammatory cytokines and the role of multiple PCR for respiratory viruses. Leader: Elena Rincón

Axis 8: Immunoprophylaxis in special populations

- ▶ L1: Vaccination in the patient undergoing immunosuppressive treatment. Leader: M^a Luisa Navarro.
- ▶ L2: Vaccination in patients undergoing TPH (hematopoietic progenitor transplantation). Leader: M^a Luisa Navarro.
- ▶ L3: Vaccination in patients undergoing TOS (solid organ transplantation). Leader: M^a Luisa Navarro.

Axis 9: Research plan in other prevalent infectious pathologies in healthy population and in the patient of high complexity

- ▶ L1: Study of invasive pneumococcal infection. Leaders: Felipe González y Teresa Hernández Sampelayo.
- ▶ L2: Role of viral respiratory co-infections and expression of transcriptional genomic profiles in the severity of pertussis in infants. Leader: Jesús Ruiz.
- ▶ L3: Congenital CMV infection. Leader: Jesús Saavedra and Mar Santos.
- ▶ L4: ZIKA Infection Network in Pregnancy and Newborns. Leaders: Mar Santos, Begoña Santiago and Marisa Navarro.
- ▶ L5: Pediatric Antifungal Optimization Program (POPA). Leaders: Teresa Hernández-Sampelayo and Begoña Santiago.
- ▶ L6: Kawasaki National Network (Kawa-RACE). Leaders: Mar Santos and Marisa Navarro.
- ▶ L7: Nosocomial infection control and restriction of the use of antibiotics in Pediatrics. RANNIN-KIDS. Leaders: Jesús Saavedra and David Aguilera.

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Research lines (*cont.*)

- ▶ L8: Non-tuberculous mycobacterial infections (NTM) in Spain: clinical-epidemiological, microbiological and pathogenicity study. Leaders: Teresa Hernández-Sampelayo and Elena Rincón.
- ▶ L9: Infections after cardiac surgery. Leader: Jesús Saavedra.
- ▶ L10: Study of colonisations by multi-resistant bacteria and their effect on the development of infections and new colonisations in high-risk paediatric units. Leaders: Jesús Saavedra and David Aguilera.
- ▶ L11: SOMI study for the prospective evaluation of mononucleosis syndrome. Leaders: Jesús Saavedra and David Aguilera..

Axis 10: Other lines

- ▶ L1: Zero pain in pediatric patients. Leaders: Blanca Toledo and Rosa Rodríguez.
- ▶ L2: Analysis of readmissions in pediatric patients. Leaders: Jimena Pérez and Rosa Rodríguez.
- ▶ L3: Factors of severity in asthma. Asthma and obesity. Leaders: Jimena Pérez and Rosa Rodríguez.
- ▶ L4: Implementation of a pediatric telemedicine service in Lamu (Kenya) and Meki (Ethiopia). Leader: Rosa Rodríguez.

Axis 11: COVID19 infection

- ▶ L1: Study of the expectant mother and her exposed newborn. Leaders: Marisa Navarro.
- ▶ L2: Study of the child with COVID. Leaders: Mar Santos.

- ▶ L3: Study of the child with systemic hyperinflammatory syndrome (PIMS). Leader: Jesús Saavedra.

Axis 12: Hospital Emergencies

- ▶ L1: Intoxications in pediatric age. Leader: M^a Concepción Míguez Navarro y Paula Vázquez López.
- ▶ L2: Analgesia and sedation. Leader: M^a Concepción Míguez Navarro y Paula Vázquez López.
- ▶ L3: Unintentional injuries. Leader: M^a Concepción Míguez Navarro y Paula Vázquez López.
- ▶ L4: Quality and safety in pediatric emergencies. Leader: M^a Concepción Míguez Navarro y Paula Vázquez López.
- ▶ L5: Hyperfrequency in Pediatric Emergency Care. Leader: M^a Concepción Míguez Navarro y Paula Vázquez López.
- ▶ L6: Knowledge of parents and caregivers about the reasons for consultation in the emergency department. Leader: M^a Concepción Míguez Navarro y Paula Vázquez López.
- ▶ L7: Critical patient. Leader: M^a Concepción Míguez Navarro y Paula Vázquez López.
- ▶ L8: Child abuse. Leader: M^a Concepción Míguez Navarro y Paula Vázquez López.
- ▶ L9: Intravenous rehydration. Leader: M^a Concepción Míguez Navarro y Paula Vázquez López.





The pediatric infections research group has participated in the IISGM since its creation and is consolidated within it. The group is made up of health professionals with extensive experience in clinical and translational research, from various pediatric disciplines and subspecialties, and its aim is to promote and develop research projects in the field of pediatric diseases.

The main lines of research are:

- Bronchiolitis
- HIV infection
- Tuberculosis
- Osteoarticular infection
- Invasive Streptococcus group A infection
- Fever and neutropenia in pediatric patient
- Infections in the patient with sickle cell disease
- Research in the prevention of infections in the complex pediatric patient
- Congenital infections
- Invasive fungal infection
- Research plan in other prevalent infectious pathologies in the healthy population and in the highly complex patient.
- Zero pain in pediatrics: pharmacological and non-pharmacological pain control.
- Analysis of readmissions in pediatrics.
- Severity factors in asthma
- High-flow oxygen therapy in pediatric wards
- Safety and quality in pediatric hospitalization.
- The chronic patient in Pediatric Hospitalization
- Fluid therapy in Pediatric Hospitalization
- Environmental Pediatrics: Impact of pollutants in respiratory pathology
- Safety and quality in Pediatric Hospitalization
- Severity factors in influenza
- Implementation of pediatric telemedicine consultation in Africa.
- Covid-19 in pediatrics. Covid-19 perinatal infection (GESNEO-COVID).
- Immunoprophylaxis in immunocompromised patients.
- Vaccination of special populations (immunosuppressed patients and patients under immunosuppressive treatment).
- Fungal infections in pediatrics.
- Resistance study and pediatric PROA
- Febrile infant
- Intoxications in pediatric age
- Analgesia and sedation
- Unintentional injuries
- Quality and safety in the pediatric emergency department
- Hyperfrequency in the Pediatric Emergency Department
- Knowledge of parents and caregivers about the reasons for consultation in the ED.
- Critical patient

In addition, we are very aware of the training in the field of pediatric infectious diseases of junior researchers who are being incorporated, where they develop an important role in research and many of them end up doing translational research activity and culminating with doctoral theses.

The networking and collaborations with other research groups, both national and international, stand out. In addition, the group has a commitment to cooperation by training professionals from Africa and Latin America, which supports them in their clinical and translational research activity in person and through telemedicine and other information techniques.



5.07. INFECTIOUS DISEASES IN PEDIATRIC PATIENTS

Group members

- Aguilera Alonso, David: R1. First Stage Researcher.
- Barrera Brito, Vanesa: Other.
- Berlanga De Miguel, Ana: Other.
- Bermejo Gómez, Amanda: R1. First Stage.
- Berzosa Sánchez, Arantxa: R1. First Stage.
- Busquets Ferrer, Carmen: Other.
- Carrasco García, Itziar: R1. First Stage.
- Carrascosa García, Paula: R1. First Stage.
- Collado González, Blanca: Other.
- Díaz de Mera, M^a Carolina: Other.
- Erizaguirre Fernández-Palacios, M^a Teresa: Other.
- Escobar Castellanos, María: R1. First Stage.
- Ferrero García-Loygorri, Clara: R1. First Stage.
- González Martínez, Felipe: R2. Recognised Researcher.
- González Sánchez, M^a Isabel: R1. First Stage.
- Hernández Bartolomé, Ángel: R2. Recognised Researcher.
- Hernández Rupérez, Belén: R1. First Stage.
- Hernández-Sampelayo Matos, Teresa.
- Hernanz Lobo, Alicia: R1. First Stage.
- Jiménez de Ory, Santiago: R2. Recognised Researcher.
- Jordán Ferraz, Cristina Eugenia: Other.

- Jove Blanco, Ana: R1. First Stage.
- López Suárez, Andrea: R1. First Stage.
- Lorente Romero, Jorge: R1. First Stage.
- Marañón Pardo, Rafael: R1. First Stage.
- Míguez Navarro, M^a Concepción: R3. Established Researcher.
- Mora Capín, Andrea Avelina: R1. First Stage.
- Moure Romano, Roberto: Other.
- Navarro Gómez, M^a Luisa: R4. Leading Researcher.
- Pérez Moreno, Jimena: R2. Recognised Researcher.
- Retamal Martínez, Rocío: Other.
- Rincón López, Elena: R1. First Stage.
- Rivas García, Arístides: R1. First Stage.
- Rodríguez Fernández, Rosa M^a: R3. Established Researcher.
- Saavedra Lozano, Jesús: R3. Established Researcher.
- Saez Moya, Joaquín: Other.
- Sánchez Contreras, Nuria: Other.
- Santiago García, Begoña: R3. Established Researcher.
- Santos Sebastián, Mar: R1. First Stage.
- Tierraseca del Castillo, Blanca: R1. First Stage.
- Toledo del Castillo, Blanca: R1. First Stage.
- Vázquez López, Paula: R3. Established Researcher.



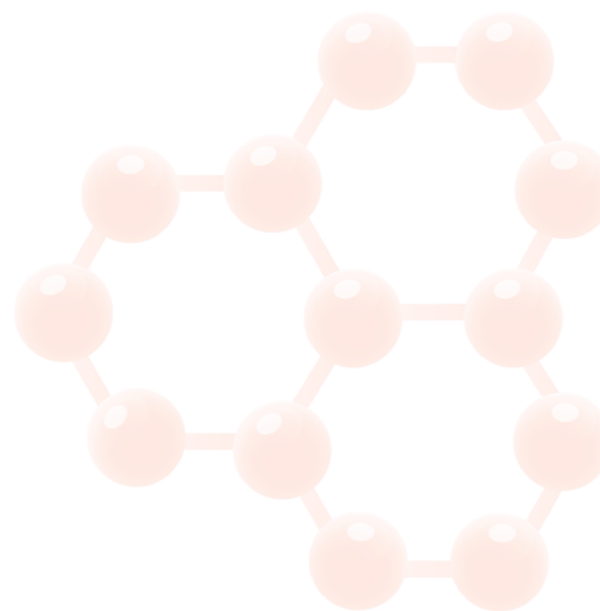
Research Projects – Competitive Calls

Competitive projects

- Title: **Aspectos clínicos e inmunoviológicos de la infección por SARS-CoV2 en una cohorte de gestantes y recién nacidos.** COV20/00808
Director: Navarro Gómez, María Luisa
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 30/04/2020
End date: 29/04/2021
- Title: **Child-TB-Omics: Aplicación de técnicas ómicas para el diagnóstico de tuberculosis en niños y adolescentes.** PI20/01607
Director: Santiago García, Begoña
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Caracterización de las nuevas infecciones VIH en adolescentes en España.** PI19/01530
Director: Navarro Gómez, María Luisa
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Utilidad de nuevos biomarcadores en sangre para el diagnóstico de la tuberculosis pediátrica.** PI17/00711
Director: Santiago García, Begoña
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2018
End date: 30/06/2021
- Title: **Juan Rodés contract** JR16/00036
Director: Santiago García, Begoña
Project type: Human resources

Funding body: Instituto de Salud Carlos III
Start date: 01/01/2017
End date: 07/01/2021

- Title: **Río Hortega contract** CM20/00128
Director: Hernanz Lobo, Alicia
Project type: Human resources
Funding body: Instituto de Salud Carlos III
Start date: 27/11/2020
End date: 31/12/2022
- Title: **Río Hortega contract** CM18/00100
Director: Aguilera Alonso, David
Project type: Human resources
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/05/2021



5.07. INFECTIOUS DISEASES IN PEDIATRIC PATIENTS

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
RETICS	Red de Investigación en SIDA	Collaborating group
Others (Scientific Societies Networks)	Red pediátrica para la prevención, diagnóstico precoz y tratamiento del VIH en niños.	Collaborating group
Others (Scientific Societies Networks)	Pediatric Tuberculosis Network European Trialsgroup	Collaborating group
Others (Scientific Societies Networks)	Red Española de Estudio de la Tuberculosis pediátrica	Collaborating group
Others (Scientific Societies Networks)	Grupo de Estudio EREMITA (Estudio de Tuberculosis Resistente en Niños de la Comunidad de Madrid)	Collaborating group
Others (Scientific Societies Networks)	Estudio de la influencia genética en la infección grave en pediatría	Collaborating group
Others (Scientific Societies Networks)	RED de Infección Congénita por CMV	Collaborating group
Others (Scientific Societies Networks)	Pediatric European Network Treatment on AIDS	Collaborating group
Others (Scientific Societies Networks)	Estudio de la Infección Meningocócica	Collaborating group
Others (Scientific Societies Networks)	Pediatric infections Staphylococcus aureus meticilin resistance ESPID	Collaborating group
Others (Scientific Societies Networks)	Estudio de los aspectos neurocognitivos en la Cohorte de infección VIH Pediátrica	Collaborating group
Others (Scientific Societies Networks)	Red para el estudio de la enfermedad invasiva por SGA.	Collaborating group

Type (RETIC, CIBER, others)	Name of Network	Role
Others (Scientific Societies Networks)	Red Nacional para el Estudio de la infección osteoarticular	Collaborating group
Others (Scientific Societies Networks)	Estudio Multicéntrico retrtrospectivo y prospectivo de los factores epidemiológicos clínicos, analíticos y microbiológicos determinantes de la respuesta al tratamiento de la enfermedad de Kawasaki y el riesgo del desarrollo de aneurismas coronarios en niños menores de 14 años de nuestro medio .	Collaborating group
Others (Scientific Societies Networks)	Red europea de ZIKA	Collaborating group
Others (Scientific Societies Networks)	Red de Giardiasis pediátrica Nacional	Collaborating group
Others (Scientific Societies Networks)	Grupo de infecciones en drepanocitosis	Collaborating group
Others (Scientific Societies Networks)	Red de Investigación Traslacional en Infecciones Pediátricas	Collaborating group
Others (Scientific Societies Networks)	Red Nacional de estudio de Infección congénita por CMV	Collaborating group
Others (Scientific Societies Networks)	Registro Nacional de casos de infección por ZIKA en el embarazo y recién nacido	Collaborating group
Others (Scientific Societies Networks)	Sickle cell disease Pediatric Research about Infections Group	Collaborating group



Clinical Practice Guidelines

Authors	Title	Journal/Reference
Begoña Santiago García, Alicia Hernanz Lobo, Teresa Hernández Sampelayo-Matos, Marisa Navarro Gómez, Jesús Saavedra Lozano, Mar Santos Sebastián, Elena Rincón López, David Aguilera Alonso	Manejo de la tuberculosis en pediatría	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Tuberculosis%20pediatrica%20HGUGM.pdf
Jesús Saavedra Lozano, David Aguilera Alonso, Jorge Lorente Romero, Paula Vázquez, Cecilia Martínez Fernández-Llamazares, Amanda Bermejo, María Luisa Navarro	Abordaje de la infección por el virus influenza: Periodo epidémico 2021-2022	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Gripe%202021-2022.%20Definitiva.pdf
Panel de expertos de la Sociedad Española de Infectología Pediátrica (SEIP), Sociedad y Fundación Española de Cuidados Intensivos Pediátricos, Sociedad Española de Urgencias de Pediatría (incluyendo María Luisa Navarro, David Aguilera Alonso)	Documento de manejo clínico del paciente pediátrico con infección por SARS-CoV-2	https://www.aeped.es/sites/default/files/b26-11-_aep-seip-secup_documento_de_manejo_clinico_del_paciente_pediatico.pdf
Grupo de expertos de la Secretaría del Plan Nacional sobre el Sida (SPNS), Grupo de Estudio de Sida (GeSIDA), la Sociedad Española de Ginecología y Obstetricia (SEGO) y la Sociedad Española de Infectología Pediátrica (SEIP), incluyendo María Luisa Navarro Gómez	Documento de consenso sobre la Asistencia en el ámbito sanitario a las mujeres con infección por el VIH	https://www.msccbs.gob.es/ciudadanos/enfLesiones/enfTransmisibles/sida/documentos/Mujer_y_VIH_DEFI.pdf
Grupo de expertos de la Secretaría del Plan Nacional sobre el Sida (SPNS), Grupo de Estudio de Sida (GeSIDA) y Sociedad Española de Farmacia Hospitalaria (SEFH), incluyendo María Luisa Navarro Gómez	Documento de consenso para mejorar la adherencia a la farmacoterapia en pacientes con infección por el virus de la inmunodeficiencia humana en tratamiento antirretroviral	https://www.msccbs.gob.es/ciudadanos/enfLesiones/enfTransmisibles/sida/publicaciones/profSanitarios/docAdherencia_actualizacionFeb20.pdf
Alicia Hernanz Lobo, Begoña Santiago García, Teresa Hernández Sampelayo-Matos, Marisa Navarro Gómez, Jesús Saavedra Lozano, Mar Santos Sebastián, Elena Rincón López, David Aguilera Alonso, Laura Calle de Miguel	Cribado infeccioso y vacunación pretrasplante de progenitores hematopoyéticos	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Protocolo%20cribado%20infeccioso%20y%20vacunación%20pretrasplante%20de%20progenitores%20hematopoyéticos.pdf

Authors	Title	Journal/Reference
Maria Fanjul, Elena Zamora, David Aguilera, Cecilia Martínez, Belén Padilla, María Slocker, Alejandro Lowry, Juan Vicente Darriba, Carlos Andrés Pardo	Profilaxis perioperatoria en pediatría	https://www.comunidad.madrid/hospital/gregoriomaranon/profesionales/enfermedades-infecciosas-pediatricas
Begoña Santiago García, Alicia Hernanz Lobo, Teresa Hernández Sampelayo-Matos, Marisa Navarro Gómez, Jesús Saavedra Lozano, Mar Santos Sebastián, Elena Rincón López, David Aguilera Alonso	Manejo de la tuberculosis en pediatría	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Gripe%202021-2022.%20Definitiva.pdf
Teresa Hernández-Sampelayo, Elena Rincón, Jesús Saavedra, David Aguilera, Marisa Navarro, Mar Santos, Andrea Mora, Paula Vázquez, Rosa Rodríguez y miembros de otras secciones del Hospital Gregorio Marañón	Abordaje de síndromes hiperinflamatorios sistémicos en niños en época de COVID-19 (SIM-PedS)	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/SmeHiperinflamatoriosSistemicos_PIMS_Agosto2020.pdf
Alicia Hernanz Lobo, Begoña Santiago García, Teresa Hernández Sampelayo-Matos, Marisa Navarro Gómez, Jesús Saavedra Lozano, Mar Santos Sebastián, Elena Rincón López, David Aguilera Alonso	Cribado infeccioso tras el trasplante de progenitores hematopoyéticos en pediatría	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Cribado%20infeccioso%20tras%20el%20TPH%20en%20Pediatría.pdf
Ángela Manzanares, David Aguilera, Marisa Navarro Gómez, Jesús Saavedra Lozano, Elena Rincón López, Luis Alcalá, Patricia Muñoz, Cecilia Martínez Fernández-Llamazares, María Slocker, Carmen Garrido	Infección por Clostridioides difficile en pediatría	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Infección%20por%20Clostridioides%20difficile%20en%20pediatría.v1.0-2021.pdf
Teresa Hernández-Sampelayo, David Aguilera, Marisa Navarro, Elena Rincón, Jesús Saavedra, Mar Santos, Begoña Santiago, Paula Vázquez, Rosa Rodríguez y miembros de otras secciones del Hospital Gregorio Marañón	Protocolo de diagnóstico y tratamiento de enfermedad por coronavirus SARS-CoV-2 (COVID-19) en pediatría	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Protocolo%20de%20diagnóstico%20y%20tratamiento%20de%20COVID-19%20en%20Pediatría.%20Octubre%202020.pdf

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Clinical Practice Guidelines (Cont.)

Authors	Title	Journal/Reference
Beatriz Lázaro Martín, Alicia Hernanz Lobo, Marisa Navarro Gómez	Recomendaciones de vacunación en pacientes pediátricos sometidos a trasplante cardíaco	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Recomendaciones%20de%20vacunación%20en%20pacientes%20pediátricos%20sometidos%20a%20trasplante%20cardíaco.pdf
Aída Gutiérrez Sánchez, David Aguilera Alonso, Marisa Navarro Gómez, Jesús Saavedra Lozano, Elena Rincón López, Mar Santos Sebastián, Begoña Santiago García, Alicia Hernanz Lobo	Recomendaciones de vacunación en pacientes sometidos a trasplante de progenitores hematopoyéticos o quimioterapia	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Vacunación%20post-TPH%20y%20post-QT%202020.0%20Mayo%202021.pdf
Ana Jové Blanco, David Aguilera Alonso, Jesús Saavedra Lozano	Riesgo infeccioso y profilaxis antimicrobiana en pacientes pediátricos en tratamiento inmunosupresor	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Riesgo%20infeccioso%20y%20profilaxis%20antimicrobiana%20en%20pacientes%20pediátricos%20en%20tratamiento%20inmunosupresor%20(01-06-2021).pdf
Mar Tolín Hernani, Jimena Pérez Moreno, César Sánchez Sánchez, Carolina G. Díaz de Mera, Marta Gracia Rodríguez Venegas, Dolores González Baz	Detección de desnutrición pediátrica precoz en pacientes hospitalizados	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Detección%20de%20desnutrición%20pediátrica%20precoz%20en%20pacientes%20hospitalizados.pdf
Felipe González, Javier Urbano, Paula Carrascosa	Administración de oxigenoterapia de alto flujo en pediatría	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Administración%20de%20oxigenoterapia%20de%20alto%20flujo.pdf
Marta Rodríguez, Concepción Miguez Navarro	Protocolo de actuación en crisis de asma aguda-episodio de sibilancia en el sibilante recurrente	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/2021-PROTOCOLO_CRISIS_DE_ASMA-BRONCOPASMO%20DEFINITIVO.pdf

Authors	Title	Journal/Reference
Jorge Lorente, Manuela Camino	Protocolo de actuación con el paciente transplantado cardíaco en urgencias de pediatría	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Actuación%20paciente%20transplantado%20cardíaco%20en%20urgencias%20pediatría.pdf
Concepción Miguez Navarro y Grupo de Trabajo de analgesia y sedación de SEUP	Algoritmo procedimientos de sedoanalgesia en urgencias pediátricas	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Algoritmo-Protocolo%20Sedoanalgesia.pdf
Jorge Lorente	Indicación de coprocultivo en Urgencias	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Coprocultivo%20Indicaciones%20en%20urgencias.pdf
Maria Escobar	Protocolo Fiebre sin Foco en menores de 24 meses	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Fiebre%20sin%20foco%20en%20menores%20de%2024%20meses.pdf
Jorge Lorente, Matheus Zeferino	Indicación e interpretación del hemocultivo en Urgencias	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Hemocultivo%20positivo.pdf
Ana Jové Blanco	Protocolo hipertensión arterial	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Hipertensión%20Arterial.pdf
Paula Melero Garcia, Ana Jové Blanco	Protocolo lesiones bacterianas cutáneas	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Infecciones%20cutáneas.pdf
Andrea Mora, Cristina Corraliza	Protocolo meningitis en urgencias de pediatría	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Meningitis.pdf

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Clinical Practice Guidelines (Cont.)

Authors	Title	Journal/Reference
Concepción Míguez Navarro y Grupo de Trabajo de analgesia y sedación de SEUP	Protocolo procedimientos de sedoanalgesia en urgencias de pediatría	https://saludanv.salud.madrid.org/hospitales/hgugm/Protocolos%20especificos/Procedimientos%20de%20sedoanalgesia-SEUP.pdf
García, FJA; Ortega, MJC; Aldean, JA; Garcés-Sánchez, M; Sánchez, NG; Llanos, EG; Merino, AH; de Arce, AI; Melian, AM; Gómez, MLN; Ruiz-Contreras, J; Assoc Española Pediat CAV-AEP	Calendario de vacunaciones de la Asociación Española de Pediatría: recomendaciones 2021	PMID: 33419517

Publications

Total Impact Factor: 219.7

	Nº	IF
Own publications	14	55.8
Joint publications	25	163.9
First decile publications	4	91.9
First quartile publications	20	166.9
Second quartile publications	3	13.0
Third quartile publications	14	36.6
Fourth quartile publications	2	3.2
Nonindexed publications / No IF	3	-
Total publications (including those without IF)	42	219.7

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Sainz, T; Delgado, J; Méndez-Echevarría, A; Santiago, B; López-Varela, E; Aguilera-Alonso, D; Saavedra-Lozano, J; Rodríguez-Fernández, R; Holguín, A; Navarro, ML; Muñoz-Fernández, MA; Rivero-Calle, I; Solána, MJ; López-Herce, J; Calvo, C. *The clinical relevance of the microbiome when managing paediatric infectious diseases-Narrative review*. ACTA PAEDIATRICA. 2021; 110(2) 441-449. FI: 4.056. Cuartil: 1. (Review).
- Chiappini, E; Gingaras, C; Lisi, C; Wolfs, T; Jourdain, G; Ngo-Giang-Huong, N; Navarro, ML; Crisinel, PA; Bailey, H; Chappell, E; Critchton, S; Duff, C; Goodall, R; Gomezpena, D; Jackson, C; Lundin, R; Mangiarini, L; Milanzi, E; Nardone, A; Goetghebuer, T. *Malignancies among children and young people with HIV in Western and Eastern Europe and Thailand*. AIDS. 2021; 35(12) 1973-1985. FI: 4.632. Cuartil: 2. (Article).
- Gutiérrez-Vélez, A; Solís-García, G; Saavedra-Lozano, J; Hernanz Lobo A. *Tick-borne lymphadenopathy, an emergent disease in Europe*. ANALES DE PEDIATRIA. 2021; 94(2) 120-121. FI: 2.377. Cuartil: 3. (Editorial Material).
- Pina-Camacho, L; Vidal, J; Picouto, MD; Ortiz, EJ; Jaaskelainen, FDM; Moreno, C; Arango, C; Hernández-Sampelayo, T; Parellada, M; Grupo ConfliPadres. *Patient care, right to information and consent for minors in situations of parental conflict. Clinical guidelines in the context of Spanish legislation*. ANALES DE PEDIATRIA. 2021; 94(5). FI: 2.377. Cuartil: 3. (Article).
- Mancebo, JG; García-Loygorri, CF; Romero, AI; López, PV; García, AR; Pardillo, RM; Soc Española Urgencias Pediat RiSE. *Ocular trauma in the Pediatric Emergency Departments, characteristics and risk factors of immediate sequelae*. ANALES DE PEDIATRIA. 2021; 94(3) 161-172. FI: 2.377. Cuartil: 3. (Article).
- García, FJA; Ortega, MJC; Aldean, JA; Garcés-Sánchez, M; Sánchez, NG; Llanos, EG; Merino, AH; de Arce, AI; Melian, AM; Gómez, MLN; Ruiz-Contreras, J; Assoc Española Pediat CAV-AEP. *Immunisation schedule of the Pediatric Spanish Association: 2021 recommendations*. ANALES DE PEDIATRIA. 2021; 94(1). FI: 2.377. Cuartil: 3. (Article).
- García-Salido A; Antón J; Martínez-Pajares JD; Giralte García G; Gómez Cortés B; Tagarro A; Belda Hofheinz S; Calvo Penadés I; de Carlos Vicente



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- JC; Grasa Lozano CD; Hernández Bou S; Pino Ramírez RM; Núñez Cuadros E; Pérez-Lescure Picarzo J; Saavedra Lozán. *Documento español de consenso sobre diagnóstico, estabilización y tratamiento del síndrome inflamatorio multisistémico pediátrico vinculado a SARS-CoV-2 (SIM-PeDS)*. ANALES DE PEDIATRIA. 2021; 94(2). FI: 2.377. Cuartil: 3. (Article).
- Gutiérrez-Vélez, A; García-Loygorri, CF; Dieguez, MD; Alles, JVD. *Diffuse subarachnoid haemorrhage with obstructive hydrocephalus in a 4-year-old girl*. ANALES DE PEDIATRIA. 2021; 95(3) 213-214. FI: 2.377. Cuartil: 3. (Editorial Material).
 - Solís-García, G; Darriba Vallés JV; Gil de Sagredo Del Corral OL; Vázquez López M; Aguado, A; Saavedra-Lozano, J. *Subdural and subarachnoid empyema as a complication of an acute meningococcal meningitis*. ARCHIVES OF DISEASE IN CHILDHOOD. 2021; 106(2) 188-188. FI: 4.92. Cuartil: 1. (Editorial Material).
 - Aguilera-Alonso, D; Murias, S; Garde, AMDA; Soriano-Arandes, A; Pareja, M; Otheo, E; Moraleda, C; Tagarro, A; Calvo, C. *Prevalence of thrombotic complications in children with SARS-CoV-2*. ARCHIVES OF DISEASE IN CHILDHOOD. 2021; 106(11) 1129-1132. FI: 4.92. Cuartil: 1. (Article).
 - Rincón-López, EM; Gómez, MLN; Matos, THS; Aguilera-Alonso, D; Moreno, EM; Saavedra-Lozano, J; García, BS; Sebastián, MDS; Morin, MG; Bieler, CB; Romero, JL; de Julián, EC. *Interleukin 6 as a marker of severe bacterial infection in children with sickle cell disease and fever: a case-control study*. BMC INFECTIOUS DISEASES. 2021; 21(1) 741-741. FI: 3.667. Cuartil: 3. (Article).
 - Moraleda, C; Serna-Pascual, M; Soriano-Arandes, A; Simó, S; Epalza, C; Santos, M; Grasa, C; Rodríguez, M; Soto, B; Gallego, N; Ruiz, Y; Urretavizcaya-Martínez, M; Pareja, M; Sanz-Santaefemia, FJ; Fumado, V; Lanaspá, M; Jordán, I; Prieto, L; Belda, S; Tor. *Multi-inflammatory Syndrome in Children Related to Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) in Spain*. CLINICAL INFECTIOUS DISEASES. 2021; 72(9) 397-401. FI: 20.999. Cuartil: 1. (Editorial Material).
 - Rodríguez-Fernández, R; González-Martínez, F; González-Sánchez, MI; Hernández-Sampelayo, T; Jiménez, JL; Muñoz-Fernández, MA; García-Martos, C; Mejías, A; Ramilo, O. *Longitudinal plasma cytokine concentrations and recurrent wheezing after RSV bronchiolitis*. CYTOKINE. 2021; 140 155434-155434. FI: 3.926. Cuartil: 3. (Article).
 - Aguilera-Alonso, D. *It is time for pediatric antimicrobial stewardship programs*. ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA. 2021; 39(3) 113-114. FI: 1.994. Cuartil: 4. (Editorial Material).
 - Blázquez-Gamero, D; Epalza, C; Cadenas, JAA; Gero, LC; Calvo, C; Rodríguez-Molino, P; Méndez, M; Santos, MD; Fumado, V; Guzmán, MF; Soriano-Arandes, A; Jiménez, AB; Penín, M; Cobo-Vázquez, E; Pareja, M; Lobato, Z; Serna, M; Delgado, R; Moraleda, C; Tagarr. *Fever without source as the first manifestation of SARS-CoV-2 infection in infants less than 90 days old*. EUROPEAN JOURNAL OF PEDIATRICS. 2021; 180(7) 2099-2106. FI: 3.86. Cuartil: 1. (Article).
 - Alba, C; Aparicio, M; González-Martínez, F; González-Sánchez, MI; Pérez-Moreno, J; del Castillo, BT; Rodríguez, JM; Rodríguez-Fernández, R; Fernández, L. *Nasal and Fecal Microbiota and Immunoprofiling of Infants With and Without RSV Bronchiolitis*. FRONTIERS IN MICROBIOLOGY. 2021; 12 667832-667832. FI: 6.064. Cuartil: 1. (Article).
 - Fernández-Cooke, E; Grasa, CD; Domínguez-Rodríguez, S; Tascón, AB; Sánchez-Manubens, J; Antón, J; Mercader, B; Villalobos, E; Camacho, M; Gómez, MLN; Benavent, MO; Giral, G; Bustillo, M; Naranjo, AMB; Rocandio, B; Rodríguez-González, M; Cuadros, EN; Sant. *Prevalence and Clinical Characteristics of SARS-CoV-2 Confirmed and Negative Kawasaki Disease Patients During the Pandemic in Spain*. FRONTIERS IN PEDIATRICS. 2021; 8 617039-617039. FI: 3.569. Cuartil: 2. (Article).
 - Pascual-Valdunciel, A; González-Sánchez, M; Muceli, S; Adan-Barrientos, B; Escobar-Segura, V; Pérez-Sánchez, JR; Jung, MK; Schneider, A; Hoffmann, KP; Moreno, JC; Grandas, F; Farina, D; Pons, JL; Barroso, FO. *Intramuscular Stimulation of Muscle Afferents Attains Prolonged Tremor Reduction in Essential Tremor Patients*. IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING. 2021; 68(6) 1768-1776. FI: 4.756. Cuartil: 2. (Article).
 - Aguilera-Alonso D; Sainz T; Jiménez de Ory S; Bernardino I; Díez C; Torres B; Merino D; Iribarren JA; Portilla I; Ríos MJ; Ibarra S; Sanz J; Bellón JM; Carrasco I; Muñoz-Fernández MÁ; Ramos JT; Navarro ML. *Clinical, Immunological and Virological Outcomes among youths with perinatal HIV after Transition to Adult Units in Spain from 1997 to 2016*. JAIDS-JOURNAL OF ACQUIRED IMMUNE DEFICIENCY SYNDROMES. 2021; 86(2) 240-247. FI: 3.771. Cuartil: 3. (Article).



- Tagarro, A; Epalza, C; Santos, M; Sanz-Santaeufemia, FJ; Otheo, E; Moraleda, C; Calvo, C. *Screening and Severity of Coronavirus Disease 2019 (COVID-19) in Children in Madrid, Spain*. JAMA PEDIATRICS. 2021; 175(3) 316-317. FI: 26.796. Cuartil: 1. (Letter).
- de Ory, SJ; Beltrán-Pávez, C; Gutiérrez-López, M; Santos, MD; Prieto, L; Sainz, T; Guillén, S; Aguilera-Alonso, D; Díez, C; Bernardino, JI; Mellado, MJ; Ramos, JT; Holguín, A; Navarro, M. *Prevalence of M184V and K65R in proviral DNA from PBMCs in HIV-infected youths with lamivudine/emtricitabine exposure*. JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY. 2021; 76(7) 1886-1892. FI: 5.758. Cuartil: 1. (Article).
- Tarancón-Díez L; Rull A; Herrero P; Vázquez-Alejo E; Peraire J; Guillén S; Navarro-Gómez ML; Viladés C; Muñoz-Fernández MÁ; Vidal F. *Early antiretroviral therapy initiation effect on metabolic profile in vertically HIV-1-infected children*. JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY. 2021; 76(11) 2993-3001. FI: 5.758. Cuartil: 1. (Article).
- Martínez-Planas, A; Baquero-Artigao, F; Santiago, B; Fortuny, C; Méndez-Echevarría, A; Del Rosal, T; Bustillo-Alonso, M; Gale, I; Guerrero, C; Blázquez-Gamero, D; Canet, A; Lillo, M; Calavia, O; Cuadros, EN; Falcón-Neyra, L; Soriano-Arandes, A; Van Ingen. *Interferon-Gamma Release Assays Differentiate between Mycobacterium avium Complex and Tuberculous Lymphadenitis in Children*. JOURNAL OF PEDIATRICS. 2021; 236 211-. FI: 6.314. Cuartil: 1. (Article).
- Carrasco, I; Tarancón-Díez, L; Vázquez-Alejo, E; de Ory, SJ; Sainz, T; Apilánez, M; Epalza, C; Guillén, S; Ramos, JT; Díez, C; Bernardino, JI; Iribarren, JA; Zamora, A; Muñoz-Fernández, MA; Navarro, ML. *Innate and adaptive abnormalities in youth with vertically acquired HIV through a multicentre cohort in Spain*. JOURNAL OF THE INTERNATIONAL AIDS SOCIETY. 2021; 24(10). FI: 6.707. Cuartil: 1. (Article).
- Foster, C; Domínguez-Rodríguez, S; Tagarro, A; Gkouleli, T; Heaney, J; Watters, S; Bamford, A; Fidler, K; Navarro, M; De Rossi, A; Palma, P; Nastouli, E; Rossi, P; Giaquinto, C; Rojo, P; Early Treated Perinatally HIV Infected Individuals: Improving Childr. *The CARMA Study: Early Infant Antiretroviral Therapy-Timing Impacts on Total HIV-1 DNA Quantitation 12 Years Later*. JOURNAL OF THE PEDIATRIC INFECTIOUS DISEASES SOCIETY. 2021; 10(3) 295-301. FI: 5.235. Cuartil: 1. (Article).
- Gotzinger, F; Santiago-García, B; Fumado-Pérez, V; Brinkmann, F; Tebruegge, M; COVID-19 Study Grp. *The ability of the neonatal immune response to handle SARS-CoV-2 infection*. LANCET CHILD & ADOLESCENT HEALTH. 2021; 5(3) 6-7. FI: 37.746. Cuartil: 1. (Letter).
- Ruiz-Sáez, B; García, MMB; de Aragón, AM; Gil-Correa, M; Melero, H; Malpica, NA; de Ory, SJ; Zamora, B; Guillén, S; Rojo, P; Falcón-Neyra, L; Álvarez, A; Fernández, P; Lorente-Jareno, ML; Ramos, JT; Sainz, T; Velo, C; Navarro, ML; González-Tome, MI. *Effects of perinatal HIV-infection on the cortical thickness and subcortical gray matter volumes in young adulthood*. MEDICINE. 2021; 100(15). FI: 1.817. Cuartil: 3. (Article).
- Guerrero-Márquez, G; Míguez-Navarro, MC. *The Physiological Diagnosis Missing in the Pediatric Assessment Triangle*. PEDIATRIC EMERGENCY CARE. 2021; 37(11) 779-779. FI: 1.602. Cuartil: 3. (Letter).
- Sánchez, AB; De Ory, SJ; Frick, MA; Ruiz, AIM; Couceiro, JA; Mellado, MJ; Bisbal, O; Iglesias, HA; Montero, M; Roca, C; Samperiz, G; Cervero, M; Miralles, C; Guash, CF; Carrasco, I; Navarro, ML; Amador, JTR. *Mortality in Perinatally HIV-infected Adolescents After Transition to Adult Care in Spain*. PEDIATRIC INFECTIOUS DISEASE JOURNAL. 2021; 40(4) 347-350. FI: 3.806. Cuartil: 1. (Article).
- Toledano, J; Saavedra-Lozano, J; Navarro-Gómez, ML; Santiago-García, B; Aguilera-Alonso, D. *Severe Foodborne Bacterial Infections Mimicking Multisystem Inflammatory Syndrome in Children Associated With COVID-19*. PEDIATRIC INFECTIOUS DISEASE JOURNAL. 2021; 40(5) 210-211. FI: 3.806. Cuartil: 1. (Letter).
- Soler-García, A; Gamell, A; Santiago, B; Monsonis, M; Cobo-Vázquez, E; Bustillo-Alonso, M; Tagarro, A; Pérez-Gorricho, B; Espiau, M; Piqueras, AI; Korta-Murua, JJ; Rodríguez-Molino, P; Lobato, Z; Pérez-Porcuna, T; Tebruegge, M; Noguera-Julián, A; Spanish. *QuantiFERON-TB Gold Plus Assay Specificity in Children and Adolescents With Suspected Tuberculosis-A Multicenter Cross-sectional Study in Spain*. PEDIATRIC INFECTIOUS DISEASE JOURNAL. 2021; 40(9) 348-351. FI: 3.806. Cuartil: 1. (Article).
- Rodríguez-Fernández, R; Mejías, A; Ramilo, O. *Monoclonal Antibodies for Prevention of Respiratory Syncytial Virus Infection*. PEDIATRIC INFECTIOUS DISEASE JOURNAL. 2021; 40(5) 35-39. FI: 3.806. Cuartil: 1. (Article).



5.07. INFECTIOUS DISEASES IN PEDIATRIC PATIENTS

- Domínguez-Rodríguez, S; Villaverde, S; Sanz-Santaeufemia, FJ; Grasa, C; Soriano-Arandes, A; Saavedra-Lozano, J; Fumado, V; Epalza, C; Serna-Pascual, M; Alonso-Cadenas, JA; Rodríguez-Molino, P; Pujol-Morro, J; Aguilera-Alonso, D; Simó, S; Villanueva-Medina. *A Bayesian Model to Predict COVID-19 Severity in Children*. PEDIATRIC INFECTIOUS DISEASE JOURNAL. 2021; 40(8) 287-293. FI: 3.806. Cuartil: 1. (Article).
 - Ramos, MI; Sánchez, BS; Orellana, DM; Tato, LMP; Martín, SG; Gómez, MLN; Rabes, TD; García, LE; Francia, MAR; Mosquera, JB; Arnal, IO; Galligo, EM; Beneitez, MCV; Sáez, FJR; García, IS; Sánchez, AB; Caballero, IC; Amador, JTR; Madrid Cohort HIV-Infected M. *Safety and Experience With Combined Antiretroviral Prophylaxis in Newborn at High-risk of Perinatal HIV Infection, in a Cohort of Mother Living With HIV-infant Pairs*. PEDIATRIC INFECTIOUS DISEASE JOURNAL. 2021; 40(12) 1096-1100. FI: 3.806. Cuartil: 1. (Article).
 - Rodríguez-Izquierdo, I; Cena-Diez, R; Serramia, MJ; Rodríguez-Fernández, R; Martínez, I; Muñoz-Fernández, M. *Role of G2-S16 Polyanionic Carbosilane Dendrimer in the Prevention of Respiratory Syncytial Virus Infection In Vitro and In Vivo in Mice*. POLYMERS. 2021; 13(13). FI: 4.967. Cuartil: 1. (Article).
 - Bejarano-García, MM; Ruiz-Sáez, B; Zamora, B; de Aragón, AM; García-Navarro, C; de Ory, SJ; Velo, C; Ramos, JT; Sainz, T; Escosa, L; Núñez-Enamorado, N; Stephan-Otto, C; Navarro, ML; González-Tome, MI. *Brain activity in well-controlled perinatally human immunodeficiency virus-infected young adults: a functional magnetic resonance imaging pilot study*. REVISTA DE NEUROLOGIA. 2021; 72(10) 343-350. FI: 1.235. Cuartil: 4. (Article).
 - Ruiz-Galiana, J; Cantón, R; Ramos, PD; García-Botella, A; García-Lledó, A; Gómez-Pavón, J; del Castillo, JG; Hernández-Sampelayo, T; Martín-Delgado, MC; Sánchez, FJM; Martínez-Sellés, M; García, JMM; Guillén, SM; Rodríguez-Artalejo, F; Bouza, E. *COVID-19 vaccination: the reality after clinical trials*. REVISTA ESPANOLA DE QUIMIOTERAPIA. 2021; 34(5) 408-418. FI: 2.515. Cuartil: 3. (Review).
 - Cantón, R; Ramos, PD; García-Botella, A; García-Lledó, A; Gómez-Pavón, J; del Castillo, JG; Hernández-Sampelayo, T; Martín-Delgado, MC; Sánchez, FJM; Martínez-Sellés, M; García, JMM; Guillén, SM; Rodríguez-Artalejo, F; Ruiz-Galiana, J; Bouza, E. *New variants of SARS-CoV-2*. REVISTA ESPANOLA DE QUIMIOTERAPIA. 2021; 34(5) 419-428. FI: 2.515. Cuartil: 3. (Review).
 - Bouza, E; Moreno, RC; Ramos, PD; García-Botella, A; García-Lledó, A; Gómez-Pavón, J; del Castillo, JG; Hernández-Sampelayo, T; Martín-Delgado, MC; Sánchez, FJM; Martínez-Sellés, M; García, JMM; Guillén, SM; Rodríguez-Artalejo, FJ; Ruiz-Galiana, J; Bruhlma. *Post-COVID syndrome: A reflection and opinion paper*. REVISTA ESPANOLA DE QUIMIOTERAPIA. 2021; 34(4) 269-279. FI: 2.515. Cuartil: 3. (Review).
- Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor**
- Castellanos, ME; Capin, AAM; Hernández, AM; Maranon, R. *Evaluation of the effectiveness of a procedure for identifying patients with allergy in paediatric emergency rooms*. JOURNAL OF HEALTHCARE QUALITY RESEARCH. 2021; 36(4) 186-190. (Article).
- Other publications**
- Carrasco I; Muñoz-Chapuli M; Vigil-Vázquez S; Aguilera-Alonso D; Hernández C; Sánchez-Sánchez C; Oliver C; Ríaza M; Pareja M; Sanz O; Pérez-Seoane B; López J; Márquez E; Domínguez-Rodríguez S; Hernanz-Lobo A; De León-Luis JA; Sánchez-Luna M; Navarro ML. *SARS-COV-2 infection in pregnant women and newborns in a Spanish cohort (GESNEO-COVID) during the first wave*. BMC PREGNANCY AND CHILDBIRTH. 2021; 21(1) 326-326. (Article).
 - Jové Blanco A; González Roca I; Corredor Andrés B; Bellón Alonso S; Rodríguez Cimadevilla J; Rodríguez-Fernández R. *Impact of an Asthma Education Program During Admission*. HOSPITAL PEDIATRICS. 2021; 11(8) 849-855. (Article).



Area 6

TRASLATIONAL ONCOLOGY

Area coordinator:
Miguel Martín Jiménez



The general research objective in the Area of Oncology in the IISGM is to generate reliable and scientifically relevant data on the personalized treatment of cancer. This objective is met through high-quality translational research that enables the selection of the antitumor treatment with the most options for cure, the least toxicity and the fewest adverse effects.

Therapy is based on the patient's genetic/molecular profile (pharmacogenetics) and on the tumor profile (pharmacogenomics). Appropriate selection of patients with cancer for the sophisticated antitumor therapy available at our center (targeted medical therapy, high-definition radiotherapy, cell therapy, hematopoietic stem cell transplant) ensures the ideal choice for each patient. The work carried out in the Area also includes the study of hereditary/familial cancer syndromes and other situations with a high risk of cancer in which various interventions are effective for reducing the probability of the disease occurring.

Groups in Area 6

TRASLATIONAL ONCOLOGY

- ▶ 6.01. Interdisciplinary oncology and biotechnology
- ▶ 6.02. Translational medical oncology and personalized cancer therapy
- ▶ 6.03. Genetics and clinical aspects of hematologic malignancies and hematopoietic stem cell transplantation
- ▶ 6.04. Surgical oncology

6.01. Interdisciplinary oncology and biotechnology

Group Head: ANA ÁLVAREZ GONZÁLEZ & MERCEDES MUÑOZ FERNÁNDEZ

Organisms involved: HGUGM-UCM

Type: Consolidated Group

Research lines

Axis 1: High-precision radiotherapy (intraoperative radiotherapy)

- ▶ L1: Stereotactic surgical navigation.
- ▶ L2: In vivo dosimetry guided by 3D printing.
- ▶ L3: Mobile miniature linear accelerator: pre-robotization and automation.

Axis 2: Biological response in oncology

- ▶ L1: Post-radiochemotherapy response.
- ▶ L2: Biological dosimetry: chromosomal liquid biopsy.
- ▶ L3: Post-neoadjuvant radioresistance and radiosensitivity.
- ▶ L4: Oncologic bioimaging and response.

Axis 3: Oligocancer

- ▶ L1: Radiosurgical rescue.
- ▶ L2: Staging by functional imaging.
- ▶ L3: Proton therapy: clinical models.

Group members

- Alonso Farto, Juan Carlos: R2. Recognised Researcher.
- Álvarez González, Ana: R1. First Stage Researcher.
- Álvarez Fernández, Emilio.
- Ayala Lázaro, Rafael: R1. First Stage Researcher.
- Blanco Rodríguez, José: R1. First Stage Researcher.
- Calín Lorca, Ana: R1. First Stage Researcher.
- Calvo Manuel, Felipe Ángel: R3. Established Researcher.

- Cascón Pérez-Teijón, María Elena.
- Cuervo Dehesa, Miguel Ángel: R1. First Stage Researcher.
- De Ingunza Barón, Lourdes.
- Del Valle Hernández, Emilio: R1. First Stage Researcher.
- García Hernández, M^a Jesús: R1. First Stage Researcher.
- Gómez Espí, Marina: R2. Recognised Researcher.
- Gómez Cores, Susana: R1. First Stage Researcher.
- González San Segundo, Carmen: R2. Recognised Researcher.
- López Bote, Miguel Ángel: R1. First Stage Researcher.
- Lozano Barriuso, Miguel Ángel: R1. First Stage Researcher.
- Mediavilla Santos, Lydia.
- Moreno Domene, Mercedes: R1. First Stage Researcher.
- Muñoz Fernández, Mercedes.
- Ochandiano Caicoya, Santiago.
- Orcajo Rincón, Javier.
- Peligros Gómez, M^a Isabel: R2. Recognised Researcher.
- Prieto Rodríguez, M^a Jesús.
- Ramón Botella, Enrique.
- Rodríguez Martín, Marcos: R1. First Stage Researcher.
- Rotger Regí, Amanda.
- Ruiz Galán, Gema.
- Serrano Andreu, Francisco Javier: R2. Recognised Researcher.
- Sierra Díaz, Fernando: R1. First Stage Researcher.
- Sole Pesutic, Claudio Vicente: R2. Recognised Researcher.
- Tousidonis Rial, Manuel Alejandro.

6.01. INTERDISCIPLINARY ONCOLOGY AND BIOTECHNOLOGY

Research Projects – Competitive Calls

Human resources

- Title: **Young employment contract: Laboratory Technician.** PEJ-2020-TL/BMD-19427
Director: Muñoz Fernández, Mercedes
Funding body: Consejería Educación Cultura y Deporte de la Comunidad de Madrid
Project type: Human resources
Start date: 01/03/2021
End date: 28/02/2023

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
CIBER	CIBERSAM	Collaborating group

Publications

Total Impact Factor: 162.0

	Nº	IF
Own publications	5	12.8
Joint publications	32	149.2
First decile publications	5	38.4
First quartile publications	9	59.9
Second quartile publications	17	76.8
Third quartile publications	5	14.6
Fourth quartile publications	6	10.7
Nonindexed publications / No IF	11	-
Total publications (including those without IF)	48	162.0

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Gutiérrez, FD; Sen Segundo, CG; Ferreras, PS; Catalán, MA; Domínguez, DR. *Whole lung irradiation in solid paediatric tumours: an indication to review?* ANALES DE PEDIATRIA. 2021; 95(6) 473-475. FI: 2.377. Cuartil: 3. (Letter).
- Estévez-Vázquez, O; Benede-Ubieto, R; Guo, FF; Gómez-Santos, B; Aspichueta, P; Reissing, J; Bruns, T; Sanz-García, C; Sydor, S; Bechmann, LP; Marañillo, E; Sanudo, JR; Vázquez, MT; Lamas-Paz, A; Morán, L; Mazariegos, MS; Ciudin, A; Pericas, JM; Peligros. *Fat: Quality, or Quantity? What Matters Most for the Progression of Metabolic Associated Fatty Liver Disease (MAFLD).* BIOMEDICINES. 2021; 9(10). FI: 4.757. Cuartil: 2. (Article).
- Schache, AG; Shaw, R; Ho, MWS; Winter, SC; Glasbey, J; Ganly, I; Batstone, M; Biel, JR; Nankivell, PC; Simón, C; Omar, O; Simões, JFF; Nepogodiev, D; Bhangu, A; Pinkney, T; McGill, L; Perry, R; Hughes, T; Jackson, R; Siaw-Acheampong, K; Benson, RA; Bywater. *Global wealth disparities drive adherence to COVID-safe pathways in head and neck cancer surgery.* BJS OPEN. 2021; 5(6). FI: 3.875. Cuartil: 1. (Letter).
- Flores, V; Martínez-Lozano, H; Bighelli, F; Orcajo, J; García-Lledó, J; Alonso-Farto, JC; Menchen, L. *Prevalence of biliary acid malabsorption in patients with chronic diarrhoea of functional characteristics: a prospective study.* BMC GASTROENTEROLOGY. 2021; 21(1) 56-56. FI: 2.847. Cuartil: 4. (Article).
- Calvo-Haro, JA; Pascau, J; Mediavilla-Santos, L; Sanz-Ruiz, P; Sánchez-Pérez, C; Vaquero-Martín, J; Pérez-Mañanes, R. *Conceptual evolution of 3D printing in orthopedic surgery and traumatology: from "do it yourself" to "point of care manufacturing".* BMC MUSCULOSKELETAL DISORDERS. 2021; 22(1) 360-360. FI: 2.562. Cuartil: 3. (Article).
- Bankhead-Kendall, BK; Futaba, K; Gabre-Kidan, A; Löffler, MW; Omar, O; Bhangu, AA; Siaw-Acheampong, K; Bywater, E; Chaudhry, D; Dawson, BE; Gujjuri, RR; Heritage, E; Jones, CS; Khatri, C; Khaw, RA; Keatley, JM; Knight, A; Lawday, S; Li, E; Mann, HS; Marso. *Preoperative nasopharyngeal swab testing and postoperative pulmonary complications in patients undergoing elective surgery during the SARS-CoV-2 pandemic.* BRITISH JOURNAL OF SURGERY. 2021; 108(1) 88-96. FI: 11.122. Cuartil: 1. (Article).
- Haak, HE; Beets, GL; Peeters, K; Nelemans, PJ; Valentini, V; Rodel, C; Kuo, L; Calvo, FA; García-Aguilar, J; Glynn-Jones, R; Pucciarelli, S; Suárez, J; Theodoropoulos,



- G; Biondo, S; Lambregts, DMJ; Beets-Tan, RGH; Maas, M. *Prevalence of nodal involvement in rectal cancer after chemoradiotherapy*. BRITISH JOURNAL OF SURGERY. 2021; 108(10) 1251-1258. FI: 11.122. Cuartil: 1. (Article).
- Martínez-Ales, G; Rodríguez, JBC; Lázaro, P; Domingo-Relloso, A; Barrigón, ML; Angora, R; Rodríguez-Vega, B; Jiménez-Sola, E; Sánchez-Castro, P; Román-Mazuecos, E; Villoria, L; Ortega, AJ; Navio, M; Stanley, B; Rosenheck, R; Baca-García, E; Bravo-Ortiz, M. *Cost-effectiveness of a Contact Intervention and a Psychotherapeutic Program for Post-discharge Suicide Prevention: Rentabilite D'une Intervention de Contact et d'un Programme de Psychotherapie Pour la Prevention du Suicide Apres le Conge de L'hospital*. CANADIAN JOURNAL OF PSYCHIATRY-REVUE CANADIENNE DE PSYCHIATRIE. 2021; 66(8) 737-746. FI: 5.321. Cuartil: 2. (Article).
 - de la Hermosa, AR; Zorrilla-Ortuzar, J; Del Valle-Hernández, E. *Diffuse cavernous hemangioma of the rectum*. CIRUGIA Y CIRUJANOS. 2021; 89(6) 818-821. FI: 0.416. Cuartil: 4. (Article).
 - García-Alfonso, P; García-González, G; Gallego, I; Peligros, MI; Ortega, L; Pérez-Solero, GT; Sandoval, C; Martín, AM; Codesido, MB; Ferrándiz, AC; Martín, M. *Prognostic value of molecular biomarkers in patients with metastatic colorectal cancer: a real-world study*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(1) 122-129. FI: 3.34. Cuartil: 3. (Article).
 - Gallego, S; Bernabéu, D; Garrido-Pontnou, M; Guillén, G; Hindi, N; Juan-Ribelles, A; Márquez, C; Mata, C; Orcajo, J; Ramírez, G; Ramos, M; Romagosa, C; Ruano, D; Rubio, P; Verges, R; Valverde, C; SEHOP Soc Espanola Hematologia Onc. *GEIS-SEHOP clinical practice guidelines for the treatment of rhabdomyosarcoma*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(12) 2460-2473. FI: 3.34. Cuartil: 3. (Article).
 - de la Lastra, APD; Saenz, LGD; García-Mato, D; Hernández-Álvarez, L; Ochandiano, S; Pascau, J. *Real-Time Tool Detection for Workflow Identification in Open Cranial Vault Remodeling*. ENTROPY. 2021; 23(7). FI: 2.738. Cuartil: 2. (Article).
 - González-Partida I; Martínez-Lozano H; González-Lois C; Peligros I; Sánchez-Yuste R; Salas I; Matallana V; Bighelli F; Calvo M; Marín-Jiménez I; Salas C; Vera MI; Menchén L; González-Lama Y. *Histological inflammatory activity can predict endoscopic relapse in patients with ulcerative colitis who have achieved mucosal healing*. EUROPEAN JOURNAL OF GASTROENTEROLOGY & HEPATOLOGY. 2021; 33(1S Suppl 1) 796-802. FI: 2.586. Cuartil: 4. (Article).
 - Sedano, P; González-San Segundo, C; De Ingunza, L; Cuesta-Álvaro, P; Pérez-Somarrriba, M; Díaz-Gutiérrez, F; Colino, CG; Lassaletta, A. *Real-world data for pediatric medulloblastoma: can we improve outcomes?*. EUROPEAN JOURNAL OF PEDIATRICS. 2021; 180(1) 127-136. FI: 3.86. Cuartil: 1. (Article).
 - Antúñez-Conde, R; Salmerón, JI; Díez-Montiel, A; Agea, M; Gascón, D; Sada, A; Cuéllar, IN; Tousidonis, M; Ochandiano, S; Arenas, G; Cuéllar, CN. *Mandibular Reconstruction With Fibula Flap and Dental Implants Through Virtual Surgical Planning and Three Different Techniques: Double-Barrel Flap, Implant Dynamic Navigation and CAD/CAM Mesh With Iliac Crest Graft*. FRONTIERS IN ONCOLOGY. 2021; 11 719712-719712. FI: 5.738. Cuartil: 2. (Article).
 - Muñoz, F; Ripolles, T; Cordon, JP; de la Cadena, BDP; Martínez-Pérez, MJ; de Miguel, E; Zabana, Y; Ciria, MM; Beltrán, B; Barreiro-de Acosta, M. *Recommendations of the Spanish Working Group on Crohn's Disease and Ulcerative Colitis (GETECCU) on the use of abdominal ultrasound in inflammatory bowel disease*. GASTROENTEROLOGIA Y HEPATOLOGIA. 2021; 44(2) 158-174. FI: 5.867. Cuartil: 2. (Article).
 - Núñez-García, B; Rodríguez-Pertierra, M; Sequero, S; Carvajal, LG; Ruano-Ravina, A; Aguiar, D; Guma, J; Blanco, CQ; Arroyo, FRG; Garitaonandia, Y; Provencio, Z; Calvo, V; González-San Segundo, C; Provencio, M. *Long-term follow-up of patients with nodular lymphocyte predominant Hodgkin lymphoma: A report from the Spanish Lymphoma Oncology Group*. HEMATOLOGICAL ONCOLOGY. 2021; 39(4) 506-512. FI: 4.85. Cuartil: 2. (Review).
 - Benede-Ubieto, R; Estévez-Vázquez, O; Guo, FF; Chen, CB; Singh, Y; Nakaya, HI; del Moral, MG; Lamas-Paz, A; Morán, L; López-Alcantara, N; Reissing, J; Bruns, T; Ávila, MA; Santamaría, E; Mazariegos, MS; Woitok, MM; Haas, U; Zheng, K; Juárez, I; Martín-Vil. *An Experimental DUAL Model of Advanced Liver Damage*. HEPATOLOGY COMMUNICATIONS. 2021; 5(6) 1051-1068. FI: 5.701. Cuartil: 2. (Article).
 - Landete, E; Gómez-Fernández, I; González-Gascón-Y-Marin, I; Durán-Barquero, C; Churrua, J; Infante, MS; Muñoz-Novas, C; Foncillas, MA; Marín, K; Ramos-de-Ascanio, V; Alonso-Farto, JC; Hernández-Rivas, JA. *Hypermetabolic abdominal and cervical lymph nodes mimicking Hodgkin lymphoma relapse on FDG PET/CT after adenovirus-vectored COVID-19 vaccine*. HUMAN VACCINES & IMMUNOTHERAPEUTICS. 2021; 17(12) 5129-5132. FI: 4.526. Cuartil: 2. (Article).
 - García-Sevilla, M; Mediavilla-Santos, L; Moreta-Martínez, R; García-Mato, D; Pérez-Mañanes, R; Calvo-Haro, JA; Pascau, J. *Combining Surgical Navigation and 3D Printing for Less Invasive Pelvic Tumor Resections*. IEEE ACCESS. 2021; 9 133541-133551. FI: 3.476. Cuartil: 2. (Article).

6.01. INTERDISCIPLINARY ONCOLOGY AND BIOTECHNOLOGY

- García-Mato, D; García-Sevilla, M; Porras, AR; Ochandiano, S; Darriba-Alles, JV; García-Leal, R; Salmerón, JI; Linguraru, MG; Pascau, J. *Three-dimensional photography for intraoperative morphometric analysis in metopic craniosynostosis surgery*. INTERNATIONAL JOURNAL OF COMPUTER ASSISTED RADIOLOGY AND SURGERY. 2021; 16(2) 277-287. FI: 3.421. Cuartil: 2. (Article).
- García-Sevilla, M; Mediavilla-Santos, L; Ruiz-Alba, MT; Pérez-Mañanes, R; Calvo-Haro, JA; Pascau, J. *Patient-specific desktop 3D-printed guides for pelvic tumour resection surgery: a precision study on cadavers*. INTERNATIONAL JOURNAL OF COMPUTER ASSISTED RADIOLOGY AND SURGERY. 2021; 16(3) 397-406. FI: 3.421. Cuartil: 2. (Article).
- Gregoire, E; Barquinero, JF; Gruel, G; Benadjaoud, M; Martínez, JS; Beinke, C; Balajee, A; Beukes, P; Blakely, WF; Domínguez, I; Duy, PN; Gil, OM; Guclu, I; Guogyt, K; Hadjidekova, SP; Hadjidekova, V; Hande, P; Jang, S; Lumniczky, K; Meschini, R; Milic. *RENEB Inter-Laboratory comparison 2017: limits and pitfalls of ILCs*. INTERNATIONAL JOURNAL OF RADIATION BIOLOGY. 2021; 97(7) 888-905. FI: 3.352. Cuartil: 1. (Article).
- Endesfelder, D; Oestreicher, U; Kulka, U; Ainsbury, EA; Moquet, J; Barnard, S; Gregoire, E; Martínez, JS; Trompier, F; Ristic, Y; Woda, C; Waldner, L; Beinke, C; Vral, A; Barquinero, JF; Hernández, A; Sommer, S; Lumniczky, K; Hargitai, R; Montoro, A; Mili. *RENEB/EURADOS field exercise 2019: robust dose estimation under outdoor conditions based on the dicentric chromosome assay*. INTERNATIONAL JOURNAL OF RADIATION BIOLOGY. 2021; 97(9) 1181-1198. FI: 3.352. Cuartil: 1. (Article).
- Cuéllar, CN; Caicoya, SO; Cuéllar, IN; Pérez, SV; Sirandoni, RF; Antúnez-Conde, R; Montiel, AD; Pérez, AS; López, AML; Vila, CN; Escobar, JIS. *Vertical Ridge Augmentation of Fibula Flap in Mandibular Reconstruction: A Comparison between Vertical Distraction, Double-Barrel Flap and Iliac Crest Graft*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(1). FI: 4.964. Cuartil: 2. (Article).
- Cuéllar, CN; Rial, MT; Antúnez-Conde, R; Caicoya, SO; Cuéllar, IN; de Frutos, GA; Urmeneta, AS; Alonso, MIGH; Vila, CN; Escobar, JIS. *Virtual Surgical Planning, Stereolithographic Models and CAD/CAM Titanium Mesh for Three-Dimensional Reconstruction of Fibula Flap with Iliac Crest Graft and Dental Implants*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(9). FI: 4.964. Cuartil: 2. (Article).
- Cuéllar, CN; Rial, MT; Antúnez-Conde, R; Martínez, MA; Cuéllar, IN; Escobar, JIS; Vila, CN. *Functional Outcomes with Facial Artery Musculo-Mucosal (FAMM) Flap and Dental Implants for Reconstruction of Floor of the Mouth and Tongue Defects in Oncologic Patients*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(16). FI: 4.964. Cuartil: 2. (Article).
- Tousidonis, M; Escobar, JIS; Caicoya, SO; Vila, CN; Cuéllar, IN; Montiel, AD; López, AML; Cuéllar, CN. *Preoperative Doppler Ultrasonography Allen Test for Radial Forearm Free Flap in Oral Cancer Reconstruction: Implications in Clinical Practice*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(15). FI: 4.964. Cuartil: 2. (Article).
- Royo-Rubio, E; Rodríguez-Izquierdo, I; Moreno-Domene, M; Lozano-Cruz, T; de la Mata, FJ; Gómez, R; Muñoz-Fernández, MA; Jiménez, JL. *Promising PEGylated cationic dendrimers for delivery of miRNAs as a possible therapy against HIV-1 infection*. JOURNAL OF NANOBIO TECHNOLOGY. 2021; 19(1) 158-158. FI: 9.429. Cuartil: 1. (Article).
- Antúnez-Conde, R; Cuéllar, CN; Ochandiano, S; Díez-Montiel, A; Montes, P; Monteserin, E; Agea, M; Gascón, D; Navarro, I; Arenas, G; Tousidonis, M; Salmerón, JI. *Cervical Lymphadenopathies as Unusual Presentations of Erdheim-Chester Disease: The Need for Knowledge for Diagnosis and Treatment*. LIFE-BASEL. 2021; 11(11). FI: 3.251. Cuartil: 2. (Article).
- Zapatero, A; Álvarez, A; Guerrero, A; Maldonado, X; San Segundo, CG; Cabeza, MA; de Vidales, CM; Solé, JM; Olive, AP; Casas, F; Boladeras, A; de la Torre, MLV; Vara, S; Calvo, FA. *Prognostic value of testosterone castration levels following androgen deprivation and high-dose radiotherapy in localized prostate cancer: Results from a phase III trial*. RADIOTHERAPY AND ONCOLOGY. 2021; 160 115-119. FI: 6.901. Cuartil: 1. (Article).
- Ots, PMS; Ortuño, JZ; Fernández, SP; Canellas, EM; San Segundo, CG; Vargas, MC; Caballero, B; Albiac, MR; Masedo, GV; Álvarez, B; Villalba, SR; Miguelañez, TM; García, PD; Sancho, G; Gómez, LG; Tripero, J; Osés, MRR; Villoslada, CI; Rodríguez, AMSS; Chust. *Impact of covid-19 on patients in radiotherapy oncology departments in Spain*. RADIOTHERAPY AND ONCOLOGY. 2021; 161 148-151. FI: 6.901. Cuartil: 1. (Letter).
- Marcos, AC; Ruiz, RD; Cristóbal, MR; Yunquera, AF; Díaz-Fontenla, F; Carazo, LP; Gómez, MIP; Moreno, JLV; Plaza, MS; Cañizares, RB. *Long-term outcomes and clinical impact of anti-HLA donor-specific antibodies (DSA) after liver transplantation: a prospective study in a pilot cohort*. REVISTA ESPAÑOLA DE ENFERMEDADES DIGESTIVAS. 2021; 113(8) 557-562. FI: 2.389. Cuartil: 4. (Article).
- Tudela-Lerma, M; Orcajo-Rincón, J; Ramón-Botella, E; Álvarez-Luque, A; González-Leyte, M; Rotger-Regi, A; Velasco-Sánchez, E; Colon-Rodríguez,



A. *Efficacy and safety of Yttrium-90 radioembolization in the treatment of neuroendocrine liver metastases. Long-term monitoring and impact on survival.* REVISTA ESPANOLA DE MEDICINA NUCLEAR E IMAGEN MOLECULAR. 2021; 40(2) 82-90. FI: 1.247. Cuartil: 4. (Article).

- Rincón, JO; Oliveros, MB; Fernández, CM; Aradas, VP; Pujol, CA. *Identification, by Tc-99m-HDP-SPECT/CT imaging, of unknown pulmonary metastases in patients with osteosarcoma.* REVISTA ESPANOLA DE MEDICINA NUCLEAR E IMAGEN MOLECULAR. 2021; 40(5) 325-327. FI: 1.247. Cuartil: 4. (Editorial Material).
- Moreta-Martínez, R; Pose-Díez-de-la-Lastra, A; Calvo-Haro, JA; Mediavilla-Santos, L; Pérez-Mañanes, R; Pascau, J. *Combining Augmented Reality and 3D Printing to Improve Surgical Workflows in Orthopedic Oncology: Smartphone Application and Clinical Evaluation.* SENSORS. 2021; 21(4). FI: 3.847. Cuartil: 2. (Article).
- González-San Segundo, C; Counago, F; Gómez-Iturriaga, A. *Adjuvant versus early salvage radiotherapy for prostate cancer patients: Time to move on.* UROLOGIC ONCOLOGY-SEMINARS AND ORIGINAL INVESTIGATIONS. 2021; 39(6) 351-356. FI: 2.954. Cuartil: 3. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Calvo-Haro, JA; Pascau, J; Asencio-Pascual, JM; Calvo-Manuel, F; Cancho-Gil, MJ; López, JFD; Fanjul-Gómez, M; García-Leal, R; González-Casaurrán, G; González-Leyte, M; León-Luis, JA; Mediavilla-Santos, L; Ochandiano-Caicoya, S; Pérez-Caballero, R; Ribed-S. *Point-of-care manufacturing: a single university hospital's initial experience.* 3D PRINTING IN MEDICINE. 2021; 7(1) 11-11. (Article).
- Pérez-Mañanes, R; García-de San José, S; Desco-Menéndez, M; Sánchez-Arcilla, I; González-Fernández, E; Vaquero-Martín, J; González-Garzón, JP; Mediavilla-Santos, L; Traperó-Moreno, D; Calvo-Haro, JA. *Application of 3D printing and distributed manufacturing during the first-wave of COVID-19 pandemic. Our experience at a third-level university hospital.* 3D PRINTING IN MEDICINE. 2021; 7(1) 7-7. (Article).
- García-Mato, D; Moreta-Martínez, R; García-Sevilla, M; Ochandiano, S; García-Leal, R; Pérez-Mañanes, R; Calvo-Haro, JA; Salmerón, JI; Pascau, J. *Augmented reality visualization for craniocystosis surgery.* COMPUTER

METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING-IMAGING AND VISUALIZATION. 2021; 9(4) 392-399. (Article).

- García-Mato, D; Porras, AR; Ochandiano, S; Rogers, GF; García-Leal, R; Salmerón, JI; Pascau, J; Linguraru, MG. *Effectiveness of Automatic Planning of Fronto-orbital Advancement for the Surgical Correction of Metopic Craniosynostosis.* PLASTIC AND RECONSTRUCTIVE SURGERY-GLOBAL OPEN. 2021; 9(11). (Article).
- Ripolles, T; Muñoz F; Martínez-Pérez, MJ; de Miguel, E; Cordón, JP; de la Heras Páez de la Cadena B. *Usefulness of intestinal ultrasound in inflammatory bowel disease.* RADIOLOGIA. 2021; 63(1) 89-102. (Article).
- Valerio, M; Vasquez, V; Álvarez-Uría, A; Zataráin-Nicolás, E; Pavone, P; Martínez-Jiménez, MD; Barrio-Gutiérrez, JM; Cuerpo, G; Guinea-Ortega, J; Vena, A; Peligros-Gómez, MI; Bouza, E; Muñoz, P. *Disseminated lomentosporiosis in a heart transplant recipient: Case report and review of the literature.* TRANSPLANT INFECTIOUS DISEASE. 2021; 23(4). (Review).
- Counago, F; de la Pinta, C; Gonzalo, S; Fernández, C; Almendros, P; Calvo, P; Taboada, B; Gómez-Caamaño, A; Guerra, JLL; Chust, M; Ferreira, JAG; González, AA; Casas, F. *GOECP/SEOR radiotherapy guidelines for small-cell lung cancer.* WORLD JOURNAL OF CLINICAL ONCOLOGY. 2021; 12(3) 115-143. (Article).
- López-Campos, F; Segundo, CGS; Conde-Moreno, AJ; Counago, F. *Metastatic hormone-sensitive prostate cancer: How should it be treated?.* WORLD JOURNAL OF CLINICAL ONCOLOGY. 2021; 12(2) 43-49. (Article).
- Serrano, J; Crespo, PC; Taboada, B; González, AA; García, RG; Caamaño, AG; Reyes, JCT; Mielgo-Rubio, X; Counago, F. *Postoperative radiotherapy in resected non-small cell lung cancer: The never-ending story.* WORLD JOURNAL OF CLINICAL ONCOLOGY. 2021; 12(10) 833-844. (Review).

Other publications

- Taboada AGM; Lominchar PL; Román LM; García-Alfonso P; Martín AJM; Rodríguez JAB; Pascual JMA. *Advances in neoadjuvant therapy for resectable pancreatic cancer over the past two decades.* ANNALS OF HEPATO-BILIARY-PANCREATIC SURGERY. 2021; 25(2) 179-191. (Article).
- Orcajo Rincón J; Baquero Oliveros M; Mata Fernández C; Pérez Aradas V; Agra Pujol C. *Identification, by (99m)Tc-HDP-SPECT/CT imaging, of unknown pulmonary metastases in patients with osteosarcoma.* REVISTA ESPANOLA DE MEDICINA NUCLEAR E IMAGEN MOLECULAR. 2021; 40(5) 325-327. (Article).

6.02. Traslational medical oncology and personalized cancer therapy

Group Head: MIGUEL MARTÍN JIMÉNEZ

Organisms involved: HGUGM

Type: Consolidated Group

Research lines

Axis 1: Scientific leadership, integration, and organization

- ▶ Line 1: Prognostic and predictive value of circulating tumor cells in breast cancer. Leader: Dr. Martín.
- ▶ Line 2: Value of liquid biopsy as a predictor of response in cancer patients. Leader: Dr. Martín.

Axis 2: International relations, alliances, and visibility

- ▶ Line 1: Search for predictors of response to neoadjuvant chemotherapy with docetaxel carboplatin in patients with triple negative breast cancer. Leader: Dr. Martín.
- ▶ Line 2: Development of preclinical PDXs models. Leader: Dr. Martín.
- ▶ Line 3: Development of Organoids. Leader: Dr. Martín.
- ▶ Line 4: Development of new technologies with impact on the oncology patient (FAITH). Leader: Dr. Martín.

The generic objective of research in the Oncology Area is to generate reliable and scientifically relevant information on the individualized treatment of cancer, through translational research, which can allow the selection of antitumor treatment that provides more curative options and less sequelae to each patient. The therapy selection will be essentially based on the genetic / molecular profile of the patient and the tumor. The appropriate selection of cancer patients candidates for sophisticated antitumor therapies (target medical treatments, high definition radiotherapy, cell therapy. hemopoietic progenitor transplantation) available at our center, will allow the most suitable choice for each patient. In addition, the Area will study heir-familial cancer syndromes and other situations of high risk of cancer occurrence, in which various interventions can be very effective in reducing the likelihood of disease occurrence.

Axis 3: Consolidation of innovation

- ▶ Line 1: Genetic counseling. Leader: Dr. Márquez

Axis 4: Competitiveness (sustainability) and resources available for research.

- ▶ Line 1: Development of murine breast cancer tumorigrafts. Leader: Dr. Martín.
- ▶ Line 2: Search for genomic profiles as predictors of response in oncology patients. Leader: Dr. Martín.

Axis 5: Quality and management of research and innovation.

- ▶ Line 1: Immunotherapy for cancer. Leader: Dr. Martín.
- ▶ Line 2: Innovation in treatment of colorectal cancer. Leader: Dr. García Alfonso.
- ▶ Line 3: Innovation in treatment of stomach cancer. Leader: Dr. García Alfonso.
- ▶ Line 4: Innovation in treatment of lung cancer. Leader: Dr. Álvarez.
- ▶ Line 5: Innovation in treatment of genitourinary tumors. Leader: Dr. Arranz.
- ▶ Line 6: Innovation in systemic treatment of brain tumors. Leader: Dr. Márquez.
- ▶ Line 7: Innovation in systemic treatment of melanoma. Leader: Dr. Márquez.
- ▶ Line 8: Innovation in the diagnosis of patients with stage I-III breast cancer. Leader: Dr. Martín.
- ▶ Line 9: (Neo) adjuvant breast cancer chemotherapy Leader: Dr. Martín.



Group members

- Alameda García, Irene: Other. Other.
- Alva Bianchi, Manuel: R1. First Stage Researcher.
- Álvarez Álvarez, Rosa M^a: R3. Established Researcher.
- Álvarez Castillo, Enrique Luis: R1. First Stage.
- Aparicio Salcedo, Inmaculada: R1. First Stage Researcher.
- Arias García, Ainhoa: R1. First Stage.
- Arranz Arija, José Ángel: R3. Established Researcher.
- Arregui Valles, Marta: R1. First Stage.
- Ayllón García, Carolina: R1. First Stage.
- Bernat Gómez, Rebeca: R1. First Stage.
- Blanco Velilla, Alba: R1. First Stage.
- Blanco Codesido, Montserrat: R2. Recognised Researcher.
- Bringas Beranek, Marianela: R1. First Stage.
- Bueno Zamora, Óscar: R1. First Stage.
- Calles Blanco, Antonio: R1. First Stage.
- Calvo Ferrándiz, Pilar Aitana: R2. Recognised Researcher.
- Cantero Martín, Marta: R1. First Stage.
- Cañete Gámez, M^a Isabel: R1. First Stage.
- Carpeño Martín-Caro, Laura: Other.
- Cebollero Presmanes, María: R2. Recognised Researcher.
- Ciudad Babiano, Francisco: R1. First Stage.
- De Tomás Palacios, Jorge: R2. Recognised Researcher.
- Del Monte Millán, María: R1. First Stage.
- Delgado Salas, Guadalupe: R1. First Stage.
- Echavarría Díaz-Guardamino, Isabel: R2. Recognised Researcher.

- Escobar Álvarez, Yolanda: R1. First Stage.
- Esteban Arranz, Magdalena: R1. First Stage.
- Fernández González, Sara: R1. First Stage.
- Fernández Fernández, Adrián.
- Flores Sánchez, Carmen: R1. First Stage.
- Flórez Peñasco, Sandra: R1. First Stage.
- Galera López, M^a del Mar.
- Galindo Barreales, Fernando: R1. First Stage.
- García Laborda, Elsa: R1. First Stage.
- García Hidalgo, M^a Elena: R1. First Stage.
- García Maldonado, Ana: R1. First Stage.
- García Alfonso, M^a Pilar: R3. Established Researcher.
- González Blázquez, M^a Victoria: Other.
- González Caraballo, Irene: R1. First Stage.
- González del Val Subirats, Ricardo: R2. Recognised Researcher.
- Gras Peral, Inmaculada Concepción: R1. First Stage.
- Gutiérrez Alonso, Natalia: R1. First Stage.
- Gutiérrez Ortiz de la Tabla, Ana: R1. First Stage.
- Herrero López, Blanca: R1. First Stage.
- Iruela de Pedro, M^a Encarnación: R1. First Stage.
- Jerez Gilarranz, Yolanda: R2. Recognised Researcher.
- Jiménez Vicente, Mercedes: R1. First Stage.
- Jiménez Rodríguez, Roberto: R1. First Stage.
- Juliao Caamaño, David Salomón: R1. First Stage.
- Khorsavi Shahi, Parham: R2. Recognised Researcher.

Continued on next page



Group members (*cont.*)

- Lobato Vidal, Nerea: R1. First Stage.
- López Juárez, Estela: R1. First Stage.
- López López, Cristina: R1. First Stage.
- López Jiménez, Carlos: R1. First Stage.
- López-Tarruella Cobo, Sara: R2. Recognised Researcher.
- Luque Molina, M^a Soledad: R2. Recognised Researcher.
- Márquez Lozano, Gloria: Other.
- Márquez Rodas, Iván: R2. Recognised Researcher.
- Martín Alonso, Alhelies: R1. First Stage.
- Martín Jiménez, Miguel: R4. Leading Researcher.
- Martín Lozano, Rocío: R1. First Stage.
- Martínez Pérez, Mónica: R1. First Stage.
- Massarrah Sánchez, Tatiana: R1. First Stage.
- Morón García, Blanca Isabel: R1. First Stage.
- Muñana Villar, Alberto: R1. First Stage.
- Muñoz Martín, Andrés: R2. Recognised Researcher.
- Ocaña Torres, Inmaculada: R1. First Stage.
- Olcoz Monreal, Francisco Javier: R1. First Stage.
- Ortega Morán, Laura: R1. First Stage.
- Palomero Plaza, M^a Isabel: R1. First Stage.
- Parra Hernández, Irene: R1. First Stage.
- Pérez de la Fuente, Inés: R1. First Stage.

- Pérez Montijano, Marta: R1. First Stage.
- Pérez Ramírez, Sara: R2. Recognised Researcher.
- Picornell Company, Antonio Climent: R2. Research Researcher.
- Puente Vázquez, Beatriz: R1. First Stage.
- Rahimi, Paniz.
- Ramos Medina, Rocío: R2. Research Researcher.
- Ramos Tamudo, Belén.
- Ranz Herranz, M^a Isabel: R1. First Stage.
- Rincón Olbés, Patricia: R1. First Stage.
- Roche Molina, Marta.
- Rodríguez Villar, Cristina: R1. First Stage.
- Ruiz Bolaños, Ana Belén.
- Sabín Domínguez, M^a Pilar: R2. Recognised Researcher.
- Saldaña Guzmán, Iris.
- Sánchez Herrero, Rosa M^a: R1. First Stage.
- Soto Alsar, Javier: R1. First Stage.
- Tirado Anula, Victoria Clara: R1. First Stage.
- Toro Carmena, M^a de.
- Torres Pérez-Solero, Gabriela: R1. First Stage.
- Vargas Sánchez, Aroa: R1. First Stage.
- Villarejo López, Lucía.
- Zazo León, M^a Teresa: R1. First Stage.



Research Projects – Competitive Calls

Competitive projects

- Title: FAITH: Federated Artificial Intelligence solution for monitoring mental Health status after cancer treatment.** H2020 FAITH 875358
 Director: Martín Jiménez, Miguel
 Project type: Research project
 Funding body: UE
 Start date: 01/01/2020
 End date: 31/12/2022
- Title: Valor predictivo de la carga mutacional en tejido tumoral, plasma y CTCs en la respuesta a docetaxel-carboplatino neoadyuvante en pacientes con cáncer de mama triple negativo.** PI18/01775
 Director: Martín Jiménez, Miguel
 Project type: Research project
 Funding body: Instituto de Salud Carlos III
 Start date: 01/01/2019
 End date: 31/12/2021
- Title: Detección de neoantígenos en exosomas tumorales obtenidos de sangre periférica de pacientes con cáncer microcítico de pulmón metastásico.** ASEICA/18-01
 Director: Calles Blanco, Antonio
 Project type: Research project
 Funding body: Asociación Española de Investigación sobre el Cáncer ASEICA
 Start date: 01/03/2019
 End date: 28/02/2021

Industrial and intellectual property registrations

Industrial property

Title	Reference*	Owner	Inventors
Cancer-associated venous thromboembolic events	EP3631016	FIBHGM IIB Sant Pafu	Andrés Muñoz, Eduardo Salas y José Manuel Soria

■ Transferred Industrial Property.

* Reference: P (Patent), PCT (international patent), EP (European patent), US (USA patent), U (Utility model), M (Trademark).

Copyright

Title	Reference	Owner	Inventors
SMART, application for cancer genetic counseling	Nº Asiento Registral: 16/2015/5724	FIBHGM, UNED, URJC	Iván Márquez, Juan Martínez Romo, Cristina Rodríguez, Susana Borromeo

■ Transferred Intellectual Property.



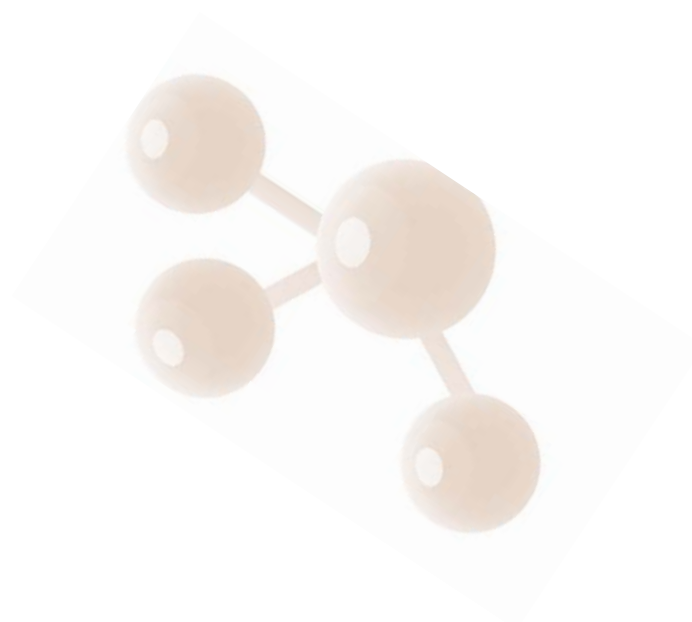
6.02. TRANSLATIONAL MEDICAL ONCOLOGY AND PERSONALIZED CANCER THERAPY

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
RETICS	Redes Temáticas de Investigación Cooperativa en Salud en el Área de Cáncer. RD12/0036/0076	Associated group
CIBER	CIBERONC CB16/12/00471	Associated group
Other	GEICAM. Grupo Español de Cáncer de mama.	Coordinating group
Other	ESMO. European Society for Medical Oncology	Collaborating group
Other	TRIO. Translational Research In Oncology	Collaborating group
Other	GEIS. Grupo Español de Investigación en Sarcomas.	Collaborating group
Other	TTD. Grupo de Tratamiento de los Tumores Digestivos	Collaborating group
Other	SOGUG. Grupo Español de Oncología Genitourinaria.	Collaborating group
Other	SEOM. Sociedad Española de Oncología Médica	Collaborating group
Other	GEM. Grupo Español Multidisciplinar de Melanoma	Collaborating group
Other	EUROPACOLON España. Asociación cáncer colorrectal	Collaborating group
Other	Grupo ECO para la calidad en la Oncología	Collaborating group
Other	SOMA. Sociedad Oncológica Madrileña	Collaborating group
Other	BCIRG. Breast Cancer Internacional Research Group	Collaborating group
Other	CIBOMA. Coalición Iberoamericana de Oncología Mamaria	Collaborating group
Other	ASCO. American Society of Clinical Oncology	Collaborating group
Other	CECOG. Central European Cooperative Oncology Group	Collaborating group
Other	EBCTCG. Early Breast Cancer Trialist Cooperative Group	Collaborating group

Doctoral theses. Bachelor theses and Master theses

Type	Candidate	Title	Name/s Director/s	University	Date defended
Ph Thesis	Rebeca Bernat	Estudios de Mecanismos de Resistencia a Agentes Antitumorales en Modelos Murinos PDXs Procedentes de Pacientes con Cáncer de Mama Triple Negativo y su Correlación con la Clínica	Miguel Martín, Rocio Ramos	Universidad Autónoma de Madrid	01/10/2021



Clinical Practice Guidelines

Authors	Title	Journal/Reference
Navarro S, Cuatrecasas M, Hernández-Losa J, Landolfi S, Musulén E, Ramón Y Cajal S, García-Carbonero R, García-Foncillas J, Pérez-Segura P, Salazar R, Vera R, García-Alfonso P	Actualización de la recomendación para la determinación de biomarcadores en el carcinoma colorrectal. Consenso Nacional de la Sociedad Española de Oncología Médica y de la Sociedad Española de Anatomía Patológica [Update of the recommendations for the determination of biomarkers in colorectal carcinoma. National Consensus of the Spanish Society of Medical Oncology and the Spanish Society of Pathology].	Rev Esp Patol. 2021 Jan-Mar;54(1):41-54. Spanish. doi: 10.1016/j.patol.2020.07.004. Epub 2020 Oct 16. PMID: 33455693.
García-Alfonso P, García-Carbonero R, García-Foncillas J, Pérez-Segura P, Salazar R, Vera R, Ramón Y Cajal S, Hernández-Losa J, Landolfi S, Musulén E, Cuatrecasas M, Navarro S.	Update of the recommendations for the determination of biomarkers in colorectal carcinoma: National Consensus of the Spanish Society of Medical Oncology and the Spanish Society of Pathology.	Clin Transl Oncol. 2020 Nov;22(11):1976-1991. doi: 10.1007/s12094-020-02357-z. Epub 2020 May 16. PMID: 32418154; PMCID: PMC7505870. (FI: 2.737).
A. J. Muñoz Martín, E. Gallardo Díaz, I. García Escobar, R. Macías Montero, V. Martínez-Marín, V. Pachón Olmos, P. Pérez Segura, T. Quintanar Verdúquez & M. Salgado Fernández	SEOM clinical guideline of venous thromboembolism (VTE) and cancer (2019)	Clinical and Translational Oncology volume 22, pages171-186(2020)
Martin, M; Guerrero-Zotano, A; Montero, A; Jara, C; Filipovich, E; Rojo, F; Moreno, F; García-Saenz, JA; Ales, JE; Chacon, JI; Cruz, J; Gimenez, J; Cruz-Merino, L; Algara, M; Santisteban, M; Tarruella, SL; GEICAM Spanish Breast Canc Grp Ste	GEICAM Guidelines for the Management of Patients with Breast Cancer During the COVID-19 Pandemic in Spain	10.1634/theoncologist.2020-0363

Authors	Title	Journal/Reference
Keilholz U, Ascierto PA, Dummer R, Robert C, Lorigan P, van Akkooi A, Arance A, Blank CU, Sileni VC, Donia M, Faries MB, Gaudy-Marqueste C, Gogas H, Grob JJ, Guckenberger M, Haanen J, Hayes AJ, Hoeller C, Lebbé C, Lugowska I, Mandalà M, Márquez-Rodas I, Nathan P, Neyns B, Bagge RO, Puig S, Rutkowski P, Schilling B, Sondak VK, Tawbi H, Testori A, Michielin O.	ESMO consensus conference recommendations on the management of metastatic melanoma: the ESMO Guidelines Committee.	Ann Oncol. 2020 Jul 22:S0923-7534(20)39939-7. doi: 10.1016/j.annonc.2020.07.004. Epub ahead of print. PMID: 32763453.
Michielin O, van Akkooi A, Lorigan P, Ascierto PA, Dummer R, Robert C, Arance A, Blank CU, Sileni VC, Donia M, Faries MB, Gaudy-Marqueste C, Gogas H, Grob JJ, Guckenberger M, Haanen J, Hayes AJ, Hoeller C, Lebbé C, Lugowska I, Mandalà M, Márquez-Rodas I, Nathan P, Neyns B, Bagge RO, Puig S, Rutkowski P, Schilling B, Sondak VK, Tawbi H, Testori A, Keilholz U.	ESMO consensus conference recommendations on the management of locoregional melanoma: the ESMO Guidelines Committee	Ann Oncol. 2020 Jul 22:S0923-7534(20)39940-3. doi: 10.1016/j.annonc.2020.07.005. Epub ahead of print. PMID: 32763452.
Iván Márquez Rodas	Guía "National Comprehensive Cancer Network" Squamous skin cancer versión Europea: España. V2.2020.	https://fundacioneco.es/project/guia-de-practica-clinica-en-oncologia-de-la-ncn/
Y. Escobar Álvarez ¹ , R. de las Peñas Bataller ² , J. Perez Altozano ³ , S. Ros Martínez, A. Sabino Álvarez ⁵ , A. Blasco Cordellat ⁶ , E. Brozos Vázquez ⁷ , J. Corral Jaime ⁸ , I. García Escobar ⁹ , C. Beato Zambrano ¹	SEOM clinical guidelines for anaemia treatment in cancer patients (2020)	Clinical and Translational Oncology volume 23, pages931-939 (2021)
Majem M, Manzano JL, Márquez-Rodas I, Mujika K, Muñoz-Couselo E, Pérez-Ruiz E, de la Cruz-Merino L, Espinosa E, González-Cao M, Berrocal A.	SEOM clinical guideline for the management of cutaneous melanoma (2020).	Clin Transl Oncol. 2021 Mar 2. doi: 10.1007/s12094-020-02539-9. Epub ahead of print. PMID: 33651321.
de Juan Ferré A, Álvarez Álvarez R, Casado Herráez A, et al.	SEOM Clinical Guideline of management of soft tissue sarcoma (2020)	Clin Transl Oncol. 2021;23(5):922-930. doi:10.1007/s12094-020-02534-0

Continued on next page



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Clinical Practice Guidelines (cont.)

Authors	Title	Journal/Reference
García-Alfonso P, Saiz-Rodríguez M, Mondéjar R, et al.	Consensus of experts from the Spanish Pharmacogenetics and Pharmacogenomics Society and the Spanish Society of Medical Oncology for the genotyping of DPYD in cancer patients who are candidates for treatment with fluoropyrimidines.	Clin Transl Oncol. 2022;24(3):483-494. doi:10.1007/s12094-021-02708-4. Epub 2021 Nov 13
Navarro, Samuel; Cuatrecasas, Miriam; Hernández-Losa, Javier; Landolfi, Stefania; Musulen, Eva; Ramon Y Cajal, Santiago; García-Carbonero, Rocio; García-Foncillas, Jesus; Perez-Segura, Pedro; Salazar, Ramon; Vera, Ruth; García-Alfonso, Pilar	Actualización de la recomendación para la determinación de biomarcadores en el carcinoma colorrectal. Consenso Nacional de la Sociedad Española de Oncología Médica y de la Sociedad Española de Anatomía Patológica.	Revista española de patología : publicación oficial de la Sociedad Española de Anatomía Patológica y de la Sociedad Española de Citología, Volume54, Issue1, Page41-54, DOI10.1016/j.patol.2020.07.004 Published 2021 Jan-Mar Indexed 2021-01-19 Document Type Journal Article; Practice Guideline; Review
Maria Gonzalez-Cao ,1 Teresa Puértolas,2 Mar Riveiro,3 Eva Muñoz-Couselo,4 Carolina Ortiz,4 Roger Paredes,5,6 Daniel Podzamczek,7 Jose Luis Manzano,8 Jose Molto,5,6 Boris Revollo,5,6 Cristina Carrera,9 Lourdes Mateu,5,6 Sara Fancelli,1,10 Enrique Espinosa,11 Bonaventura Clotet,5,6 Javier Martínez-Picado,5,12 Pablo Cerezuela,13 Ainara Soria,14 Ivan Marquez-Rodas ,15 Mario Mandala ,16 Alfonso Berrocal,17 for the Spanish Melanoma Group (GEM)	Cancer immunotherapy in special challenging populations: recommendations of the Advisory Committee of Spanish Melanoma Group (GEM)	J Immunother Cancer. 2021;9(3):e001664. doi:10.1136/jitc-2020-001664. [published correction appears in J Immunother Cancer. 2022 Feb;10(2):].
González Del Alba, A., Méndez-Vidal, M. J., Vázquez, S., Castro, E., Climent, M. A., Gallardo, E., Gonzalez-Billalabeitia, E., Lorente, D., Maroto, J. P., & Arranz, J. A.	SEOM clinical guidelines for the treatment of advanced prostate cancer (2020).	Clin Transl Oncol. 2021;23(5):969-979. doi:10.1007/s12094-021-02561-5

Publications

Total Impact Factor: 1086.3

	Nº	IF
Own publications	23	149.9
Joint publications	64	936.4
First decile publications	17	699.2
First quartile publications	50	942.1
Second quartile publications	17	84.1
Third quartile publications	18	58.3
Fourth quartile publications	2	1.8
Nonindexed publications / No IF	10	-
Total publications (including those without IF)	97	1086.3

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- González-Barca, E; Capote, FJ; Gómez-Codina, J; Panizo, C; Salar, A; Sancho, JM; López, A; Briones, J; Muñoz, A; Encuentra, M; Mercadal, S; Domingo-Domenech, E; de Sevilla, AF. *Long-term follow-up of a prospective phase 2 clinical trial of extended treatment with rituximab in patients with B cell post-transplant lymphoproliferative disease and validation in real world patients.* ANNALS OF HEMATOLOGY. 2021; 100(4) 1023-1029. FI: 4.03. Cuartil: 2. (Article).
- Martín, M; Zielinski, C; Ruiz-Borrego, M; Carrasco, E; Turner, N; Ciruelos, EM; Muñoz, M; Bermejo, B; Margeli, M; Antón, A; Kahan, Z; Csoszi, T; Casas, MI; Murillo, L; Morales, S; Alba, E; Gal-Yam, E; Guerrero-Zotano, A; Calvo, L; de la Haba-Rodríguez, J. *Palbociclib in combination with endocrine therapy versus capecitabine in hormonal receptor-positive, human epidermal growth factor 2-negative, aromatase inhibitor-resistant metastatic breast cancer: a phase III randomised controlled trial-PEARL.* ANNALS OF ONCOLOGY. 2021; 32(4) 488-499. FI: 51.769. Cuartil: 1. (Article).
- Harbeck, N; Rastogi, P; Martín, M; Tolaney, SM; Shao, ZM; Fasching, PA; Huang, CS; Jalliffe, GG; Tryakin, A; Goetz, MP; Rugo, HS; Senkus, E; Testa, L; Andersson,



M; Tamura, K; Del Mastro, L; Steger, GG; Kreipe, H; Hegg, R; Sohn, J; Guarneri, V; Cortés, J. *Adjuvant abemaciclib combined with endocrine therapy for high-risk early breast cancer: updated efficacy and Ki-67 analysis from the monarchE study*. ANNALS OF ONCOLOGY. 2021; 32(12) 1571-1581. FI: 51.769. Cuartil: 1. (Article).

- Slamon, DJ; Neven, P; Chia, S; Jerusalem, G; De Laurentiis, M; Im, S; Petrakova, K; Bianchi, GV; Martín, M; Nusch, A; Sonke, GS; De la Cruz-Merino, L; Beck, JT; Ji, Y; Wang, C; Deore, U; Chakravarty, A; Zárte, JP; Tarán, T; Fasching, PA. *Ribociclib plus fulvestrant for postmenopausal women with hormone receptor-positive, human epidermal growth factor receptor 2-negative advanced breast cancer in the phase III randomized MONALEESA-3 trial: updated overall survival*. ANNALS OF ONCOLOGY. 2021; 32(8) 1015-1024. FI: 51.769. Cuartil: 1. (Article).
- Romera, A; Cebollero, M; Romero-Gómez, B; Carricondo, F; Zapatero, S; García-Aldao, U; Martín-Albo, L; Ortega, J; Vara, E; Garutti, I; Simón, C. *Effect of Intravenous Lidocaine on Inflammatory and Apoptotic Response of Ischemia-Reperfusion Injury in Pigs Undergoing Lung Resection Surgery*. BIOMED RESEARCH INTERNATIONAL. 2021; 2021 6630232-6630232. FI: 3.246. Cuartil: 3. (Article).
- Kuemmel, S; Tondini, CA; Abraham, J; Nowecki, Z; Itrych, B; Hitre, E; Karaszewska, B; Juárez-Ramiro, A; Morales-Vasquez, F; Pérez-García, JM; Cardona-Huerta, S; Monturus, E; Sequi, M; Restuccia, E; Benyunes, M; Martín, M. *Subcutaneous trastuzumab with pertuzumab and docetaxel in HER2-positive metastatic breast cancer: Final analysis of MetaPHER, a phase IIIb single-arm safety study*. BREAST CANCER RESEARCH AND TREATMENT. 2021; 187(2) 467-476. FI: 4.624. Cuartil: 2. (Article).
- Polley, MYC; Dickler, MN; Sinnwell, J; Tenner, K; de la Haba, J; Loibl, S; Goetz, MP; Bergh, J; Roberston, J; Couch, F; Ellis, MJ; Martín, M. *A clinical calculator to predict disease outcomes in women with hormone receptor-positive advanced breast cancer treated with first-line endocrine therapy*. BREAST CANCER RESEARCH AND TREATMENT. 2021; 189(1) 15-23. FI: 4.624. Cuartil: 2. (Review).
- De Laurentiis, M; Borstnar, S; Campone, M; Warner, E; Bofill, JS; Jacot, W; Dent, S; Martín, M; Ring, AL; Cottu, P; Lu, JI; Ciruelos, E; Azim, HA; Chatterjee,

S; Zhou, KT; Wu, JW; Menon-Singh, L; Zamagni, C. *Full population results from the core phase of CompLEEmment-1, a phase 3b study of ribociclib plus letrozole as first-line therapy for advanced breast cancer in an expanded population*. BREAST CANCER RESEARCH AND TREATMENT. 2021; 189(3) 689-699. FI: 4.624. Cuartil: 2. (Article).

- Donat-Vargas, C; Guerrero-Zotano, A; Casas, A; Baena-Canada, JM; Lope, V; Antolín, S; García-Saenz, JA; Bermejo, B; Muñoz, M; Ramos, M; de Juan, A; Sánchez, CJ; Sánchez-Rovira, P; Antón, A; Brunet, J; Gavila, J; Salvador, J; Arellano, EA; Bezares, S; de L. *Trajectories of alcohol consumption during life and the risk of developing breast cancer*. BRITISH JOURNAL OF CANCER. 2021; 125(8) 1168-1176. FI: 9.075. Cuartil: 1. (Article).
- Bastos-Oreiro, M; Ortiz, J; Pradillo, V; Salas, E; Martinez-Laperche, C; Muñoz, A; Buño, I; Díez-Martín, JL; Soria, JM; Izquierdo, CP. *Incorporating genetic and clinical data into the prediction of thromboembolism risk in patients with lymphoma*. CANCER MEDICINE. 2021; 10(21) 7585-7592. FI: 4.711. Cuartil: 2. (Article).
- Martínez-Trufero, J; Jurado, JC; Hernández-León, CN; Correa, R; Asencio, JM; Bernabéu, D; Álvarez, R; Hindi, N; Mata, C; Marquina, G; Martínez, V; Redondo, A; Flórida, LJ; Gómez-Mateo, MC; Lavernia, J; Sebio, A; del Muro, XG; Martín-Broto, J; Valverde-Mora. *Uncommon and peculiar soft tissue sarcomas: Multidisciplinary review and practical recommendations. Spanish Group for Sarcoma research (GEIS -GROUP). Part II*. CANCER TREATMENT REVIEWS. 2021; 99 102260-102260. FI: 13.608. Cuartil: 1. (Review).
- Martínez-Trufero, J; Jurado, JC; Gómez-Mateo, MC; Bernabéu, D; Flórida, LJ; Lavernia, J; Sebio, A; del Muro, XG; Álvarez, R; Correa, R; Hernández-León, CN; Marquina, G; Hindi, N; Redondo, A; Martínez, V; Asencio, JM; Mata, C; Morales, CMV; Martín-Broto, J. *Uncommon and peculiar soft tissue sarcomas: Multidisciplinary review and practical recommendations for diagnosis and treatment. Spanish group for Sarcoma research (GEIS - GROUP). Part I*. CANCER TREATMENT REVIEWS. 2021; 99 102259-102259. FI: 13.608. Cuartil: 1. (Review).
- Conde, E; Earl, J; Crespo-Toro, L; Blanco-Agudo, C; Ramos-Muñoz, E; Rodríguez-Serrano, EM; Ávila, JCM; Salinas-Muñoz, L; Serrano-Huertas, S; Ferreira, R; Rodríguez-Garrote, M; Sainz, B; Massuti, B; Alfonso, PG; Benavides, M; Aranda, E; García-Bermejo, ML. *Biomarkers Associated with Regorafenib First-*



6.02. TRANSLATIONAL MEDICAL ONCOLOGY AND PERSONALIZED CANCER THERAPY

Line Treatment Benefits in Metastatic Colorectal Cancer Patients: REFRAME Molecular Study. CANCERS. 2021; 13(7). FI: 6.575. Cuartil: 1. (Article).

- Martínez-Trufero, J; De Sande-González, LM; Luna, P; Martín-Broto, J; Álvarez, R; Marquina, G; Díaz-Beveridge, R; Poveda, A; Cano, JM; Cruz-Jurado, J; Pousa, AL; Salgado, MAV; Valverde-Morales, CM; Sevilla, I; Martínez-García, J; Rubio-Casadevall, J; De J. *A Growth Modulation Index-Based GEISTRA Score as a New Prognostic Tool for Trabectedin Efficacy in Patients with Advanced Soft Tissue Sarcomas: A Spanish Group for Sarcoma Research (GEIS) Retrospective Study.* CANCERS. 2021; 13(4). FI: 6.575. Cuartil: 1. (Article).
- Barca-Hernando, M; Muñoz-Martín, AJ; Ríos-Herranz, E; García-Escobar, I; Beato, C; Font, C; Oncala-Sibajas, E; Revuelta-Rodríguez, A; Areses, MC; Rivas-Jiménez, V; Ballaz-Quincoces, A; Moreno-Santos, MA; López-Sáez, JB; Gallego-Gallego, I; Elías-Hernández. *Case-Control Analysis of the Impact of Anemia on Quality of Life in Patients with Cancer: A Qca Study Analysis.* CANCERS. 2021; 13(11). FI: 6.575. Cuartil: 1. (Article).
- Esteban, E; Expósito, F; Crespo, G; Lambea, J; Pinto, A; Puente, J; Arranz, JA; Redrado, M; Rodríguez-Antona, C; de Andrea, C; López-Brea, M; Redin, E; Rodríguez, A; Serrano, D; García, J; Grande, E; Castellano, D; Calvo, A. *Circulating Levels of the Interferon-gamma-Regulated Chemokines CXCL10/CXCL11, IL-6 and HGF Predict Outcome in Metastatic Renal Cell Carcinoma Patients Treated with Antiangiogenic Therapy.* CANCERS. 2021; 13(11). FI: 6.575. Cuartil: 1. (Article).
- Schettini, F; Giuliano, M; Lambertini, M; Bartsch, R; Pinato, DJ; Onesti, CE; Harbeck, N; Luftner, D; Rottey, S; van Dam, PA; Zaman, K; Mustacchi, G; Gligorov, J; Awada, A; Campone, M; Wildiers, H; Gennari, A; Tjan-Heijnen, VCG; Cortés, J; Locci, M; Paris. *Anthracyclines Strike Back: Rediscovering Non-Pegylated Liposomal Doxorubicin in Current Therapeutic Scenarios of Breast Cancer.* CANCERS. 2021; 13(17). FI: 6.575. Cuartil: 1. (Review).
- Sereno, M; Jiménez-Gordo, AM; Baena-Espinar, J; Aguado, C; Mielgo, X; Pertejo, A; Álvarez-Álvarez, R; Sánchez, A; López, JL; Molina, R; López-Alfonso, A; Hernández, B; Chiara, LE; Martín, AM; López-Martín, A; Dorta, M; Collazo-Lorduy, A; Casado, E; de Mol. *A Multicenter Analysis of the Outcome of Cancer Patients with Neutropenia and COVID-19 Optionally Treated with Granulocyte-Colony Stimulating Factor (G-CSF): A Comparative Analysis.* CANCERS. 2021; 13(16). FI: 6.575. Cuartil: 1. (Article).
- Gutiérrez-Seijo, A; García-Martínez, E; Barrio-Alonso, C; Pareja-Malagón, M; Acosta-Ocampo, A; Fernández-Santos, ME; Puig-Kroger, A; Parra-Blanco, V; Mercader, E; Márquez-Rodas, I; Avilés-Izquierdo, JA; Samaniego, R; Sánchez-Mateos, P. *CCL20/TNF/VEGFA Cytokine Secretory Phenotype of Tumor-Associated Macrophages Is a Negative Prognostic Factor in Cutaneous Melanoma.* CANCERS. 2021; 13(16). FI: 6.575. Cuartil: 1. (Article).
- Ramos-Medina, R; López-Tarruella, S; Del Monte-Millán, M; Massarrah, T; Martín, M. *Technical Challenges for CTC Implementation in Breast Cancer.* CANCERS. 2021; 13(18). FI: 6.575. Cuartil: 1. (Review).
- García-Alfonso, P; Muñoz, A; Jiménez-Castro, J; Jiménez-Fonseca, P; Pericay, C; Longo-Muñoz, F; Reyna-Fortes, C; Argiles-Martínez, G; González-Astorga, B; Gómez-Reina, MJ; Ruiz-Casado, A; Rodríguez-Salas, N; López-López, R; Carmona-Bayonas, A; Conde-Herre. *Early Clinical Experience with Trifluridine/Tipiracil for Refractory Metastatic Colorectal Cancer: The ROS Study.* CANCERS. 2021; 13(18). FI: 6.575. Cuartil: 1. (Article).
- de Tomas, J. *Conversion to gastric bypass in patients with Barrett's esophagus after sleeve gastrectomy.* CIRUGIA ESPANOLA. 2021; 99(5) 397-398. FI: 2.242. Cuartil: 3. (Letter).
- Avilés-Izquierdo, JA; Mercader-Cidoncha, E; Escat-Cortés, JL; Márquez-Rodas, I; Parra-Blanco, V; Rodríguez-Lomba, E. *When is it worth performing lymphadenectomy in patients with melanoma micrometastases? A 20-year experience retrospective analysis.* CIRUGIA Y CIRUJANOS. 2021; 89(4) 457-460. FI: 0.416. Cuartil: 4. (Article).
- Garrido, P; Hladun, R; de Álava, E; Álvarez, R; Bautista, F; López-Ríos, F; Colomer, R; Rojo, F. *Multidisciplinary consensus on optimising the detection of NTRK gene alterations in tumours.* CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(8) 1529-1541. FI: 3.34. Cuartil: 3. (Article).
- Ferre, AD; Álvarez, RA; Herraiz, AC; Jurado, JC; González, AE; Martín-Broto, J; Marín, VM; Vega, AM; García, AS; Morales, CV. *SEOM Clinical Guideline of management of soft-tissue sarcoma (2020).* CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(5) 922-930. FI: 3.34. Cuartil: 3. (Article).
- del Alba, AG; Méndez-Vidal, MJ; Vázquez, S; Castro, E; Climent, MA; Gallardo, E; González-Billalabeitia, E; Lorente, D; Maroto, JP; Arranz, JA. *SEOM clinical guidelines for the treatment of advanced prostate cancer (2020).* CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(5) 969-979. FI: 3.34. Cuartil: 3. (Article).



- Majem, M; Manzano, JL; Márquez-Rodas, I; Mujika, K; Muñoz-Couselo, E; Pérez-Ruiz, E; de la Cruz-Merino, L; Espinosa, E; González-Cao, M; Berrocal, A. *SEOM clinical guideline for the management of cutaneous melanoma (2020)*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(5) 948-960. FI: 3.34. Cuartil: 3. (Article).
- Astorga, BG; Ballabrera, FS; Aguilar, EA; Fernández, EE; García-Alfonso, P; Flores, EG; García, RV; Montes, AF; Muñoz, AML; Salvia, AS. *Patient profiles as an aim to optimize selection in the second line setting: the role of aflibercept*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(8) 1520-1528. FI: 3.34. Cuartil: 3. (Review).
- Álvarez, YE; Bataller, RD; Altozano, JP; Martínez, SR; Álvarez, AS; Cordellat, AB; Vázquez, EB; Jaime, JC; Escobar, IG; Zambrano, CB. *SEOM clinical guidelines for anaemia treatment in cancer patients (2020)*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(5) 931-939. FI: 3.34. Cuartil: 3. (Article).
- García-Escobar, I; Brozos-Vázquez, E; Abad, DG; Martínez-Marín, V; Pachón, V; Martín, AJM; Cane Thrombosis Sect Spanish. *Direct oral anticoagulants for the treatment and prevention of venous thromboembolism in patients with cancer: current evidence*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(6) 1034-1046. FI: 3.34. Cuartil: 3. (Review).
- Gómez-Espana, MA; Montes, AF; García-Carbonero, R; Mercade, TM; Maurel, J; Martín, AM; Pazo-Cid, R; Vera, R; Carrato, A; Feliu, J. *SEOM clinical guidelines for pancreatic and biliary tract cancer (2020)*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(5) 988-1000. FI: 3.34. Cuartil: 3. (Article).
- Muñoz-Langa, J; Jiménez-Fonseca, P; Carmona-Bayonas, A; de Castro, EM; Pérez-Segura, P; Cánovas, MS; Gómez, D; Morán, LO; de Tejada, MBG; Seguí, E; López, GB; Adrián, SG; Campos, MC; Olmos, VP; Portero, BO; Moyano, MS; Crespo, JAS; Sánchez, LT; Rebollo, M. *Rationale, design and methodology of TESEO study: a registry of thrombosis and neoplasia of SEOM (Spanish Society of Medical Oncology)*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(4) 799-811. FI: 3.34. Cuartil: 3. (Article).
- Álvarez, YE; Carpeno, JD; Bell, D; Drago, A; Franceschetti, A. *Prevention of chemotherapy-induced nausea and vomiting in the real-world setting in Spain*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(10) 2155-2162. FI: 3.34. Cuartil: 3. (Article).
- García-Alfonso, P; García-González, G; Gallego, I; Peligros, MI; Ortega, L; Pérez-Solero, GT; Sandoval, C; Martín, AM; Codesido, MB; Ferrándiz, AC; Martín, M. *Prognostic value of molecular biomarkers in patients with metastatic colorectal cancer: a real-world study*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(1) 122-129. FI: 3.34. Cuartil: 3. (Article).
- Aparicio, J; del Muro, XG; Maroto, P; Terrasa, J; Castellano, D; Bastus, R; Guma, J; Sagastibelza, N; Durán, I; Ochendusko, S; Meana, JA; García-Sánchez, J; Arranz, JA; Girones, R; Germa, JR. *Patterns of relapse and treatment outcome after active surveillance or adjuvant carboplatin for stage I seminoma: a retrospective study of the Spanish Germ Cell Cancer Group*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(1) 58-64. FI: 3.34. Cuartil: 3. (Article).
- Chan, A; Moy, B; Mansi, J; Ejlersen, B; Holmes, FA; Chia, S; Iwata, H; Gnant, M; Loibl, S; Barrios, CH; Somali, I; Smichkoska, S; Martínez, N; Alonso, MG; Link, JS; Mayer, IA; Cold, S; Murillo, SM; Senecal, F; Inoue, K; Ruiz-Borrego, M; Hui, RN; Dendurur. *Final Efficacy Results of Neratinib in HER2-positive Hormone Receptor-positive Early-stage Breast Cancer From the Phase III ExteNET Trial*. CLINICAL BREAST CANCER. 2021; 21(1) 80-. FI: 3.078. Cuartil: 3. (Article).
- Hamilton, E; Cortés, J; Ozyilkan, O; Chen, SC; Petrakova, K; Manikhas, A; Jerusalem, G; Hegg, R; Huober, J; Chapman, SC; Lu, Y; Hardebeck, MC; Bear, MM; Johnston, EL; Martín, M. *nextMONARCH: Abemaciclib Monotherapy or Combined With Tamoxifen for Metastatic Breast Cancer*. CLINICAL BREAST CANCER. 2021; 21(3) 181-. FI: 3.078. Cuartil: 3. (Article).
- Bockorny, B; Macarulla, T; Semenisty, V; Borazanci, E; Feliu, J; Ponz-Sarvisé, M; Abad, DG; Oberstein, P; Alistar, A; Muñoz, A; Geva, R; Guillén-Ponce, C; Fernández, MS; Peled, A; Chaney, M; Gliko-Kabir, I; Shemesh-Darvish, L; Ickowicz, D; Sorani, E; Kado. *Motixafortide and Pembrolizumab Combined to Nanoliposomal Irinotecan, Fluorouracil, and Folinic Acid in Metastatic Pancreatic Cancer: The COMBAT/KEYNOTE-202 Trial*. CLINICAL CANCER RESEARCH. 2021; 27(18) 5020-5027. FI: 13.801. Cuartil: 1. (Article).
- Sartore-Bianchi, A; García-Alfonso, P; Geissler, M; Kohne, CH; Peeters, M; Price, T; Valladares-Ayerbes, M; Zhang, Y; Burdon, P; Taieb, J; Modest, DP. *Relationships Between Kohne Category/Baseline Tumor Load and Early Tumor Shrinkage, Depth of Response, and Outcomes in Metastatic Colorectal Cancer*. CLINICAL COLORECTAL CANCER. 2021; 20(4) 305-313. FI: 4.035. Cuartil: 3. (Article).



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- Mountzios, G; de Toma, A; Economopoulou, P; Friedlaender, A; Banini, M; Lo Russo, G; Baxevanos, P; Roila, F; Banna, GL; Christopoulou, A; Jiménez, B; Collazo-Lorduy, A; Linardou, H; Calles, A; Galetta, D; Addeo, A; Camerini, A; Pizzutilo, P; Kosmidis, P. *Surgical Outcomes of Lobectomy Versus Limited Resection for Clinical Stage I Ground-Glass Opacity Lung Adenocarcinoma 2 Centimeters or Smaller*. CLINICAL LUNG CANCER. 2021; 22(2) 180-192. FI: 4.84. Cuartil: 2. (Article).
- Cabezón-Gutiérrez, L; Custodio-Cabello, S; Palka-Kotłowska, M; Alonso-Viteri, S; Khosravi-Shahi, P. *Biomarkers of Immune Checkpoint Inhibitors in Non-Small Cell Lung Cancer: Beyond PD-L1*. CLINICAL LUNG CANCER. 2021; 22(5) 381-389. FI: 4.84. Cuartil: 2. (Review).
- Ruiz-Pinto, S; Pita, G; Martín, M; Núñez-Torres, R; Cuadrado, A; Shahbazi, MN; Caronia, D; Kojic, A; Moreno, LT; de la Torre-Montero, JC; Lozano, M; López-Fernández, LA; Ribelles, N; García-Saenz, JA; Alba, E; Milne, RL; Losada, A; Pérez-Moreno, M; Benite. *Regulatory CDH4 Genetic Variants Associate With Risk to Develop Capecitabine-Induced Hand-Foot Syndrome*. CLINICAL PHARMACOLOGY & THERAPEUTICS. 2021; 109(2) 462-470. FI: 6.903. Cuartil: 1. (Article).
- Caballero, EH; Ortuzar, JZ; Subira-Ríos, D; Jiménez-Gómez, LM. *The York Mason procedure for rectourethral fistula repair - a video-vignette*. COLORECTAL DISEASE. 2021; 23(9) 2488-2488. FI: 3.917. Cuartil: 1. (Letter).
- Tejedor, P; Zorrilla, J; Hurtado, E; Dujovne, P; Rey, C; Jiménez-Gómez, LM. *Endoscopically assisted rectal resection of a gastrointestinal stromal tumour by the transanal minimally invasive surgery approach - a video vignette*. COLORECTAL DISEASE. 2021; 23(9) 2489-2490. FI: 3.917. Cuartil: 1. (Letter).
- García-Alfonso, P; Díaz-Rubio, E; Abad, A; Carrato, A; Massuti, B; Ortiz-Morales, MJ; Mozo, JLM; Muñoz, A; Durán, G; Sastre, J; Safont, MJ; Ferreira, R; Rivera, F; González, E; Valladares-Ayerbes, M; Gravalos, C; Alonso-Orduña, V; Vieitez, JM; Yubero, A. *First-Line Biological Agents Plus Chemotherapy in Older Patients with Metastatic Colorectal Cancer: A Retrospective Pooled Analysis*. DRUGS & AGING. 2021; 38(3) 219-231. FI: 4.271. Cuartil: 2. (Article).
- Gyawali, B; de Vries, EGE; Dafni, U; Amaral, T; Barriuso, J; Bogaerts, J; Calles, A; Curigliano, G; Gómez-Roca, C; Kiesewetter, B; Oosting, S; Passaro, A; Pentheroudakis, G; Piccart, M; Roitberg, F; Tabernero, J; Tarazona, N; Trapani, D; Wester, R; Zarkav. *Biases in study design, implementation, and data analysis that distort the appraisal of clinical benefit and ESMO-Magnitude of Clinical Benefit Scale (ESMO-MCBS) scoring*. ESMO OPEN. 2021; 6(3) 100117-100117. FI: 6.883. Cuartil: 1. (Review).
- Sastre, J; García-Alfonso, P; Vieitez, JM; Cano, MT; Rivera, F; Reina-Zoilo, JJ; Salud-Salvia, A; Quintero, G; Robles-Díaz, L; Safont, MJ; La Casta, A; Gil, S; Polo, E; Asensio-Martínez, E; García-Paredes, B; López, RL; Guillot, M; Valladares-Ayerbes, M. *Influence of BRAF and PIK3CA mutations on the efficacy of FOLFIRI plus bevacizumab or cetuximab as first-line therapy in patients with RAS wild-type metastatic colorectal carcinoma and < 3 baseline circulating tumour cells: the randomised phase II VISNU-2*. ESMO OPEN. 2021; 6(2) 100062-100062. FI: 6.883. Cuartil: 1. (Article).
- Morgan, G; Tagliamento, M; Lambertini, M; Devnani, B; Westphalen, B; Dienstmann, R; Bozovic-Spasojevic, I; Calles, A; Criscitiello, C; Curioni, A; García, AM; Lamarca, A; Pilotto, S; Scheffler, M; Strijbos, M; Wong, R; de Azambuja, E; Peters, S. *Impact of COVID-19 on social media as perceived by the oncology community: results from a survey in collaboration with the European Society for Medical Oncology (ESMO) and the OncoAlert Network*. ESMO OPEN. 2021; 6(2) 100104-100104. FI: 6.883. Cuartil: 1. (Article).
- Bordonaro, R; Calvo, A; Auriemma, A; Hollebecque, A; Rubovszky, G; Saunders, MP; Papai, Z; Prager, G; Stein, A; Andre, T; Argiles, G; Cubillo, A; Dahan, L; Edeline, J; Leger, C; Cattani, V; Fougerey, R; Amellal, N; Tabernero, J. *Trifluridine/tipiracil in combination with oxaliplatin and either bevacizumab or nivolumab in metastatic colorectal cancer: a dose-expansion, phase I study*. ESMO OPEN. 2021; 6(5) 100270-100270. FI: 6.883. Cuartil: 1. (Article).
- Verso, M; Muñoz, A; Bauersachs, R; Huisman, MV; Mandala, M; Vescovo, G; Becattini, C; Agnelli, G. *Effects of concomitant administration of anticancer agents and apixaban or dalteparin on recurrence and bleeding in patients with cancer-associated venous thromboembolism*. EUROPEAN JOURNAL OF CANCER. 2021; 148 371-381. FI: 10.002. Cuartil: 1. (Article).
- Curigliano, G; Martín, M; Jhaveri, K; Beck, JT; Tortora, G; Fazio, N; Maur, M; Hubner, RA; Lahner, H; Donnet, V; Ajipa, O; Li, Z; Blumenstein, L; Andre, F. *Clinical Trial*. EUROPEAN JOURNAL OF CANCER. 2021; 151 49-62. FI: 10.002. Cuartil: 1. (Article).



- Rivera, F; Izquierdo-Manuel, M; García-Alfonso, P; de Castro, EM; Gallego, J; Limón, ML; Alsina, M; López, L; Galán, M; Falcó, E; Manzano, JL; González, E; Muñoz-Unceta, N; López, C; Aranda, E; Fernández, E; Jorge, M; Jiménez-Fonseca, P. *Perioperative trastuzumab, capecitabine and oxaliplatin in patients with HER2-positive resectable gastric or gastro-oesophageal junction adenocarcinoma: NEOHX phase II trial*. EUROPEAN JOURNAL OF CANCER. 2021; 145 158-167. FI: 10.002. Cuartil: 1. (Article).
- Kahan, Z; Gil-Gil, M; Ruiz-Borrego, M; Carrasco, E; Ciruelos, E; Muñoz, M; Bermejo, B; Margeli, M; Antón, A; Casas, M; Csozi, T; Murillo, L; Morales, S; Calvo, L; Lang, I; Alba, E; de la Haba-Rodríguez, J; Ramos, M; López, IA; Gal-Yam, E; García-Palomo. *Original Research Health-related quality of life with palbociclib plus endocrine therapy versus capecitabine in postmenopausal patients with hormone receptor-positive metastatic breast cancer: Patient-reported outcomes in the PEARL study*. EUROPEAN JOURNAL OF CANCER. 2021; 156 70-82. FI: 10.002. Cuartil: 1. (Article).
- Bellmunt, J; Esteban, E; Muro XGD; Sepulveda, JM; Maroto, P; Gallardo, E; Alba AGD; Etzaniz, O; Guix, M; Larriba JLG; Arranz, JA; Redrado, M; Calvo, A. *Pazopanib as Second-line Antiangiogenic Treatment in Metastatic Renal Cell Carcinoma After Tyrosine Kinase Inhibitor (TKI) Failure: A Phase 2 Trial Exploring Immune-related Biomarkers for Testing in the Post-immunotherapy/TKI Era*. EUROPEAN UROLOGY ONCOLOGY. 2021; 4(3) 502-505. FI: 8.208. Cuartil: 1. (Article).
- Jantus-Lewintre, E; Sureda, BM; Larriba, JLG; Rodríguez-Abreu, D; Juan, O; Blasco, A; Domine, M; Pulla, MP; Garde, J; Álvarez, R; Maestu, I; de Carrión, RP; Artal, A; Rolfo, C; de Castro, J; Guillot, M; Oramas, J; de las Penas, R; Ferrera, L; Martínez, N. *Prospective Exploratory Analysis of Angiogenic Biomarkers in Peripheral Blood in Advanced NSCLC Patients Treated With Bevacizumab Plus Chemotherapy: The ANGIOMET Study*. FRONTIERS IN ONCOLOGY. 2021; 11 695038-695038. FI: 5.738. Cuartil: 2. (Article).
- Álvarez-Mancenido, F; Jiménez-Fonseca, P; Carmona-Bayonas, A; Arrazubi, V; Hernández, R; Cano, JM; Custodio, A; Pijaume, CP; Aguado, G; Lago, NM; Cánovas, MS; Lavin, DC; Visa, L; Martínez-Torrón, A; Arias-Martínez, A; López, F; Limón, ML; Tocino, RV; Mont. *Is advanced esophageal adenocarcinoma a distinct entity from intestinal subtype gastric cancer? Data from the AGAMENON-SEOM Registry*. GASTRIC CANCER. 2021; 24(4) 926-936. FI: 7.701. Cuartil: 1. (Article).
- Jiménez-Fonseca, P; Carmona-Bayonas, A; de Castro, EM; Custodio, A; Pijaume, CP; Hernández, R; Aguado, G; Unanua, NC; Cano, JM; López, F; Garrido, M; Montes, AF; Visa, L; Cánovas, MS; Limón, ML; Lago, NM; Pimentel, P; Hurtado, A; Azkarate, A; Longo, F; Di. *External validity of docetaxel triplet trials in advanced gastric cancer: are there patients who still benefit?*. GASTRIC CANCER. 2021; 24(2) 445-456. FI: 7.701. Cuartil: 1. (Article).
- González-Senac, NM; Mayordomo-Cava, J; Macías-Valle, A; Aldama-Marín, P; González, SM; Arnes, MLC; Jiménez-Gómez, LM; Vidán-Astiz, MT; Serra-Rexach, JA. *Colorectal Cancer in Elderly Patients with Surgical Indication: State of the Art, Current Management, Role of Frailty and Benefits of a Geriatric Liaison*. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2021; 18(11). FI: 4.614. Cuartil: 1. (Review).
- Palka-Kotłowska, M; Custodio-Cabello, S; Oliveros-Acebes, E; Khosravi-Shahi, P; Cabezón-Gutiérrez, L. *Review of risk of COVID-19 in cancer patients and their cohabitants*. INTERNATIONAL JOURNAL OF INFECTIOUS DISEASES. 2021; 105 15-20. FI: 12.074. Cuartil: 1. (Review).
- González-Cao, M; Puértolas, T; Riveiro, M; Muñoz-Couselo, E; Ortiz, C; Paredes, R; Podzamczar, D; Manzano, JL; Molto, J; Revollo, B; Carrera, C; Mateu, L; Fancelli, S; Espinosa, E; Clotet, B; Martínez-Picado, J; Cerezuela, P; Soria, A; Márquez, I; Mandala. *Cancer immunotherapy in special challenging populations: recommendations of the Advisory Committee of Spanish Melanoma Group (GEM)*. JOURNAL FOR IMMUNOTHERAPY OF CANCER. 2021; 9(3). FI: 12.469. Cuartil: 1. (Article).
- Mandala, M; Larkin, J; Ascierto, PA; Del Vecchio, M; Gogas, H; Cowey, CL; Arance, A; Dalle, S; Schenker, M; Grob, JJ; Chiarion-Sileni, V; Márquez, I; Butler, MO; Di Giacomo, AM; Lutzky, J; De la Cruz-Merino, L; Atkinson, V; Arenberger, P; Hill, A; Fecher. *Adjuvant nivolumab for stage III/IV melanoma: evaluation of safety outcomes and association with recurrence-free survival*. JOURNAL FOR IMMUNOTHERAPY OF CANCER. 2021; 9(8). FI: 12.469. Cuartil: 1. (Article).
- Loibl, S; Marme, F; Martín, M; Untch, M; Bonnefoi, H; Kim, SB; Bear, H; McCarthy, N; Olive, MM; Gelmon, K; García-Saenz, J; Kelly, CM; Reimer, T; Toi, M; Rugo, HS; Denkert, C; Gnant, M; Makris, A; Koehler, M; Huang-Bartelett, C; Frean, MJL; Colleoni, M; W. *Palbociclib for Residual High-Risk Invasive HR-Positive and HER2-Negative Early Breast Cancer-The Penelope-B Trial*.

6.02. TRANSLATIONAL MEDICAL ONCOLOGY AND PERSONALIZED CANCER THERAPY

- JOURNAL OF CLINICAL ONCOLOGY. 2021; 39(14) 1518-1530. FI: 50.717. Cuartil: 1. (Article).
- Tabernero, J; Grothey, A; Van Cutsem, E; Yaeger, R; Wasan, H; Yoshino, T; Desai, J; Ciardiello, F; Loupakis, F; Hong, YS; Steeghs, N; Guren, TK; Arkenau, HT; García-Alfonso, P; Elez, E; Gollerkeri, A; Maharry, K; Christy-Bittel, J; Kopetz, S. *Encorafenib Plus Cetuximab as a New Standard of Care for Previously Treated BRAF V600E-Mutant Metastatic Colorectal Cancer: Updated Survival Results and Subgroup Analyses from the BEACON Study*. JOURNAL OF CLINICAL ONCOLOGY. 2021; 39(4) 273-284. FI: 50.717. Cuartil: 1. (Article).
 - Johnston, SRD; Harbeck, N; Toi, M; Martin, M; O'Shaughnessy, J; Rastogi, P. *Regarding the Addition of CDK4/6 Inhibitor to Postoperative Endocrine Therapy in Patients With HR-Positive HER2-Negative High-Risk Breast Cancer Reply*. JOURNAL OF CLINICAL ONCOLOGY. 2021; 39(13) 1507-. FI: 50.717. Cuartil: 1. (Letter).
 - Hecht, JR; Lonardi, S; Bendell, J; Sim, HW; Macarulla, T; López, CD; Van Cutsem, E; Martin, AJM; Park, JO; Greil, R; Wang, H; Hozak, RR; Gueorguieva, I; Lin, Y; Rao, S; Ryoo, BY. *Randomized Phase III Study of FOLFOX Alone or With Pegilodecaquin as Second-Line Therapy in Patients With Metastatic Pancreatic Cancer That Progressed After Gemcitabine (SEQUOIA)*. JOURNAL OF CLINICAL ONCOLOGY. 2021; 39(10) 1108-. FI: 50.717. Cuartil: 1. (Article).
 - Martín, M; Mayer, IA; Walenkamp, AME; Lapa, C; Andreeff, M; Bobirca, A. *At the bedside: Profiling and treating patients with CXCR4-expressing cancers*. JOURNAL OF LEUKOCYTE BIOLOGY. 2021; 109(5) 953-967. FI: 6.011. Cuartil: 2. (Review).
 - Escudero-Vilaplana, V; Collado-Borrell, R; Villanueva-Bueno, C; Álvarez, R; Herranz, A; Sanjurjo, M. *Acute pancreatitis in a patient treated with imatinib and gefitinib*. JOURNAL OF ONCOLOGY PHARMACY PRACTICE. 2021; 27(4) 980-983. FI: 1.416. Cuartil: 4. (Article).
 - Villalvazo, P; Marzal-Alfaro, B; García-Alfonso, P; Revuelta-Herrero, JL; Thomas, F; López-Tarruella, S; García-González, X; Calvo, A; Yakoubi, M; Salvador-Martín, S; López-López, F; Aguilar, I; Sanjurjo-Sáez, M; Martín, M; López-Fernández, LA. *DPYD Exome, mRNA Expression and Uracil Levels in Early Severe Toxicity to Fluoropyrimidines: An Extreme Phenotype Approach*. JOURNAL OF PERSONALIZED MEDICINE. 2021; 11(8). FI: 3.508. Cuartil: 2. (Article).
 - González-Cao, M; Carrera, C; Moreno, JFR; Rodríguez-Jiménez, P; Basa, MA; Ochoa, RF; Puértolas, T; Muñoz-Couselo, E; Manzano, JL; Márquez-Rodas, I; Martín-Liberal, J; Soria, A; Criado, PL; García-Castano, A; Boada, A; de Miguel, PA; Puig, S; Crespo, G; Fr. *COVID-19 in melanoma patients: Results of the Spanish Melanoma Group Registry, GRAVID study*. JOURNAL OF THE AMERICAN ACADEMY OF DERMATOLOGY. 2021; 84(5) 1412-1415. FI: 15.487. Cuartil: 1. (Letter).
 - Thavendiranathan, P; Zhang, LL; Zafar, A; Drobni, ZD; Mahmood, SS; Cabral, M; Awadalla, M; Nohria, A; Zlotoff, DA; Thuny, F; Heinzerling, LM; Barac, A; Sullivan, RJ; Chen, CL; Gupta, D; Kirchberger, MC; Hartmann, SE; Weinsaft, JW; Gilman, HK; Rizvi, MA; K. *Myocardial T1 and T2 Mapping by Magnetic Resonance in Patients With Immune Checkpoint Inhibitor-Associated Myocarditis*. JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY. 2021; 77(12) 1503-1516. FI: 27.203. Cuartil: 1. (Article).
 - Maraveyas, A; Kraaijpoel, N; Bozas, G; Huang, C; Mahe, I; Bertoletti, L; Bartels-Rutten, A; Beyer-Westendorf, J; Constans, J; Iosub, D; Couturaud, F; Muñoz, AJ; Biosca, M; Lerede, T; van Es, N; Di Nisio, M; UPE Investigators. *The prognostic value of respiratory symptoms and performance status in ambulatory cancer patients and unsuspected pulmonary embolism; analysis of an international, prospective, observational cohort study*. JOURNAL OF THROMBOSIS AND HAEMOSTASIS. 2021; 19(11) 2791-2800. FI: 16.036. Cuartil: 1. (Article).
 - Mayer, EL; Dueck, AC; Martin, M; Rubovszky, G; Burstein, HJ; Bellet-Ezquerria, M; Miller, KD; Zdenkowski, N; Winer, EP; Pfeiler, G; Goetz, M; Ruiz-Borrego, M; Anderson, D; Nowecki, Z; Loibl, S; Moulder, S; Ring, A; Fitzal, F; Traina, T; Chan, A; Rugo, HS. *Palbociclib with adjuvant endocrine therapy in early breast cancer (PALLAS): interim analysis of a multicentre, open-label, randomised, phase 3 study*. LANCET ONCOLOGY. 2021; 22(2) 212-222. FI: 54.433. Cuartil: 1. (Article).
 - Provencio, M; Gallego, JMM; Calles, A; Antonanzas, M; Pangua, C; Rubio, XM; Nadal, E; Castro, RL; López-Martín, A; Del Barco, E; Domine, M; Franco, F; Diz, P; Sandoval, C; Girona, ES; Sullivan, I; Sala, MA; Ledo, GG; Cucurull, M; Mosquera, J; Martínez, M. *Lung cancer patients with COVID-19 in Spain: GRAVID study*. LUNG CANCER. 2021; 157 109-115. FI: 6.081. Cuartil: 1. (Article).
 - Laria, JC; Aguilera-Morillo, MC; Álvarez, E; Lillo, RE; López-Taruella, S; del Monte-Millán, M; Picornell, AC; Martín, M; Romo, J. *Iterative Variable*



Selection for High-Dimensional Data: Prediction of Pathological Response in Triple-Negative Breast Cancer. MATHEMATICS. 2021; 9(3). FI: 2.592. Cuartil: 1. (Article).

- Moura, DS; Pena-Chilet, M; Varela, JAC; Álvarez-Alegret, R; Agra-Pujol, C; Izquierdo, F; Ramos, R; Ortega-Medina, L; Martín-Dávila, F; Castilla-Ramírez, C; Hernández-León, CN; Romagosa, C; Salgado, MAV; Lavernia, J; Bague, S; Mayordomo-Aranda, E; Vicioso. *A DNA damage repair gene-associated signature predicts responses of patients with advanced soft-tissue sarcoma to treatment with trabectedin.* MOLECULAR ONCOLOGY. 2021; 15(12) 3691-3705. FI: 7.449. Cuartil: 1. (Article).
- Kalinsky, K; Barlow, WE; Gralow, JR; Meric-Bernstam, F; Albain, KS; Hayes, DF; Lin, NU; Pérez, EA; Goldstein, LJ; Chia, SKL; Dhesy-Thind, S; Rastogi, P; Alba, E; Delaloge, S; Martín, M; Kelly, CM; Ruiz-Borrego, M; Gil-Gil, M; Arce-Salinas, CH; Brain, EGC. *21-Gene Assay to Inform Chemotherapy Benefit in Node-Positive Breast Cancer.* NEW ENGLAND JOURNAL OF MEDICINE. 2021; 385(25) 2336-2347. FI: 176.079. Cuartil: 1. (Article).
- Schettini, F; Chic, N; Braso-Maristany, F; Pare, L; Pascual, T; Conte, B; Martínez-Sáez, O; Adamo, B; Vidal, M; Barnadas, E; Fernández-Martínez, A; González-Farre, B; Sanfeliu, E; Cejalvo, JM; Perrone, G; Sabarese, G; Zalfa, F; Peg, V; Fasani, R; Villagra. *Clinical, pathological, and PAM50 gene expression features of HER2-low breast cancer.* NPJ BREAST CANCER. 2021; 7(1) 1-1. FI: 7.519. Cuartil: 1. (Article).
- Johnston, S; O'Shaughnessy, J; Martín, M; Huober, J; Toi, M; Sohn, J; Andre, VAM; Martín, HR; Hardebeck, MC; Goetz, MP. *Abemaciclib as initial therapy for advanced breast cancer: MONARCH 3 updated results in prognostic subgroups.* NPJ BREAST CANCER. 2021; 7(1) 80-80. FI: 7.519. Cuartil: 1. (Article).
- Aapro, M; Scotte, F; Escobar, Y; Celio, L; Berman, R; Franceschetti, A; Bell, D; Jordán, K. *Practice Patterns for Prevention of Chemotherapy-Induced Nausea and Vomiting and Antiemetic Guideline Adherence Based on Real-World Prescribing Data.* ONCOLOGIST. 2021; 26(6) 1073-1082. FI: 5.837. Cuartil: 2. (Article).
- Bouza, E; Jiménez, MM; Alemany, L; Arribas, J; Bañares, R; Barragán, MB; Bouza, JME; Felip, E; Fernández-Capetillo, O; Gracia, D; López-Vélez, R; Mollar, JB; Muñoz, P; Paz-Ares, L; Torne, A; Tovar, J; Valencia, E; Palomo, E. *Overview of virus and cancer relationships. Position paper.* REVISTA ESPANOLA DE QUIMIOTERAPIA. 2021; 34(6) 525-555. FI: 2.515. Cuartil: 3. (Review).
- Trilla-Fuertes, L; Gamez-Pozo, A; Maurel, J; García-Carbonero, R; Capdevila, J; G-Pastrian, L; Mendiola, M; Pena, C; López-Vacas, R; Cuatrecasas, M; García-Alfonso, P; Ramos-Ruiz, R; Llorens, C; Ghanem, I; Conill, C; Heredia-Soto, V; Campos-Barros, A; Var. *Description of the genetic variants identified in a cohort of patients diagnosed with localized anal squamous cell carcinoma and treated with panitumumab.* SCIENTIFIC REPORTS. 2021; 11(1) 7402-7402. FI: 4.996. Cuartil: 2. (Article).
- Martín, M; Ramos-Medina, R; Bernat, R; García-Saenz, JA; del Monte-Millán, M; Álvarez, E; Cebollero, M; Moreno, F; González-Haba, E; Bueno, O; Romero, P; Massarrah, T; Echavarria, I; Jerez, Y; Herrero, B; del Val, RG; Lobato, N; Rincón, P; Palomero, MI; M. *Activity of docetaxel, carboplatin, and doxorubicin in patient-derived triple-negative breast cancer xenografts.* SCIENTIFIC REPORTS. 2021; 11(1) 7064-7064. FI: 4.996. Cuartil: 2. (Article).
- Escudero-Vilaplana, V; Collado-Borrell, R; del Monte-Millán, M; Hoyo-Muñoz, A; Martínez-Sagrera, PG; Revuelta-Herrero, JL; Marzal-Alfaro, B; González-Haba, E; Cobo, SLT; Gilarranz, YJ; Herranz, A; Sanjurjo, M; Martín, M. *Assessment of diarrhea as side effect of oral targeted antineoplastic agents in clinical practice.* SUPPORTIVE CARE IN CANCER. 2021; 29(8) 4673-4681. FI: 3.359. Cuartil: 1. (Article).
- García-Martín, E; Escudero-Vilaplana, V; Fox, B; Collado-Borrell, R; Marzal-Alfaro, B; Sánchez-Isac, M; Solano-Garzón, ML; del Val, RG; Cano-González, JM; de Lucas, NP; Bravo-Guillén, AI; Valero-Salinas, J; González-Haba, E; Sanjurjo, M; Martín, M. *Aggressiveness of end-of-life cancer care: what happens in clinical practice?.* SUPPORTIVE CARE IN CANCER. 2021; 29(6) 3121-3127. FI: 3.359. Cuartil: 1. (Article).
- García-Alfonso, P; Martín, AJ; Morán, L; Alsar, J; Pérez-Solero, G; Codesido, M; Ferrándiz, PA; Cicala, S. *Oral drugs in the treatment of metastatic colorectal cancer.* THERAPEUTIC ADVANCES IN MEDICAL ONCOLOGY. 2021; 13. FI: 5.485. Cuartil: 2. (Review).
- Jiménez-Fonseca, P; Carmona-Bayonas, A; Martínez-Torrón, A; Alsina, M; Custodio, A; Serra, O; Lavin, DC; Limón, ML; Sauri, T; López, F; Visa, L; Granja,



6.02. TRANSLATIONAL MEDICAL ONCOLOGY AND PERSONALIZED CANCER THERAPY

M; Lago, NM; Arrazubi, V; Tocino, RV; Hernández, R; Aguado, G; Cano, JM; Carnicero, AM; Mangas, M; Pim. *External validity of clinical trials with diverse trastuzumab-based chemotherapy regimens in advanced gastroesophageal adenocarcinoma: data from the AGAMENON-SEOM registry*. THERAPEUTIC ADVANCES IN MEDICAL ONCOLOGY. 2021; 13. FI: 5.485. Cuartil: 2. (Article).

- Illini, O; Hochmair, MJ; Fabikan, H; Weinlinger, C; Tufman, A; Swalduz, A; Lamberg, K; Hashemi, SMS; Huemer, F; Vikstrom, A; Wermke, M; Absenger, G; Addeo, A; Banerji, S; Calles, A; Clarke, S; Di Maio, M; Durand, A; Duruisseaux, M; Itchins, M; Kaaranien. *Selpercatinib in RET fusion-positive non-small-cell lung cancer (SIREN): a retrospective analysis of patients treated through an access program*. THERAPEUTIC ADVANCES IN MEDICAL ONCOLOGY. 2021; 13. FI: 5.485. Cuartil: 2. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- O'Shaughnessy, JA; Johnston, S; Harbeck, N; Toi, M; Im, YH; Reinisch, M; Shao, ZM; Lehtinen, PLK; Huang, CS; Tryakin, A; Goetz, M; Rugo, HS; Senkus, E; Testa, L; Andersson, M; Tamura, K; Steger, GG; Del Mastro, L; Cox, J; Forrester, T; Sherwood, S; Li, XL. *Primary Outcome Analysis of Invasive Disease-Free Survival for MonarchE: Abemaciclib Combined With Adjuvant Endocrine Therapy for High-Risk Early Breast Cancer*. CLINICAL ADVANCES IN HEMATOLOGY & ONCOLOGY. 2021; 19(2) 15-16. (Article).
- Loibl, S; Marme, F; Martin, M; Untch, M; Bonnefoi, H; Kim, SB; Bear, H; Mc Carthy, N; Olive, MM; Gelmon, K; Saenz, JG; Kelly, CM; Reimer, T; Toi, M; Rugo, HS; Seiler, S; Nekljudova, V; Denkert, C; Gnant, M; Makris, A; Burchardi, N; von Minckwitz, G. *Phase III Study of Palbociclib Combined With Endocrine Therapy in Patients With Hormone Receptor-Positive, HER2-Negative Primary Breast Cancer and With High Relapse Risk After Neoadjuvant Chemotherapy: First Results From PENELOPE-B*. CLINICAL ADVANCES IN HEMATOLOGY & ONCOLOGY. 2021; 19(2) 9-10. (Article).
- Custodio-Cabello, S; Cabezón-Gutiérrez, L; Palka-Kotłowska, M; Acebes, EO; Khosravi-Shahi, P. *Ant-EGFR Antibody Plus Chemotherapy Treatment in a Patient with Synchronous Merkel Cell Carcinoma and Colorectal Cancer*. CUREUS. 2021; 13(1). (Article).

- Onesti, CE; Tagliamento, M; Curigliano, G; Harbeck, N; Bartsch, R; Wildiers, H; Tjan-Heijnen, V; Martín, M; Rottey, S; Generali, D; Campone, M; Cristofanilli, M; Pusztai, L; Peeters, M; Berchem, G; Cortés, J; Ruhstaller, T; Ciruelos, E; Rugo, HS; Jerusale. *Expected Medium- and Long-Term Impact of the COVID-19 Outbreak in Oncology*. JCO GLOBAL ONCOLOGY. 2021; 7 162-172. (Article).
- García-Pardo, M; Ortega, L; Fernández-Aceñero, MJ; Alfonso, PG; Martín, M; Muñoz, AJ. *Molecular Profiling and Targeted Therapy in Cholangiocarcinoma: An Observational, Retrospective Multicenter Study*. JOURNAL OF GASTROINTESTINAL CANCER. 2021; 52(2) 814-818. (Article).
- Escobar-Álvarez, Y; de Castro-Carpeno, J; Feyjoo, M; Martín-Algarra, S. *Evaluation of patient quality care in Spain in prevention of nausea and vomiting induced by chemotherapy*. JOURNAL OF HEALTHCARE QUALITY RESEARCH. 2021; 36(3) 142-149. (Article).
- Untch, M; Martín, M; de Laurentiis, M; Gligorov, J. *How to Optimise Extended Adjuvant Treatment with Neratinib for Patients with Early HER2+ Breast Cancer*. ONCOLOGY AND THERAPY. 2021; 9(2) 297-309. (Review).

Other publications

- Taboada AGM; Lominchar PL; Román LM; García-Alfonso P; Martín AJM; Rodríguez JAB; Pascual JMA. *Advances in neoadjuvant therapy for resectable pancreatic cancer over the past two decades*. ANNALS OF HEPATO-BILIARY-PANCREATIC SURGERY. 2021; 25(2) 179-191. (Article).
- Navarro S; Cuatrecasas M; Hernández-Losa J; Landolfi S; Musulén E; Ramón y Cajal S; García-Carbonero R; García-Foncillas J; Pérez-Segura P; Salazar R; Vera R; García-Alfonso P. *Actualización de la recomendación para la determinación de biomarcadores en el carcinoma colorrectal. Consenso Nacional de la Sociedad Española de Oncología Médica y de la Sociedad Española de Anatomía Patológica*. REVISTA ESPAÑOLA DE PATOLOGIA. 2021; 54(1) 41-54. (Article).
- Falanga A; Gal GL; Carrier M; Abdel-Razek H; Ay C; Martín AJM; Rocha ATC; Agnelli G; Elalamy I; Brenner B. *Management of Cancer-Associated Thrombosis: Unmet Needs and Future Perspectives*. TH OPEN : COMPANION JOURNAL TO



6.03. Genetics and clinical aspects of hematologic malignancies and hematopoietic stem cell transplantation

Group Head: JOSÉ LUIS DíEZ MARTÍN & ISMAEL BUÑO BORDE

Organisms involved: HGUGM /UCM

Type: Consolidated Group

Research lines

Axis 1: Hematology-oncology in adults

- ▶ Line 1: Transplantation of hematopoietic progenitor cells.
 - 1.1. Transplantation of nonconventional hematopoietic progenitor cells (haploidentical, dual).
 - 1.2. Transplantation of hematopoietic progenitor cells in patients with AIDS.
 - 1.3. Cell therapy (mesenchymal, NK cells, etc.).
 - 1.4. Follow-up of transplantation of hematopoietic progenitors (genetics and flow cytometry).
 - 1.5. Biomarkers for prediction of post-transplant complications (genetic polymorphisms, proteins, etc.).
 - 1.6. Gene/cell therap with CAR-T cells.
- ▶ Line 2: Myeloid neoplasms: Acute myeloid leukemia and myelodysplastic syndrome.
 - 2.1. Treatment with next-generation drugs.
 - 2.2. Genomics of the tumor cell.
 - 2.3. In vitro drug resistance studies.
 - 2.4. Cytotoxicity studies with NK.
- ▶ Line 3: High-grade lymphomas.
 - 3.1. Liquid biopsy (free DNA in plasma) in high-grade lymphomas.
- ▶ Line 4: Chronic myeloid leukemia.
 - 4.1. Studies on discontinuation of tyrosine kinase inhibitors in chronic myeloid leukemia.

- ▶ Line 5: Genetics of hematologic neoplasms.
 - 5.1. Genetic markers for diagnosis, prognosis, and targeted treatment.
 - 5.2. Genomics of hematologic neoplasms: next-generation sequencing.
 - 5.3. Leukemogenesis models.
 - 5.4. Germ genomic alterations.
- ▶ Line 6: Clinical research (clinical trials).
 - 6.1. Molecular targets in the treatment of hematology-oncology patients.
 - 6.2. Monoclonal antibodies in the treatment of hematology-oncology patients.
 - 6.3. Cell therapy (mesenchymal, NK cells, etc.).
 - 6.4. Gene/cell therap with CAR-T cells.
- ▶ Line 7: Electronic management of clinical information.

Axis 2: Pediatric hematology-oncology

- ▶ Line 1: Hemoglobinopathies (CSUR de Eritropatologia Hereditaria).
 - 1.1. Transplantation of hematopoietic progenitors in hemoglobinopathies.
 - 1.2. Clinical monitoring of sickle cell disease from neonatal screening.
 - 1.3. Erythrocytapheresis in the Pediatric Sickle Cell Patient.
- ▶ Line 2: Adjuvant therapy in pediatric hematology-oncology.
- ▶ Line 3: Fanconi anemia.
 - 3.1. Multidisciplinary follow-up in Fanconi's Anemia.
- ▶ Line 4: Solid tumors in children.
- ▶ Line 5: Leukemia in children.



6.03. GENETICS AND CLINICAL ASPECTS OF HEMATOLOGIC MALIGNANCIES AND HEMATOPOIETIC STEM CELL TRANSPLANTATION

Group members

- **Andrés Zayas, Cristina:** R1. First Stage Researcher.
- **Anguita Velasco, Javier:** R3. Established Researcher.
- **Bailén Almorox, Rebeca:** R1. First Stage Researcher.
- **Bastos Oreiro, Mariana Beatriz:** R3. Established Researcher.
- **Bardón Cancho, Eduardo:** R1. First Stage Researcher.
- **Beléndez Bieler, Cristina:** R3. Established Researcher.
- **Béliz Mendiola, Cristina:** R1. First Stage Researcher.
- **Borrego Villegas, Laura:** Other.
- **Buño Borde, Ismael:** R4. Leading Researcher.
- **Carbonell Muñoz, Diego:** R1. First Stage Researcher.
- **Cela de Julián, Elena:** R3. Established Researcher.
- **Chicano Lavilla, María:** R2. Recognised Researcher.
- **De la Iglesia San Sebastián, Ismael.**
- **Díez Martín, José Luis:** R4. Leading Researcher.
- **Encinas Rodríguez, Cristina:** R1. First Stage Researcher.
- **Fernández de Córdoba Oñate, Sara.**
- **Font López, Patricia:** R1. First Stage Researcher.
- **García García, Ana M^a:** Other.

- **García Morín, Marina:** R1. First Stage Researcher.
- **Garrido Colino, Carmen:** R3. Established Researcher.
- **Gayoso Cruz, Jorge.**
- **Gómez Centurión, Ignacio.**
- **Hernández Martín, Marta M^a:** Other. Clinical Trial Manager.
- **Huerta Aragonés, Jorge:** R1. First Stage Researcher.
- **Kwon Kim, Mi:** R3. Established Researcher.
- **Martínez Laperche, Carolina:** R3. Established Researcher.
- **Mata Fernández, Cristina:** R3. Established Researcher.
- **Medin de Block, Hilda Gabriela:** R1. First Stage Researcher.
- **Muñiz Sevilla, Paula:** R1. First Stage Researcher.
- **Muñoz Martínez, Cristina:** Other. Clinical Trial Manager.
- **Oarbeascoa Royuela, Guillén:** R1. First Stage Researcher.
- **Osorio Prendes, Santiago:** R2. Recognised Researcher.
- **Pascual Izquierdo, Cristina:** R2. Recognised Researcher.
- **Prieto Medina, M^a del Mar:** R1. First Stage Researcher.
- **Sanz Villanueva, Laura.**
- **Suárez González, Julia:** R2. Recognised Researcher.



Research Projects – Competitive Calls

Competitive projects

- Title: Búsqueda de biomarcadores relacionados con genes del sistema inmune para predecir la eficacia y la toxicidad en pacientes con neoplasias hematológicas tratadas con inmunoterapia basada en el receptor de células T antigénicas quiméticas (CA).** PI20/00521
 Director: Buño Borde, Ismael
 Project type: Research project
 Funding body: Instituto de Salud Carlos III
 Start date: 01/01/2021
 End date: 31/12/2023
- Title: Biomarcadores genómicos y transcriptómicos del sistema inmune para la elaboración de modelos de riesgo de desarrollo de complicaciones post-trasplante hematopoyético.** PI17/01880
 Director: Buño Borde, Ismael
 Project type: Research project
 Funding body: Instituto de Salud Carlos III
 Start date: 01/01/2018
 End date: 30/06/2021
- Title: Registro de la infección por SARS-CoV-2 en pacientes con hemoglobinopatías y/o esplenectomizados: vigilancia epidemiológica y estudio de la morbilidad y mortalidad en grupos de riesgo.** COV20/00675
 Director: Cela De Julián, Elena
 Project type: Research project
 Funding body: Instituto de Salud Carlos III
 Start date: 30/04/2020
 End date: 30/09/2021
- Title: Predoctoral CM.** PEJD-2019-PRE/BMD-15626
 Director: Bastos Oreiro, Mariana Beatriz
 Project type: Human resources
 Funding body: Consejería de Educación e Investigación. Comunidad de Madrid.
 Start date: 01/02/2020
 End date: 31/01/2021

- Title: Bioinformatic contract** CA18/00040
 Director: Laura Castro Labrador
 Project type: Human resources
 Funding body: Fundación Española Hematología Y Hemoterapia (F:E:H:H.)
 Start date: 01/01/2019
 End date: 12/05/2021

Industrial and intellectual property registrations

Copyright

Title	Reference*	Owner	Inventors
Herramienta informática para la Gestión Electrónica de la Agenda de Trasplante Hematopoyético "gesTHrónica"	Nº Asiento Registral: 16/2008/7735	FIBHGM	Pascual Balsalobre, Ismael Buño, José Luis Díez
Panel alloGENOMICS v1.13 – Panel de genes y regiones de interés para su aplicación en el estudio de la influencia de los polimorfismos genéticos en el desarrollo de complicaciones post-trasplante alogénico de progenitores hematopoyéticos (alo-TPH)	Nº Asiento Registral: 16/2014/7306	FIBHGM	Ismael Buño, Milagros González, José Luis Díez, Jorge Gayoso, Carolina Martínez, Elena Buces, David Serrano, Pascual Balsalobre, Mi Kwon

* Transferred Intellectual Property.



6.03. GENETICS AND CLINICAL ASPECTS OF HEMATOLOGIC MALIGNANCIES AND HEMATOPOIETIC STEM CELL TRANSPLANTATION

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
Plataformas ISCIII	Plataforma de Innovación en Tecnologías Médicas y Sanitarias (ITEMAS)	Coordinating group
Others (Internacional Consortium)	ICISTEM - International Collaboration to guide and investigate the potential for HIV cure by Stem Cell Transplantation	Collaborating group
CIBER	CIBERER (CIBER de Enfermedades Raras)	Collaborating group
CSUR (Centers, Services and Reference Units. Comunidad de Madrid)	CSUR de Eritropatología Hereditaria	Collaborating group

Publications

Total Impact Factor: 780.9

	Nº	IF
Own publications	21	98.5
Joint publications	66	682.3
First decile publications	15	434.4
First quartile publications	35	586.2
Second quartile publications	28	132.1
Third quartile publications	14	45.9
Fourth quartile publications	10	16.7
Nonindexed publications / No IF	3	-
Total publications (including those without IF)	90	780.9

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Ramírez, MJ; Pujol, R; Trujillo-Quintero, JP; Minguillón, J; Bogliolo, M; Río, P; Navarro, S; Casado, JA; Badell, I; Carrasco, E; Balmana, J; Catala, A; Sevilla, J; Belendez, C; Argiles, B; López, M; de Heredia, CD; Rao, G; Nicoletti, E; Schwartz, JD; Bue. *Natural gene therapy by reverse mosaicism leads to improved hematology in Fanconi anemia patients*. AMERICAN JOURNAL OF HEMATOLOGY. 2021; 96(8) 989-999. FI: 13.265. Cuartil: 1. (Article).
- Méndez, M; Moreno-Carralero, MI; Peri, VL; Camacho-Galán, R; Bosch-Benítez, JM; Huerta-Aragonés, J; Sánchez-Calero-Guilarte, J; Moreno-Risco, MB; Alonso-Domínguez, JM; Morán-Jiménez, MJ. *Congenital dyserythropoietic anemia types Ib, II, and III: novel variants in the CDIN1 gene and functional study of a novel variant in the KIF23 gene*. ANNALS OF HEMATOLOGY. 2021; 100(2) 353-364. FI: 4.03. Cuartil: 2. (Article).
- Bailén, R; Kwon, M; Pascual-Cascón, MJ; Ferra, C; Sanz, J; Gallardo-Morillo, A; García-Sola, A; Torrent, A; Jiménez-Lorenzo, MJ; Pinana, JL; Montoro, J; Oar-beascoa, G; Dorado, N; Gómez-Centurión, I; Muñoz, C; Martínez-Laperche, C; Anguita, J; Buño, I; Die. *Post-transplant cyclophosphamide for GVHD prophylaxis compared to ATG-based prophylaxis in unrelated donor transplantation*. ANNALS OF HEMATOLOGY. 2021; 100(2) 541-553. FI: 4.03. Cuartil: 2. (Article).
- Martínez-Solano, J; Ortiz-Bautista, C; Zataráin-Nicolás, E; Sousa-Casasnovas, I; Pedraz-Prieto, A; Barrio-Gutiérrez, JM; Pascual-Izquierdo, C; Fernández-Avilés, F. *Management of Intracranial Hemorrhage During Pulsatile Long-Term Biventricular Support: When Necessity Is the Mother of Invention*. ASAIO JOURNAL. 2021; 67(10) 172-175. FI: 3.826. Cuartil: 2. (Article).
- Pérez-Lago, L; Aldamiz-Echevarría, T; García-Martínez, R; Pérez-Latorre, L; Herranz, M; Sola-Campoy, P; Suárez-González, J; Martínez-Laperche, C; Comas, I; González-Candelas, F; Catalán, P; Muñoz, P; de Viedma, DG; Gregorio Marañón Microbiology-ID. *Different Within-Host Viral Evolution Dynamics in Severely Immunosuppressed Cases with Persistent SARS-CoV-2*. BIOMEDICINES. 2021; 9(7). FI: 4.757. Cuartil: 2. (Article).
- Ribera, JM; Morgades, M; Ciudad, J; Montesinos, P; Esteve, J; Genesca, E; Barba, P; Ribera, J; García-Cadenas, I; Moreno, MJ; Martínez-Carballeira, D; Torrent, A; Martínez-Sánchez, P; Monsalvo, S; Gil, C; Tormo, M; Artola, MT; Cervera, M;



González-Campos. *Chemotherapy or allogeneic transplantation in high-risk Philadelphia chromosome-negative adult lymphoblastic leukemia*. BLOOD. 2021; 137(14) 1879-1894. FI: 25.476. Cuartil: 1. (Article).

- Barbui, T; Iurlo, A; Masciulli, A; Carobbio, A; Ghirardi, A; Rossi, G; Harrison, C; Álvarez-Larran, A; Elli, EM; Kiladjian, JJ; Kabat, MG; Sánchez, AM; Palandri, F; Andrade-Campos, MM; Vannucchi, AM; Carreno-Tarragona, G; Papadopoulos, P; Cervantes, KQ; F. *Long-term follow-up of recovered MPN patients with COVID-19*. BLOOD CANCER JOURNAL. 2021; 11(6). FI: 9.812. Cuartil: 1. (Letter).
- Barbui, T; De Stefano, V; Álvarez-Larran, A; Iurlo, A; Masciulli, A; Carobbio, A; Ghirardi, A; Ferrari, A; Cancelli, V; Elli, EM; Andrade-Campos, MM; Kabat, MG; Kiladjian, JJ; Palandri, F; Benevolo, G; García-Gutiérrez, V; Fox, ML; Foncillas, MA; Morcillo. *Among classic myeloproliferative neoplasms, essential thrombocythemia is associated with the greatest risk of venous thromboembolism during COVID-19*. BLOOD CANCER JOURNAL. 2021; 11(2) 21-21. FI: 9.812. Cuartil: 1. (Article).
- Puig, N; Hernández, MT; Rosinol, L; González, E; de Arriba, F; Oriol, A; González-Calle, V; Escalante, F; de la Rubia, J; Gironella, M; Ríos, R; García-Sánchez, R; Arguinano, JM; Alegre, A; Martín, J; Gutiérrez, NC; Calasanz, MJ; Martín, ML; Couto, MD; Ca. *Lenalidomide and dexamethasone with or without clarithromycin in patients with multiple myeloma ineligible for autologous transplant: a randomized trial*. BLOOD CANCER JOURNAL. 2021; 11(5) 101-101. FI: 9.812. Cuartil: 1. (Article).
- Martín-Rojas, RM; Chasco-Ganuza, M; Casanova-Prieto, S; Delgado-Pinos, VE; Pérez-Rus, G; Duque-González, P; Sancho, M; Díez-Martín, JL; Pascual-Izquierdo, C. *A mild deficiency of ADAMTS13 is associated with severity in COVID-19: comparison of the coagulation profile in critically and noncritically ill patients*. BLOOD COAGULATION & FIBRINOLYSIS. 2021; 32(7) 458-467. FI: 1.061. Cuartil: 4. (Article).
- Regalado-Artamendi, I; Pérez-Corral, AM; García-Morín, M; Cela, E; Beléndez, C; Bardón-Cancho, EJ; Pérez-Rus, G; Pérez-Sánchez, I; Pascual, C; Monsalvo, S; Falero, C; Díez-Martín, JL; Anguita, J. *Complete RH and Kell matching related to low alloimmunisation risk in sickle cell disease: prevalence and risk factors of alloimmunisation in a Spanish Tertiary Care National Reference Centre*. BLOOD TRANSFUSION. 2021; 19(4) 292-299. FI: 5.752. Cuartil: 2. (Article).
- Rincón-López, EM; Gómez, MLN; Matos, THS; Aguilera-Alonso, D; Moreno, EM; Saavedra-Lozano, J; García, BS; Sebastián, MDS; Morin, MG; Bieler, CB;

Romero, JL; de Julián, EC. *Interleukin 6 as a marker of severe bacterial infection in children with sickle cell disease and fever: a case-control study*. BMC INFECTIOUS DISEASES. 2021; 21(1) 741-741. FI: 3.667. Cuartil: 3. (Article).

- Suárez-González, J; Seidel, V; Andrés-Zayas, C; Izquierdo, E; Buño, I. *Novel biallelic variant in BBS9 causative of Bardet-Biedl syndrome: expanding the spectrum of disease-causing genetic alterations*. BMC MEDICAL GENOMICS. 2021; 14(1) 91-91. FI: 3.622. Cuartil: 2. (Article).
- Bento, L; Gutiérrez, A; Novelli, S; Montoro, J; Pinana, JL; López-Corral, L; Cabrero, M; Martín-Sancho, A; Gutiérrez-García, G; Ortiz-Moscovich, M; Bastos-Oreiro, M; Dorado, N; Pérez, A; Hernani, R; Ferra, C; Parody, R; García-Cadenas, I; Herrera, P; Rodr. *Allogeneic stem cell transplantation as a curative option in relapse/refractory diffuse large B cell lymphoma: Spanish multicenter GETH/GELTAMO study*. BONE MARROW TRANSPLANTATION. 2021; 56(8) 1919-1928. FI: 5.174. Cuartil: 2. (Article).
- Murillo-Sanjuan, I; González-Vicent, M; Aparicio, BA; Serra, IB; Villa, AR; Oficialdegui, MLU; López-Duarte, M; Belendez-Bieler, C; Urgelles, AS; Navarro, JS; Díaz-de-Heredia, C; Spanish Soc Pediat Hematology Onco. *Survival and toxicity outcomes of hematopoietic stem cell transplantation for pediatric patients with Fanconi anemia: a unified multicentric national study from the Spanish Working Group for Bone Marrow Transplantation in Children*. BONE MARROW TRANSPLANTATION. 2021; 56(5) 1213-1216. FI: 5.174. Cuartil: 2. (Article).
- Ruggeri, A; Labopin, M; Angelucci, E; Blaise, D; Ciceri, F; Koc, Y; Chiusolo, P; Díez-Martín, JL; Gulbas, Z; Castagna, L; Bruno, B; Arat, M; Martino, M; Nagler, A; Mohty, M. *Prognostic factors for neutrophil engraftment after haploidentical cell transplantation with PT-Cy in patients with acute myeloid leukemia in complete remission, on behalf of the ALWP-EBMT*. BONE MARROW TRANSPLANTATION. 2021; 56(8) 1842-1849. FI: 5.174. Cuartil: 2. (Article).
- Kharfan-Dabaja, MA; Labopin, M; Bazarbachi, A; Ciceri, F; Finke, J; Bruno, B; Bornhauser, M; Gedde-Dahl, T; Labussiere-Wallet, H; Niittyvuopio, R; Valerius, T; Angelucci, E; Brecht, A; Caballero, D; Kuball, J; Potter, V; Schmid, C; Tischer, J; Zuckerman. *Comparing outcomes of a second allogeneic hematopoietic cell transplant using HLA-matched unrelated versus T-cell replete haploidentical donors in relapsed acute lymphoblastic leukemia: a study of the Acute Leuke-*



6.03. GENETICS AND CLINICAL ASPECTS OF HEMATOLOGIC MALIGNANCIES AND HEMATOPOIETIC STEM CELL TRANSPLANTATION

mia Working Party of EBMT. BONE MARROW TRANSPLANTATION. 2021; 56(9) 2194-2202. Fl: 5.174. Cuartil: 2. (Article).

- Ruggeri, L; Vago, L; Eikema, DJ; de Wreede, LC; Ciceri, F; Díaz, MA; Locatelli, F; Jindra, P; Milone, G; Díez-Martín, JL; Pérez-Simón, JA; Merluzzi, M; Koster, L; van der Werf, S; van Biezen, A; Toubert, A; Nagler, A; Chabannon, C; Bonini, C; Velardi, A. *Natural killer cell alloreactivity in HLA-haploidentical hematopoietic transplantation: a study on behalf of the CTIWP of the EBMT. BONE MARROW TRANSPLANTATION. 2021; 56(8) 1900-1907. Fl: 5.174. Cuartil: 2. (Article).*
- Montoro, J; Chora, P; Bento, L; Cabrero, M; Martín, C; Novelli, S; Cadenas, IG; Gutiérrez, G; López-Godino, O; Ferra, C; Bastos-Oreiro, M; Pérez, A; Parody, R; Simón, JAP; Yáñez, L; Sánchez, A; Zanabili, J; Varela, MR; Córdoba, R; Zudaire, T; Jiménez-Ubi. *Risk factors and outcomes of follicular lymphoma after allogeneic hematopoietic stem cell transplantation using HLA-matched sibling, unrelated, and haploidentical-related donors. BONE MARROW TRANSPLANTATION. 2021; 56(4) 992-996. Fl: 5.174. Cuartil: 2. (Letter).*
- Giebel, S; Labopin, M; Sobczyk-Kruszelnicka, M; Steljes, M; Byrne, JL; Fegueux, N; Beelen, DW; Rovira, M; Spyridonidis, A; Blaise, D; Bornhauser, M; Karadogan, I; Savani, BN; Nagler, A; Mohty, M; Martín, S; Chevallier, P; Neubauer, A; Damaj, G; Koc, Y; G. *Total body irradiation plus fludarabine compared to busulfan plus fludarabine as "reduced-toxicity conditioning" for patients with acute myeloid leukemia treated with allogeneic hematopoietic cell transplantation in first complete remission: a study by th. BONE MARROW TRANSPLANTATION. 2021; 56(2) 481-491. Fl: 5.174. Cuartil: 2. (Article).*
- Esquirol, A; Pascual, MJ; Kwon, M; Pérez, A; Parody, R; Ferra, C; Cadenas, IG; Herruzo, B; Dorado, N; Hernani, R; Sánchez-Ortega, I; Torrent, A; Sierra, J; Martino, R. *Severe infections and infection-related mortality in a large series of haploidentical hematopoietic stem cell transplantation with post-transplant cyclophosphamide. BONE MARROW TRANSPLANTATION. 2021; 56(10) 2432-2444. Fl: 5.174. Cuartil: 2. (Article).*
- Giebel, S; Labopin, M; Socie, G; Beauvais, D; Klein, S; Wagner-Drouet, EM; Blaise, D; Nguyen-Quoc, S; Bourhis, JH; Thiebaut, A; Labussiere-Wallet, H; Charbonnier, A; Berceanu, A; Díez-Martín, JL; Fegueux, N; Esteve, J; Nagler, A; Mohty, M. *Allogeneic HCT for adults with B-cell precursor acute lymphoblastic leukemia harboring IKZF1 gene mutations. A study by the Acute Leukemia*

Working Party of the EBMT. BONE MARROW TRANSPLANTATION. 2021; 56(5) 1047-1055. Fl: 5.174. Cuartil: 2. (Article).

- Mingot-Castellano, ME; Alcalde-Mellado, P; Pascual-Izquierdo, C; Rus, GP; Pérez, AC; Martínez, MP; López-Jaime, FJ; Pérez, LA; González-Porras, JR; Fernández, FL; Miranda, ICS; González-López, TJ; Beltrán, MEM; Escuin, RR; Barcenás, RJ; GEPTI. *Incidence, characteristics and clinical profile of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) infection in patients with pre-existing primary immune thrombocytopenia (ITP) in Spain. BRITISH JOURNAL OF HAEMATOLOGY. 2021; 194(3) 537-541. Fl: 8.615. Cuartil: 1. (Article).*
- Nagler, A; Labopin, M; Koc, Y; Angelucci, E; Tischer, J; Arat, M; Pioltelli, P; Bernasconi, P; Chiusolo, P; Díez-Martín, JL; Sanz, J; Ciceri, F; Peric, Z; Giebel, S; Canaani, J; Mohty, M. *Outcome of T-cell-replete haploidentical stem cell transplantation improves with time in adults with acute lymphoblastic leukemia: A study from the Acute Leukemia Working Party of the European Society for Blood and Marrow Transplantation. CANCER. 2021; 127(14) 2507-2514. Fl: 6.921. Cuartil: 1. (Article).*
- Sancho, JM; Fernández-Álvarez, R; Gual-Capllonch, F; González-García, E; Grande, C; Gutiérrez, N; Penarrubia, MJ; Batlle-López, A; González-Barca, E; Guinea, JM; Gimeno, E; Penalver, FJ; Fuertes, M; Bastos, M; Hernández-Rivas, JA; Moraleda, JM; García, O. *R-COMP versus R-CHOP as first-line therapy for diffuse large B-cell lymphoma in patients >= 60 years: Results of a randomized phase 2 study from the Spanish GELTAMO group. CANCER MEDICINE. 2021; 10(4) 1314-1326. Fl: 4.711. Cuartil: 2. (Article).*
- Iacoboni, G; Villacampa, G; Martínez-Cibrian, N; Bailén, R; Corral, LL; Sánchez, JM; Guerreiro, M; Caballero, AC; Mussetti, A; Sancho, JM; Hernani, R; Abrisqueta, P; Solano, C; Sureda, A; Briones, J; García-Sancho, AM; Kwon, M; Reguera-Ortega, JL; Barba. *Real-world evidence of tisagenlecleucel for the treatment of relapsed or refractory large B-cell lymphoma. CANCER MEDICINE. 2021; 10(10) 3214-3223. Fl: 4.711. Cuartil: 2. (Article).*
- Bastos-Oreiro, M; Ortiz, J; Pradillo, V; Salas, E; Marinez-Laperche, C; Muñoz, A; Buño, I; Díez-Martín, JL; Soria, JM; Izquierdo, CP. *Incorporating genetic and clinical data into the prediction of thromboembolism risk in patients with lymphoma. CANCER MEDICINE. 2021; 10(21) 7585-7592. Fl: 4.711. Cuartil: 2. (Article).*



- Infante, MS; Fernández-Cruz, A; Núñez, L; Carpio, C; Jiménez-Ubieto, A; López-Jiménez, J; Vasquez, L; Del Campo, R; Romero, S; Alonso, C; Morillo, D; Prat, M; Plana, JL; Villafuerte, P; Bastidas, G; Bocanegra, A; Serna, A; De Nicolás, R; Marquet, J; Mas-O. *Severe infections in patients with lymphoproliferative diseases treated with new targeted drugs: A multicentric real-world study.* CANCER MEDICINE. 2021; 10(21) 7629-7640. FI: 4.711. Cuartil: 2. (Article).
- Martínez-Trufero, J; Jurado, JC; Gómez-Mateo, MC; Bernabéu, D; Floria, LJ; Lavernia, J; Sebío, A; del Muro, XG; Álvarez, R; Correa, R; Hernández-León, CN; Marquina, G; Hindi, N; Redondo, A; Martínez, V; Asencio, JM; Mata, C; Morales, CMV; Martín-Broto, J. *Uncommon and peculiar soft tissue sarcomas: Multidisciplinary review and practical recommendations for diagnosis and treatment. Spanish group for Sarcoma research (GEIS - GROUP). Part I.* CANCER TREATMENT REVIEWS. 2021; 99 102259-102259. FI: 13.608. Cuartil: 1. (Review).
- Martínez-Trufero, J; Jurado, JC; Hernández-León, CN; Correa, R; Asencio, JM; Bernabéu, D; Álvarez, R; Hindi, N; Mata, C; Marquina, G; Martínez, V; Redondo, A; Floria, LJ; Gómez-Mateo, MC; Lavernia, J; Sebío, A; del Muro, XG; Martín-Broto, J; Valverde-Mora. *Uncommon and peculiar soft tissue sarcomas: Multidisciplinary review and practical recommendations. Spanish Group for Sarcoma research (GEIS -GROUP). Part II.* CANCER TREATMENT REVIEWS. 2021; 99 102260-102260. FI: 13.608. Cuartil: 1. (Review).
- Chicano, M; Carbonell, D; Suárez-González, J; Lois, S; Ballesteros-Culebras, M; Andrés-Zayas, C; Muñiz, P; Rodríguez-Macías, G; Bastos-Oreiro, M; Font, P; Ballesteros, M; Kwon, M; Anguita, J; Díez-Martín, JL; Buño, I; Martínez-Laperche, C. *Next Generation Cytogenetics in Myeloid Hematological Neoplasms: Detection of CNVs and Translocations.* CANCERS. 2021; 13(12). FI: 6.575. Cuartil: 1. (Article).
- Oreiro, MB; Martín, R; Gómez, P; Muñoz, NL; Rodríguez, A; Liebana, M; Navarro, B; Sánchez-González, B; Mari, P; de Oteiza, JP; Gutiérrez, A; Bento, L; Domenech, ED; Vidal, MJ; Del Campo, R; Ceballos, EP; Infante, M; Roldán, A; Belmonte, DG; Santero, M; Su. *SEGHl Study: Defining the Best Surveillance Strategy in Hodgkin Lymphoma after First-Line Treatment.* CANCERS. 2021; 13(10). FI: 6.575. Cuartil: 1. (Article).
- Rubio-San-Simón, A; Álvaro, RH; Ribelles, AJ; Heredia, AC; Guerra-García, P; Verdu-Amoros, J; Andrés, M; Canete, A; Rives, S; Pérez-Martínez, A; Mora, J; Patino-García, A; Lassaleta, A; Lloret, A; Ramírez, M; Mata, C; Gallego, S; Martín-Broto, J; Cruz, O. *The paediatric cancer clinical research landscape in Spain: a 13-year multicentre experience of the new agents group of the Spanish Society of Paediatric Haematology and Oncology (SEHOP).* CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(12) 2489-2496. FI: 3.34. Cuartil: 3. (Article).
- Gallego, S; Bernabéu, D; Garrido-Pontnou, M; Guillén, G; Hindi, N; Juan-Ribelles, A; Márquez, C; Mata, C; Orcajo, J; Ramírez, G; Ramos, M; Romagosa, C; Ruano, D; Rubio, P; Verges, R; Valverde, C; SEHOP Soc Espanola Hematologia Onc. *GEIS-SEHOP clinical practice guidelines for the treatment of rhabdomyosarcoma.* CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(12) 2460-2473. FI: 3.34. Cuartil: 3. (Article).
- Santos, A; Macías, N; Vega, A; Abad, S; Linares, T; Aragoncillo, I; Cruzado, L; Pascual, C; Goicoechea, M; López-Gómez, JM. *Efficacy of enoxaparin in preventing coagulation during high-flux haemodialysis, expanded haemodialysis and haemodiafiltration.* CLINICAL KIDNEY JOURNAL. 2021; 14(4) 1120-1125. FI: 5.86. Cuartil: 1. (Article).
- Rodríguez-Otero, P; Sirvent, M; González-Rodríguez, AP; Lavilla, E; de Coca, AG; Arguinano, JM; Martí, JM; Cabanas, V; Motllo, C; de Cabo, E; Encinas, C; Murillo, I; Hernández-Rivas, JA; Pérez-Persona, E; Casado, F; Sampol, A; García, R; Blanchard, MJ; An. *Pomalidomide, Cyclophosphamide, and Dexamethasone for the Treatment of Relapsed/ Refractory Multiple Myeloma: Real-World Analysis of the Pethema-GEM Experience.* CLINICAL LYMPHOMA MYELOMA & LEUKEMIA. 2021; 21(6) 413-420. FI: 2.822. Cuartil: 3. (Article).
- Abrisqueta, P; Loscertales, J; Terol, MJ; Payer, AR; Ortiz, M; Pérez, I; Cuéllar-García, C; de la Mata, MF; Rodríguez, A; Lario, A; Delgado, J; Godoy, A; Pérez, JMA; Berrueto, MJ; Oliveira, A; Hernández-Rivas, JA; Malo, MDG; Medina, A; Martín, PG; Osorio. *Real-World Characteristics and Outcome of Patients Treated With Single-Agent Ibrutinib for Chronic Lymphocytic Leukemia in Spain (IBRORS-LLC Study).* CLINICAL LYMPHOMA MYELOMA & LEUKEMIA. 2021; 21(12) 985-999. FI: 2.822. Cuartil: 3. (Article).
- Ribera, JM; Morgades, M; Coll, R; Barba, P; López-Lorenzo, JL; Montesinos, P; Foncillas, MA; Cabrero, M; Gómez-Centurión, I; Morales, MD; Varela, MR; Herrera, P; García-Cadenas, I; Calbacho, M; Torrent, A; Maluquer, C; Calabuig, M; García-Guion, A; Bauti. *Frequency, Clinical Characteristics and Outcome*



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of Adults With Acute Lymphoblastic Leukemia and COVID 19 Infection in the First vs. Second Pandemic Wave in Spain. CLINICAL LYMPHOMA MYELOMA & LEUKEMIA. 2021; 21(10) 801-809. FI: 2.822. Cuartil: 3. (Article).

- Ríos-Tamayo, R; Puig, N; Algarin, M; Silva, JLGD; Barbosa, N; Encinas, C; Hernández, JA; Alonso, R; Campos, ML; Rodríguez, T; Leivas, A; Olivares, MJ; Sánchez, MJ; Paiva, B; Lahuerta, JJ; Martínez-López, J. *The Current Role of the Heavy/Light Chain Assay in the Diagnosis, Prognosis and Monitoring of Multiple Myeloma: An Evidence-Based Approach.* DIAGNOSTICS. 2021; 11(11). FI: 3.992. Cuartil: 2. (Review).
- Benítez-Carabante, MI; Belendez, C; González-Vicent, M; Alonso, L; Uria-Oficialdegui, ML; Torrent, M; Pérez-Hurtado, JM; Fuster, JL; Cela, E; Díaz-de-Heredia, C; Grp Espanol Trasplante. *Matched sibling donor stem cell transplantation for sickle cell disease: Results from the Spanish group for bone marrow transplantation in children.* EUROPEAN JOURNAL OF HAEMATOLOGY. 2021; 106(3) 408-416. FI: 3.674. Cuartil: 3. (Article).
- Vicent, MG; de Heredia, CD; de Pablo, JG; Molina, B; Regueiro, A; Martínez, AP; Palomo, P; Corral, LL; García, E; Fernández, JM; Pérez, A; Jiménez, MJ; Guerreiro, M; Vallejo, C; Gallardo, AI; López, O; Benito, A; Marsal, J; Duarte, M; Bento, L; Badell, I. *Defibrotide in hematopoietic stem cell transplantation: A multicenter survey study of the Spanish Hematopoietic Stem Cell Transplantation Group (GETH).* EUROPEAN JOURNAL OF HAEMATOLOGY. 2021; 106(6) 842-850. FI: 3.674. Cuartil: 3. (Article).
- Sedano, P; González-San Segundo, C; De Ingunza, L; Cuesta-Álvaro, P; Pérez-Somarriba, M; Díaz-Gutiérrez, F; Colino, CG; Lassaletta, A. *Real-world data for pediatric medulloblastoma: can we improve outcomes?.* EUROPEAN JOURNAL OF PEDIATRICS. 2021; 180(1) 127-136. FI: 3.86. Cuartil: 1. (Article).
- Gómez-Seguí, I; Izquierdo, CP; Comos, JD. *Best practices and recommendations for drug regimens and plasma exchange for immune thrombotic thrombocytopenic purpura.* EXPERT REVIEW OF HEMATOLOGY. 2021; 14(8) 707-719. FI: 2.819. Cuartil: 3. (Review).
- Muñoz, P; Kwon, M; Carbonell, D; Chicano, M; Bailén, R; Oarbeascoa, G; Suárez-González, J; Andrés-Zayas, C; Menárguez, J; Dorado, N; Gómez-Centurió, I; Anguita, J; Díez-Martín, JL; Martínez-Laperche, C; Buño, I. *Clinical Utility of the Detection of the Loss of the Mismatched HLA in Relapsed Hematological Patients After Haploidentical Stem Cell Transplantation With High-Dose Cyclophosphamide.* FRONTIERS IN IMMUNOLOGY. 2021; 12 642087-642087. FI: 8.786. Cuartil: 1. (Article).
- Bailén, R; Vicario, JL; Solán, L; Sánchez-Vadillo, I; Herrera, P; Calbacho, M; Alenda, R; López-Lorenzo, JL; Humala, K; Chinea, A; Sánchez-Pina, J; Balas, A; Moreno, MA; Arzuaga, J; Pradillo, V; Dorado, N; Oarbeascoa, G; Anguita, J; Díez-Martín, JL; Kwon. *Management of Donor-Specific Antibodies in Haploidentical Transplant: Multicenter Experience From the Madrid Group of Hematopoietic Transplant.* FRONTIERS IN IMMUNOLOGY. 2021; 12 674658-674658. FI: 8.786. Cuartil: 1. (Article).
- Solán, L; Carbonell, D; Muñoz, P; Dorado, N; Landete, E; Chicano-Lavilla, M; Anguita, J; Gayoso, J; Kwon, M; Díez-Martín, JL; Martínez-Laperche, C; Buño, I. *Elafin as a Predictive Biomarker of Acute Skin Graft-Versus-Host Disease After Haploidentical Stem Cell Transplantation Using Post-Transplant High-Dose Cyclophosphamide.* FRONTIERS IN IMMUNOLOGY. 2021; 12 516078-516078. FI: 8.786. Cuartil: 1. (Article).
- Gil, S.; Carbonell, D.; López, L.; Miguens, I.; Alonso, R.; Buño, I.; Muñoz, P.; Ochando Cano, Jordi; Pion, M.; Correa, R. *Induction of high levels of specific humoral and cellular responses to SARS-CoV-2 after the administration of Covid-19 mRNA vaccines requires several days.* FRONTIERS IN IMMUNOLOGY. 2021; 12 726960-726960. FI: 8.786. Cuartil: 1. (Article).
- Pérez-García, F; Bailén, R; Torres-Macho, J; Fernández-Rodríguez, A; Jiménez-Sousa, MA; Jiménez, E; Pérez-Butragueño, M; Cuadros-González, J; Cadinanos, J; García-García, I; Jiménez-González, M; Ryan, P; Resino, S. *Age-Adjusted Endothelial Activation and Stress Index for Coronavirus Disease 2019 at Admission Is a Reliable Predictor for 28-Day Mortality in Hospitalized Patients With Coronavirus Disease 2019.* FRONTIERS IN MEDICINE. 2021; 8 736028-736028. FI: 5.058. Cuartil: 2. (Article).
- Vega-García, N; Pérez-Jaume, S; Esperanza-Cebollada, E; Vicente-Garcés, C; Torreadell, M; Jiménez-Velasco, A; Ortega, M; Llop, M; Abad, L; Vagace, JM; Minguela, A; Pratcorona, M; Sánchez-García, J; García-Calderón, CB; Gómez-Casares, MT; Martín-Clavero. *Measurable Residual Disease Assessed by Flow-Cytometry Is a Stable Prognostic Factor for Pediatric T-Cell Acute Lymphoblastic Leukemia in Consecutive SEHOP Protocols Whereas the Impact of Oncogenetics Depends on Treatment.* FRONTIERS IN PEDIATRICS. 2021; 8 614521-614521. FI: 3.569. Cuartil: 2. (Article).



- Regalado-Artamendi, I; Jiménez-Ubieto, A; Hernández-Rivas, JA; Navarro, B; Núñez, L; Aláez, C; Cordoba, R; Penalver, FJ; Cannata, J; Estival, P; Quiroz-Cervantes, K; Grau, RR; Velasco, A; Martos, R; Domingo-González, A; Benito-Parra, L; Gómez-Sanz, E; Lop. *Risk Factors and Mortality of COVID-19 in Patients With Lymphoma: A Multicenter Study*. HEMASPHERE. 2021; 5(3). FI: 8.3. Cuartil: 1. (Article).
- Gálvez, E; Vallespin, E; Arias-Salgado, EG; Sánchez-Valdepenas, C; Giménez, Y; Navarro, S; Rio, P; Bogliolo, M; Pujol, R; Peiro, M; Nevado, J; Zubicaray, J; Sebastián, E; Catala, A; Belendez, C; de Heredia, CD; Galera, A; Badell, I; Madero, L; Perona, R. *Next-generation Sequencing in Bone Marrow Failure Syndromes and Isolated Cytopenias: Experience of the Spanish Network on Bone Marrow Failure Syndromes*. HEMASPHERE. 2021; 5(4). FI: 8.3. Cuartil: 1. (Article).
- Ribera, JM; Morgades, M; Genesca, E; Chapchap, EC; Montesinos, P; Acuna-Cruz, E; Gil, C; García-Cadenas, I; Barba, P; González-Campos, J; de Llano, MPQ; Torrent, A; Ribera, J; Granada, I; Bernal, T; Díaz-Beya, M; Amigo, ML; Coll, R; Tormo, M; Vall-Ilovera. *Outcomes and prognostic factors of adults with refractory or relapsed T-cell acute lymphoblastic leukemia included in measurable residual disease-oriented trials*. HEMATOLOGICAL ONCOLOGY. 2021; 39(4) 529-538. FI: 4.85. Cuartil: 2. (Article).
- Los-Arcos, I; Iacoboni, G; Aguilar-Guisado, M; Alsina-Manrique, L; de Heredia, CD; Fortuny-Guasch, C; García-Cadenas, I; García-Vidal, C; González-Vicent, M; Hernani, R; Kwon, M; Machado, M; Martínez-Gómez, X; Maldonado, VO; Pla, CP; Pinana, JL; Pomar, V. *Recommendations for screening, monitoring, prevention, and prophylaxis of infections in adult and pediatric patients receiving CAR T-cell therapy: a position paper*. INFECTION. 2021; 49(2) 215-231. FI: 7.455. Cuartil: 1. (Review).
- Pascual, C; Nieto, JM; Fidalgo, T; Segui, IG; Díaz-Ricart, M; Docampo, MF; del Rio, J; Salinas, R. *Multicentric evaluation of the new HemosIL Acustar(R) chemiluminescence ADAMTS13 activity assay*. INTERNATIONAL JOURNAL OF LABORATORY HEMATOLOGY. 2021; 43(3) 485-493. FI: 3.45. Cuartil: 3. (Article).
- Casella, JF; Barton, BA; Kanter, J; Black, LV; Majumdar, S; Inati, A; Wali, Y; Drachtman, RA; Abboud, MR; Kilinc, Y; Fuh, BR; Al-Khabori, MK; Takemoto, CM; Salman, E; Sarnaik, SA; Shah, N; Morris, CR; Keates-Baleeiro, J; Raj, A; Álvarez, OA; Hsu, LL; Thom. *Effect of Poloxamer 188 vs Placebo on Painful Vaso-Occlusive Episodes in Children and Adults With Sickle Cell Disease: A Randomized Clinical Trial*. JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. 2021; 325(15) 1513-1523. FI: 157.335. Cuartil: 1. (Article).
- Pascual-Izquierdo, C; del Rio-Garma, J; de la Rubia, J; Viejo, A; Mingot, E; Cid, J; Solánich, X; Fernández-Sojo, J; Martín-Sánchez, J; Hernández, L; García-Gala, JM; Alonso, N; González, V; Oliva, A; Gómez-Segui, I; Goterris, R; Guerra, L; García-Candel. *Incidence, diagnosis, and outcome of immune-mediated thrombotic thrombocytopenic purpura: A nationwide survey by the Spanish registry of thrombotic thrombocytopenic purpura*. JOURNAL OF CLINICAL APHERESIS. 2021; 36(4) 563-573. FI: 2.605. Cuartil: 4. (Article).
- Domingo-González, A; Regalado-Artamendi, I; Martín-Rojas, RM; Pérez-Rus, G; Pérez-Corral, A; Díez-Martín, JL; Pascual-Izquierdo, C. *Application of the French TMA Reference Center Score and the mortality in TTP Score in de novo and relapsed episodes of acquired thrombotic thrombocytopenic purpura at a tertiary care facility in Spain*. JOURNAL OF CLINICAL APHERESIS. 2021; 36(3) 420-428. FI: 2.605. Cuartil: 4. (Article).
- Steensma, DP; Fenaux, P; Van Eygen, K; Raza, A; Santini, V; Germing, U; Font, P; Díez-Campelo, M; Thepot, S; Vellenga, E; Patnaik, MM; Jang, JH; Varsos, H; Bussolari, J; Rose, E; Sherman, L; Sun, LB; Wan, Y; Dougherty, S; Huang, F; Feller, F; Rizo, A; Pla. *Imetelstat Achieves Meaningful and Durable Transfusion Independence in High Transfusion-Burden Patients With Lower-Risk Myelodysplastic Syndromes in a Phase II Study*. JOURNAL OF CLINICAL ONCOLOGY. 2021; 39(1) 48-56. FI: 50.717. Cuartil: 1. (Article).
- Álvarez-Uría, A; Escribano, P; Parra-Blanco, V; Cano-Lira, JF; Stchigel, AM; Oarbeascoa, G; Muñoz, P; Guinea, J. *First Report of an Invasive Infection by Cephalotrichum gorgonifer in a Neutropenic Patient with Hematological Malignancy under Chemotherapy*. JOURNAL OF FUNGI. 2021; 7(12). FI: 5.724. Cuartil: 1. (Article).
- Sanz, J; Galimard, JE; Labopin, M; Afanasyev, B; Sergeevich, MI; Angelucci, E; Kroger, N; Koc, Y; Ciceri, F; Díez-Martín, JL; Arat, M; Sica, S; Rovira, M; Aljurf, M; Tischer, J; Savani, B; Ruggeri, A; Nagler, A; Mohty, M. *Post-transplant cyclophosphamide containing regimens after matched sibling, matched unrelated and haploidentical donor transplants in patients with acute lymphoblastic leukemia in first complete remission, a comparative study of the ALWP of the EBMT*. JOURNAL OF HEMATOLOGY & ONCOLOGY. 2021; 14(1). FI: 23.168. Cuartil: 1. (Article).

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- Martínez-López, J; Alonso, R; Wong, SW; Ríos, R; Shah, N; Ruiz-Heredia, Y; Sánchez-Pina, JM; Sánchez, R; Bahri, N; Zamanillo, I; Poza, M; Buenache, N; Encinas, C; Juárez, L; Miras, F; Collado, L; Barrio, S; Martín, T; Cedena, MT; Wolf, J. *Making clinical decisions based on measurable residual disease improves the outcome in multiple myeloma.* JOURNAL OF HEMATOLOGY & ONCOLOGY. 2021; 14(1). FI: 23.168. Cuartil: 1. (Letter).
- Pérez-Lago L; Martínez-Lozano H; Pajares Díaz JA; Díaz Gómez A; Machado M; Sola-Campoy PJ; Herranz M; Buenestado-Serrano S; Valerio M; Olmedo M; Andrés Zayas C; Comas I; González Candelas F; Bañares R; Catalán P; Muñoz P; García de Viedma D. *Proper Assignment of Reactivation in a COVID-19 Recurrence Initially Interpreted as a Reinfection.* JOURNAL OF INFECTIOUS DISEASES. 2021; 224(5) 788-792. FI: 7.759. Cuartil: 1. (Article).
- Amor-García, MA; Fernández-Llamazares, CM; Manrique-Rodríguez, S; Narrillos-Moraza, A; García-Morín, M; Huerta-Aragón, J; Sanjurjo-Sáez, M. *Bromocriptine for the treatment of postoperative cerebellar mutism syndrome in pediatric patients: Three case reports.* JOURNAL OF ONCOLOGY PHARMACY PRACTICE. 2021; 27(7) 1753-1757. FI: 1.416. Cuartil: 4. (Article).
- Melgarejo-Ortuno, A; Escudero-Vilaplana, V; Revuelta, JL; Bailén, R; Collado-Borrell, R; Gómez-Centurió, I; Oarbeascoa, G; Kwon, M; Heranz, A; Díez-Martín, JL; Sanjurjo, M. *Tocilizumab as salvage treatment of refractory pulmonary acute graft-versus-host disease.* JOURNAL OF ONCOLOGY PHARMACY PRACTICE. 2021; 27(3) 751-755. FI: 1.416. Cuartil: 4. (Article).
- Domingo-González, A; Osorio, S; Landete, E; Monsalvo, S; Díez-Martín, JL. *A second administration of glucarpidase in a different cycle of high-dose methotrexate: Is it safe and effective in adults?* JOURNAL OF ONCOLOGY PHARMACY PRACTICE. 2021; 27(3) 734-738. FI: 1.416. Cuartil: 4. (Article).
- Fernández, CM; Feltrin, MZ. *Second Osteosarcoma in a 16-Year-old Woman Diagnosed With Rothmund-Thomson Syndrome.* JOURNAL OF PEDIATRIC HEMATOLOGY ONCOLOGY. 2021; 43(4) 532-534. FI: 1.17. Cuartil: 4. (Article).
- Ordoñez, J; del Cañizo, A; Beléndez, C; García-Morín, M; Pérez-Egido, L; Fanjul, M; García-Casillas, MA; Cerda, J; Peláez, D; Bardón, E; de Agustín, JC; Cela, E. *Complications of Central Venous Access Devices in Patients With Sickle Cell Disease and Thalassemia Major.* JOURNAL OF PEDIATRIC HEMATOLOGY ONCOLOGY. 2021; 43(5) 655-660. FI: 1.17. Cuartil: 4. (Article).
- Pérez-Lago L; Sola Campoy PJ; Buenestado-Serrano S; Pharmacy PC; Estévez A; de la Cueva Technician VM; López MG; Tecnichian MH; Suárez-González J; Alcalá L; Comas I; González-Candelas F; Muñoz P; García de Viedma D. *Epidemiological, clinical and genomic snapshot of the first 100 B.1.1.7 SARS-CoV-2 cases in Madrid.* JOURNAL OF TRAVEL MEDICINE. 2021; 28(4). FI: 39.194. Cuartil: 1. (Article).
- Barbui, T; Vannucchi, AM; Álvarez-Larran, A; Iurlo, A; Masciulli, A; Carobbio, A; Ghirardi, A; Ferrari, A; Rossi, G; Elli, E; Andrade-Campos, MM; Kabat, MG; Kiladjian, JJ; Palandri, F; Benevolo, G; García-Gutiérrez, V; Fox, ML; Foncillas, MA; Morcillo, CM. *High mortality rate in COVID-19 patients with myeloproliferative neoplasms after abrupt withdrawal of ruxolitinib.* LEUKEMIA. 2021; 35(2) 485-493. FI: 12.883. Cuartil: 1. (Article).
- Ljungman, P; de la Cámara, R; Mikulska, M; Tridello, G; Aguado, B; Al Zahrani, M; Apperley, J; Berceanu, A; Bofarull, RM; Calbacho, M; Ciceri, F; López-Corral, L; Crippa, C; Fox, ML; Grassi, A; Jiménez, MJ; Demir, SK; Kwon, M; Llamas, CV; Lorenzo, JLL; Mi. *COVID-19 and stem cell transplantation; results from an EBMT and GETH multicenter prospective survey.* LEUKEMIA. 2021; 35(10) 2885-2894. FI: 12.883. Cuartil: 1. (Article).
- Sekeres, MA; Watts, J; Radinoff, A; SanGermán, MA; Cerrano, M; López, PF; Zeidner, JF; Campelo, MD; Graux, C; Liesveld, J; Selleslag, D; Tzvetkov, N; Fram, RJ; Zhao, D; Bell, J; Friedlander, S; Faller, DV; Ades, L. *Randomized phase 2 trial of pevonedistat plus azacitidine versus azacitidine for higher-risk MDS/CMML or low-blast AML.* LEUKEMIA. 2021; 35(7) 2119-2124. FI: 12.883. Cuartil: 1. (Letter).
- Spanjaart, AM; Ljungman, P; de La Cámara, R; Tridello, G; Ortiz-Maldonado, V; Urbano-Ispizua, A; Barba, P; Kwon, M; Caballero, D; Sesques, P; Bachy, E; Di Blasi, R; Thieblemont, C; Calkoen, F; Mutsaers, P; Maertens, J; Giannoni, L; Nicholson, E; Collin, M. *Poor outcome of patients with COVID-19 after CAR T-cell therapy for B-cell malignancies: results of a multicenter study on behalf of the European Society for Blood and Marrow Transplantation (EBMT) Infectious Diseases Working Party and the European Hemato.* LEUKEMIA. 2021; 35(12) 3585-3588. FI: 12.883. Cuartil: 1. (Letter).
- Steensma, DP; Wermke, M; Klimek, VM; Greenberg, PL; Font, P; Komrokji, RS; Yang, J; Brunner, AM; Carraway, HE; Ades, L; Al-Kali, A; Alonso-Domínguez, JM; Alfonso-Pierola, A; Coombs, CC; Deeg, HJ; Flinn, I; Foran, JM; García-Manero, G; Maris, MB; McMasters. *Phase I First-in-Human Dose Escalation Study of*



the oral SF3B1 modulator H3B-8800 in myeloid neoplasms. LEUKEMIA. 2021; 35(12) 3542-3550. FI: 12.883. Cuartil: 1. (Article).

- Carbonell, D; Suárez-González, J; Chicano, M; Andrés-Zayas, C; Díez-Díez, M; Rodríguez-Macías, G; Muñiz, P; Kwon, M; Anguita, J; Díez-Martín, JL; Buño, I; Martínez-Laperche, C. *Genetic biomarkers identify a subgroup of high-risk patients within low-risk NPM1-mutated acute myeloid leukemia.* LEUKEMIA & LYMPHOMA. 2021; 62(5) 1178-1186. FI: 2.996. Cuartil: 3. (Article).
- Genesca, E; Morgades, M; González-Gil, C; Fuster-Tormo, F; Haferlach, C; Meggendorfer, M; Montesinos, P; Barba, P; Gil, C; Coll, R; Moreno, MJ; Martínez-Carballeira, D; García-Cadenas, I; Vives, S; Ribera, J; González-Campos, J; Díaz-Beya, M; Mercadal, S. *Adverse prognostic impact of complex karyotype (≥ 3 cytogenetic alterations) in adult T-cell acute lymphoblastic leukemia (T-ALL).* LEUKEMIA RESEARCH. 2021; 109 106612-106612. FI: 3.715. Cuartil: 3. (Article).
- Sharda E; Patel RS; Juárez-Salcedo LM; Dalia S; Hanna CH; Gruhonjic H; Ponnaganti BS; Mhaskar R. *Adverse events of radioimmunotherapy for non-Hodgkin lymphoma: A systematic review and meta-analysis.* LEUKEMIA RESEARCH. 2021; 108 106615-106615. FI: 3.715. Cuartil: 3. (Article).
- Andrés-Zayas, C; Suárez-González, J; Rodríguez-Macías, G; Dorado, N; Osorio, S; Font, P; Carbonell, D; Chicano, M; Muñiz, P; Bastos, M; Kwon, M; Díez-Martín, JL; Buño, I; Martínez-Laperche, C. *Clinical utility of targeted next-generation sequencing for the diagnosis of myeloid neoplasms with germline predisposition.* MOLECULAR ONCOLOGY. 2021; 15(9) 2273-2284. FI: 7.449. Cuartil: 1. (Article).
- Pérez Lago L; Pérez Latorre L; Herranz M; Tejerina F; Sola-Campoy PJ; Sicilia J; Suárez-González J; Andrés-Zayas C; Chiner-Oms A; Jiménez-Serrano S; García-González N; Comas I; González-Candelas F; Martínez-Laperche C; Catalán P; Muñoz P; García de Viedma. *Complete Analysis of the Epidemiological Scenario around a SARS-CoV-2 Reinfection: Previous Infection Events and Subsequent Transmission.* MSPHERE. 2021; 6(5). FI: 5.029. Cuartil: 2. (Article).
- Pérez-Lago L; Martínez-Lozano H; Pajares-Díaz JA; Díaz-Gómez A; Machado M; Sola-Campoy PJ; Herranz M; Valerio M; Olmedo M; Suárez-González J; Quesada-Cubo V; Gómez-Ruiz MDM; López-Fresneña N; Sánchez-Arcilla I; Comas I; González-Candelas F; García de San. *Overlapping of Independent*

SARS-CoV-2 Nosocomial Transmissions in a Complex Outbreak. MSPHERE. 2021; 6(4). FI: 5.029. Cuartil: 2. (Article).

- Pérez-Lago, L; Machado, M; Herranz, M; Sola-Campoy, PJ; Suárez-González, J; Martínez-Laperche, C; Comas, I; Alcalá, L; Catalán, P; Muñoz, P; de Viedma, DC; Adan-Jiménez, J. *Host Genetic Analysis Should Be Mandatory for Proper Classification of COVID-19 Reinfections.* OPEN FORUM INFECTIOUS DISEASES. 2021; 8(9). FI: 4.423. Cuartil: 2. (Letter).
- Inusa, BPD; Inati, A; Maes, P; Githanga, J; Ogutu, B; Abboud, MR; Miano, M; Cela, E; Nduba, V; Niazi, M; Astrand, M; Persson, K; Berggren, A; Carlson, G. *Pharmacokinetics and safety of ticagrelor in infants and toddlers with sickle cell disease aged <24 months.* PEDIATRIC BLOOD & CANCER. 2021; 68(5). FI: 3.838. Cuartil: 1. (Article).
- González, MJ; Urizar, E; Urtaran-Laresgoiti, M; Nuno-Solinis, R; Lázaro-Pérez, E; Vázquez, L; Pascual-Cascón, MJ; Solano, C; Kwon, M; Gallego, C; Fernández-Avilés, F. *Hospital and outpatient models for Hematopoietic Stem Cell Transplantation: A systematic review of comparative studies for health outcomes, experience of care and costs.* PLOS ONE. 2021; 16(8). FI: 3.752. Cuartil: 2. (Review).
- Rincón, JO; Oliveros, MB; Fernández, CM; Aradas, VP; Pujol, CA. *Identification, by Tc-99m-HDP-SPECT/CT imaging, of unknown pulmonary metastases in patients with osteosarcoma.* REVISTA ESPAÑOLA DE MEDICINA NUCLEAR E IMAGEN MOLECULAR. 2021; 40(5) 325-327. FI: 1.247. Cuartil: 4. (Editorial Material).
- Bastos-Oreiro, M; Suárez-González, J; Andrés-Zayas, C; Carrión, NC; Moreno, S; Carbonell, D; Chicano, M; Muñiz, P; Sanz, L; Díaz-Crespo, FJ; Menárguez, J; Díez-Martín, JL; Buño, I; Martínez-Laperche, C. *Incorporation of next-generation sequencing in clinical practice using solid and liquid biopsy for patients with non-Hodgkin's lymphoma.* SCIENTIFIC REPORTS. 2021; 11(1) 22815-22815. FI: 4.996. Cuartil: 2. (Article).
- Arribalzaga, K; Martínez-Alfonzo, I; Díaz-Aizpun, C; Gutiérrez-Jomarrón, I; Rodríguez, M; Quismondo, NC; Pérez-Fernández, E; Velasco-Rodríguez, D; Gómez, E; Fernández, B; Vilches, A; Martín-Herrero, S; Castilla, L; Blanco, MJ; Gutiérrez, MD; Rivas, I; Pas. *Incidence and clinical profile of venous thromboembolism in hospitalized COVID-19 patients from Madrid region.* THROMBOSIS RESEARCH. 2021; 203 93-100. FI: 10.407. Cuartil: 1. (Article).

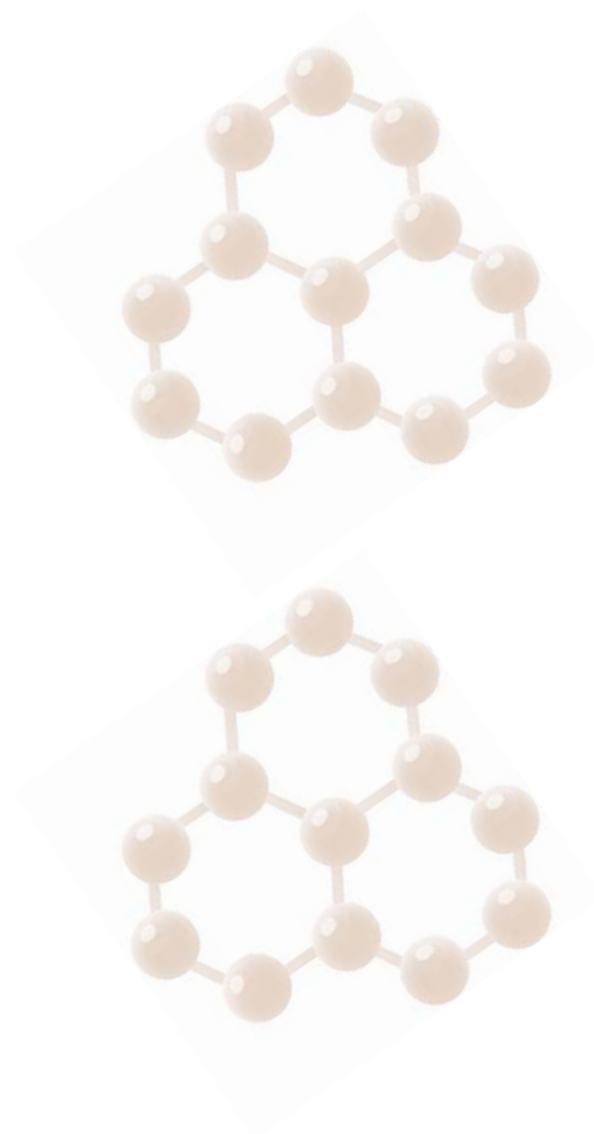


6.03. GENETICS AND CLINICAL ASPECTS OF HEMATOLOGIC MALIGNANCIES AND HEMATOPOIETIC STEM CELL TRANSPLANTATION

- Cid, J; Monsalvo, S; Castillo, C; Pascual, C; Moreno-Jim, G; López-Parra, M; Andon, C; Guerra, L; Esquirol, A; Sánchez-Ortega, I; Ortega, S; Zalba, S; Martínez, C; Rovira, M; Marín, P; Lozano, M. *Addition of plerixafor to G-CSF in poor mobilizing healthy related donors overcame mobilization failure: An observational case series on behalf of the Grupo Español de Trasplante Hematopoyetico (GETH).* TRANSFUSION AND APHERESIS SCIENCE. 2021; 60(2) 103052-103052. FI: 2.596. Cuartil: 4. (Article).
- Solves, P; Lozano, M; Zhiburt, E; Velasco, JA; Pérez-Corral, AM; Monsalvo-Saornil, S; Yamazaki, S; Okazaki, H; Selleng, K; Aurich, K; Kruger, W; Buser, A; Holbro, A; Infanti, L; Stehle, G; Pierelli, L; Matteocci, A; Rigacci, L; De Vooght, KMK; Kuball, JHE. *International Forum on Transfusion Practices in Haematopoietic Stem-Cell Transplantation: Responses.* VOX SANGUINIS. 2021; 116(5) 25-43. FI: 2.996. Cuartil: 3. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Mareque, M; Montesinos, P; Font, P; Guinea, JM; de la Fuente, A; Soto, J; Oyaguez, I; Brockbank, J; Iglesias, T; Llinares, J; Sierra, J. *Cost-Effectiveness Analysis of Gemtuzumab Ozogamicin for First-Line Treatment of Patients with Cd-33 Positive Acute Myeloid Leukaemia in Spain.* CLINICOECONOMICS AND OUTCOMES RESEARCH. 2021; 13 263-277. (Article).
- Novelli, S; Bento, L; García, I; Prieto, L; López, L; Gutiérrez, G; Hernani, R; Pérez, A; Esquirol, A; Solano, C; Bastos, M; Dorado, N; Rodríguez, N; Rodríguez, G; Pinana, JL; Montoro, J; Herrera, P; Luna, A; Parody, R; Martín, C; García, E; López, O; Her. *Allogeneic Stem Cell Transplantation in Mature T Cell and Natural Killer/T Neoplasias: A Registry Study from Spanish GETH/GELTAMO Centers.* TRANSPLANTATION AND CELLULAR THERAPY. 2021; 27(6). (Article).
- Dholaria, B; Labopin, M; Angelucci, E; Tischer, J; Arat, M; Ciceri, F; Gulbas, Z; Ozdogu, H; Sica, S; Díez-Martín, JL; Koc, Y; Pavlu, J; Socie, G; Giebel, S; Savani, BN; Nagler, A; Mohty, M. *Improved Outcomes of Haploidentical Hematopoietic Cell Transplantation with Total Body Irradiation-Based Myeloablative Conditioning in Acute Lymphoblastic Leukemia.* TRANSPLANTATION AND CELLULAR THERAPY. 2021; 27(2). (Article).



6.04. Surgical oncology

Group Head: LUIS GONZÁLEZ- BAYÓN

Organisms involved: HGUGM

Type: Emerging group

Research lines

Axis1: Treatment of malignant peritoneal disease (MPD)

- ▶ L1: Natural history of MPD and palliative treatment.
- ▶ L2: Imaging study of MPD (funded study).
- ▶ L3: Pharmacokinetics of peritoneally administered drugs and delivery of systemic drugs to the peritoneum.

Axis 2: Treatment of MPD for cure: cytoreduction + hyperthermic intraoperative intraperitoneal chemotherapy (HIPEC)

- ▶ L1: Morbidity and mortality of the procedure.
- ▶ L2: Overall and disease-free survival in different tumor types.

Axis 3: Treatment of gastric cancer with carcinomatosis using preoperative bidirectional chemotherapy and cytoreduction + HIPEC

- ▶ L1: Morbidity and mortality of the procedure.
- ▶ L2: Overall and disease-free survival.

Group members

- González Bayón, Luis: R4. Leading Researcher.
- Lozano Lominchar, Pablo.
- Palencia García, Natividad.
- Vázquez Jiménez, Wenceslao: R3. Established Researcher.

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
Others	Peritoneal Surface Oncology Group International	Collaborating group
Others	Grupo Español de Cirugía Oncológica Peritoneal	Collaborating group
Others	PELVEX collaborative group	Collaborating group

Publications

Total Impact Factor: 14.1

	Nº	IF
Own publications	2	10.1
Joint publications	2	4.0
First decile publications	0	-
First quartile publications	2	10.1
Second quartile publications	0	0.0
Third quartile publications	2	4.0
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	2	-
Total publications (including those without IF)	6	14.1

6.04. SURGICAL ONCOLOGY

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Lasso, JM; Pinilla, C; Vasquez, W; Asencio, JM. *The Effect of Intraoperative Radiotherapy on Healing and Complications After Sacrectomy and Immediate Reconstruction*. ANNALS OF PLASTIC SURGERY. 2021; 86(6) 688-694. FI: 1.763. Cuartil: 3. (Article).
- Martín-Román, L; Lozano, P; Vasquez, W; Palencia, N; Gómez, Y; Fernández-Aceñero, MJ; González-Bayon, L. *Defining stage in mucinous tumours of the appendix with peritoneal dissemination: the importance of grading terminology: systematic review*. BJS OPEN. 2021; 5(4). FI: 3.875. Cuartil: 1. (Review).
- Zaballos, M; Power, M; Canal-Alonso, MI; González-Nicolás, MA; Vasquez-Jiménez, W; Lozano-Lominchar, P; Cabrerizo-Torrente, P; Palencia-García, N; Gago-Quiroga, S; Ginel-Feito, MD; Jiménez, C; Lázar, A; González-Bayon, L. *Effect of Cilastatin on Cisplatin-Induced Nephrotoxicity in Patients Undergoing Hyperthermic Intraperitoneal Chemotherapy*. INTERNATIONAL

JOURNAL OF MOLECULAR SCIENCES. 2021; 22(3). FI: 6.208. Cuartil: 1. (Article).

- Olmedilla, G; Undaondo, C; Vasquez, W; Rodríguez, N. *Metastatic Malignant Peritoneal Mesothelioma Mimicking an Autoinflammatory Syndrome in a 12-Year-Old Boy*. PEDIATRIC AND DEVELOPMENTAL PATHOLOGY. 2021; 24(5) 478-483. FI: 2.266. Cuartil: 3. (Article).

Other publications

- Taboada AGM; Lominchar PL; Román LM; García-Alfonso P; Martín AJM; Rodríguez JAB; Pascual JMA. *Advances in neoadjuvant therapy for resectable pancreatic cancer over the past two decades*. ANNALS OF HEPATO-BILIARY-PANCREATIC SURGERY. 2021; 25(2) 179-191. (Article).
- Lurvink RJ; Villeneuve L; Govaerts K; de Hingh IHJ; Morán BJ; Deraco M; Van der Speeten K; Glehen O; Kepenekian V; Kusamura S; List of PSOGI collaborators. *The Delphi and GRADE methodology used in the PSOGI 2018 consensus statement on Pseudomyxoma Peritonei and Peritoneal Mesothelioma*. EJSO. 2021; 47(1) 4-10. (Article).



SYSTEMIC DISEASES AND ORGAN TRANSPLANTATION

Area coordinator:
Rafael Bañares Cañizares



The Area of Systemic Diseases comprises a broad spectrum of mainly clinical research groups. Its most fruitful research lines range from acute and chronic kidney failure to the biology of aging, covering fields such as the pathophysiology of liver and digestive diseases and abdominal organ transplantation. In addition, some of the groups in the Area participate in cooperative research structures funded by the ISCIII, such as the Centro de Investigación Biomédica en Red: Enfermedades Hepáticas y Digestivas (CIBEREHD [Networked Center for Biomedical Research in Liver and Digestive Diseases]) and have made a relevant contribution to the development and implementation of clinical practice guidelines or participate in and lead international cooperative academic projects, especially in South America. Similarly, some groups in the Area support European technology projects investigating home application of diagnostic tools and treatment for elderly patients.

The Area of Systemic Diseases is clearly heterogeneous, although several specific axes of activity can be defined.

The first is the clear increase in scientific output and its quality, with preference for emerging groups. The second involves promotion of translational research, by bringing research support platforms and services to clinical groups. Rapid solutions to research problems can only be found through a gradual process of addressing clinical issues in the laboratory. In the third axis, appropriate support and advice enable scaled application of researchers and groups for competitive funding calls, with the aim not only of obtaining financial support but also of addressing evaluations in an enriching competitive environment. Lastly, the Area aims to develop objectives in undergraduate and postgraduate training with the implementation of predoctoral programs in the various groups.

Of note, two new groups joined this Research Area in 2021, Group 7.33. Pathological Anatomy, initially directed by M. Jesús Fernández Aceñero and later by Javier Menárguez Palanca and Group 7.34 Multimorbidity, chronic diseases and health services (Primary Care), directed by Isabel del Cura González and Jesús Martín Fernández.

Groups in Area 7

SYSTEMIC DISEASES AND ORGAN TRANSPLANTATION

- ▶ 7.01. Inflammation and vascular damage in chronic kidney disease, dialysis and kidney transplant. Renal pathophysiology
- ▶ 7.02. Pathophysiology and natural history of liver and digestive diseases
- ▶ 7.04. Diseases of the critically ill child
- ▶ 7.05B. Medical-surgical. Physiological, and therapeutic aspects of respiratory diseases
- ▶ 7.06. Regenerative medicine in plastic surgery
- ▶ 7.07. Experimental kidney transplant
- ▶ 7.08. Pediatric endocrinology
- ▶ 7.10. Regeneration and biomaterials in musculoskeletal diseases
- ▶ 7.12. Emergency medicine
- ▶ 7.16. Regenerative medicine and systems development: cardiovascular and osteochondral
- ▶ 7.18. Peritransplant evaluation of the liver
- ▶ 7.19. Perianesthesia assessment
- ▶ 7.20. Anesthesia, toxins, and arrhythmias
- ▶ 7.21. Biopathology of aging
- ▶ 7.22. Neonatal and developmental physiology
- ▶ 7.25. Artificial circulation laboratory
- ▶ 7.26. Evaluation of health services and clinical epidemiology
- ▶ 7.27. Hospital pharmacy and pharmacogenomics
- ▶ 7.28. Clinical nutrition
- ▶ 7.29. Pharmacology and vascular pathophysiology
- ▶ 7.31. Pathophysiology in women, pregnancy, labor and puerperium
- ▶ 7.32. Physical medicine and rehabilitation
- ▶ 7.33. Pathological Anatomy
- ▶ 7.34 Multimorbidity, chronic diseases and health services. Primary Care

7.01. Inflammation and vascular damage in chronic kidney disease. Dialysis and kidney transplant. Renal pathophysiology

Group Head: M^a DE LOS ÁNGELES GOICOECHEA DIEZHANDINO

Organisms involved: HGUGM

Type: Consolidated Group

Research lines

Axis 1: Acute renal failure research

- ▶ L1: Search for new therapeutic alternatives in acute renal failure of different aetiology (nephrotoxic, sepsis, rhabdomyolysis...). Leader: Dr. Lázaro.
- ▶ L2. Inhibition of cholesterol rafts as a therapeutic target in ARF. Leader: Dr. Lázaro.
- ▶ L3. Nephroprotective role of cilastatin in patients on HIPEC-cisplatin. Leader: Dr. Lázaro.
- ▶ L4. Effect of the renal inflammasome on distant organ damage. Leader: Dr. Lázaro.
- ▶ L5. Inhibition of cholesterol rafts as a therapeutic target in lung and intestinal damage. Leader: Dr. Lázaro.
- ▶ L6. Malaria and acute renal failure. Leader: Dr. Lázaro.

Axis 2: Progression of CKD

- ▶ L1: Role of colchicine in the progression of CKD. Leaders: Dr. Arroyo and Dra. Goicoechea.
- ▶ L2. RAAS blockers in elderly CKD patients without albuminuria. Leaders: Dra. García Prieto, Dra. Verdalles, Dr. Verde and Dr. Arroyo
- ▶ L3. CKD aetiology and progression. Dra. Goicoechea

Axis 3: Haemodialysis and complications

- ▶ L1: Protein-bound medium molecular weight uremic toxin clearance: HFRs. Leaders: Dra. Vega, Dra. Abad and Dr. Verde.
- ▶ L2. Potassium levels, dialysate and cardiac arrhythmias. Leaders: Dra. Vega, Dra. Abad and Dr. Verde.

- ▶ L3. Evaluation of convective transport and online HF techniques on efficacy, tolerability and long-term prognosis of ESRD patients. Leaders: Dra. Vega, Dra. Abad and Dr. Verde.

Axis 4: Vascular access

- ▶ L1: Clinical project: CARDIOFAV: Arrhythmogenic impact and on echocardiographic structural parameters of arteriovenous fistula. Leaders: Dra. Aragoncillo, Dr. Carbayo, Dra. Vega, Dra. Abad and Dr. Verde.

Axis 5: Peritoneal dialysis and home haemodialysis

- ▶ L1: Implementation of new home dialysis modalities. Leader: Dra. Vega.
- ▶ L2. Efficacy of peritoneal dialysis in the refractory heart failure patient. Leader: Dra. Vega

Axis 6: Covid-19

- ▶ L1: Short- and long-term efficacy of vaccination against SARS-COV2 in patients with CKD, dialysis and renal transplantation: SENCovac study. Leaders: Dr. Macías, Dra. Abad, Dra. Vega and Dr. Arroyo.
- ▶ L2. Development of ARF with need for continuous clearance therapies in covid19 affected patients.

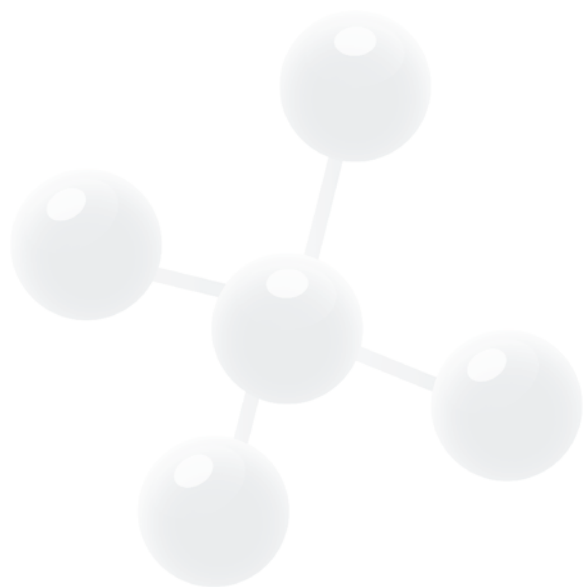
Axis 7: Acute renal failure

- ▶ L1: Acute renal failure code in hospitalisation. Leaders: Dra. Rodríguez, Dra. Melero and Dra. García Prieto.
- ▶ L2. Protective role of rasburicase in acute renal failure after cardiac surgery. Dra. Melero.



7.01. INFLAMMATION AND VASCULAR DAMAGE IN CHRONIC KIDNEY DISEASE, DIALYSIS AND KIDNEY TRANSPLANT. RENAL PATHOPHYSIOLOGY

Our research group aims to contribute to improve the prevention, diagnosis and complications of acute and chronic renal failure with different and broad lines of research in all fields. We are currently members of the network of Cooperative Research Oriented to Health Results: RICORS 2040 KIDNEY DISEASE: RD21/0005/0029. We are also a member group of the Consortium for Research on Acute Renal Failure of the Community of Madrid (CIFRA2-CM) whose objectives include the development of new models of acute renal failure in which to study early diagnostic tools, prognostic biomarkers and new therapeutic approaches (<http://www.cifra2-cm.com>).



Group members

- **Abad Estébanez, Soraya:** R1. First Stage Researcher.
- **Anaya Fernández-Lomana, Fernando:** R3. Established Researcher.
- **Aragoncillo Saucó, Inés:** R1. First Stage Researcher.
- **Arroyo Rueda, David:** R1. First Stage Researcher.
- **Barraca Núñez, Daniel:** R1. First Stage Researcher.
- **García de Vinuesa Rojas, Soledad.**
- **García Prieto, Ana María:** R1. First Stage Researcher.
- **Goicoechea Díezhandino, M^a de los Ángeles:** R4. Leading Researcher.
- **González Guerrero, Christian:** R2. Recognised Researcher.
- **González-Nicolás González, M^a Ángeles:** R1. First Stage Researcher.
- **Lázaro Fernández, Alberto:** R3. Established Researcher.
- **López Gómez, Juan Manuel:** R3. Established Researcher.
- **Macías Carmona, Nicolás:** R1. First Stage Researcher.
- **Martín Sánchez, Beatriz:** R1. First Stage Researcher.
- **Melero Martín, Rosa:** R1. First Stage Researcher.
- **Pérez de José, Ana M^a:** R2. Recognised Researcher.
- **Rengel Aranda, Manuel Antonio:** R3. Established Researcher.
- **Rodríguez Benítez, Patrocinio:** R1. First Stage Researcher.
- **Rodríguez Ferrero, M^a Luisa:** R1. First Stage Researcher.
- **Sánchez Cámara, Luis Alberto:** R1. First Stage Researcher.
- **Tejedor Bravo, Marta.**
- **Vega Martínez, M^a Almudena:** R2. Recognised Researcher.
- **Verdalles Guzmán, Úrsula:** R2. Recognised Researcher.
- **Verde Moreno, Eduardo:** R2. Recognised Researcher.

Research Projects – Competitive Calls

Competitive projects

- Title: El control de la apoptosis renal bloquea el inflammasoma y evita el daño orgánico a distancia.** PI20/01577
 Director: Lázaro Fernández, Alberto
 Project type: Research project
 Funding body: Instituto de Salud Carlos III
 Start date: 01/01/2021
 End date: 31/12/2023
- Title: Intervenciones sobre las balsas de colesterol epiteliales derivadas a evitar la fase de amplificación del daño orgánico agudo.** PI17/00276
 Director: Lázaro Fernández, Alberto
 Project type: Research project
 Funding body: Instituto de Salud Carlos III
 Start date: 01/01/2018
 End date: 30/06/2021
- Title: Protección renal en el paciente politraumatizado.** FMM20/03
 Director: Lázaro Fernández, Alberto
 Project type: Research project
 Funding body: Fundación Mutua Madrileña
 Start date: 05/08/2020
 End date: 04/08/2022
- Title: Bloquear las balsas de colesterol del borde en cepillo del túbulo proximal previene el fallo renal inducido por nefropatías pigmentosas. paludismo y rabdomiolisis** SENEFR018/01
 Director: Lázaro Fernández, Alberto
 Project type: Research project
 Funding body: Fundación SENEFR0
 Start date: 01/01/2019
 End date: 31/12/2021
- Title: Predoctoral CM.** PEJD-2019-PRE/BMD-16978
 Director: Lázaro Fernández, Alberto

Project type: Human resources

Funding body: Consejería de Educación e Investigación. Comunidad de Madrid.

Start date: 01/02/2020

End date: 11/03/2022

Industrial and intellectual property registrations

Industrial property

Title	Reference*	Owner	Inventors
Uso de la Cilastatina para reducir la nefrotoxicidad en distintos compuestos	PCT/ES 2008 070137 (8 patents)	FIBHGM	Alberto Tejedor, Alberto Lázaro, Sonia Camaño, Ana Mª Torres, José Antonio Lázaro, Manuela Castilla, María del Carmen de Lucas
Cilastatin for use in the treatment of sepsis	EP 16382299.2 (12 patents)	FIBHGM	Alberto Tejedor, Alberto Lázaro, Blanca Humanes, Mª Ángeles González-Nicolás

■ Transferred Industrial Property.

* Reference: P (Patent), PCT (international patent), EP (European patent), US (USA patent), U (Utility model), M (Trademark).

Copyright

Title	Reference*	Owner	Inventors
NefroRules: Reglas clínicas para aumentar la seguridad del tratamiento en pacientes con insuficiencia renal	Nº Asiento Registral: 16/2016/989	FIBHGM	Sara Ibáñez, María Sanjurjo, Ana Herranz Carmen Rodríguez, Mª Luisa Martín, Mª Ángeles Goicoechea, Eduardo Verde, José Luño

■ Transferred Intellectual Property.

7.01. INFLAMMATION AND VASCULAR DAMAGE IN CHRONIC KIDNEY DISEASE, DIALYSIS AND KIDNEY TRANSPLANT. RENAL PATHOPHYSIOLOGY

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
RETICS	RICORS2040 KIDNEY DISEASE	Associated group
Others (Scientific Societies Networks)	Consorcio para la Investigación del Fracaso Renal Agudo (CIFRA). Comunidad de Madrid	Collaborating group

Doctoral theses. Bachelor theses and Master theses

Type	Candidate	Title	Name/s Director/s	University	Date defended
Ph Thesis	Isabel Galán	Influencia de la magnesemia en el pronóstico cardiovascular y la mortalidad de los pacientes con enfermedad renal crónica	Almudena Vega, Juan Manuel López-Gómez, Manuel Praga	Complutense	01/02/2021
Ph Thesis	Abraham Rincon	Consecuencias de obesidad y síndrome metabólico en diálisis	Juan Manuel López-Gómez, Manuel Praga	Complutense	17/06/2021
Ph Thesis	Ines Aragoncillo Sauco	Eficacia de las técnicas de vigilancia de segunda generación para prevenir la trombosis y aumentar la supervivencia asistida de fístulas arteriovenosas autólogas	Juan Manuel López-Gómez, Almudena Vega, Manuel Praga	Complutense	26/01/2021
Ph Thesis	Patrocinio Rodríguez-Benitez	Análisis de morbilidad materna y mortalidad materna en gestantes diagnosticadas de preeclampsia grave durante los años 2007-2018 en el Hospital Gregorio Marañón	Juan Antonio León Luis, Luis Álvarez-Sala	Complutense	22/12/2021

Publications

Total Impact Factor: 240.2

	Nº	IF
Own publications	12	69.5
Joint publications	24	170.7
First decile publications	7	115.8
First quartile publications	18	179.0
Second quartile publications	11	44.0
Third quartile publications	5	13.8
Fourth quartile publications	2	3.5
Nonindexed publications / No IF	5	-
Total publications (including those without IF)	41	240.2

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Caravaca-Fontán, F; Trujillo, H; Alonso, M; Díaz-Encarnación, M; Cabello, V; Ariceta, G; Quintana, LF; Marco, H; Barros, X; Ramos, N; Rodríguez-Mendiola, N; Cruz, S; Fernández-Juárez, G; Rodríguez, E; de la Cerda, F; de José, AP; López, I; Fernández, L; G. *Validation of a Histologic Scoring Index for C3 Glomerulopathy*. AMERICAN JOURNAL OF KIDNEY DISEASES. 2021; 77(5) 684-. FI: 11.072. Cuartil: 1. (Article).
- Coll, E; Fernández-Ruiz, M; Sánchez-Álvarez, JE; Martínez-Fernández, JR; Crespo, M; Gayoso, J; Bada-Bosch, T; Oppenheimer, F; Moreso, F; López-Oliva, MO; Melilli, E; Rodríguez-Ferrero, ML; Bravo, C; Burgos, E; Facundo, C; Lorenzo, I; Yáñez, I; Galeano, C. *COVID-19 in transplant recipients: The Spanish experience*. AMERICAN JOURNAL OF TRANSPLANTATION. 2021; 21(5) 1825-1837. FI: 9.369. Cuartil: 1. (Article).



- Padilla, M; Coll, E; Fernández-Pérez, C; Pont, T; Ruiz, A; Pérez-Redondo, M; Oliver, E; Atutxa, L; Mancino, JM; Daga, D; Minambres, E; Moya, J; Vidal, B; Duenas-Jurado, JM; Mosteiro, F; Rodríguez-Salgado, A; Fernández-García, E; Lara, R; Hernández-Marrero. *Improved short-term outcomes of kidney transplants in controlled donation after the circulatory determination of death with the use of normothermic regional perfusion*. AMERICAN JOURNAL OF TRANSPLANTATION. 2021; 21(11) 3618-3628. FI: 9.369. Cuartil: 1. (Article).
- Villanego, F; Mazuecos, A; Pérez-Flores, IM; Moreso, F; Andrés, A; Jiménez-Martin, C; Molina, M; Canal, C; Sánchez-Cámara, LA; Zarraga, S; Ruiz-Fuentes, MD; Aladren, MJ; Melilli, E; López, V; Sánchez-Álvarez, E; Crespo, M; Pascual, J; Spanish Soc Nephrolo. *Predictors of severe COVID-19 in kidney transplant recipients in the different epidemic waves: Analysis of the Spanish Registry*. AMERICAN JOURNAL OF TRANSPLANTATION. 2021; 21(7) 2573-2582. FI: 9.369. Cuartil: 1. (Article).
- Galar, A; Valerio, M; Catalán, P; García-González, X; Burillo, A; Fernández-Cruz, A; Zataráin, E; Sousa-Casasnovas, I; Anaya, F; Rodríguez-Ferrero, ML; Muñoz, P; Bouza, E. *Valganciclovir-Ganciclovir Use and Systematic Therapeutic Drug Monitoring. An Invitation to Antiviral Stewardship*. ANTIBIOTICS-BASEL. 2021; 10(1). FI: 5.222. Cuartil: 1. (Article).
- Dendooven, A; Peetermans, H; Helbert, M; Nguyen, TQ; Marcussen, N; Nagata, M; Gesualdo, L; Perkowska-Ptasinska, A; Capusa, C; López-Gómez, JM; Geddes, C; Abdul-Hamid, MA; Segelmark, M; Yahya, R; Garau, M; Villanueva, R; Dorman, A; Barbour, S; Cornet, R; H. *Coding practice in national and regional kidney biopsy registries*. BMC NEPHROLOGY. 2021; 22(1) 193-193. FI: 2.585. Cuartil: 3. (Article).
- Gorriz, JL; Arroyo, D; D'Marco, L; Torra, R; Tomas, P; Puchades, MJ; Panizo, N; Pantoja, J; Montomoli, M; Llisterri, JL; Pallares-Carratala, V; Valdivielso, JM. *Cardiovascular risk factors and the impact on prognosis in patients with chronic kidney disease secondary to autosomal dominant polycystic kidney disease*. BMC NEPHROLOGY. 2021; 22(1) 110-110. FI: 2.585. Cuartil: 3. (Article).
- Pérez de José A; Carbayo, J; Pocurull, A; Bada-Bosch, T; Cases Corona CM; Shabaka, A; Ramos Terrada N; Martínez Valenzuela L; Huerta, A; Fernández Lorente L; Malek-Marín, TG; Goicoechea, M. *Direct-acting antiviral therapy improves kidney survival in hepatitis C virus-associated cryoglobulinaemia: the RENALCRYOGLOBULINEMIC study*. CLINICAL KIDNEY JOURNAL. 2021; 14(2) 586-592. FI: 5.86. Cuartil: 1. (Article).
- Villacorta, J; Lucientes, L; Goicoechea, E; Acevedo, M; Caverio, T; Sánchez-Cámara, L; Díaz-Crespo, F; Giménez-Moyano, S; García-Bermejo, L; Fernández-Juárez, G. *Urinary soluble CD163 as a biomarker of disease activity and relapse in antineutrophil cytoplasm antibody-associated glomerulonephritis*. CLINICAL KIDNEY JOURNAL. 2021; 14(1) 212-219. FI: 5.86. Cuartil: 1. (Article).
- Santos, A; Macías, N; Vega, A; Abad, S; Linares, T; Aragoncillo, I; Cruzado, L; Pascual, C; Goicoechea, M; López-Gómez, JM. *Efficacy of enoxaparin in preventing coagulation during high-flux haemodialysis, expanded haemodialysis and haemodiafiltration*. CLINICAL KIDNEY JOURNAL. 2021; 14(4) 1120-1125. FI: 5.86. Cuartil: 1. (Article).
- Cedeno, S; Desco, M; Aleman, Y; Macías, N; Fernández-Pena, A; Vega, A; Abad, S; López-Gómez, JM. *Intradialytic hypotension and relationship with cognitive function and brain morphometry*. CLINICAL KIDNEY JOURNAL. 2021; 14(4) 1156-1164. FI: 5.86. Cuartil: 1. (Article).
- Melero, R; Mijaylova, A; Rodríguez-Benítez, P; Macías, N; Aragoncillo, I; Rodríguez-Ferrero, ML; García-Prieto, A; Bascunana, A; Acosta, A; González-Rojas, A; de Morales, AM; Carbayo, J; Sánchez-Cámara, L; Verdalles, U; Abad, S; Vega, A; Verde, E; Arroyo. *Renal long-term outcome of critically ill COVID-19 patients with acute kidney failure and continuous renal replacement therapy*. CLINICAL KIDNEY JOURNAL. 2021; 14(11) 2449-2450. FI: 5.86. Cuartil: 1. (Letter).
- Ibáñez-García, S; Zataráin-Nicolás, E; García-González, X; Rodríguez-Ferrero, ML; Fernández-Yáñez, J; Díaz, FJFA; Sáez, MS. *Levels of tacrolimus after treatment for chronic hepatitis C with direct antiviral agents in solid organ transplant recipients*. INTERNATIONAL JOURNAL OF CLINICAL PHARMACY. 2021; 43(3) 731-736. FI: 2.305. Cuartil: 4. (Article).
- Aracil Moreno I; Rodríguez-Benítez P; Ruiz-Minaya M; Bernal Claverol M; Ortega Abad V; Hernández Martín C; Pintado Recarte P; Yllana F; Oliver-Barrecheguren C; Álvarez-Mon M; Ortega MA; De León-Luis JA. *Maternal Perinatal Characteristics in Patients with Severe Preeclampsia: A Case-Control Nested Cohort Study*. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2021; 18(22). FI: 4.614. Cuartil: 1. (Article).
- Zaballos, M; Power, M; Canal-Alonso, MI; González-Nicolás, MA; Vasquez-Jiménez, W; Lozano-Lominchar, P; Cabrerizo-Torrente, P; Palencia-García, N; Gago-Quiroga, S; Ginel-Feito, MD; Jiménez, C; Lázaro, A; González-Bayon,



AREA 7: Systemic Diseases and Organ Transplantation

- L. *Effect of Cilastatin on Cisplatin-Induced Nephrotoxicity in Patients Undergoing Hyperthermic Intraperitoneal Chemotherapy*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(3). FI: 6.208. Cuartil: 1. (Article).
- Moreno-Gordaliza, E; Marazuela, MD; Pastor, O; Lázaro, A; Gómez-Gómez, MM. *Lipidomics Reveals Cisplatin-Induced Renal Lipid Alterations during Acute Kidney Injury and Their Attenuation by Cilastatin*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(22). FI: 6.208. Cuartil: 1. (Article).
 - Rodríguez-Benítez, P; Moreno, IA; Barrecheguren, CO; López, YC; Yllana, F; Recarte, PP; Arribas, CB; Álvarez-Mon, M; Ortega, MA; De León-Luis, JA. *Maternal-Perinatal Variables in Patients with Severe Preeclampsia Who Develop Acute Kidney Injury*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(23). FI: 4.964. Cuartil: 2. (Article).
 - Vergara, A; Molina-Van den Bosch, M; Toapanta, N; Villegas, A; Sánchez-Cámara, L; de Sequera, P; Manrique, J; Shabaka, A; Aragoncillo, I; Ruiz, MC; Benito, S; Sánchez, E; Soler, MJ. *The Impact of Age on Mortality in Chronic Haemodialysis Population with COVID-19*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(14). FI: 4.964. Cuartil: 2. (Article).
 - Berastegui-Cabrera, J; Salto-Alejandro, S; Valerio, M; Pérez-Palacios, P; Arnaiz-De Las Revillas, F; Abelenda-Alonso, G; Oteo-Revuelta, JA; Carretero-Ledesma, M; Muñoz, P; Pascual, A; Gozalo, M; Rombauts, A; Alba, J; García-Díaz, E; Rodríguez-Ferrero, ML. *SARS-CoV-2 RNAemia is associated with severe chronic underlying diseases but not with nasopharyngeal viral load*. JOURNAL OF INFECTION. 2021; 82(3) 38-41. FI: 38.637. Cuartil: 1. (Letter).
 - Saucó, IA; Hevia, C; Grossi, SM; Amezcua, Y; Macías, N; Caldes, S; Senent, BR; Hernández, YH; Goicoechea, M. *Effect of preoperative exercise on vascular caliber and maturation of arteriovenous fistula: the physicalfav trial, a randomized controlled study*. JOURNAL OF NEPHROLOGY. 2021; 34(3) 763-771. FI: 4.393. Cuartil: 2. (Article).
 - Carrillo, IG; Vega, A; Goicoechea, M; Shabaka, A; Gatiús, S; Abad, S; López-Gómez, JM. *Impact of Serum Magnesium Levels on Kidney and Cardiovascular Prognosis and Mortality in CKD Patients*. JOURNAL OF RENAL NUTRITION. 2021; 31(5) 494-502. FI: 4.354. Cuartil: 2. (Article).
 - Fernández-Juárez, G; Rojas-Rivera, J; van de Logt, AE; Justino, J; Sevillano, A; Caravaca-Fontan, F; Ávila, A; Rabasco, C; Cabello, V; Varela, A; Díez, M; Martín-Reyes, G; Diezhandino, MG; Quintana, LF; Agraz, I; Gómez-Martino, JR; Cao, M; Rodríguez-Moren, M. *The STARMEN trial indicates that alternating treatment with corticosteroids and cyclophosphamide is superior to sequential treatment with tacrolimus and rituximab in primary membranous nephropathy*. KIDNEY INTERNATIONAL. 2021; 99(4) 986-998. FI: 18.998. Cuartil: 1. (Article).
 - Villa, M; Díaz-Crespo, F; de José, AP; Verdalles, U; Verde, E; Ruiz, FA; Acosta, A; Mijaylova, A; Goicoechea, M. *A case of ANCA-associated vasculitis after AZD1222 (Oxford-AstraZeneca) SARS-CoV-2 vaccination: casualty or causality?*. KIDNEY INTERNATIONAL. 2021; 100(4) 937-938. FI: 18.998. Cuartil: 1. (Letter).
 - Buxeda, A; Arias-Cabrales, C; Pérez-Sáez, MJ; Cacho, J; Pelegrin, SC; Melilli, E; Aladren, MJ; Galeano, C; Lorenzo, I; Mazuecos, A; Saura, IM; Franco, A; Ruiz-Fuentes, MD; Sánchez-Cámara, LA; Siverio, O; Martín, ML; González-García, E; López, V; Martín-Mo. *Use and Safety of Remdesivir in Kidney Transplant Recipients With COVID-19*. KIDNEY INTERNATIONAL REPORTS. 2021; 6(9) 2305-2315. FI: 6.234. Cuartil: 1. (Article).
 - Santos, A; Macías, N; Cruzado, L; Vega, A. *The removal capacity of asymmetric cellulose triacetate during post-dilution online hemodiafiltration*. KIDNEY RESEARCH AND CLINICAL PRACTICE. 2021; 40(2) 325-327. FI: 4.172. Cuartil: 2. (Letter).
 - García-Prieto, AM; Verdalles, U; Goicoechea, M. *Use of renin-angiotensin-aldosterone system blockade in controversial chronic kidney disease populations*. MEDICINA CLINICA. 2021; 156(11) 561-567. FI: 3.2. Cuartil: 2. (Review).
 - Muñoz Ramos P; Gil Giraldo Y; Álvarez-Chiva V; Arroyo D; Sango Merino C; Moncho Francés F; Ocaña J; Reque J; Sánchez-Álvarez E; Górriz JL; Quiroga B. *Proteinuria-Lowering Effects of Proprotein Convertase Subtilisin/Kexin Type 9 Inhibitors in Chronic Kidney Disease Patients: A Real-World Multicentric Study*. METABOLITES. 2021; 11(11). FI: 5.581. Cuartil: 2. (Article).
 - Bover, J; Bosch, R; Urena, P; Trinidad, P; Jara, A; Gorriiz, JL; Furlano, M; García-Trabanino, RA; Gelpi, R; Ortiz, A; Restrepo, CA; Sánchez-Baya, M; Arana, C; Goicoechea, M; Coll, V; Segura, J; Gutiérrez, O; Sánchez, E; Ferreira, A; García-Maset, R. *Kidneys also speak Spanish*. NEFROLOGIA. 2021; 41(2) 225-226. FI: 3.084. Cuartil: 2. (Letter).
 - Portoles, J; Vega, A; Lacoba, E; López-Sánchez, P; Botella, M; Yuste, C; Cleary, CM; Ballesteros, SS; Sanchidrian, SG; García, LS; Carreno, A; Bajo, MA; Janeiro



D; Tato, A; Molano, B; Cleary, CM; Escribano, A; Vian, J; Ballesteros, SS; Vega, A; Martínez. *Is peritoneal dialysis suitable technique CKD patients over 65 years? A prospective multicenter study*. NEFROLOGIA. 2021; 41(5) 529-538. FI: 3.084. Cuartil: 2. (Article).

- Goicoechea, M; Gómez-Preciado, F; Benito, S; Torras, J; Torra, R; Huerta, A; Restrepo, A; Ugalde, J; Astudillo, DE; Agraz, I; López-Mendoza, M; de Arriba, G; Corchete, E; Quiroga, B; Gutiérrez, MJ; Martín-Conde, ML; Lopes, V; Ramos, C; Méndez, I; Cao, M. *Predictors of outcome in a Spanish cohort of patients with Fabry disease on enzyme replacement therapy*. NEFROLOGIA. 2021; 41(6) 652-660. FI: 3.084. Cuartil: 2. (Article).
- de Arriba, G; Arduan, AO; Pérez, JCR; Jorge, AT; Olmo, RS; Portillo, MR. *Teaching nephrology as part of a degree in medicine*. NEFROLOGIA. 2021; 41(3) 284-303. FI: 3.084. Cuartil: 2. (Article).
- Brox-Torrecilla, N; Arhip, L; Miguélez-González, M; Castellano-Gasch, S; Contreras-Chicote, A; Rodríguez-Ferrero, ML; Motilla-de la Cámara, ML; Serrano-Moreno, C; Compes, CC. *Late-onset methylmalonic acidemia and homocysteinemia*. NUTRICION HOSPITALARIA. 2021; 38(4) 871-875. FI: 1.169. Cuartil: 4. (Article).
- van der Sluijs, AV; van Jaarsveld, BC; Allen, J; Altabas, K; Bechade, C; Bonenkamp, AA; Burkhalter, F; Clause, AL; Corbett, RW; Dekker, FW; Eden, G; Francois, K; Gudmundsdottir, H; Lundstrom, UH; de Laforcade, L; Lambie, M; Martín, H; Pajek, J; Panuccio. *Assisted peritoneal dialysis across Europe: Practice variation and factors associated with availability*. PERITONEAL DIALYSIS INTERNATIONAL. 2021; 41(6) 533-541. FI: 2.879. Cuartil: 3. (Article).
- Lundstrom, UH; Abrahams, AC; Allen, J; Altabas, K; Bechade, C; Burkhalter, F; Clause, AL; Corbett, RW; Eden, G; Francois, K; de Laforcade, L; Lambie, M; Martín, H; Pajek, J; Panuccio, V; Ros-Ruiz, S; Steubl, D; Vega, A; Wojtaszek, E; Zaloszyk, A; Davies. *Barriers and opportunities to increase PD incidence and prevalence: Lessons from a European Survey*. PERITONEAL DIALYSIS INTERNATIONAL. 2021; 41(6) 542-551. FI: 2.879. Cuartil: 3. (Article).
- Carbayo, J; Abad, S; Verde, E; de Morales, AM; González-Rojas, A; Acosta, A; Mijaylova, A; Bascunana, A; Vega, A; Goicoechea, M. *Body composition and*

ventricular function in hemodialysis patients. SEMINARS IN DIALYSIS. 2021; 34(4) 285-291. FI: 2.886. Cuartil: 3. (Article).

- Coll, E; Fernández-Ruiz, M; Padilla, M; Moreso, F; Hernández-Vicente, A; Yáñez, I; Molina, M; Vázquez-Sánchez, T; Crespo, M; Facundo, C; Rodríguez-Ferrero, ML; Fuentes, MCR; Loinaz, C; Bernal, G; Melilli, E; Bravo, C; Diekmann, F; Llado, L; García-Álvarez. *COVID-19 in Solid Organ Transplant Recipients in Spain Throughout 2020: Catching the Wave?*. TRANSPLANTATION. 2021; 105(10) 2146-2155. FI: 5.385. Cuartil: 1. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Barbieri, D; Goicoechea, M; García-Prieto, A; Delgado, A; Verde, E; Verdalles, U; de José, AP; Carbayo, J; de Morales, AM; Luno, J. *Obesity related risk for chronic kidney disease progression and cardiovascular disease after propensity score matching*. HIPERTENSION Y RIESGO VASCULAR. 2021; 38(2) 63-71. (Article).
- Quiroga B; Sánchez-Álvarez E; Goicoechea M; de Sequera P. *COVID-19 vaccination among Spanish nephrologists: Acceptance and side effects*. JOURNAL OF HEALTHCARE QUALITY RESEARCH. 2021; 36(6) 363-369. (Article).
- Bascunana, A; Mijaylova, A; Vega, A; Macías, N; Verde, E; Rodríguez-Ferrero, ML; Delgado, A; Carbayo, J; Goicoechea, M. *Thrombotic Microangiopathy in a Kidney Transplant Patient with COVID-19*. KIDNEY MEDICINE. 2021; 3(1) 124-127. (Article).
- Sarmiento, E; Jiménez, M; di Natale, M; Rodríguez-Ferrero, M; Anaya, F; López-Hoyos, M; Rodrigo, E; Arias, M; Perelló, M; Seron, D; Karanovic, B; Ezzahouri, I; Mezzano, S; Jaramillo, M; Calahorra, L; Alarcón, A; Navarro, J; Muñoz, P; Carbone, J. *Secondary antibody deficiency is associated with development of infection in kidney transplantation: Results of a multicenter study*. TRANSPLANT INFECTIOUS DISEASE. 2021; 23(2). (Article).

Other publications

- de Arriba G; Ortiz Arduán A; Rodríguez Pérez JC; Tejedor Jorge A; Santamaría Olmo R; Rodríguez Portillo M. *Teaching nephrology as part of a degree in medicine*. NEFROLOGIA. 2021; 41(3) 284-303. (Article).

7.02. Pathophysiology and natural history of liver and digestive diseases

Group Head: RAFAEL BAÑARES CAÑIZARES

Organisms involved: HGUGM

Type: Consolidated Group

Research lines

- ▶ L1: Complications of cirrhosis: natural history of liver cirrhosis.
- ▶ L2: Pathophysiology of the intestinal barrier and mucosal inflammation.
- ▶ L3: Hepatocellular carcinoma.
- ▶ L4: Viral hepatitis.
- ▶ L5: Liver regeneration.
- ▶ L6: Liver transplantation.
- ▶ L7: Digestive endoscopy.

This is a translational, multidisciplinary research group with clinical and basic research lines aimed globally at understanding the natural history and physiopathology of liver and digestive diseases.

Specifically, the research lines focus, in the case of liver diseases in cirrhosis and its complications, especially those derived from portal hypertension, artificial liver support, liver transplantation and liver cancer. In the field of gastroenterology, the group focuses on inflammatory bowel disease and the study of intestinal permeability and its regulatory mechanisms.

The group includes several principal investigators with overlapping funding in competitive public and private calls, and also carries out a considerable number of phase II-III clinical trials. Among the latest projects, it is worth mentioning the inclusion of the first patients in a project H2020 (ALIVER Project) aimed at the clinical assessment of a new artificial liver support device.

The group also acts as the coordinating group for the EXOHEP-CM program, aimed at studying cellular communication by exosomes and other extracellular vesicles, granted for the creation of networks between Research Groups in Technology and Biomedicine of the Community of Madrid, and as the group responsible for the NanoLiver-CM program aimed at the application of nanotechnology and biomedical imaging in liver disease granted in the call for synergetic R&D projects of the Community of Madrid, both co-financed with FEDER and European Social Fund funds.

The group is part of the CIBER of hepatic and digestive diseases since its inception.

It also stands out for its marked teaching vocation, both undergraduate and graduate.

Group members

- **Ahumada, Adriana:** R1. First Stage Researcher.
- **Alonso López, Sonia:** R2. Recognised Researcher.
- **Aranda Hernández, Javier:** R1. First Stage Researcher.
- **Asensio García, Iris:** R1. First Stage Researcher.
- **Balarezo Saldivar, Alejandra Estefanía:** Other. Lab Technician.
- **Bañares Cañizares, Rafael:** R4. Leading Researcher.
- **Blázquez López, Elena:** R1. First Stage Researcher.
- **Borobia Sánchez, Rodrigo:** R1. First Stage Researcher.
- **Caballero Marcos, Arantxa:** R1. First Stage Researcher.
- **Carbonell Blanco, Carlos:** R1. First Stage Researcher.
- **Carrión Martín, Laura:** R1. First Stage Researcher.
- **Catalina Rodríguez, María de la Vega:** R1. First Stage Researcher.
- **Clemente Sánchez, Ana:** R1. First Stage Researcher.
- **Conthe Alonso, Andrés:** R1. First Stage Researcher.
- **Cubero Palacio, Francisco Javier:** R3. Established Researcher.
- **De Gracia Fernández, Celia:** R1. First Stage Researcher.
- **Díaz Fontenla, Fernando:** R1. First Stage Researcher.
- **Díaz Gómez, Arantxa:** R1. First Stage Researcher.
- **Díaz Ruiz, Raquel:** R1. First Stage Researcher.
- **Fernández Yunquera, Ainhoa:** R1. First Stage Researcher.
- **Flores García, Virginia:** R1. First Stage Researcher.
- **Franco Herrera, Carolina:** R1. First Stage Researcher.
- **García Lledó, Javier:** R1. First Stage Researcher.
- **García Martínez, Rita:** R2. Recognised Researcher.
- **Hernando Alonso, Ana Isabel:** R2. Recognised Researcher.
- **Ibáñez Samaniego, Luis:** R1. First Stage Researcher.

- **López Cauce, Beatriz:** R1. First Stage Researcher.
- **López Ibáñez, María:** R1. First Stage Researcher.
- **Marín Jiménez, Ignacio:** R1. First Stage Researcher.
- **Márquez Pérez, Laura:** R1. First Stage Researcher.
- **Martín Guerra, M^a Rocío:** R1. First Stage Researcher.
- **Martínez Lozano, Helena:** R1. First Stage Researcher.
- **Martos Vizcaíno, Esperanza:** R1. First Stage Researcher.
- **Matilla Peña, Ana M^a:** R2. Recognised Researcher.
- **Menchen Viso, Luis Alberto:** R3. Established Researcher.
- **Merino Rodríguez, Beatriz:** R1. First Stage Researcher.
- **Miranda Bautista, José:** R1. First Stage Researcher.
- **Nevzorova, Yulia Alexandrovna:** R3. Established Researcher.
- **Nogales Rincón, Óscar:** R1. First Stage Researcher.
- **Pajares Díaz, José Antonio:** R1. First Stage Researcher.
- **Pérez Carazo, Leticia:** R1. First Stage Researcher.
- **Puerto Cantero, Marta:** R2. Recognised Researcher.
- **Rincón Rodríguez, Diego:** R2. Recognised Researcher.
- **Romero Cristóbal, Mario:** R1. First Stage Researcher.
- **Rubio Caballero, Carmen:** R1. First Stage Researcher.
- **Ruiz Martín, Christian:** Other. Research Support Technician.
- **Salcedo Plaza, Magdalena:** R2. Recognised Researcher.
- **Secadas Rincón, Laura:** Other. Research Nurse.
- **Sierra Rojas, Johanna:** Other. Management.
- **Vaquero Martín, Javier:** R3. Established Researcher.
- **Vázquez Ogando, Elena:** R1. First Stage Researcher.



7.02. PATHOPHYSIOLOGY AND NATURAL HISTORY OF LIVER AND DIGESTIVE DISEASES

Research Projects – Competitive Calls

Competitive projects

- Title: **Development of dialive, a novel Liver Dialysis Device for the treatment of patients with Acute on Chronic Liver Failure (ACLF).** H2020 ALIVER
Director: Bañares Cañizares, Rafael
Project type: European research project
Funding body: European Union
Start date: 01/01/2017
End date: 31/01/2021
- Title: **Proliferación fibroadiposa del mesenterio en la enfermedad de Crohn: relevancia clínica y patogénica.** PI19/01746
Director: Menchén Viso, Luis Alberto
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Caracterización de la función cardiaca en la cirrosis: Valor pronóstico e interrelación con la respuesta inflamatoria sistemática.** PI18/01901
Director: Bañares Cañizares, Rafael
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 30/06/2022
- Title: **Fusión celular y comunicación celular por exomas en la enfermedad y regeneración hepática.** PI18/01833
Director: Vaquero Martín, Javier
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date: 31/12/2022
- Title: **Papel de la deficiencia de la vitamina D en los eventos claves de la cirrosis hepática e impacto de su suplementación.** PI16/00920
Director: García Martínez, Rita
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2017
End date: 30/06/2021
- Title: **Comunicación por exosomas y otras vesículas extracelulares en la fisiología y fisiopatología hepática (EXOHEP-CM).** S2017/BMD-3727
Director: Bañares Cañizares, Rafael
Project type: Research project
Funding body: Consejería de Educación. Comunidad de Madrid
Start date: 01/01/2018
End date: 30/06/2022
- Title: **La perfusión normotérmica de órgano aislado como sistema de recuperación de órganos subóptimos para aumentar el pool de donantes. Biomarcadores de viabilidad y trasplantabilidad.** FMM21/02
Director: Bañares Cañizares, Rafael
Project type: Research project
Funding body: Fundación Mutua Madrileña
Start date: 16/06/2021
End date: 16/06/2024
- Title: **Río Hortega Contract.** CM19/00247
Director: Caballero Marcos, Aránzazu
Project type: Human Resources
Funding body: Instituto de Salud Carlos III
Start date: 01/12/2019
End date: 31/11/2021
- Title: **Young employment Contract: Laboratory Technician** PEJ-2018-TL/BMD-12024
Director: Vaquero Martín, Javier
Project type: Human Resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/03/2019
End date: 20/02/2021
- Title: **Young employment Contract** PEJ2018-003826-A
Director: Bañares Cañizares, Rafael



Project type: Human Resources
 Funding body: MICINN
 Start date: 01/11/2019
 End date: 31/03/2022

Not managed by the FIBHGM

- Title: **A Novel Therapy Against Cholangiocarcinoma.** PR2018/17
 Director: Cubero, Francisco Javier
 Project type: Research project
 Funding body: AMMF
 Start date: 01/10/2018
 End date: 31/12/2021
- Title: **Biomedical and Societal effects of alcohol.** ERAB 14/18
 Director: Cubero, Francisco Javier
 Project type: Research project
 Funding body: ERAB
 Start date: 01/10/2019
 End date: 31/12/2021
- Title: **Interdependence of oxidative stress and inflammation duric chronic liver injury: a novel tool for theranostics.** 201801
 Director: Cubero, Francisco Javier
 Project type: Research project
 Funding body: GILEAD
 Start date: 21/06/2018
 End date: 31/12/2021



Industrial and intellectual property registrations

Industrial property

Title	Reference*	Owner	Inventors
Method for predicting response to beta blockers	EP 19382971.0	FIBHGM - IDIBAPS -CICBIOGUNE - FIBIoHRC-UAH - CIBERHED	Rafael Bañares, Jorge Gracia, Juan Manuel Falcón, Agustín Albillos

■ Transferred Industrial Property.

* Reference: P (Patent), PCT (international patent), EP (European patent), US (USA patent), U (Utility model), M (Trademark).

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
CIBER	CIBEREHD	Fully fledged group Program Coordinator

Publications

Total Impact Factor: 692.3

	Nº	IF
Own publications	16	75.8
Joint publications	48	616.6
First decile publications	20	477.3
First quartile publications	32	560.2
Second quartile publications	20	101.1
Third quartile publications	3	9.9
Fourth quartile publications	9	21.1
Nonindexed publications / No IF	6	-
Total publications (including those without IF)	70	692.3



AREA 7: Systemic Diseases and Organ Transplantation

- Sleutjes, JAM; van Lennep, JER; Boersma, E; Menchen, LA; Laudes, M; Farkas, K; Molnar, T; Kennedy, NA; Pierik, MJ; van der Woude, CJ; de Vries, AC. *Systematic review with meta-analysis: effect of inflammatory bowel disease therapy on lipid levels*. ALIMENTARY PHARMACOLOGY & THERAPEUTICS. 2021; 54(8) 999-1012. FI: 9.524. Cuartil: 1. (Review).
- Albéniz, E; Enguita-Germán, M; Gimeno-García, AZ; de Tejada, AH; Nogales, O; Espinos, JC; Sánchez, JR; Roson, P; Guarner, C; Marín, JC; Bhandari, P; Spadaccini, M; Repici, A; Hassan, C; Álvarez-González, MA; Beroiz, BI. *The Answer to "When to Clip" After Colorectal Endoscopic Mucosal Resection Based on a Cost-Effectiveness Analysis*. AMERICAN JOURNAL OF GASTROENTEROLOGY. 2021; 116(2) 311-318. FI: 12.045. Cuartil: 1. (Article).
- Lafoz, E; Camprecios, G; García-Caldero, H; Antón, A; Vilaseca, M; Ruat, M; Guasch, E; Garrabou, G; Delgado, TC; Martínez-Chantar, ML; García-Martínez, R; Gracia-Sancho, J; Hernández-Gea, V; García-Pagán, JC. *Impact of lifestyle interventions targeting physical exercise and caloric intake on cirrhosis regression in rats*. AMERICAN JOURNAL OF PHYSIOLOGY-GASTROINTESTINAL AND LIVER PHYSIOLOGY. 2021; 321(6) 603-616. FI: 4.871. Cuartil: 1. (Article).
- Caballero-Marcos, A; Salcedo, M; Alonso-Fernández, R; Rodríguez-Perálvarez, M; Olmedo, M; Morales, JG; Cuervas-Mons, V; Cachero, A; Loinaz-Seguro, C; Inarrairaegui, M; Castells, L; Pascual, S; Vinaixa-Aunes, C; González-Grande, R; Otero, A; Tome, S; Tej. *Changes in humoral immune response after SARS-CoV-2 infection in liver transplant recipients compared to immunocompetent patients*. AMERICAN JOURNAL OF TRANSPLANTATION. 2021; 21(8) 2876-2884. FI: 9.369. Cuartil: 1. (Article).
- Guijarro, LG; Cano-Martínez, D; Toledo-Lobo, MV; Salinas, PS; Chaparro, M; Gómez-Lahoz, AM; Zoullas, S; Rodríguez-Torres, R; Román, ID; Monasor, LS; Ruiz-Llorente, L; Boyano-Adánez, MD; Guerra, I; Iborra, M; Cabriada, JL; Bujanda, L; Taxonera, C; García-S. *Relationship between IGF-1 and body weight in inflammatory bowel diseases: Cellular and molecular mechanisms involved*. BIOMEDICINE & PHARMACOTHERAPY. 2021; 144 112239-112239. FI: 7.419. Cuartil: 1. (Article).
- González, MI; González-Arjona, M; Santos-Coquillat, A; Vaquero, J; Vázquez-Ogando, E; de Molina, A; Peinado, H; Desco, M; Salinas, B. *Covalently Labeled Fluor*

- Estévez-Vázquez, O; Benede-Uribe, R; Guo, FF; Gómez-Santos, B; Aspichueta, P; Reissing, J; Bruns, T; Sanz-García, C; Sydor, S; Bechmann, LP; Marañillo, E; Sanudo, JR; Vázquez, MT; Lamas-Paz, A; Morán, L; Mazariegos, MS; Ciudin, A; Pericas, JM; Peligros. *Fat: Quality, or Quantity? What Matters Most for the Progression of Metabolic Associated Fatty Liver Disease (MAFLD)*. BIOMEDICINES. 2021; 9(10). FI: 4.757. Cuartil: 2. (Article).
- Pérez-Lago, L; Aldamiz-Echevarría, T; García-Martínez, R; Pérez-Latorre, L; Herranz, M; Sola-Campoy, P; Suárez-González, J; Martínez-Laperche, C; Comas, I; González-Candelas, F; Catalán, P; Muñoz, P; de Viedma, DG; Gregorio Marañón Microbiology-ID. *Different Within-Host Viral Evolution Dynamics in Severely Immunosuppressed Cases with Persistent SARS-CoV-2*. BIOMEDICINES. 2021; 9(7). FI: 4.757. Cuartil: 2. (Article).
- Flores, V; Martínez-Lozano, H; Bighelli, F; Orcajo, J; García-Lledó, J; Alonso-Farto, JC; Menchen, L. *Prevalence of biliary acid malabsorption in patients with chronic diarrhoea of functional characteristics: a prospective study*. BMC GASTROENTEROLOGY. 2021; 21(1) 56-56. FI: 2.847. Cuartil: 4. (Article).
- Manicardi, N; Fernández-Iglesias, A; Abad-Jorda, L; Royo, F; Azkargorta, M; Ortega-Ribera, M; Sanfeliu-Redondo, D; Martínez-Alcocer, A; Elortza, F; Hessheimer, AJ; Fondevila, C; Lozano, JJ; García-Pagán, JC; Bosch, J; Cubero, FJ; Albillos, A; Vaquero, J. *Transcriptomic Profiling of the Liver Sinusoidal Endothelium during Cirrhosis Reveals Stage-Specific Secretory Signature*. CANCERS. 2021; 13(11). FI: 6.575. Cuartil: 1. (Article).
- da Costa-Seixas, JP; López-Cerón, M; Arnau, A; Rosinol, O; Cuatrecasas, M; Herreros-de-Tejada, A; Ferrández, A; Serra-Burriel, M; Nogales, O; de Castro, L; López-Vicente, J; Vega, P; Álvarez-González, MA; González-Santiago, JM; Hernández-Conde, M; Díez-Re. *Compound Endoscopic Morphological Features for Identifying Non-Pedunculated Lesions $\geq$ 20 mm with Intramucosal Neoplasia*. CANCERS. 2021; 13(21). FI: 6.575. Cuartil: 1. (Article).
- Wu, HH; Chen, CB; Ziani, S; Nelson, LJ; Ávila, MA; Nevzorova, YA; Cubero, FJ. *Fibrotic Events in the Progression of Cholestatic Liver Disease*. CELLS. 2021; 10(5). FI: 7.666. Cuartil: 2. (Review).



- Giannella, M; Freire, M; Rinaldi, M; Abdala, E; Rubín, A; Mularoni, A; Gruttadauria, S; Grossi, P; Shbaklo, N; Tandoi, F; Ferrarese, A; Burra, P; Fernandes, R; Camargo, LFA; Asensio, A; Alagna, L; Bandera, A; Simkins, J; Abbo, L; Halpern, M; Girao, ES; Va. *Development of a Risk Prediction Model for Carbapenem-resistant Enterobacteriaceae Infection After Liver Transplantation: A Multinational Cohort Study*. CLINICAL INFECTIOUS DISEASES. 2021; 73(4) 955-966. FI: 20.999. Cuartil: 1. (Article).
- Ferre-Aracil, C; Riveiro-Barciela, M; Trapero-Marugán, M; Rodríguez-Perálvarez, M; Llovet, LP; Téllez, L; Sánchez-Torrijos, Y; Díaz-Fontenla, F; Salcedo-Plaza, M; Álvarez-López, P; de la Mata, M; Londono, MC; Bañares-Cañizares, R; Calleja, JL. *Tacrolimus as an Effective and Durable Second-Line Treatment for Chronic Autoimmune Hepatitis: A Multicentric Study*. DIGESTIVE DISEASES AND SCIENCES. 2021; 66(8) 2826-2832. FI: 3.487. Cuartil: 3. (Article).
- Rincón, ON; García, JG; Lobete, OO; Blanco, CC; Moreno, LR; Hernández, JA; Rodríguez, BM. *The "double string" sign: a warning image after cold endoscopic mucosal resection*. ENDOSCOPY. 2021; 53(02) 71-72. FI: 9.776. Cuartil: 1. (Editorial Material).
- González-Partida I; Martínez-Lozano H; González-Lois C; Peligros I; Sánchez-Yuste R; Salas I; Matallana V; Bighelli F; Calvo M; Marín-Jiménez I; Salas C; Vera MI; Menchén L; González-Lama Y. *Histological inflammatory activity can predict endoscopic relapse in patients with ulcerative colitis who have achieved mucosal healing*. EUROPEAN JOURNAL OF GASTROENTEROLOGY & HEPATOLOGY. 2021; 33(1S Suppl 1) 796-802. FI: 2.586. Cuartil: 4. (Article).
- Aicart-Ramos M; Ibáñez-Samaniego L; Hernández-Gea V; Martínez-Lozano H; Rodríguez-de-Santiago E; Catalina MV; Martínez González J; Echenagusia-Boyra MJ; Mezzano Puentes G; Ferrusquia-Acosta J; Olavarria A; Blázquez Sánchez J; García-Pagán JC; Bañares R; A. *A simple nomogram identifies patients with refractory ascites with worse outcome after transjugular intrahepatic portosystemic shunt*. EUROPEAN JOURNAL OF GASTROENTEROLOGY & HEPATOLOGY. 2021; 33(1S Suppl 1) 587-593. FI: 2.586. Cuartil: 4. (Article).
- Rimola, J; Fonseca, LG; Sapena, V; Perelló, C; Guerrero, A; Simó, MT; Pons, M; De la Torre-Aláez, M; Márquez, L; Calleja, JL; Lledó, JL; Varela, M; Mínguez, B; Sangro, B; Matilla, A; Torres, F; Ayuso, C; Bruix, J; Reig, M. *Radiological response to nivolumab in patients with hepatocellular carcinoma: A multicenter analysis of real-life practice*. EUROPEAN JOURNAL OF RADIOLOGY. 2021; 135 109484-109484. FI: 4.531. Cuartil: 2. (Article).
- Brochado-Kith, O; Martínez, I; Berenguer, J; González-García, J; Salguero, S; Sepulveda-Crespo, D; Díez, C; Hontanón, V; Ibáñez-Samaniego, L; Pérez-Latorre, L; Fernández-Rodríguez, A; Jiménez-Sousa, MA; Resino, S. *HCV Cure With Direct-Acting Antivirals Improves Liver and Immunological Markers in HIV/HCV-Coinfected Patients*. FRONTIERS IN IMMUNOLOGY. 2021; 12 723196-723196. FI: 8.786. Cuartil: 1. (Article).
- Medrano, LM; Berenguer, J; Salguero, S; González-García, J; Díez, C; Hontanón, V; García-Broncano, P; Ibáñez-Samaniego, L; Bellón, JM; Jiménez-Sousa, MA; Resino, S. *Successful HCV Therapy Reduces Liver Disease Severity and Inflammation Biomarkers in HIV/HCV-Coinfected Patients With Advanced Cirrhosis: A Cohort Study*. FRONTIERS IN MEDICINE. 2021; 8 615342-615342. FI: 5.058. Cuartil: 2. (Article).
- Millán-Nohales, C; Ordieres-Ortega, L; García-Martínez, R. *Microscopic lymphocytic colitis due to duloxetine: Case report and review of the literature*. GASTROENTEROLOGIA Y HEPATOLOGIA. 2021; 44(3) 222-223. FI: 5.867. Cuartil: 2. (Letter).
- Chavez, JEA; Rodríguez, DR; Palanca, JM; Aceñero, MJF. *Pyloric adenoma in the transverse colon*. GASTROENTEROLOGIA Y HEPATOLOGIA. 2021; 44(8) 575-576. FI: 5.867. Cuartil: 2. (Editorial Material).
- Nicoara-Farcau O; Han G; Rudler M; Angrisani D; Monescillo A; Torres F; Casanovas G; Bosch J; Lv Y; Thabut D; Fan D; Hernández-Gea V; García-Pagán JC; Preemptive TIPS Individual Data Metanalysis, International Variceal Bleeding Stu. *Effects of Early Placement of Transjugular Portosystemic Shunts in Patients With High-Risk Acute Variceal Bleeding: a Meta-analysis of Individual Patient Data*. GASTROENTEROLOGY. 2021; 160(1) 193-. FI: 33.883. Cuartil: 1. (Article).
- Belli, LS; Fondevila, C; Cortesi, PA; Conti, S; Karam, V; Adam, R; Coilly, A; Ericzon, BG; Loinaz, C; Cuervas-Mons, V; Zambelli, M; Llado, L; Díaz-Fontenla, F; Invernizzi, F; Patrono, D; Faitot, F; Bhooori, S; Pirenne, J; Perricone, G; Magini, G; Castells. *Protective Role of Tacrolimus, Deleterious Role of Age and Comorbidities in Liver Transplant Recipients With Covid-19: Results From the*



7.02. PATHOPHYSIOLOGY AND NATURAL HISTORY OF LIVER AND DIGESTIVE DISEASES

- ELITA/ELTR Multi-center European Study*. GASTROENTEROLOGY. 2021; 160(4) 1151-. FI: 33.883. Cuartil: 1. (Article).
- Rodríguez-Perálvarez, M; Salcedo, M; Colmenero, J; Pons, JA. *Modulating immunosuppression in liver transplant patients with COVID-19*. GUT. 2021; 70(7) 1412-. FI: 31.793. Cuartil: 1. (Letter).
 - Belli, LS; Duvoux, C; Cortesi, PA; Facchetti, R; Iacob, S; Perricone, G; Radenne, S; Conti, S; Patrono, D; Berlakovich, G; Hann, A; Pasulo, L; Castells, L; Faitot, F; Detry, O; Invernizzi, F; Magini, G; De Simone, P; Kounis, I; Morelli, MC; Fontenla, FD. *COVID-19 in liver transplant candidates: pretransplant and post-transplant outcomes - an ELITA/ELTR multicentre cohort study*. GUT. 2021; 70(10) 1914-1924. FI: 31.793. Cuartil: 1. (Article).
 - Benede-Ubieto, R; Estévez-Vázquez, O; Guo, FF; Chen, CB; Singh, Y; Nakaya, HI; del Moral, MG; Lamas-Paz, A; Morán, L; López-Alcantara, N; Reissing, J; Bruns, T; Ávila, MA; Santamaría, E; Mazariegos, MS; Woitok, MM; Haas, U; Zheng, K; Juárez, I; Martín-Vil. *An Experimental DUAL Model of Advanced Liver Damage*. HEPATOLOGY COMMUNICATIONS. 2021; 5(6) 1051-1068. FI: 5.701. Cuartil: 2. (Article).
 - de Paredes, AGG; Manicardi, N; Téllez, L; Ibáñez, L; Royo, F; Bermejo, J; Blanco, C; Fondevila, C; Lanza, VF; García-Bermejo, L; Falcón-Pérez, JM; Bañares, R; Gracia-Sancho, J; Albillos, A. *Molecular Profiling of Decompensated Cirrhosis by a Novel MicroRNA Signature*. HEPATOLOGY COMMUNICATIONS. 2021; 5(2) 309-322. FI: 5.701. Cuartil: 2. (Article).
 - Miranda-Bautista, J; Rodríguez-Feo, JA; Puerto, M; López-Cauce, B; Lara, JM; González-Novo, R; Martín-Hernández, D; Ferreira-Iglesias, R; Bañares, R; Menchen, L. *Liver X Receptor Exerts Anti-Inflammatory Effects in Colonic Epithelial Cells via ABCA1 and Its Expression Is Decreased in Human and Experimental Inflammatory Bowel Disease*. INFLAMMATORY BOWEL DISEASES. 2021; 27(10) 1661-1673. FI: 7.29. Cuartil: 1. (Article).
 - Gómez-Cid, L; López-Donaire, ML; Velasco, D; Marín, V; González, MI; Salinas, B; Cusso, L; García, A; Bravo, SB; Fernández-Santos, ME; Elvira, C; Sierra, J; Arroba, E; Bañares R; Grigorian-Shamagian, L; Fernández-Avilés, F. *Cardiac Extracellular Matrix Hydrogel Enriched with Polyethylene Glycol Presents Improved Gelation Time and Increased On-Target Site Retention of Extracellular Vesicles*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(17). FI: 6.208. Cuartil: 1. (Article).
 - de Toro, J; Cea-Calvo, L; García-Vivar, ML; Pantoja, L; Lerin-Lozano, C; García-Díaz, S; Galindo, MJ; Marín-Jiménez, I; Fernández, S; Mestre, Y; Orozco-Beltrán, D. *The Experience With Health Care of Patients With Inflammatory Arthritis A Cross-sectional Survey Using the Instrument to Evaluate the Experience of Patients With Chronic Diseases*. JCR-JOURNAL OF CLINICAL RHEUMATOLOGY. 2021; 27(1) 25-30. FI: 3.902. Cuartil: 3. (Article).
 - de Paredes, AGG; Villanueva, C; Blanco, C; Genesca, J; Manicardi, N; García-Pagán, JC; Calleja, JL; Aracil, C; Morillas, RM; Poca, M; Penas, B; Augustin, S; Abalde, JG; Alvarado, E; Royo, F; García-Bermejo, ML; Falcón-Pérez, JM; Bañares, R; Bosch, J; Gr. *Serum miR-181b-5p predicts ascites onset in patients with compensated cirrhosis*. JHEP REPORTS. 2021; 3(6) 100368-100368. FI: 9.917. Cuartil: 1. (Article).
 - Benede-Ubieto, R; Estévez-Vázquez, O; Flores-Perojo, V; Macías-Rodríguez, RU; Ruiz-Margain, A; Martínez-Naves, E; Regueiro, JR; Ávila, MA; Trautwein, C; Bañares, R; Bosch, J; Cubero, FJ; Nevzorova, YA. *Abnormal Liver Function Test in Patients Infected with Coronavirus (SARS-CoV-2): A Retrospective Single-Center Study from Spain*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(5). FI: 4.964. Cuartil: 2. (Article).
 - García MJ; Rivero M; Miranda-Bautista J; Bastón-Rey I; Mesonero F; Leo-Carnerero E; Casas-Deza D; Cagigas Fernández C; Martín-Cardona A; El Hajra I; Hernández-Aretxabaleta N; Pérez-Martínez I; Fuentes-Valenzuela E; Jiménez N; Rubin de Célix C; Gutiérrez A. *Impact of Biological Agents on Postsurgical Complications in Inflammatory Bowel Disease: A Multicentre Study of Geteccu*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(19). FI: 4.964. Cuartil: 2. (Article).
 - Ventura-Cots, M; Simón-Talero, M; Poca, M; Ariza, X; Masnou, H; Sánchez, J; Llop, E; Canete, N; Martín-Llahi, M; Amador, A; Martínez, J; Clemente-Sánchez, A; Puente, A; Torrens, M; Alvarado-Tapias, E; Napoleone, L; Miquel-Planas, M; Ardevol, A; Rodrigo, M. *Effects of Albumin on Survival after a Hepatic Encephalopathy Episode: Randomized Double-Blind Trial and Meta-Analysis*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(21). FI: 4.964. Cuartil: 2. (Article).
 - Chaparro, M; Garre, A; Ortiz, AN; Palomares, MTDL; Rodríguez, C; Riestra, S; Vela, M; Benítez, JM; Salgado, EF; Rodríguez, ES; Hernández, V; Ferreira-Iglesias, R; Díaz, AP; Barrio, J; Huguet, JM; Sicilia, B; Martín-Arranz, MD; Calvet,



X; Ginard, D; Alonso. *Incidence, Clinical Characteristics and Management of Inflammatory Bowel Disease in Spain: Large-Scale Epidemiological Study*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(13). FI: 4.964. Cuartil: 2. (Article).

- Crespo, J; Carrillo, CF; Iruzubieta, P; Hernández-Conde, M; Rasines, L; Jorquera, F; Albillos, A; Bañares, R; Mora, P; Vázquez, IF; Hernández-Guerra, M; Turnes, J; Calleja, JL; COVID-19 SEPD AEEH Grp. *Massive impact of coronavirus disease 2019 pandemic on gastroenterology and hepatology departments and doctors in Spain*. JOURNAL OF GASTROENTEROLOGY AND HEPATOLOGY. 2021; 36(6) 1627-1633. FI: 4.369. Cuartil: 2. (Article).
- Téllez, L; Bañares, R; Albillos, A. *Reply to: "Open or closed window: That is the question"*. JOURNAL OF HEPATOLOGY. 2021; 74(2) 486-487. FI: 30.083. Cuartil: 1. (Letter).
- Colmenero, J; Rodríguez-Perálvarez, M; Salcedo, M; Arias-Milla, A; Muñoz-Serrano, A; Graus, J; Nuno, J; Gastaca, M; Bustamante-Schneider, J; Cachero, A; Llado, L; Caballero, A; Fernández-Yunquera, A; Loinaz, C; Fernández, I; Fondevila, C; Navasa, M; Inarr. *Epidemiological pattern, incidence, and outcomes of COVID-19 in liver transplant patients*. JOURNAL OF HEPATOLOGY. 2021; 74(1) 148-155. FI: 30.083. Cuartil: 1. (Article).
- Rodríguez-Perálvarez, M; Colmenero, J; Salcedo, M; Spanish Soc Liver Transplantation. *Reply to: "Age and comorbidity are central to the risk of death from COVID-19 in liver transplant recipients"*. JOURNAL OF HEPATOLOGY. 2021; 75(1) 228-229. FI: 30.083. Cuartil: 1. (Letter).
- Moreau, R; Gao, B; Papp, M; Bañares, R; Kamath, PS. *Acute-on-chronic liver failure: A distinct clinical syndrome*. JOURNAL OF HEPATOLOGY. 2021; 75 27-35. FI: 30.083. Cuartil: 1. (Review).
- Trebicka, J; Fernández, J; Papp, M; Caraceni, P; Laleman, W; Gambino, C; Giovio, I; Uschner, FE; Jansen, C; Jiménez, C; Mookerjee, R; Gustot, T; Albillos, A; Bañares, R; Jarcuska, P; Steib, C; Reiberger, T; Acevedo, J; Gatti, P; Shawcross, DL; Zeuzem, S; Z. *PREDICT identifies precipitating events associated with the clinical course of acutely decompensated cirrhosis*. JOURNAL OF HEPATOLOGY. 2021; 74(5) 1097-1108. FI: 30.083. Cuartil: 1. (Article).
- Kudo, M; Matilla, A; Santoro, A; Melero, I; Gracian, AC; Acosta-Rivera, M; Choo, SP; El-Khoueiry, AB; Kuromatsu, R; El-Rayes, B; Numata, K; Itoh, Y; Di Costanzo, F; Crysler, O; Reig, M; Shen, Y; Neely, J; Tschaike, M; Wisniewski,

T; Sangro, B. *CheckMate 040 cohort 5: A phase I/II study of nivolumab in patients with advanced hepatocellular carcinoma and Child-Pugh B cirrhosis*. JOURNAL OF HEPATOLOGY. 2021; 75(3) 600-609. FI: 30.083. Cuartil: 1. (Article).

- Arab, JP; Díaz, LA; Baeza, N; Idalsoaga, F; Fuentes-López, E; Arnold, J; Ramírez, CA; Morales-Arraez, D; Ventura-Cots, M; Alvarado-Tapias, E; Zhang, W; Clark, V; Simónetto, D; Ahn, JC; Buryska, S; Mehta, TI; Stefanescu, H; Horhat, A; Bumbu, A; Dunn, W; At. *Identification of optimal therapeutic window for steroid use in severe alcohol-associated hepatitis: A worldwide study*. JOURNAL OF HEPATOLOGY. 2021; 75(5) 1026-1033. FI: 30.083. Cuartil: 1. (Article).
- Martínez, J; Hernández-Gea, V; Rodríguez-de-Santiago, E; Téllez, L; Procopet, B; Giraldez, A; Amitrano, L; Villanueva, C; Thabut, D; Ibáñez-Samaniego, L; Silva, G; Genesca, J; Bureau, C; Trebicka, J; Bañares, R; Krag, A; Llop, E; Laleman, W; Palazon, JM. *Bacterial infections in patients with acute variceal bleeding in the era of antibiotic prophylaxis*. JOURNAL OF HEPATOLOGY. 2021; 75(2) 342-350. FI: 30.083. Cuartil: 1. (Article).
- Villanueva, C; Albillos, A; Genesca, J; García-Pagán, JC; Brujats, A; Calleja, JL; Aracil, C; Bañares, R; Morillas, RM; Poca, M; Penas, B; Augustin, S; Abalades, JG; Alvarado, E; Torres, F; Bosch, J; PreDesCI Study Investigators. *Bacterial infections adversely influence the risk of decompensation and survival in compensated cirrhosis*. JOURNAL OF HEPATOLOGY. 2021; 75(3) 589-599. FI: 30.083. Cuartil: 1. (Article).
- Pérez-Lago L; Martínez-Lozano H; Pajares Díaz JA; Díaz Gómez A; Machado M; Sola-Campoy PJ; Herranz M; Buenestado-Serrano S; Valerio M; Olmedo M; Andrés Zayas C; Comas I; González Candelas F; Bañares R; Catalán P; Muñoz P; García de Viedma D. *Proper Assignment of Reactivation in a COVID-19 Recurrence Initially Interpreted as a Reinfection*. JOURNAL OF INFECTIOUS DISEASES. 2021; 224(5) 788-792. FI: 7.759. Cuartil: 1. (Article).
- Laserna-Mendieta, EJ; Salvador-Martín, S; Marín-Jiménez, I; Menchen, LA; López-Cauce, B; López-Fernández, LA; Lucendo, AJ. *Comparison of a new rapid method for determination of serum anti-adalimumab and anti-infliximab antibodies with two established ELISA kits*. JOURNAL OF PHARMACEUTICAL AND BIOMEDICAL ANALYSIS. 2021; 198 114003-114003. FI: 3.571. Cuartil: 2. (Article).
- Ampuero, J; Aller, R; Gallego-Durán, R; Crespo, J; Abad, J; González-Rodríguez, A; Gómez-Camarero, J; Caballeria, J; Lo Iacono, O; Ibáñez, L; García-Samaniego,



7.02. PATHOPHYSIOLOGY AND NATURAL HISTORY OF LIVER AND DIGESTIVE DISEASES

- J; Martín-Mateos, R; Frances, R; Fernández-Rodríguez, C; Diago, M; Soriano, G; Andrade, RJ; Lat. *Definite and indeterminate nonalcoholic steatohepatitis share similar clinical features and prognosis: A longitudinal study of 1893 biopsy-proven nonalcoholic fatty liver disease subjects*. LIVER INTERNATIONAL. 2021; 41(9) 2076-2086. FI: 8.754. Cuartil: 1. (Article).
- Iavarone, M; Invernizzi, F; Ivanics, T; Mazza, S; Zavaglia, C; Sanduzzi-Zamparelli, M; Fraile-López, M; Czauderna, C; Di Costanzo, G; Bhoori, S; Pinter, M; Manini, MA; Amaddeo, G; Yunquera, AF; Pinero, F; Rodríguez, MJB; Anders, M; Soteras, GA; Villadsen. *Regorafenib Efficacy After Sorafenib in Patients With Recurrent Hepatocellular Carcinoma After Liver Transplantation: A Retrospective Study*. LIVER TRANSPLANTATION. 2021; 27(12) 1767-1778. FI: 6.112. Cuartil: 1. (Article).
- Pérez-Lago L; Martínez-Lozano H; Pajares-Díaz JA; Díaz-Gómez A; Machado M; Sola-Campoy PJ; Herranz M; Valerio M; Olmedo M; Suárez-González J; Quesada-Cubo V; Gómez-Ruiz MDM; López-Fresneña N; Sánchez-Arcilla I; Comas I; González-Candelas F; García de San. *Overlapping of Independent SARS-CoV-2 Nosocomial Transmissions in a Complex Outbreak*. MSPHERE. 2021; 6(4). FI: 5.029. Cuartil: 2. (Article).
- Lesmes, IB; Hernández, JA. *Pillars for excellence in nutrition support units. Regulation*. NUTRICION HOSPITALARIA. 2021; 38(Spec No1) 8-14. FI: 1.169. Cuartil: 4. (Article).
- Martínez-Lozano, H; Miranda-Bautista, J; González-Lama, Y; Carpio, D; Barreiro-de Acosta, M; Pérez-Calle, JL; Pérez, LR; Villa, K; Matallana, V; Calvo, M; Vera, MI; Galindo, PP; Mora-Cuadrado, N; López-Serrano, P; Marín-Jiménez, I; Menchen, L. *Comparison of original and biosimilar infliximab (CTP-13) in biologic-naïve patients with Crohn's disease and ulcerative colitis: a retrospective, multicenter real-life study in Spain*. REVISTA ESPANOLA DE ENFERMEDADES DIGESTIVAS. 2021; 113(3) 170-178. FI: 2.389. Cuartil: 4. (Article).
- Lobete, OO; Ruiz, RD; Carazo, LP. *Primary gastric adenocarcinoma in a patient with Peutz-Jeghers syndrome*. REVISTA ESPANOLA DE ENFERMEDADES DIGESTIVAS. 2021; 113(6) 474-475. FI: 2.389. Cuartil: 4. (Letter).
- Carrillo, CF; Perelló, C; Llop, E; García-Samaniego, J; Romero, M; Mostaza, JM; Ibáñez, L; Bañares, R; Bighelli, F; Perón, CU; Vázquez, IF; Castro, OH; Lalueza, A; Alillos, A; de Molina, RM; Munez, E; Tejero, EJ; Calleja, JL. *Mild AST elevation as an early sign of COVID-19 severity in a multicenter Madrid cohort*. REVISTA ESPANOLA DE ENFERMEDADES DIGESTIVAS. 2021; 113(11) 780-786. FI: 2.389. Cuartil: 4. (Article).
- Vizcaino, EM; de los Rios, C; Rodríguez-Valcárcel, FC. *Diagnostic and therapeutic challenges in the management of obstructive defecation*. REVISTA ESPANOLA DE ENFERMEDADES DIGESTIVAS. 2021; 113(8) 619-. FI: 2.389. Cuartil: 4. (Letter).
- Marcos, AC; Ruiz, RD; Cristóbal, MR; Yunquera, AF; Díaz-Fontenla, F; Carazo, LP; Gómez, MIP; Moreno, JLV; Plaza, MS; Cañizares, RB. *Long-term outcomes and clinical impact of anti-HLA donor-specific antibodies (DSA) after liver transplantation: a prospective study in a pilot cohort*. REVISTA ESPANOLA DE ENFERMEDADES DIGESTIVAS. 2021; 113(8) 557-562. FI: 2.389. Cuartil: 4. (Article).
- Bouza, E; Jiménez, MM; Alemany, L; Arribas, J; Bañares, R; Barragán, MB; Bouza, JME; Felip, E; Fernández-Capetillo, O; Gracia, D; López-Vélez, R; Mollar, JB; Muñoz, P; Paz-Ares, L; Torne, A; Tovar, J; Valencia, E; Palomo, E. *Overview of virus and cancer relationships. Position paper*. REVISTA ESPANOLA DE QUIMIOTERAPIA. 2021; 34(6) 525-555. FI: 2.515. Cuartil: 3. (Review).
- Nogales, O; de la Maza, J; Martos, E; Carrión, L; Borobia, R; Lucendo, L; López-Ibáñez, M; García-Lledó, J; Pérez-Carazo, L; Merino, B. *Success, safety, and usefulness of right colon retroflexion for the detection of additional colonic lesions not visualized with standard frontal view*. SURGICAL ENDOSCOPY AND OTHER INTERVENTIONAL TECHNIQUES. 2021; 35(2) 620-625. FI: 3.453. Cuartil: 2. (Article).
- Romero-Cristóbal, M; Clemente-Sánchez, A; Pineiro, P; Cedenio, J; Rayón, L; del Río, J; Ramos, C; Hernández, DA; Cova, M; Caballero, A; Garutti, I; García-Olivares, P; Hortal, J; Guerrero, JE; García, R; Bañares, R; Rincón, D. *Possible unrecognised liver injury is associated with mortality in critically ill COVID-19 patients*. THERAPEUTIC ADVANCES IN GASTROENTEROLOGY. 2021; 14. FI: 4.802. Cuartil: 2. (Article).
- Caballero-Marcos, A; Romero-Cristóbal, M; Puerto, M; Fernández-Yunquera, A; Dieguez, L; Navarrete, C; Clemente, A; Díaz-Fontenla, F; Catalán, P; Rincón, D; López-Baena, JA; Cañizares, RB; Salcedo, M. *HCV eradication in recurrent*



hepatitis C after liver transplantation normalizes enhanced endothelial activation. *TRANSPLANT INTERNATIONAL*. 2021; 34(11) 2214-2225. FI: 3.842. Cuartil: 1. (Article).

- Coll, E; Fernández-Ruiz, M; Padilla, M; Moreso, F; Hernández-Vicente, A; Yáñez, I; Molina, M; Vázquez-Sánchez, T; Crespo, M; Facundo, C; Rodríguez-Ferrero, ML; Fuentes, MCR; Loinaz, C; Bernal, G; Melilli, E; Bravo, C; Diekmann, F; Llado, L; García-Álvarez. *COVID-19 in Solid Organ Transplant Recipients in Spain Throughout 2020: Catching the Wave?*. *TRANSPLANTATION*. 2021; 105(10) 2146-2155. FI: 5.385. Cuartil: 1. (Article).
- Fernández-Esparrach, G; Marín-Gabriel, JC; de Tejada, AH; Albéniz, E; Nogales, O; del Pozo-García, AJ; Roson, PJ; Goicotxea, U; Uchima, H; Terán, A; Alberto, A; Joaquin, RS; Liseth, RS; José, S; SEED. *Implementation of endoscopic submucosal dissection in a country with a low incidence of gastric cancer: Results from a prospective national registry*. *UNITED EUROPEAN GASTROENTEROLOGY JOURNAL*. 2021; 9(6) 718-726. FI: 6.866. Cuartil: 1. (Article).
- Ahumada, A; Rayón, L; Uson, C; Bañares, R; López, SA. *Hepatocellular carcinoma risk after viral response in hepatitis C virus-advanced fibrosis: Who to screen and for how long?*. *WORLD JOURNAL OF GASTROENTEROLOGY*. 2021; 27(40) 6737-6749. FI: 5.374. Cuartil: 2. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Daudén Tello E; Alonso Suárez J; Beltrán Catalán E; Blasco Maldonado C; Herrero Manso MC; Jiménez Morales A; Marín-Jiménez, I; Martín-Arranz, MD; García-Merino, A; Porta Etessam J; Rodríguez-Sagrado, MA; Rosas Gómez de Salazar J; Trujillo Martín E; Salgad. *Multidisciplinary Management of the Adverse Effects of Apremilast*. *ACTAS Dermo-Sifiliográficas*. 2021; 112(2) 134-141. (Article).
- Orozco-Beltrán, D; Artola-Menéndez, S; Hormigo-Pozo, A; Cararach-Salami, D; Alonso-Jerez, JL; Álvaro-Grande, E; Villabrille-Arias, C; de Toro-Santos, FJ;

Galindo-Puerto, MJ; Marín-Jiménez, I; Gómez-García, A; Ledesma-Rodríguez, R; Fernández, G; de Campos. *Healthcare experience among patients with type 2 diabetes: A cross-sectional survey using the IEXPAC tool*. *ENDOCRINOLOGY DIABETES & METABOLISM*. 2021; 4(2). (Article).

- Marín-Jiménez, I; Carrascosa, JM; Guigini, MA; Monte-Boquet, E. *Knowledge, perceptions, attitude, barriers and facilitators of biosimilars use across specialty physicians and hospital pharmacists: A national survey*. *FARMACIA HOSPITALARIA*. 2021; 45(5) 240-246. (Article).
- Bautista, JM; Fernández-Jara, J; Bautista, SM; Fernández-Miranda, PM; Mora, MV; San José, BG; Estévez, MG; Molina, BM; Vázquez, PP. *Infraspinatus atrophy due to Bennett lesion causing suprascapular nerve palsy*. *JOURNAL OF ULTRASONOGRAPHY*. 2021; 21(85) 177-181. (Article).
- de la Villa, S; Valerio, M; Salcedo, M; Ortiz-Bautista, C; Catalán, P; Padilla, B; Romero, M; Blaquez-Bermejo, Z; Pedraz, A; López-Baena, JA; Hortal, J; Bouza, E; Alonso, R; Muñoz, P. *Heart and liver transplant recipients from donor with positive SARS-CoV-2 RT-PCR at time of transplantation*. *TRANSPLANT INFECTIOUS DISEASE*. 2021; 23(5). (Letter).

Other publications

- Barreiro-de Acosta, M; Marín-Jiménez, I; Rodríguez-Lago, I; Guarner, F; Espin, E; Bradley, IF; Gutiérrez, A; Beltrán, B; Chaparro, M; Gisbert, JP; Nos, P; GETECCU. *Recommendations of the Spanish Working Group on Crohn's disease and ulcerative colitis (GETECCU) on pouchitis in ulcerative colitis. Part 2: Treatment (vol 43, pg 649, 2020)*. *GASTROENTEROLOGIA Y HEPATOLOGIA*. 2021; 44(4) 320-320. FI: 5.867. Cuartil: 2. (Correction).
- Muñoz-Martínez S; Sapena V; Forner A; Nault JC; Sapisochin G; Rimassa L; Sangro B; Bruix J; Sanduzzi-Zamparelli M; Holówkó W; El Kassas M; Mocan T; Bouattour M; Merle P; Hoogwater FJH; Alqahtani SA; Reeves HL; Pinato DJ; Giorgakis E; Meyer T; Villadsen GE. *Assessing the impact of COVID-19 on liver cancer management (CERO-19)*. *JHEP REPORTS*. 2021; 3(3) 100260-100260. (Article).

7.04. Diseases of the critically ill child

Group Head: JESÚS LÓPEZ-HERCE CID

Organisms involved: HGUGM

Type: Consolidated Group

Research lines

Axis 1: Diseases of the critically ill child

- ▶ L1: Cardiorespiratory arrest and cardiopulmonary resuscitation in infancy. Leader: Jesús López-Herce Cid.
 - L1.1: Experimental and clinical cardiac arrest and cardiopulmonary resuscitation. Leader: Jesús López-Herce Cid and Jimena del Castillo.
 - L1.2: Quality of cardiopulmonary resuscitation. Leader: Jimena del Castillo.
 - L1.3: Cardiopulmonary resuscitation education. Leader: Jesús López-Herce Cid.
- ▶ L2: Treatment of acute kidney failure in the critically ill child. Leader: María José Santiago Lozano.
 - L2.1: Pharmacokinetics in renal failure. Leader: María José Santiago Lozano.
- ▶ L3: Hemodynamic monitoring, tissue perfusion, and treatment of shock. Leader: Javier Urbano Villaescusa and Rafael González Cortés.
 - L3.1: Hemodynamic monitoring and treatment of shock. Leader: Javier Urbano Villaescusa.

- L3.2: Monitoring of microcirculation and tissue perfusión. Leader: Rafael González Cortés.
- ▶ L4: Nutrition and digestive diseases in the critically ill child. Leader: Jesús López-Herce Cid.
 - L4.1: Enteral nutrition in the critically ill child. Leader: Jesús López-Herce Cid.
 - L4.2: Digestive complications: constipation. Leader: Jorge López González.
 - L4.3: Digestive hemorrhage in the critically ill child. Leader: María José Solana García.
- ▶ L5: Monitoring of sedation and analgesia in the critically ill child. Leader: Santiago Mencía Bartolomé.
- ▶ L6: Respiratory care in the critically ill child. Leader: Jesús López-Herce Cid.
- ▶ L7: Advanced medical simulation. Leader: Santiago Mencía Bartolomé.
- ▶ L8: Anaemia and transfusions in the critically ill child. Leaders: María José Santiago and Laura Butragueño.

A multidisciplinary group of doctors and nurses from Paediatric Intensive Care and other paediatric specialties who focus their clinical, experimental animal and teaching research on the pathology of the critically ill child, with a practical translational orientation.



Group members

- Alcón Nájera, Sara: R1. First Stage Researcher.
- Butragueño Laiseca, Laura: R1. First Stage Researcher.
- Cieza Asenjo, Raquel: R1. First Stage Researcher.
- Cordero Martínez, Marta: R1. First Stage Researcher.
- De la Mata Navazo, Sara: R1. First Stage Researcher.
- Del Castillo Peral, Jimena: R2. Recognised Researcher.
- Fernández Lafever, Sarah Nicole: R2. Recognised Researcher.
- Garrido Gaspar, Beatriz: R1. First Stage Researcher.
- González Cortés, Rafael: R2. Recognised Researcher.
- Herrera Castillo, Laura: R1. First Stage Researcher.
- López González, Jorge: R2. Recognised Researcher.
- López-Herce Cid, Jesús: R4. Leading Researcher.
- Manrique Martín, Gema: R1. First Stage Researcher.
- Mencía Bartolomé, Santiago: R3. Established Researcher.
- Moreno Leira, Daniel: R1. First Stage Researcher.
- Rodríguez Martínez, Alicia: R1. First Stage Researcher.
- Sánchez Sánchez, César: R3. Established Researcher.
- Sánchez Galindo, Amelia: R1. First Stage Researcher.
- Santiago Lozano, M^a José: R3. Established Researcher.
- Sanz Álvarez, Débora: R1. First Stage Researcher.
- Slocker Barrio, María: R1. First Stage Researcher.
- Solana García, M^a José: R3. Established Researcher.
- Urbano Villaescusa, Javier: R3. Established Researcher.
- Vilchez Rodríguez, Beatriz: R1. First Stage Researcher.

Research Projects – Competitive Calls

Competitive projects

- Title: **ASCEND (ARDS in Children and ECMO initiation strategies impa.**
NIH-2020/PAF01099
Director: Butragueño Laiseca, Laura
Project type: Research project
Funding body: NATIONAL INSTITUTES OF HEALTH (NIH)
Start date: 05/09/2020
End date: 30/06/2025
- Title: **Registro Observacional Multicentrico de pacientes con Infección por SARS-COV2. En UCIP Españolas (SECIP-COVIC).** COV20/00944
Director: González Cortés, Rafael
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/05/2020
End date: 30/01/2022
- Title: **Ensayo clínico controlado aleatorizado sobre el tratamiento profiláctico del estreñimiento con polietilenglicol con electrolitos en el niño crítico.** PI20/01339
Director: López González, Jorge
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Comparación de la eficacia en sepsis de las técnicas de depuración sanguínea para niños críticos: estudio clínico y experimental.** PI20/01428
Director: Santiago Lozano, María José
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Utilidad de las nuevas modalidades de imagen en ecografía y videomicroscopia para la evaluación microcirculatoria y tisular a pie de cama en niños sometidos a cirugía cardíaca.** PI20/01491

7.04. DISEASES OF THE CRITICALLY ILL CHILD

Director: González Cortés, Rafael

Project type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2021

End date: 31/12/2023

- Title: **Efectos de la resucitación con albumina hipertónica y nuevas drogas vasoactivas en un modelo animal infantil de shock hemorrágico.** PI20/01706

Director: Urbano Villaescusa, Javier

Project type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2021

End date: 31/12/2023

- Title: **Estudio clínico y experimental de parada cardiaca y reanimación cardiopulmonar en pediatría.** PI18/01632

Director: López-Herce Cid, Jesús

Project type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2019

End date: 30/06/2022

- Title: **Farmacocinética y farmacodinamia de los antibióticos en niños críticamente enfermos tratados con técnicas de depuración extrarrenal continua.** PI17/00248

Director: Santiago Lozano, María José

Project type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2018

End date: 30/06/2021

- Title: **Río Hortega Contract.** CM19/00203

Director: Manrique Martín, Gema

Project type: Human Resources

Funding body: Instituto de Salud Carlos III

Start date: 01/12/2019

End date: 31/12/2021

- Title: **Juan Rodés Contract** JR19/00023

Director: González Cortés, Rafael

Funding body: Instituto de Salud Carlos III

Type of project: Human resources

Start date: 29/01/2020

End date: 28/01/2024

Industrial and intellectual property registrations

Industrial property

Title	Reference*	Owner	Inventors
Dispositivo, sistema y procedimiento simulador para entrenamiento de profesionales sanitarios en el manejo de pacientes críticamente enfermos que precisen procedimientos de depuración extrarrenal venovenosa continua	P201330340	FIBHGM - SERGAS - Universidad de Santiago de Compostela	Jesús López-Herce, Santiago Mencía, Antonio Rodríguez

■ Transferred Industrial Property.

* Reference: P (Patent), PCT (international patent), EP (European patent), US (USA patent), U (Utility model), M (Trademark).

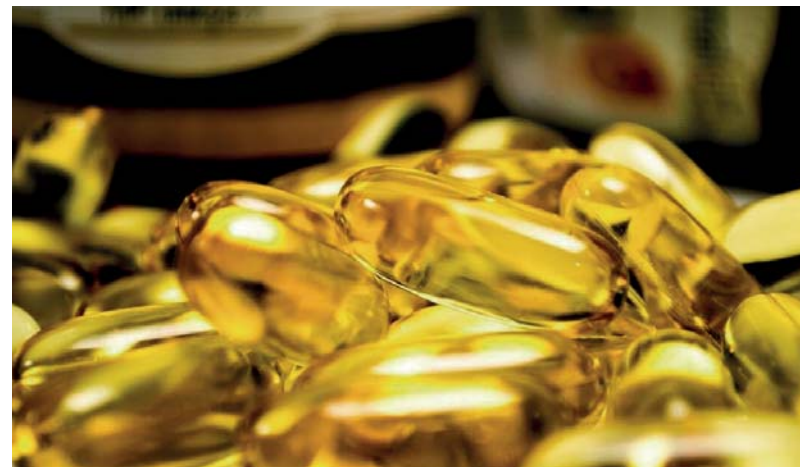
Copyright

Title	Reference	Owner	Inventors
Biblioteca de fármacos para bombas de infusión inteligentes en las unidades de cuidados intensivos pediátricos	Nº Asiento Registral: 16/2011/7360	FIBHGM	Amelia Caridad Sánchez y Silvia Manrique Rodríguez

■ Transferred Intellectual Property.

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
RETICS	Red de salud Maternoinfantil y del Desarrollo III	Collaborating group
Others	Red de Salud Maternoinfantil y del Desarrollo (Red Samid [Mother and Child and Developmental Health Network])	Collaborating group
Other	Red Iberoamericana de estudio de la parada cardiorrespiratoria en la infancia (RIBEPCI [Latin American Network for the Study of Cardiorespiratory Arrest in Infancy]).	Collaborating group



Doctoral theses. Bachelor theses and Master theses

Type	Candidate	Title	Name/s Director/s	University	Date defended
Ph Thesis	José Fernández- Cantalejo Padiál	Evaluación de la sedoanalgesia en los procedimientos diagnósticos y terapéuticos en niños.	Santiago Mencia Bartolomé / Jesús López- Herce Cid	Autónoma de Madrid	13/04/2021



7.04. DISEASES OF THE CRITICALLY ILL CHILD

Clinical Practice Guidelines

Authors	Title	Journal/ Reference
María Slocker	Diagnóstico por ecografía de la insuficiencia respiratoria aguda en Pediatría	ISSN 2171-8172
María Slocker	Uso de procinéticos en el niño crítico	ISSN 2171-8172
Mencia Bartolomé S, Tapia Moreno R.	Escalas de sedoanalgesia en la Unidad de Cuidados Intensivos Pediátricos	ISSN 2171-8172
Mencia Bartolomé S, Estepa Pedregosa L	Sedación difícil en UCIP	ISSN 2171-8172
Fernández-Sarmiento J, De Souza DC, Martínez A, Nieto V, López-Herce J, Soares Lanzotti V, Arias López MDP, De Carvalho WB, Oliveira CF, Jaramillo-Bustamante JC, Díaz F, Yock-Corrales A, Ruvinsky S, Munaico M, Pavličich V, Iramain R, Márquez MP, González G, Yunge M, Tonial C, Cruces P, Palacio G, Grella C, Slöcker-Barrio M, Campos-Miño S, González-Dambrasuskas S, Sánchez-Pinto NL, Celiny García P, Jabornisky R. Latin American Consensus on the Management of Sepsis in Children: Sociedad Latinoamericana de Cuidados Intensivos Pediátricos Latin American Pediatric Intensive Care Society (SLACIP) Task Force: Executive Summary	Latin American Consensus on the Management of Sepsis in Children: Sociedad Latinoamericana de Cuidados Intensivos Pediátricos Latin American Pediatric Intensive Care Society (SLACIP) Task Force: Executive Summary.	doi: 10.1177/08850666211054444

Authors	Title	Journal/ Reference
Jesús López-Herce	Recomendaciones de RCP pediátrica. Sociedad Latinoamericana de Cuidados Intensivos Pediátricos.	
López-Herce J, Manrique I, Calvo C, Rodríguez A, Carrillo Á, Sebastián V, Del Castillo J; en nombre del Grupo Español de Reanimación Cardiopulmonar Pediátrica y Neonatal	Novedades en las recomendaciones de reanimación cardiopulmonar pediátrica y líneas de desarrollo en España.	doi:10.1016/j.anpedi.2021.05.020
Rodríguez Yago MA, Alcalde Mayayo I, Gómez López R, Parias Ángel MN, Pérez Miranda A, Canals Aracil M, Cívantos Fuentes E, Rodríguez Núñez A, Manrique Martínez I, López-Herce Cid J, Zeballos Sarrato G, Calvo Macías C, Hernández-Tejedor A.	Recomendaciones sobre reanimación cardiopulmonar en pacientes con sospecha o infección confirmada por SARS-CoV-2 (COVID-19). Resumen ejecutivo	doi: 10.1016/j.medin.2020.05.004

Publications

Total Impact Factor: 90.1

	Nº	IF
Own publications	18	63.0
Joint publications	6	27.1
First decile publications	2	12.5
First quartile publications	6	31.1
Second quartile publications	9	37.9
Third quartile publications	7	16.9
Fourth quartile publications	2	4.2
Nonindexed publications / No IF	1	-
Total publications (including those without IF)	25	90.1

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Sainz, T; Delgado, J; Méndez-Echevarría, A; Santiago, B; López-Varela, E; Aguilera-Alonso, D; Saavedra-Lozano, J; Rodríguez-Fernández, R; Holguín, A; Navarro, ML; Muñoz-Fernández, MA; Rivero-Calle, I; Solána, MJ; López-Herce, J; Calvo, C. *The clinical relevance of the microbiome when managing paediatric infectious diseases-Narrative review*. ACTA PAEDIATRICA. 2021; 110(2) 441-449. FI: 4.056. Cuartil: 1. (Review).
- Rodrigo, MA; González, CM; Artazcoz, MGO; Cobeno, AH; Cid, JLH. *Description and assessment of medical student rotation in Primary Care Paediatrics*. ANALES DE PEDIATRIA. 2021; 94(6) 413-415. FI: 2.377. Cuartil: 3. (Letter).
- López-Herce, J; Manrique, I; Carrillo, A; Calvo, C; Pons, S; Manrique, G; Grp Espanol RCP Pediat Neonatal. *Evaluation of the advanced pediatric life support courses by the students: experience of spanish pediatric and neonatal resuscitation group*. ANALES DE PEDIATRIA. 2021; 94(3) 182-185. FI: 2.377. Cuartil: 3. (Letter).
- Laiseca, LB; Zanin, A; Cid, JLH; Bartolomé, SM. *Simulation during COVID-19 pandemic in the Spanish pediatric intensive care units: New challenges in*

medical education. ANALES DE PEDIATRIA. 2021; 95(5) 373-375. FI: 2.377. Cuartil: 3. (Letter).

- Di Nardo M; Hoskote A; Thiruchelvam T; Lillie J; Horan M; Belda Hofheinz S; Dupic L; Gimeno R; de Piero ME; Lo Coco V; Roeleveld P; Davidson M; Jones T; Broman LM; Lorusso R; Belohlavek J; EuroELSO Neonatal & Pediatric Working Group & collaborators on COV. *Extracorporeal Membrane Oxygenation in Children with Coronavirus Disease 2019: Preliminary Report from the Collaborative European Chapter of the Extracorporeal Life Support Organization Prospective Survey*. ASAIO JOURNAL. 2021; 67(2) 121-124. FI: 3.826. Cuartil: 2. (Article).
- del Castillo, J; Sanz, D; Herrera, L; López-Herce, J; Grp Estudio Parada Cardiaca Intrah. *Pediatric In-Hospital Cardiac Arrest International Registry (PACHIN): protocol for a prospective international multicenter register of cardiac arrest in children*. BMC CARDIOVASCULAR DISORDERS. 2021; 21(1) 365-365. FI: 2.174. Cuartil: 4. (Article).
- López-Herce, J; Carrillo, A; Urbano, J; Manrique, G; Mencía, S; Grp Madrileño Cuidados Intensivos. *Evaluation of the pediatric life support instructors courses*. BMC MEDICAL EDUCATION. 2021; 21(1). FI: 3.263. Cuartil: 2. (Article).
- Salvador-Martin, S; Pujol-Muncunill, G; Bossacoma, F; Navas-López, VM; Gallego-Fernández, C; Segarra, O; Clemente, S; Muñoz-Codoceo, R; Viada, J; Magallares, L; Martínez-Ojinaga, E; Moreno-Álvarez, A; Solar-Boga, A; Loverdos, I; Merino-Bohorquez, V; Balbo. *Pharmacogenetics of trough serum anti-TNF levels in paediatric inflammatory bowel disease*. BRITISH JOURNAL OF CLINICAL PHARMACOLOGY. 2021; 87(2) 447-457. FI: 3.716. Cuartil: 2. (Article).
- Solána, MJ; Bustinza, A; López, J; López-Herce, J. *Clostridiodes difficile associated disease risk and proton pump inhibitors in critically ill children*. ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA. 2021; 39(3) 160-161. FI: 1.994. Cuartil: 4. (Letter).
- Mencía, S; Cieza, R; del Castillo, J; López-Herce, J. *MONISEDA Project: Improving Analgosedation Monitoring in Spanish Pediatric Intensive Care Units*. FRONTIERS IN PEDIATRICS. 2021; 9 781509-781509. FI: 3.569. Cuartil: 2. (Article).
- Laiseca, LB; Pedregosa, LE; Galindo, ACS; Lozano, MJS. *Hemolysis and methemoglobinemia in a child with left ventricular assist Levitronix PediMag*.



7.04. DISEASES OF THE CRITICALLY ILL CHILD

- INTERNATIONAL JOURNAL OF ARTIFICIAL ORGANS. 2021; 44(1) 68-71. FI: 1.631. Cuartil: 3. (Article).
- Cortés, RG; Villaescusa, JU; García, MJS; González, JL; Lafever, SNF; Gómez, BR; Morán, JRF; García, IH; Pensado, AP; Martínez, RPC; Prado, CAP; Ogando, AR; Blázquez, ML; Cid, JLH. *Microcirculatory Changes in Pediatric Patients During Congenital Heart Defect Corrective Surgery*. JOURNAL OF CARDIOVASCULAR TRANSLATIONAL RESEARCH. 2021; 14(6) 1173-1185. FI: 3.216. Cuartil: 3. (Article).
 - López-Fernández, YM; Martínez-de-Azagra, A; González-Gómez, JM; Macarrón, CPC; García-González, M; Parrilla-Parrilla, J; Minambres-Rodríguez, M; Madurga-Revilla, P; Gómez-Zamora, A; Rodríguez-Campoy, P; Mayordomo-Colunga, J; Butragueño-Laiseca, L; Núñez-B. *Acute Hypoxemic Respiratory Failure in Children at the Start of COVID-19 Outbreak: A Nationwide Experience*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(19). FI: 4.964. Cuartil: 2. (Article).
 - Martínez, RM; Vinas, T; Manrique, G; López-Herce, J. *Hyperchloremia and hyponatremia in critically ill children*. MEDICINA INTENSIVA. 2021; 45(9) 59-61. FI: 2.799. Cuartil: 3. (Letter).
 - Solana, MJ; Gema, Manrique; Reyes, Fernández; María, Slocker; Miriam, García; Silvia, Redondo; Cristina, Yun; Raquel, Gil; Mónica, Balaguer; Eva, Rodríguez; Aranzazu, González-Posada; Carmen, Santiago; María, Martín; Carmen, Martín; María, Minambres; M. *Nutritional status and nutrition support in critically ill children in Spain: Results of a multicentric study*. NUTRITION. 2021; 84 110993-110993. FI: 4.893. Cuartil: 2. (Article).
 - Laiseca, LB; Murciano, M; López-Herce, J; Mencia, S. *Inhaled sedation with sevoflurane in critically ill children during extracorporeal membrane oxygenation*. PEDIATRIC ANESTHESIA. 2021; 31(2) 230-233. FI: 2.129. Cuartil: 3. (Article).
 - Tume, LN; Eveleens, RD; Mayordomo-Colunga, J; López, J; Verbruggen, SCAT; Fricaudet, M; Smith, C; Cusco, MGG; Latten, L; Valla, FV; Collaboration ESPNIC Metab Endocri; Resp Failure Sect. *Enteral Feeding of Children on Noninvasive Respiratory Support: A Four-Center European Study**. PEDIATRIC CRITICAL CARE MEDICINE. 2021; 22(3) 192-202. FI: 3.971. Cuartil: 1. (Article).
 - Lafever, SNF; López, J; González, R; Solana, MJ; Urbano, J; López-Herce, J; Butragueño, L; Santiago, MJ. *Hemodynamic disturbances and oliguria during continuous kidney replacement therapy in critically ill children*. PEDIATRIC NEPHROLOGY. 2021; 36(7) 1889-1899. FI: 3.651. Cuartil: 2. (Article).
 - López, J; Pons-Odena, M; Medina, A; Molinos-Norniella, C; Palanca-Arias, D; Demirkol, D; León-González, JS; López-Fernández, YM; Pérez-Baena, L; López-Herce, J; NIV Res Grp. *Early factors related to mortality in children treated with bi-level noninvasive ventilation and CPAP*. PEDIATRIC PULMONOLOGY. 2021; 56(5) 1237-1244. FI: 4.09. Cuartil: 1. (Article).
 - Salvador-Martín, S; Kaczmarczyk, B; Álvarez, R; Navas-López, VM; Gallego-Fernández, C; Moreno-Álvarez, A; Solar-Boga, A; Sánchez, C; Tolín, M; Velasco, M; Muñoz-Codoceo, R; Rodríguez-Martínez, A; Vayo, CA; Bossacoma, F; Pujol-Muncunill, G; Fobelo, MJ; Mil. *Whole Transcription Profile of Responders to Anti-TNF Drugs in Pediatric Inflammatory Bowel Disease*. PHARMACEUTICS. 2021; 13(1). FI: 6.525. Cuartil: 1. (Article).
 - López-Herce, J; Fernández, SN; Del Castillo, J. *Acute kidney injury after in-hospital pediatric cardiac arrest*. RESUSCITATION. 2021; 163 207-208. FI: 6.251. Cuartil: 1. (Letter).
 - López-Herce, J; Del Castillo, J; Rodríguez-Núñez, A. *Optimal paediatric defibrillation dosage for children. We need a randomized clinical trial!*. RESUSCITATION. 2021; 158 289-290. FI: 6.251. Cuartil: 1. (Letter).
 - Mancebo, JG; Navazo, SD; Arteta, ELH; Mateo, RM; Esteban, IML; Domínguez, AM; Doutel, MS; Cid, JLH; Cortés, RG. *A comparative two-cohort study of pediatric patients with long term stay in ICUs*. SCIENTIFIC REPORTS. 2021; 11(1) 4631-4631. FI: 4.996. Cuartil: 2. (Article).
 - Manrique, G; Pérez, G; Butragueño-Laiseca, L; García, M; Slocker, M; González, R; Herrera, L; Mencia, S; del Castillo, J; Solana, MJ; Sanz, D; Cieza, R; Fernández, SN; López, J; Urbano, J; López-Herce, J. *Effects of airway management and tidal volume feedback ventilation during pediatric resuscitation in piglets with asphyxial cardiac arrest*. SCIENTIFIC REPORTS. 2021; 11(1) 16138-16138. FI: 4.996. Cuartil: 2. (Article).
- Other publications**
- Carrasco I; Muñoz-Chapuli M; Vigil-Vázquez S; Aguilera-Alonso D; Hernández C; Sánchez-Sánchez C; Oliver C; Ríaza M; Pareja M; Sanz O; Pérez-Seoane B; López J; Márquez E; Domínguez-Rodríguez S; Hernanz-Lobo A; De León-Luis JA; Sánchez-Luna M; Navarro ML. *SARS-COV-2 infection in pregnant women and newborns in a Spanish cohort (GESNEO-COVID) during the first wave*. BMC PREGNANCY AND CHILDBIRTH. 2021; 21(1) 326-326. (Article).



7.05B. Physiological and Therapeutic Medico-Surgical Aspects of Respiratory Diseases

Group Head: LUIS PUENTE MAESTU & IGNACIO GARUTTI

Organisms involved: HGUGM

Type: Consolidated Group

Research lines

Axis 1: Prevention of respiratory complications of surgery

- ▶ L1: Prevention of respiratory complications of thoracic surgery with prophylactic CPAP. Leader: Luis Puente Maestu.
- ▶ L2: Pharmacologic measures for the prevention of acute pulmonary lesions after lung resection surgery. Leader: Fco. Andrés de la Gala.
- ▶ L3: Optimization of one-lung ventilation. Leader: Ignacio Garutti.
- ▶ L4: Prevention of postoperative complications of mechanical ventilation in non-cardiothoracic surgery. Leader: Patricia Piñeiro.
- ▶ L5: Protective perioperative lung ventilation strategy. Leader: Patricia Piñeiro.

Axis 2: Epidemiology of respiratory diseases

- ▶ L1: Historical evolution of hospital admissions for respiratory diseases CMBD analysis. Leader: Javier de Miguel.
- ▶ L2: Predictive model of obesity in OSAHS (GENOBIA). Leader: Luis Puente Maestu.

Axis 3: Respiratory Sleep Disorders

- ▶ L1: Obesity-Hypoventilation Syndrome. Leader: Soledad López Martín.
- ▶ L2: Sleep Disorders and Heart Disease.

Axis 4: Development of new drugs or new indications

- ▶ L1: Development of biological products for the prevention of exacerbations of COPD. Leader: Luis Puente.
- ▶ L2: Development of P2X3 receptor inhibitors for the treatment of cough Gefapixant (MK-7264-042 and 043) and Eliapixant. Leader: Luis Puente.

- ▶ L3: Development of anti-fibrotic medication. Leaders: Luis Puente and Javier de Miguel.
- ▶ L4: Biological medication for eosinophilic Asthma. Leader: Luis Puente.

Axis 5: Development of new pharmacological treatments

- ▶ L1: Organ preservation. Leader: Carlos Simón.

Axis 6: Treatment of COPD patients with cardiopathy

- ▶ L1: Impact of respiratory drugs on cardiac function in COPD patients with low ejection fraction. Leader: Luis Puente.

Axis 7: Monitoring of patients with respiratory sleep disorders and chronic respiratory failure

- ▶ L1: Mechanical simulation of respiratory therapies and their effect on lung dynamics. Leader: Daniel López Padilla.

Axis 8: Neuroanatomy of the laryngeal

- ▶ L1: Laryngeal anatomical variability. Leader: M^a Teresa Vázquez Osorio.
- ▶ L2: Laryngeal reinnervation.

Axis 9: Intraoperative analgesia in thoracic surgery

- ▶ L1: Spinal erector spinae blockade.
- ▶ L2: Intravenous lidocaine use. Leader: Francisco A. de la Gala.

Axis 11: Anaesthesia in tracheal surgery

- ▶ L1: Experimental model of tracheal surgery. Leader: Ángela Puig.

7.05B. MEDICAL-SURGICAL, PHYSIOLOGICAL, AND THERAPEUTIC ASPECTS OF RESPIRATORY DISEASES

Group members

- **Benedetti, Paola Antonella:** R1. First Stage Researcher.
- **Caballero Segura, Francisco José:** R1. First Stage Researcher.
- **Casanova Barea, Javier.**
- **Cerezo Lajas, Alicia:** R2. Recognised Researcher.
- **Cruz Pardos, Patricia.**
- **De la Gala García, Francisco Andrés:** R3. Established Researcher.
- **De Miguel Díez, Javier:** R1. First Stage Researcher.
- **Fuentes Alonso, Marta:** R1. First Stage Researcher.
- **Gallardo Bermejo, María:** Other. Nursing.
- **García de Pedro, Julia:** R3. Established Researcher.
- **García García, M^a Cruz.**
- **García López, José Javier:** R3. Established Researcher.
- **Garutti Martínez, Ignacio:** R4. Leading Researcher.
- **Girón Matute, Whalter Iván:** R2. Recognised Researcher.
- **González Casaurrán, Guillermo:** R1. First Stage Researcher.
- **González Moraga, Francisco José:** R1. First Stage Researcher.
- **González Sacristán, Ángela:** R1. First Stage Researcher.
- **Hernández Yáñez, Margarita:** Other. Nursing.
- **Huerta Martínez, Luis Javier:** R1. First Stage Researcher.

- **López Martín, Soledad:** R3. Established Researcher.
- **López Padilla, Daniel Eduardo:** R3. Established Researcher.
- **Ojeda Castillejo, Elena:** R2. Recognised Researcher.
- **Oliva Ramos, Alicia:** R1. First Stage Researcher.
- **Paredes Royano, Sergio.**
- **Pedraza Serrano, Fernando:** R1. First Stage Researcher.
- **Piñeiro Otero, Patricia.**
- **Puente Maestu, Luis:** R4. Leading Researcher.
- **Rancan, Lisa.**
- **Rojas Moreno-Tomé, Rosamaría:** Other. Nursing.
- **Sánchez Muñoz, Gema:** R2. Recognised Researcher.
- **Sánchez Pedrosa, Guillermo.**
- **Sanz Sanz, M^a del Pilar:** R1. First Stage Researcher.
- **Sañudo Tejero, José Ramón.**
- **Simón Adiego, Carlos María:** R3. Established Researcher.
- **Solano Reina, Segismundo:** R3. Established Researcher.
- **Terán Marcos, Raquel:** R1. First Stage Researcher.
- **Vara Ameigeiras, Elena.**
- **Vázquez Osorio, M^a Teresa:** R3. Established Researcher.
- **Zichen, Ji:** R2. Recognised Researcher.

It is a multidisciplinary group consisting of anaesthesiologists, thoracic surgeons and pulmonologists, with interests in furthering knowledge of respiratory physiology and biology, in the epidemiology of respiratory diseases as well as in the development of new pharmacological and non-pharmacological treatments for respiratory diseases..



Research Projects – Competitive Calls

Competitive projects

- Title: Impacto de la administración de lidocaina intravenosa o paraver-tebral durante el intraoperatorio de la cirugía de resección pulmonar.**
 PI18/01305
 Director: Garutti Martínez, Ignacio
 Project type: Research project
 Funding body: Instituto de Salud Carlos III
 Start date: 01/01/2019
 End date: 31/12/2022
- Title: Reducción de complicaciones post-operatorias pulmonares medi-ante una estrategia ventilatoria perioperatoria de apertura pulmonar.**
 PI18/01611
 Director: Piñeiro Otero, Patricia
 Project type: Research project
 Funding body: Instituto de Salud Carlos III
 Start date: 01/01/2019
 End date: 31/12/2021
- Title: Diseño mediante inteligencia artificial de algoritmos predictivos para la identificación de individuos en riesgo de desarrollar sobrepeso/obesidad y sus patologías asociadas: Aportación del análisis genético (GENOBIA-CM) S2017/BMD-3773**
 Director: Puente Maestu, Luis
 Project type: Research project
 Funding body: Consejería de Educación d Investigacon. Comunidad de Madrid
 Start date: 01/01/2018
 End date: 31/12/2021

Industrial and intellectual property registrations

Copyright

Title	Reference	Owner	Inventors
PK-GUIDE: Guía para monitorización clínica de fármacos	Nº Asiento Registral: 16/2017/6956	FIBHGM	Xandra García, Sara Ibáñez, Ana Herranz, Gema Sánchez, Gabriela Rodríguez, Mª Luisa Galiano, Margarita Ganzo, María Sanjurjo, Mª Teresa Vidán
PK-RULES: Reglas clínicas para aumentar la seguridad y eficacia de los tratamientos mediante monitorización farmacocinética	Nº Asiento Registral: 16/2017/6957	FIBHGM	Xandra García, Sara Ibáñez, Ana Herranz, Gema Sánchez, Gabriela Rodríguez, Mª Luisa Galiano, Margarita Ganzo, María Sanjurjo, Mª Teresa Vidán

■ Transferred Intellectual Property.



7.05B. MEDICAL-SURGICAL. PHYSIOLOGICAL, AND THERAPEUTIC ASPECTS OF RESPIRATORY DISEASES

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
RETICS	REDISEC Red de investigación en enfermedades crónicas	Associated group
Others (Red de la Comunidad de Madrid)	GENOBIA Diseño mediante inteligencia artificial de algoritmos predictivos para la identificación de individuos con riesgo de desarrollar sobrepeso/ obesidad y sus patologías asociadas. Aporte del análisis genético GENOBIA	Collaborating group Coordinating group (Network training activities)
Others	EPOCONSUL Spanish clinical audit on the medical care for COPD patients	Associated group
Others	CHACOS Study Group. Grupo de estudio para la caracterización del fenotipo mixto asma-epoc	Associated group
Others	SPANISH SLEEP NETWORK	Collaborating group
Others (Red privada financiada por Sanofi)	Registro informatizado de pacientes con enfermedad tromboembólica (RIETE)	Associated group

Publications

Total Impact Factor: 331.7

	Nº	IF
Own publications	20	100.6
Joint publications	26	231.1
First decile publications	2	112.9
First quartile publications	18	215.2
Second quartile publications	21	93.9
Third quartile publications	4	14.9
Fourth quartile publications	3	7.8
Nonindexed publications / No IF	7	-
Total publications (including those without IF)	53	331.7

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Khan, JS; Sessler, DI; Chan, MTV; Wang, CY; Garutti, I; Szczeklik, W; Turán, A; Busse, JW; Buckley, DN; Paul, J; McGillion, M; Fernández-Riveira, C; Srinathan, SK; Shanthanna, H; Gilron, I; Jacka, M; Jackson, P; Hankinson, J; Paniagua, P; Pettit, S; Dever. *Persistent Incisional Pain after Noncardiac Surgery: An International Prospective Cohort Study*. ANESTHESIOLOGY. 2021; 135(4) 711-723. FI: 8.986. Cuartil: 1. (Article).
- Segrelles-Calvo, G; Gómez-Ramón, A; López-Padilla, D. *The Importance of Quality Methodological Tools in Telemedicine and COVID-19: The Model for Assessment of Telemedicine (MAST)*. ARCHIVOS DE BRONCONEUMOLOGIA. 2021; 57 3-4. FI: 6.333. Cuartil: 1. (Editorial Material).
- Jiménez-Ruiz, CA; López-Padilla, D; Alonso-Arroyo, A; Aleixandre-Benavent, R; Solano-Reina, S; de Granda-Orive, JI. *COVID-19 and Smoking: A Systematic Review and Meta-Analysis of the Evidence*. ARCHIVOS DE BRONCONEUMOLOGIA. 2021; 57 21-34. FI: 6.333. Cuartil: 1. (Review).
- López-Padilla, D; García-Río, F; Alonso-Arroyo, A; Valls, NA; Lajas, AC; Blanco, MC; González, VG; Flores, ML; Redondo, MM; Gisbert, NM; Castillejo, EO; Bernáldez, MP; Gallán, MP; Ribera, VP; Maestu, LP; Moreno, BR; Jimeno, ER; Azofra, AS; Segrelles-Calvo. *Errare Humanum Est, Though a Lucky Mistake, Indeed!*. ARCHIVOS DE BRONCONEUMOLOGIA. 2021; 57(2) 146-147. FI: 6.333. Cuartil: 1. (Letter).
- Jiménez-Ruiz, CA; López-Padilla, D; Alonso-Arroyo, A; Aleixandre-Benavent, R; Solano-Reina, S; de Granda-Orive, JI. *Reply to "Smoker, Former Smoker and COVID-19"*. ARCHIVOS DE BRONCONEUMOLOGIA. 2021; 57 67-68. FI: 6.333. Cuartil: 1. (Letter).
- López-Padilla, D; García-Río, F; Alonso-Arroyo, A; Arenas Valls N; Cerezo Lajas A; Corral Blanco M; Gallo González V; Llanos Flores M; Martínez Redondo M; Martos Gisbert N; Ojeda Castillejo E; Padilla Bernáldez M; Pérez Gallán M; Prudencio Ribera V; Puente. *Gender Differences in Original Archivos de Bronconeumología Publications, 2001-2018*. ARCHIVOS DE BRONCONEUMOLOGIA. 2021; 57(2) 107-114. FI: 6.333. Cuartil: 1. (Article).
- Puente-Maestu, L; Ortega, F; de Pedro, JG; Rodríguez-Nieto, MJ; Gómez-Seco, J; Galdiz, B; Ojanguren, I; Muñoz, X; Blanco, I; Burgos, F; Rodríguez-

- Chiaradia, DA; Gea, J; García-Rio, F. *Prediction Equations for Maximal Aerobic Capacity on Cycle Ergometer for the Spanish Adult Population*. ARCHIVOS DE BRONCONEUMOLOGIA. 2021; 57(7) 471-478. FI: 6.333. Cuartil: 1. (Article).
- Romera, A; Cebollero, M; Romero-Gómez, B; Carricondo, F; Zapatero, S; García-Aldao, U; Martín-Albo, L; Ortega, J; Vara, E; Garutti, I; Simón, C. *Effect of Intravenous Lidocaine on Inflammatory and Apoptotic Response of Ischemia-Reperfusion Injury in Pigs Undergoing Lung Resection Surgery*. BIOMED RESEARCH INTERNATIONAL. 2021; 2021 6630232-6630232. FI: 3.246. Cuartil: 3. (Article).
 - Torrego, A; Herth, FJ; Muñoz-Fernández, AM; Puente, L; Facciolo, N; Bicknell, S; Novali, M; Gasparini, S; Bonifazi, M; Dheda, K; Andreo, F; Votruba, P; Langton, D; Flandes, J; Fielding, D; Bonta, PI; Skowasch, D; Schulz, C; Darwiche, K; McMullen, E; Gr. *Bronchial Thermoplasty Global Registry (BTGR): 2-year results*. BMJ OPEN. 2021; 11(12). FI: 3.006. Cuartil: 2. (Article).
 - López-de-Andrés, A; Jiménez-García, R; Hernández-Barrera, V; de Miguel-Yanes, JM; Albaladejo-Vicente, R; Villanueva-Orbaiz, R; Carabantes-Alarcón, D; ZaMorano-León, JJ; López-Herranz, M; de Miguel-Diez, J. *Are there sex differences in the effect of type 2 diabetes in the incidence and outcomes of myocardial infarction? A matched-pair analysis using hospital discharge data*. CARDIOVASCULAR DIABETOLOGY. 2021; 20(1) 81-81. FI: 8.949. Cuartil: 1. (Article).
 - López-de-Andrés, A; Jiménez-García, R; Hernández-Barrera, V; Jiménez-Trujillo, I; de Miguel-Yanes, JM; Carabantes-Alarcón, D; de Miguel-Diez, J; López-Herranz, M. *Sex-related disparities in the incidence and outcomes of hemorrhagic stroke among type 2 diabetes patients: a propensity score matching analysis using the Spanish National Hospital Discharge Database for the period 2016-18*. CARDIOVASCULAR DIABETOLOGY. 2021; 20(1) 138-138. FI: 8.949. Cuartil: 1. (Article).
 - Casanova, C; González-Dávila, E; Martínez-González, C; Cosío, BG; Fuster, A; Feu, N; Solánes, I; Cabrera, C; Marín, JM; Balcells, E; Peces-Barba, G; de Torres, JP; Marín-Oto, M; Calle, M; Golpe, R; Ojeda, E; Divo, M; Pinto-Plata, V; Amado, C; López-Campos. *Natural Course of the Diffusing Capacity of the Lungs for Carbon Monoxide in COPD Importance of Sex*. CHEST. 2021; 160(2) 481-490. FI: 10.262. Cuartil: 1. (Article).
 - Tarazona-Álvarez, B; López-Roldán, A; Vidal-Infer, A; López-Padilla, D; Alonso-Arroyo, A. *Bibliometric analysis of the scientific production of literature on peri-implant diseases in the Web of Science*. CLINICAL IMPLANT DENTISTRY AND RELATED RESEARCH. 2021; 23(4) 625-634. FI: 4.259. Cuartil: 1. (Article).
 - Sáez-Giménez, B; Barrecheguren, M; Ramón, MA; Gómez-Garrido, A; Bravo, C; Monforte, V; López-Meseguer, M; Berastegui, C; Revilla, E; Romero, C; Laporta, R; Fernández-Rozas, S; Redel-Montero, J; Solé, A; de la Torre, M; Puente, L; Román, A; Gómez-Olles, S. *Near-normal aerobic capacity in long-term survivors after lung transplantation*. ERJ OPEN RESEARCH. 2021; 7(1). FI: 4.239. Cuartil: 2. (Article).
 - Puente-Maestu, L; López, E; Sayas, J; Alday, E; Planas, A; Parise, DJ; Martínez-Borja, M; Garutti, I. *The effect of immediate postoperative Boussignac CPAP on adverse pulmonary events after thoracic surgery A multicentre, randomised controlled trial*. EUROPEAN JOURNAL OF ANAESTHESIOLOGY. 2021; 38(2) 164-170. FI: 4.183. Cuartil: 2. (Article).
 - Demelo-Rodríguez, P; Ordieres-Ortega, L; Ji, ZC; del Toro-Cervera, J; de Miguel-Diez, J; Álvarez-Sala-Walther, LA; Galeano-Valle, F. *Long-term follow-up of patients with venous thromboembolism and COVID-19: Analysis of risk factors for death and major bleeding*. EUROPEAN JOURNAL OF HAEMATOLOGY. 2021; 106(5) 716-723. FI: 3.674. Cuartil: 3. (Article).
 - de-Miguel-Diez, J; Albaladejo-Vicente, R; Jiménez-García, R; Hernández-Barrera, V; Villanueva-Orbaiz, R; Carabantes-Alarcón, D; Jiménez, D; Monreal, M; López-de-Andrés, A. *The effect of COPD on the incidence and mortality of hospitalized patients with pulmonary embolism: A nationwide population-based study (2016-2018)*. EUROPEAN JOURNAL OF INTERNAL MEDICINE. 2021; 84 18-23. FI: 7.749. Cuartil: 1. (Article).
 - Hermosa, JLR; Gomila, AF; Maestu, LP; Diago, CAA; González, FJC; Ruiz, RMD; Ferrer, MEF; Álvarez-Sala, JL; Rubio, MC. *Assessing the Usefulness of the Prevexair Smartphone Application in the Follow-Up High-Risk Patients with COPD*. INTERNATIONAL JOURNAL OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE. 2021; 16 53-65. FI: 2.893. Cuartil: 4. (Article).
 - de Miguel-Diez, J; López-de-Andrés, A; Jiménez-García, R; Hernández-Barrera, V; Jiménez-Trujillo, I; Ji, ZC; de Miguel-Yanes, JM; López-Herranz, M. *Sex Differences in the Incidence and Outcomes of COPD Patients Hospitalized*

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with Ischemic Stroke in Spain: A Population-Based Observational Study. INTERNATIONAL JOURNAL OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE. 2021; 16 1851-1862. FI: 2.893. Cuartil: 4. (Article).

- López-de-Andrés, A; Albaladejo-Vicente, R; de Miguel-Díez, J; Hernández-Barrera, V; Ji, ZC; ZaMorano-León, JJ; López-Herranz, M; Alarcón, DC; Jiménez-García, R. *Gender differences in incidence and in-hospital outcomes of community-acquired, ventilator-associated and nonventilator hospital-acquired pneumonia in Spain.* INTERNATIONAL JOURNAL OF CLINICAL PRACTICE. 2021; 75(3). FI: 3.149. Cuartil: 2. (Article).
- de Miguel-Yáñez, JM; Jiménez-García, R; López-de-Andrés, A; Hernández-Barrera, V; de Miguel-Díez, J; Méndez-Bailón, M; Muñoz-Rivas, N; Pérez-Farinos, N; López-Herranz, M. *The influence of sex on ischemic stroke incidence, therapeutic procedures and in-hospital mortality: Results of the Spanish National Hospital Discharge.* INTERNATIONAL JOURNAL OF CLINICAL PRACTICE. 2021; 75(12). FI: 3.149. Cuartil: 2. (Article).
- de Miguel-Díez, J; López-de-Andrés, A; Hernández-Barrera, V; Jiménez, D; Monreal, M; López-Herranz, M; Ji, ZC; Jiménez-García, R. *The significance of heart failure in hospitalised patients with pulmonary embolism. A gender-specific analysis.* INTERNATIONAL JOURNAL OF CLINICAL PRACTICE. 2021; 75(10). FI: 3.149. Cuartil: 2. (Article).
- López-de-Andrés, A; Jiménez-García, R; Hernández-Barrera, V; Jiménez-Trujillo, I; ZaMorano-León, JJ; Carabantes-Alarcón, D; López-Herranz, M; de Miguel-Yanes, JM; de Miguel-Díez, J. *Sex-Related Disparities in the Incidence and Outcomes of Ischemic Stroke among Type 2 Diabetes Patients. A Matched-Pair Analysis Using the Spanish National Hospital Discharge Database for Years 2016-2018.* INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2021; 18(7). FI: 4.614. Cuartil: 1. (Article).
- López-Herranz, M; Jiménez-García, R; Ji, ZC; De Miguel-Díez, J; Carabantes-Alarcón, D; Maestre-Miquel, C; ZaMorano-León, JJ; López-de-Andrés, A. *Mental Health among Spanish Adults with Diabetes: Findings from a Population-Based Case-Controlled Study.* INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2021; 18(11). FI: 4.614. Cuartil: 1. (Article).
- Maestre-Miquel, C; López-de-Andrés, A; Ji, Z; de Miguel-Díez, J; Brocate, A; Sanz-Rojo, S; López-Farre, A; Carabantes-Alarcón, D; Jiménez-García, R;

Zamorano-León, JJ. *Gender Differences in the Prevalence of Mental Health, Psychological Distress and Psychotropic Medication Consumption in Spain: A Nationwide Population-Based Study.* INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2021; 18(12). FI: 4.614. Cuartil: 1. (Article).

- López-de-Andrés, A; López-Herranz, M; Hernández-Barrera, V; de Miguel-Díez, J; de Miguel-Yanes, JM; Carabantes-Alarcón, D; Albaladejo-Vicente, R; Villanueva-Orbaiz, R; Jiménez-García, R. *Sex Differences in Hospital-Acquired Pneumonia among Patients with Type 2 Diabetes Mellitus Patients: Retrospective Cohort Study using Hospital Discharge Data in Spain (2016-2019).* INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2021; 18(23). FI: 4.614. Cuartil: 1. (Article).
- Palacios-Cena, D; Florencio, LL; Hernández-Barrera, V; Fernández-de-las-Penas, C; de Miguel-Díez, J; Martínez-Hernández, D; Carabantes-Alarcón, D; Jiménez-García, R; López-de-Andrés, A; López-Herranz, M. *Trends in Incidence and Outcomes of Hospitalizations for Urinary Tract Infection among Older People in Spain (2001-2018).* JOURNAL OF CLINICAL MEDICINE. 2021; 10(11). FI: 4.964. Cuartil: 2. (Article).
- de Miguel-Yanes, JM; Jiménez-García, R; Hernández-Barrera, V; de Miguel-Díez, J; Muñoz-Rivas, N; Méndez-Bailón, M; Pérez-Farinos, N; López-Herranz, M; López-de-Andrés, A. *Sex Differences in the Incidence and Outcomes of Acute Myocardial Infarction in Spain, 2016-2018: A Matched-Pair Analysis.* JOURNAL OF CLINICAL MEDICINE. 2021; 10(8). FI: 4.964. Cuartil: 2. (Article).
- de Miguel-Díez, J; López-Herranz, M; Jiménez-García, R; Hernández-Barrera, V; Jiménez-Trujillo, I; de Miguel-Yanes, JM; de Andrés, AL. *Effect of COPD on the Hospital Outcomes and Mortality among Hemorrhagic Stroke Patients. Sex Differences in a Population-Based Study.* JOURNAL OF CLINICAL MEDICINE. 2021; 10(11). FI: 4.964. Cuartil: 2. (Article).
- de Miguel-Díez, J; Jiménez-García, R; Hernández-Barrera, V; Ji, ZC; de Miguel-Yanes, JM; López-Herranz, M; López-de-Andrés, A. *Sex Differences in the Effects of COPD on Incidence and Outcomes of Patients Hospitalized with ST and Non-ST Elevation Myocardial Infarction: A Population-Based Matched-Pair Analysis in Spain (2016-2018).* JOURNAL OF CLINICAL MEDICINE. 2021; 10(4). FI: 4.964. Cuartil: 2. (Article).



- Méndez-Bailon, M; Jiménez-García, R; Muñoz-Rivas, N; Hernández-Barrera, V; de Miguel-Yanes, JM; de Miguel-Díez, J; Andrés, E; Lorenzo-Villalba, N; López-de-Andrés, A. *Trends and Clinical Impact of Gastrointestinal Endoscopic Procedures on Acute Heart Failure in Spain (2002-2017)*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(3). FI: 4.964. Cuartil: 2. (Article).
- de Miguel-Díez, J; López-Herranz, M; Hernández-Barrera, V; De Miguel-Yanes, JM; Pérez-Farinos, N; Warnberg, J; Carabantes-Alarcón, D; Jiménez-García, R; López-de-Andrés, A. *Community-Acquired Pneumonia among Patients with COPD in Spain from 2016 to 2019. Cohort Study Assessing Sex Differences in the Incidence and Outcomes Using Hospital Discharge Data*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(21). FI: 4.964. Cuartil: 2. (Article).
- Ballesteros, BLM; López-Herranz, M; López-de-Andrés, A; Hernández-Barrera, V; Jiménez-García, R; Carabantes-Alarcón, D; Jiménez-Trujillo, I; de Miguel-Díez, J. *Sex Differences in the Incidence and Outcomes of Patients Hospitalized by Idiopathic Pulmonary Fibrosis (IPF) in Spain from 2016 to 2019*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(16). FI: 4.964. Cuartil: 2. (Article).
- de-Miguel-Díez, J; Jiménez-García, R; Hernández-Barrera, V; de-Miguel-Yanes, JM; Carabantes-Alarcón, D; López-de-Andrés, A. *Assessing the Impact of Gender and COPD on the Incidence and Mortality of Hospital-Acquired Pneumonia. A Retrospective Cohort Study Using the Spanish National Discharge Database (2016-2019)*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(22). FI: 4.964. Cuartil: 2. (Article).
- de Miguel-Yanes, JM; López-de-Andrés, A; Jiménez-García, R; Hernández-Barrera, V; de Miguel-Díez, J; Carabantes-Alarcón, D; Pérez-Farinos, N; Warnberg, J. *Incidence, Outcomes and Sex-Related Disparities in Pneumonia: A Matched-Pair Analysis with Data from Spanish Hospitals (2016-2019)*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(19). FI: 4.964. Cuartil: 2. (Article).
- de Miguel-Yanes, JM; López-de-Andrés, A; Jiménez-García, R; Hernández-Barrera, V; de Miguel-Díez, J; Méndez-Bailon, M; Pérez-Farinos, N; Muñoz-Rivas, N; Carabantes-Alarcón, D; López-Herranz, M. *Incidence and Outcomes of Hemorrhagic Stroke among Adults in Spain (2016-2018) According to Sex: A Retrospective, Cohort, Observational, Propensity Score Matched Study*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(16). FI: 4.964. Cuartil: 2. (Article).
- López-de-Andrés, A; Jiménez-García, R; Hernández-Barrera, V; de Miguel-Díez, J; de Miguel-Yanes, JM; Carabantes-Alarcón, D; ZaMorano-León, JJ; Sanz-Rojo, S; López-Herranz, M. *Sex-Related Disparities in the Incidence and Outcomes of Community-Acquired Pneumonia among Type 2 Diabetes Patients: A Propensity Score-Matching Analysis Using the Spanish National Hospital Discharge Database for the Period 2016-2019*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(17). FI: 4.964. Cuartil: 2. (Article).
- Fuentes-Alonso, M; López-Herranz, M; López-de-Andrés, A; Ji, ZC; Jiménez-García, R; Maestre-Miquel, C; ZaMorano-León, JJ; Jiménez-Trujillo, I; de Miguel-Díez, J. *Prevalence and Determinants of Mental Health among COPD Patients in a Population-Based Sample in Spain*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(13). FI: 4.964. Cuartil: 2. (Article).
- Barea, JC; De la Gala, F; Pineiro, P; Reyes, A; Simón, C; Rancan, L; Vara, E; Paredes, S; Bellón, JM; Martínez, IG. *Influence of postoperative complications on long-term outcome after oncologic lung resection surgery. Substudy of a randomized control trial*. JOURNAL OF CLINICAL MONITORING AND COMPUTING. 2021; 35(5) 1183-1192. FI: 1.977. Cuartil: 4. (Article).
- Pun, BT; Badenes, R; La Calle, GH; Orun, OM; Chen, WC; Raman, R; Simpson, BGK; Wilson-Linville, S; Olmedillo, BH; de la Cueva, AV; van der Jagt, M; Casado, RN; Sanz, PL; Orhun, G; Gómez, CF; Vázquez, KN; Otero, PP; Taccone, FS; Curto, EG; Caricato, A; Woi. *Prevalence and risk factors for delirium in critically ill patients with COVID-19 (COVID-D): a multicentre cohort study*. LANCET RESPIRATORY MEDICINE. 2021; 9(3) 239-250. FI: 102.642. Cuartil: 1. (Article).
- Puente-Maestu, L; Molina-París, J; Trigueros, JA; Gómez-Saenz, JT; Cea-Calvo, L; Fernández, S; Sánchez-Jareño, M; Domínguez-Ortega, J. *A Survey of Physicians' Perception of the Use and Effectiveness of Diagnostic and Therapeutic Procedures in Chronic Cough Patients*. LUNG. 2021; 199(5) 507-515. FI: 3.777. Cuartil: 3. (Article).
- Palacios-Cena, D; Albaladejo-Vicente, R; Hernández-Barrera, V; Lima-Florencio, L; Fernández-de-las-Penas, C; Jiménez-García, R; López-de-Andrés, A; de Miguel-Díez, J; Pérez-Farinos, N. *Female Gender Is Associated with a Higher Prevalence of Chronic Neck Pain, Chronic Low Back Pain, and Migraine: Results of the Spanish National Health Survey, 2017*. PAIN MEDICINE. 2021; 22(2) 382-395. FI: 3.637. Cuartil: 2. (Article).
- Bermejo, J; Díez, J; Fernández-Avilés, F. *(Collaborative) cardiovascular research in Spain: quo vadis?*. REVISTA ESPAÑOLA DE CARDIOLOGIA. 2021; 74(11) 898-900. FI: 6.975. Cuartil: 1. (Editorial Material).



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- De-Miguel-Díez, J; López-Herranz, M; Hernández-Barrera, V; Jiménez, D; Monreal, M; Jiménez-García, R; López-de-Andrés, A. *Sex-differences in the effect of obstructive sleep apnea on patients hospitalized with pulmonary embolism and on in-hospital mortality*. SCIENTIFIC REPORTS. 2021; 11(1) 18390-18390. FI: 4.996. Cuartil: 2. (Article).
- Romero-Cristóbal, M; Clemente-Sánchez, A; Pineiro, P; Cedeno, J; Rayón, L; del Rio, J; Ramos, C; Hernández, DA; Cova, M; Caballero, A; Garutti, I; García-Olivares, P; Hortal, J; Guerrero, JE; García, R; Bañares, R; Rincón, D. *Possible unrecognised liver injury is associated with mortality in critically ill COVID-19 patients*. THERAPEUTIC ADVANCES IN GASTROENTEROLOGY. 2021; 14. FI: 4.802. Cuartil: 2. (Article).
- Sanz-Rojo, S; Jiménez-García, R; López-de-Andrés, A; de Miguel-Díez, J; Pérez-Farinos, N; ZaMorano-León, JJ. *Influenza vaccination uptake among high-risk target groups and health care workers in Spain and change from 2017 to 2020*. VACCINE. 2021; 39(48) 7012-7020. FI: 4.169. Cuartil: 3. (Article).
- Sánchez-Muñoz, G; López-de-Andrés, A; Jiménez-García, R; Hernández-Barrera, V; Pedraza-Serrano, F; Puente-Maestu, L; de Miguel-Díez, J. *Trend from 2001 to 2015 in the prevalence of bronchiectasis among patients hospitalized for asthma and effect of bronchiectasis on the in-hospital mortality*. JOURNAL OF ASTHMA. 2021; 58(8) 1067-1076. (Article).
- Molina-Paris, J; Trigueros, JA; Gómez-Saenz, JT; Puente-Maestu, L; Julia, B; Dominguez-Ortega, J. *Perceptions of family doctors, pulmonologists and allergists on the approach to patients with chronic cough. Results of an anonymous survey*. MEDICINA DE FAMILIA-SEMERGEN. 2021; 47(6) 376-384. (Article).
- Martínez, KL; Pedraza, F; Alonso, MF; Maestu, LP; Naranjo, CR; De Miguel-Díez, J. *A family history of Hermansky-Pudlak syndrome complicated with pulmonary fibrosis: a case series and review*. RESPIROLOGY CASE REPORTS. 2021; 9(4). (Review).
- Granell, M; Sanchís, N; López-Cantero, M; Romero, CS; Garutti, I; Vicente, R. *Analysis and review of the perioperative management of COVID-19 patients in thoracic surgery*. REVISTA ESPANOLA DE ANESTESIOLOGIA Y REANIMACION. 2021; 68(6) 369-371. (Letter).
- González-Benito, E; de Betono, TDF; Pardos, PC; Ruiz, PE. *Difficult airway in a patient with lymphoma. A case report*. REVISTA ESPANOLA DE ANESTESIOLOGIA Y REANIMACION. 2021; 68(5) 297-300. (Article).
- Pascual, RCV; Sánchez-Pedrosa, G; Rodríguez, LR. *Trauma induced spinal subdural haematoma in patient anticoagulated with apixaban*. REVISTA ESPANOLA DE ANESTESIOLOGIA Y REANIMACION. 2021; 69(1) 62-63. (Editorial Material).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Calvo-Haro, JA; Pascau, J; Asencio-Pascual, JM; Calvo-Manuel, F; Cancho-Gil, MJ; López, JFD; Fanjul-Gómez, M; García-Leal, R; González-Casaurrán, G; González-Leyte, M; León-Luis, JA; Mediavilla-Santos, L; Ochandiano-Caicoya, S; Pérez-Caballero, R; Ribed-S. *Point-of-care manufacturing: a single university hospital's initial experience*. 3D PRINTING IN MEDICINE. 2021; 7(1) 11-11. (Article).



7.06. Regenerative medicine in plastic surgery

Group Head: JOSÉ MARÍA LASSO VÁZQUEZ

Organisms involved: HGUGM

Type: Emerging group

Research lines

L1: Cell Therapy

- ▶ L1: Composite tissue transplantation.
- ▶ L2: Peripheral nerve regeneration.

L2: Breast reconstruction

- ▶ L1: Prosthetic reconstruction.

Group members

- Arenas Domingo, Luis Javier: R1. First Stage Researcher.
- Cortina Acevedo, Edgar Alfonso: R1. First Stage Researcher.
- Lasso Vázquez, José M^a: R4. Leading Researcher.
- Nava Pérez, Paola.
- Pérez Cano, Rosa: R4. Leading Researcher.



Industrial and intellectual property registrations

Industrial property

Title	Reference*	Owner	Inventors
Matriz artificial de gel de fibrina endotelizada superproductora de factores proangiogénicos	P 2005 01182	FIBHGM	José María Lasso, Paola Nava

■ Transferred Industrial Property.

* Reference: P (Patent), PCT (international patent), EP (European patent), US (USA patent), U (Utility model), M (Trademark).

Clinical Practice Guidelines

Authors	Title	Journal/Reference
Bouza, E; de Alarcon, A; Farinas, MC; Galvez, J; Goenaga, MA; Gutierrez-Diez, F; Hortal, J; Lasso, J; Mestres, CA; Miro, JM; Navas, E; Nieto, M; Parra, A; de la Sota, EP; Rodriguez-Abella, H; Rodriguez-Creixems, M; Rodriguez-Roda, J; Espin, GS; Sousa, D; de Sierra, CVG; Munoz, P; Kestler, M	Prevention, Diagnosis and Management of Post-Surgical Mediastinitis in Adults Consensus Guidelines of the Spanish Society of Cardiovascular Infections (SEICAV), the Spanish Society of Thoracic and Cardiovascular Surgery (SECTCV) and the Biomedical Research Centre Network for Respiratory Diseases (CIBERES)	34884268

7.06. REGENERATIVE MEDICINE IN PLASTIC SURGERY

Publications		Total Impact Factor: 6.7
	Nº	IF
Own publications	1	1.8
Joint publications	1	5.0
First decile publications	0	-
First quartile publications	0	0.0
Second quartile publications	1	5.0
Third quartile publications	1	1.8
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	1	-
Total publications (including those without IF)	3	6.7

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Lasso, JM; Pinilla, C; Vasquez, W; Asencio, JM. *The Effect of Intraoperative Radiotherapy on Healing and Complications After Sacrectomy and Immediate Reconstruction*. ANNALS OF PLASTIC SURGERY. 2021; 86(6) 688-694. FI: 1.763. Cuartil: 3. (Article).
- Bouza, E; de Alarcón, A; Fariñas, MC; Gálvez, J; Goenaga, MA; Gutiérrez-Díez, F; Hortal, J; Lasso, J; Mestres, CA; Miró, JM; Navas, E; Nieto, M; Parra, A; de la Sota, EP; Rodríguez-Abella, H; Rodríguez-Creixems, M; Rodríguez-Roda, J; Espin, GS; Sousa, D. *Prevention, Diagnosis and Management of Post-Surgical Mediastinitis in Adults Consensus Guidelines of the Spanish Society of Cardiovascular Infections (SEICAV), the Spanish Society of Thoracic and Cardiovascular Surgery (SECTCV) and the Biomedical Research*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(23). FI: 4.964. Cuartil: 2. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Lasso, JM. *Restoration of Neck Extension after Severe Oncological Surgery of the Posterior Cervical Trunk*. PLASTIC AND RECONSTRUCTIVE SURGERY-GLOBAL OPEN. 2021; 9(5). (Article).

7.07. Experimental kidney transplant

Group Head: ENRIQUE LLEDÓ GARCÍA

Organisms involved: HGUGM

Type: Emerging group

Research lines

Axis 1: Experimental Renal:

- ▶ L1.1: Ischaemia-Reperfusion.

Axis 2: Complex urethral reconstructive surgery:

- ▶ L2.1: Treatment of anatomical and functional alterations of the urethra.

Axis 3: Complex genital reconstructive surgery:

- ▶ L3.1: Treatment of anatomical and functional alterations of the penis.
- ▶ L3.2: Treatment of anatomical and functional uro-digestive and uro-gynaecological disorders.

Urological surgical group with 2 fields of dedication: experimental renal preservation and complex urethral and genital reconstructive surgery, peyronie's disease.

Group members

- Aragón Chamizo, Juan.
- Cancho Gil, M^a José.
- Caño Velasco, Jorge.
- González García, Francisco Javier.
- Hernández Fernández, Carlos: R4. Leading Researcher.
- Herranz Amo, Felipe Bernardo: R2. Recognised Researcher.
- Jara Rascón, José: R2. Recognised Researcher.
- Lledó García, Enrique: R4. Leading Researcher.
- Rodríguez Fernández, M^a Elena.
- Subira Ríos, David: R1. First Stage Researcher.

7.07. EXPERIMENTAL KIDNEY TRANSPLANT

Publications		Total Impact Factor: 15.9
	Nº	IF
Own publications	11	11.0
Joint publications	2	4.8
First decile publications	0	-
First quartile publications	1	3.9
Second quartile publications	0	0.0
Third quartile publications	1	2.6
Fourth quartile publications	11	9.3
Nonindexed publications / No IF	4	-
Total publications (including those without IF)	17	15.9

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Martínez-Holguín, E; Herranz-Amo, F; de Castro, JM; Polanco-Pujol, L; Hernández-Cavieses, J; Subira-Ríos, D; Moralejo-Garate, MI; Aragón-Chamizo, J; Hernández-Fernández, C. *Comparison between laparoscopic and open prostatectomy: Oncological progression analysis*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(2) 139-145. FI: 0.887. Cuartil: 4. (Article).
- Pujol, LP; Fernández, ER; Chomon, GB; Velasco, JC; Álvarez, RQ; Gil, MJC; Fernández, CH. *Intravesical migration of intrauterine device*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(1) 90-91. FI: 0.887. Cuartil: 4. (Letter).
- Cozar, JM; Hernández, C; Miñana B; Morote, J; Álvarez-Cubero, MJ. *The role of prostate-specific antigen in light of new scientific evidence: An update in 2020*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(1) 21-29. FI: 0.887. Cuartil: 4. (Article).

- Velasco, JC; Pujol, LP; Cavieses, JH; García, FJG; Amo, FH; Ciancio, G; Fernández, CH. *Controversies in the diagnosis of renal cell carcinoma with tumor thrombus*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(4) 257-263. FI: 0.887. Cuartil: 4. (Review).
- Cano-Velasco, J; Polanco-Pujol, L; González-García, J; Herranz-Amo, F; Hernández-Fernández, C. *Renal artery infectious (mycotic) pseudoaneurysms in renal transplantation recipients*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(5) 335-344. FI: 0.887. Cuartil: 4. (Review).
- Álvarez, RQ; Amo, FH; Chomon, GB; Ríos, DS; Monfort, VB; Cavieses, JH; Fernández, CH. *Surgical management of horseshoe kidney tumors. Literature review and analysis of two cases*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(7) 493-497. FI: 0.887. Cuartil: 4. (Review).
- Polanco, L; Bueno, G; Cano, J; Rodríguez, E; Díez-Cordero, JM; Hernández, J; Blaha, I; Hernández, C. *Laparoscopic pyelolithotomy in pelvic ectopic kidney: Case report and literature review*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(6) 419-426. FI: 0.887. Cuartil: 4. (Review).
- Asencio, JM; González, J; Herranz-Amo, F; Hernández-Fernández, C. *Retrohepatic inferior vena cava control through an anterior approach in cases of renal cell carcinoma with level iiiia tumor thrombus: Step-by-step description*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(9) 587-596. FI: 0.887. Cuartil: 4. (Article).
- Luis-Cardo, A; González-García, FJ; Agra-Pujol, C; Hernández-Cavieses, J; Hernández-Fernández, C. *Giant solitary fibrous tumor of the kidney*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(10) 656-658. FI: 0.887. Cuartil: 4. (Letter).
- Velasco, JC; Pujol, LP; Amo, FH; García, JG; Chamizo, JA; Fernández, CH. *Utility of preoperative vascular embolization of renal tumors with left renal vein tumor thrombus*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(10) 615-622. FI: 0.887. Cuartil: 4. (Article).
- Polanco-Pujol, L; Cano-Velasco, J; Moralejo-Garate, M; Bataller-Monfort, V; Subira-Ríos, D; Fernández, CH. *Penile metastasis from urothelial carcinoma: Review of literature*. ARCHIVOS ESPAÑOLES DE UROLOGIA. 2021; 74(2) 208-214. FI: 0.43. Cuartil: 4. (Article).
- Caballero, EH; Ortuzar, JZ; Subira-Ríos, D; Jiménez-Gómez, LM. *The York Mason procedure for rectourethral fistula repair - a video-vignette*. COLORECTAL DISEASE. 2021; 23(9) 2488-2488. FI: 3.917. Cuartil: 1. (Letter).



- Subira-Ríos, D; Moncada, I; Cano-Velasco, J; González-García, J; Polanco-Pujol, L; Subira-Ríos, J; Hernández-Fernández, C. *Minimally Invasive Laparoscopic Technique for Lymph Node Dissection in Penile Cancer: The Pelvic and Inguinal Single-Site Approach: PISA Technique*. UROLOGY. 2021; 153 351-354. FI: 2.633. Cuartil: 3. (Editorial Material).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Calvo-Haro, JA; Pascau, J; Asencio-Pascual, JM; Calvo-Manuel, F; Cancho-Gil, MJ; López, JFD; Fanjul-Gómez, M; García-Leal, R; González-Casaurrán, G; González-Leyte, M; León-Luis, JA; Mediavilla-Santos, L; Ochandiano-Caicoya, S; Pérez-Caballero, R; Ribed-S. *Point-of-care manufacturing: a single university hospital's initial experience*. 3D PRINTING IN MEDICINE. 2021; 7(1) 11-11. (Article).

Other publications

- Caño Velasco J; Polanco Pujol L; Herranz Amo F; González García J; Aragón Chamizo J; Hernández Fernández C. *Utility of preoperative vascular embolization of renal tumors with left renal vein tumor thrombus*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(10) 615-622. (Article).
- Polanco Pujol L; Bueno Chomon G; Caño Velasco J; Rodríguez Fernández E; Díez-Cordero JM; Hernández Cavieles J; Blaha I; Hernández Fernández C. *Laparoscopic pyelolithotomy in pelvic ectopic kidney: Case report and literature review*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(6) 419-426. (Article).
- Quintana Álvarez R; Herranz Amo F; Bueno Chomón G; Subirá Ríos D; Bataller Monfort V; Hernández Cavieles J; Hernández Fernández C. *Surgical management of horseshoe kidney tumors. Literature review and analysis of two cases*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(7) 493-497. (Article).



7.08. Pediatric endocrinology

Group Head: M^a DOLORES RODRÍGUEZ ARNAO

Organisms involved: HGUGM

Type: Associated Group

Research lines

- ▶ L1: Pediatric endocrinology. Hypothyroidism.
- ▶ L2: Gene therapy: polymorphisms and mutations.
- ▶ L3: Hormone therapy.

Group members

- **Montero García, Virginia:** R1. First Stage Researcher. I.
- **Morillas Cantero, Isabel:** R1. First Stage Researcher. I.
- **Rodríguez Arnao, M^a Dolores:** R4. Leading Researcher.
- **Rodríguez Sánchez, Amparo:** R1. First Stage Researcher.
- **Roldán Martín, Belén:** R1. First Stage Researcher.



7.10. Regeneration and biomaterials in musculoskeletal diseases

Group Head: FRANCISCO JAVIER VAQUERO MARTÍN

Organisms involved: HGUGM / UCM

Type: Associated Group

Research lines

Axis 1: Mesenchymal cells in TOC

- ▶ Line 1: MSC infusion in hip necrosis. Leader: Prof. Vaquero.
- ▶ Line 2: Influence of mechanical factors on cultures.

Axis 2: Biomaterials

- ▶ Line 1: Bone cements with antibiotics. Leaders: Dr. Sanz.
- ▶ Line 2: Microencapsulation of antibiotics.

Axis 3: 3D printing

- ▶ Line 1: Biomodels and customised surgical guides. Leader: Dr. Pérez-Mañanes.
- ▶ Line 2: Custom-made implants.
- ▶ Line 3: AR/VR surgical navigation.
- ▶ Line 4: POC (Point-Of-Care) fabrication.

Axis 4: Eco-guided surgery

- ▶ Line 1: Ultra-MIS surgery on the upper limb. Leaders: Dr. Chana and Dr. Rojo.
- ▶ Line 2: Ultrasound-guided pelvic surgery.

The group is composed mainly (although not exclusively) of specialists in Orthopedic Surgery and Traumatology from our and other national and foreign hospitals with the support of at least three universities in various projects (San Pablo CEU, Universidad Juan Carlos I, and ICAI, all of which are in Madrid). In some of the mentioned lines of research (below). work had already begun, thus confirming the group's viability and its role in promoting projects and doctoral theses.

There are currently 14 active members participating in some of these lines.

Group members

- Aburto Bernardo, Mikel.
- Arnal Burro, Juan Manuel.
- Calvo Haro, José Antonio: R1. First Stage Researcher.
- Carbo Laso, Esther: R2. Recognised Researcher.
- Chana Rodríguez, Francisco: R2. Recognised Researcher.
- Cuervas Mons, Manuel.
- Forriol Campos, Francisco: R2. Recognised Researcher.
- López Torres, Irene Isabel.
- Matas Díaz, José Antonio: R1. First Stage Researcher.
- Narbona Cárceles, Francisco Javier: R2. Recognised Researcher.
- Pérez Mañanes, Rubén: R3. Established Researcher.
- Rojo Manaute, José Manuel: R3. Recognised Researcher.
- Sanz Ruiz, Pablo: R2. Recognised Researcher.
- Vaquero Martín, Javier: R4. Leading Researcher.



7.10. REGENERATION AND BIOMATERIALS IN MUSCULOSKELETAL DISEASES

Publications		Total Impact Factor: 35.3
	Nº	IF
Own publications	4	9.8
Joint publications	8	25.5
First decile publications	0	-
First quartile publications	0	0.0
Second quartile publications	9	28.6
Third quartile publications	3	6.7
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	4	-
Total publications (including those without IF)	16	35.3

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Calvo-Haro, JA; Pascau, J; Mediavilla-Santos, L; Sanz-Ruiz, P; Sánchez-Pérez, C; Vaquero-Martín, J; Pérez-Mañanes, R. *Conceptual evolution of 3D printing in orthopedic surgery and traumatology: from "do it yourself" to "point of care manufacturing"*. BMC MUSCULOSKELETAL DISORDERS. 2021; 22(1) 360-360. FI: 2.562. Cuartil: 3. (Article).
- Martínez-Ayora, A; Cantón, MCM; Benjumea-Carrasco, A; Arnal-Burro, J; So-bron-Caminero, FB; Vaquero, J. *Tips, quips and pearls: Ultrasound-guided distal metatarsal minimal invasive osteotomy (US-DMMO)*. FOOT AND ANKLE SURGERY. 2021; 27(1) 30-34. FI: 2.84. Cuartil: 2. (Article).
- Sanz-Ruiz, P; Matas-Díez, JA; Villanueva-Martínez, M; Carbo-Laso, E; López-Torres, II; Vaquero-Martín, J. *A new biarticular cement spacer technique for infected total hip and knee arthroplasty with massive bone loss*. HIP INTERNATIONAL. 2021; 31(2) 242-249. FI: 1.756. Cuartil: 3. (Article).

- García-Sevilla, M; Mediavilla-Santos, L; Moreta-Martínez, R; García-Mato, D; Pérez-Mañanes, R; Calvo-Haro, JA; Pascau, J. *Combining Surgical Navigation and 3D Printing for Less Invasive Pelvic Tumor Resections*. IEEE ACCESS. 2021; 9 133541-133551. FI: 3.476. Cuartil: 2. (Article).
- Martínez-Gomiz, JM; Muniesa, MPE; Martín, JR; Garijo, RL; Chana-Rodríguez, F. *Homemade 3D mirror imaging models utility for surgical treatment of complex fractures of scapula **. INJURY-INTERNATIONAL JOURNAL OF THE CARE OF THE INJURED. 2021; 52 109-116. FI: 2.687. Cuartil: 2. (Article).
- García-Sevilla, M; Mediavilla-Santos, L; Ruiz-Alba, MT; Pérez-Mañanes, R; Calvo-Haro, JA; Pascau, J. *Patient-specific desktop 3D-printed guides for pelvic tumour resection surgery: a precision study on cadavers*. INTERNATIONAL JOURNAL OF COMPUTER ASSISTED RADIOLOGY AND SURGERY. 2021; 16(3) 397-406. FI: 3.421. Cuartil: 2. (Article).
- Victor-Estuardo, LR; David, GM; Isabel, LTI; Javier, VM; Antonio, CHJ; Javier, P; Pablo, SR. *The knee prosthesis constraint dilemma: Biomechanical comparison between varus-valgus constrained implants and rotating hinge prosthesis. A cadaver study*. JOURNAL OF ORTHOPAEDIC RESEARCH. 2021; 39(7) 1533-1539. FI: 3.102. Cuartil: 2. (Article).
- Iborra, A; Villanueva, M; Sanz-Ruiz, P; Martín, A; Noriega, C. *A novel closed technique for ultrasound-guided plantar fascia release with a needle: review of 107 cases with a minimum follow-up of 24 months*. JOURNAL OF ORTHOPAEDIC SURGERY AND RESEARCH. 2021; 16(1) 153-153. FI: 2.677. Cuartil: 2. (Article).
- Villanueva, M; Iborra, A; Sanz-Ruiz, P; Noriega, C. *Ultrasound-guided surgery for lateral snapping hip: a novel ultraminimally invasive surgical technique*. JOURNAL OF ORTHOPAEDIC SURGERY AND RESEARCH. 2021; 16(1) 322-322. FI: 2.677. Cuartil: 2. (Article).
- Villanueva, M; Iborra, A; Sanz-Ruiz, P; Noriega, C. *Ultrasound-guided release for iliotibial band syndrome: A novel ultraminimally invasive surgical procedure*. KNEE. 2021; 30 9-17. FI: 2.423. Cuartil: 3. (Article).
- Moreta-Martínez, R; Pose-Díez-de-la-Lastra, A; Calvo-Haro, JA; Mediavilla-Santos, L; Pérez-Mañanes, R; Pascau, J. *Combining Augmented Reality and 3D Printing to Improve Surgical Workflows in Orthopedic Oncology: Smart-*



phone Application and Clinical Evaluation. SENSORS. 2021; 21(4). FI: 3.847. Cuartil: 2. (Article).

- García-Sevilla, M; Moreta-Martínez, R; García-Mato, D; Pose-Díez-de-la-Las-tra, A; Pérez-Mañanes, R; Calvo-Haro, JA; Pascau, J. *Augmented Reality as a Tool to Guide PSI Placement in Pelvic Tumor Resections*. SENSORS. 2021; 21(23). FI: 3.847. Cuartil: 2. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Pérez-Mañanes, R; García-de San José, S; Desco-Menéndez, M; Sánchez-Arcilla, I; González-Fernández, E; Vaquero-Martín, J; González-Garzón, JP; Mediavilla-Santos, L; Trapero-Moreno, D; Calvo-Haro, JA. *Application of 3D printing and distributed manufacturing during the first-wave of COVID-19 pandemic. Our experience at a third-level university hospital*. 3D PRINTING IN MEDICINE. 2021; 7(1) 7-7. (Article).

- Calvo-Haro, JA; Pascau, J; Asencio-Pascual, JM; Calvo-Manuel, F; Cancho-Gil, MJ; López, JFD; Fanjul-Gómez, M; García-Leal, R; González-Casaurrán, G; González-Leyte, M; León-Luis, JA; Mediavilla-Santos, L; Ochandiano-Caicoya, S; Pérez-Caballero, R; Ribed-S. *Point-of-care manufacturing: a single university hospital's initial experience*. 3D PRINTING IN MEDICINE. 2021; 7(1) 11-11. (Article).
- García-Mato, D; Moreta-Martínez, R; García-Sevilla, M; Ochandiano, S; García-Leal, R; Pérez-Mañanes, R; Calvo-Haro, JA; Salmerón, JI; Pascau, J. *Augmented reality visualization for craniostylosis surgery*. COMPUTER METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING-IMAGING AND VISUALIZATION. 2021; 9(4) 392-399. (Article).

Other publications

- Andrés-Cano P; Calvo-Haro JA; Fillat-Gomà F; Andrés-Cano I; Pérez-Mañanes R. *Role of the orthopaedic surgeon in 3D printing: current applications and legal issues for a personalized medicine*. REVISTA ESPAÑOLA DE CIRUGIA ORTOPEDICA Y TRAUMATOLOGIA. 2021; 65(2) 138-151. (Article).



7.12. Emergency medicine

Group Head: JAVIER MUÑOZ GONZÁLEZ

Organisms involved: HGUGM

Type: Associated Group

Research lines

- ▶ **Axis 1:** ECMO in adults with acute respiratory insufficiency.
- ▶ **Axis 2:** Meta-analysis of care provided to patients with critical neurological conditions.
- ▶ **Axis 3:** Analysis of the national minimum basic dataset in patients undergoing mechanical ventilation.
- ▶ **Axis 4:** Analysis of the national minimum basic dataset in the ICU.
- ▶ **Axis 5:** Antifungal therapy. New approaches.
- ▶ **Axis 6:** Multimodality neuromonitoring in the ICU.
- ▶ **Axis 7:** Humanization of intensive care.
- ▶ **Axis 8:** Mechanical ventilation.
- ▶ **Axis 9:** Infections and sepsis in the ICU.
- ▶ **Axis 10:** Intestinal failure in the critically ill patient.
- ▶ **Axis 11:** Inhalation sedation in the ICU.

Group members

- **De la Calle Reviriego, Braulio:** R1. First Stage Researcher I.
- **García Olivares, Pablo:** R1. First Stage Researcher I.
- **Guerrero Sanz, José Eugenio:** R2. Recognised Researcher.
- **Muñoz González, Javier:** R4. Leading Researcher.
- **Sánchez Fernández, Guiomar.**
- **Santa Teresa Zamarro, Patricia:** R2. Recognised Researcher.
- **Sotillo Díaz, Juan Carlos:** R2. Recognised Researcher.
- **Tomey Soria, M^a Jesús:** R1. First Stage Researcher.

Publications

Total Impact Factor: 12.5

	Nº	IF
Own publications	0	0,0
Joint publications	3	12,5
First decile publications	0	-
First quartile publications	1	4,9
Second quartile publications	1	4,8
Third quartile publications	1	2,8
Fourth quartile publications	0	0,0
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	3	12,5

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Augusto, DE; Soba, FM; de la Calle, B; Blanco, AP; Estebanez, B; Velasco, J; Sánchez-Carretero, MJ; Pont, T; Villares, JMP; Masnou, N; Delgado, MCM; Coll, E; Perojo, D; Urunuela, D; Domínguez-Gil, B. *Cuidados intensivos orientados a la donación de órganos. Recomendaciones ONT-SEMICYUC*. MEDICINA INTENSIVA. 2021; 45(4) 234-242. FI: 2.799. Cuartil: 3. (Article).
- Machado, M; Valerio, M; Álvarez-Uría, A; Olmedo, M; Veintimilla, C; Padilla, B; De la Villa, S; Guinea, J; Escribano, P; Ruiz-Serrano, MJ; Reigadas, E; Alonso, R; Guerrero, JE; Hortal, J; Bouza, E; Muñoz, P. *Invasive pulmonary aspergillosis in the COVID-19 era: An expected new entity*. MYCOSES. 2021; 64(2) 132-143. FI: 4.931. Cuartil: 1. (Review).
- Romero-Cristóbal, M; Clemente-Sánchez, A; Pineiro, P; Cedeno, J; Rayón, L; del Rio, J; Ramos, C; Hernández, DA; Cova, M; Caballero, A; Garutti, I; García-Olivares, P; Hortal, J; Guerrero, JE; García, R; Bañares, R; Rincón, D. *Possible unrecognised liver injury is associated with mortality in critically ill COVID-19 patients*. THERAPEUTIC ADVANCES IN GASTROENTEROLOGY. 2021; 14. FI: 4.802. Cuartil: 2. (Article).



7.16. Regenerative medicine and system development: cardiovascular and osteochondral

Group Head: BEGOÑA QUINTANA VILLAMANDOS

Organisms involved: HGUGM

Type: Emerging group

Research lines

Axis 1: Ventricular remodeling: natural history, pathophysiology, and treatment

- ▶ Line 1: Immunohistopathology and ultrastructure in ventricular remodeling.
- ▶ Line 2: Pathophysiology of ventricular remodeling.
- ▶ Line 3: Serum biomarkers in heart disease.
- ▶ Line 4: New therapies in the regression of ventricular remodeling.

Axis 2: Anesthesia in cardiovascular surgery

- ▶ Line 1: Optimization of anesthesia in heart surgery.
- ▶ Line 2: Optimization of anesthesia in mechanical circulatory assist devices (MCA).
- ▶ Line 3: Optimization of anesthesia in vascular surgery.

Axis 3: Vascular remodelling

- ▶ Line 1: Fetal origin of cardiovascular disease and nutrition.
- ▶ Line 2: Antioxidant and antihypertensive action of liver growth factor.
- ▶ Line 3: Structure and function of vascular remodeling.
- ▶ Line 4: Serum biomarkers of vascular disease.
- ▶ Line 5: New therapies in the regression of vascular remodeling.

Group members

- Arnalich Montiel, Ana: R2. Recognised Researcher.
- Arribas Rodríguez, Silvia Magdalena: R2. Recognised Researcher.
- Delgado Baeza, Emilio: R3. Recognised Researcher.
- Delgado Martos, M^a Jesús: R2. Recognised Researcher.
- Gómez de Diego, José Juan: R2. Recognised Researcher.
- González García, M^a del Carmen: R2. Recognised Researcher.
- Iglesias de la Vega, Mario: R2. Recognised Researcher.
- Morillas Sendín, Paloma: R2. Recognised Researcher.
- Pazó Sayós, Laia: R2. Recognised Researcher.
- Quintana Villamandos, M^a Begoña: R4. Leading Researcher.

Multidisciplinary research group developing basic and clinical (translational) research focused on regenerative medicine and cardiovascular system development.

Research Projects – Competitive Calls

Competitive projects

- Title: **SHORT-TERM Esmolol confers cardioprotection persistent after treatment withdrawal. Future therapeutic targets in cardiac remodeling.** PI16/02069
Director: QUINTANA VILLAMANDOS, BEGOÑA
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2017
End date: 30/06/2021

Not managed by the FIBHGM

- Title: **Innovación en la docencia del grado de medicina: aerotransporte de pacientes con alto riesgo de contaminación por enfermedad infecciosa en un escenario real.** PIMCD-333
Director: QUINTANA VILLAMANDOS, BEGOÑA
Project type: Innovation project
Funding body: UCM
Start date: 01/01/2019
End date: 31/12/2021
- Title: **Inteligencia artificial en el aula frente al escenario real de aero-evacuación sanitaria. futuro de la enseñanza virtual.** PIMCD-359
Director: QUINTANA VILLAMANDOS, BEGOÑA
Project type: Innovation project
Funding body: UCM
Start date: 01/01/2020
End date: 31/12/2021

Industrial and intellectual property registrations

Industrial property

Title	Reference*	Owner	Inventors
Dispositivo protector bucal con depresor lingual	P 2015 31508 (2 patents)	FIBHGM	Guillermo Juan Rodríguez Javier Casanova

■ Transferred Industrial Property.

* Reference: P (Patent), PCT (international patent), EP (European patent), US (USA patent), U (Utility model), M (Trademark)

Doctoral theses. Bachelor theses and Master theses

Type	Candidate	Title	Name/s Director/s	University	Date defended
Ph Thesis	Raquel Martín Oropesa	Prolongación en el tiempo del efecto del esmolol sobre la regresión del remodelado coronario en ratas espontáneamente hipertensas	Begoña Quintana Villamandos, M ^a Carmen González	UCM	04/10/2021
Ph Thesis	Alejandra Serrano	Búsqueda del protocolo anestésico óptimo para la reparación endovascular del aneurisma aórtico	Begoña Quintana Villamandos	UCM	16/06/2021
Ph Thesis	Virginia Barreira	Nuevas estrategias anestésicas en los dispositivos de asistencia mecánica circulatoria	Begoña Quintana Villamandos	UCM	16/06/2021
Ph Thesis	Andrea Gila Díaz	Composición de la leche materna en el primer mes de lactancia: influencia de factores maternos y neonatales	Silvia Arribas	UAM	13/05/2021

7.16. REGENERATIVE MEDICINE AND SYSTEMS DEVELOPMENT: CARDIOVASCULAR AND OSTEOCHONDRAL

Clinical Practice Guidelines

Authors	Title	Journal/ Reference
Zarragoikoetxea, I; Pajares, A; Moreno, I; Porta, J; Koller, T; Cegarra, V; Gonzalez, AI; Eiras, M; Sandoval, E; Sarralde, JA; Quintana-Villamandos, B; Guillen, RV	SEDAR/ SECCE ECMO management consensus document	Rev Esp Anesthesiol Reanim 2021;68:443-471.
Zarragoikoetxea, I; Pajares, A; Moreno, I; Porta, J; Koller, T; Cegarra, V; Gonzalez, AI; Eiras, M; Sandoval, E; Sarralde, JA; Quintana-Villamandos, B; Guillen, RV	Documento de consenso SEDAR/ SECCE sobre el manejo de ECMO	Cirugía Cardiovascular 2021;28:332-352.

Publications

Total Impact Factor: 4.8

	Nº	IF
Own publications	1	4.8
Joint publications	0	0.0
First decile publications	0	-
First quartile publications	1	4.8
Second quartile publications	0	0.0
Third quartile publications	0	0.0
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	2	-
Total publications (including those without IF)	3	4.8

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Quintana-Villamandos, B; Barranco, M; Fernández, I; Ruiz, M; del Cañizo, JF. *New Advances in Monitoring Cardiac Output in Circulatory Mechanical Assistance Devices. A Validation Study in a Porcine Model*. FRONTIERS IN PHYSIOLOGY. 2021; 12 634779-634779. FI: 4.755. Cuartil: 1. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Zarragoikoetxea, I; Pajares, A; Moreno, I; Porta, J; Koller, T; Cegarra, V; González, AI; Eiras, M; Sandoval, E; Sarralde, JA; Quintana-Villamandos, B; Guillén, RV. *SEDAR/SECCE ECMO management consensus document*. CIRUGIA CARDIOVASCULAR. 2021; 28(6) 332-352. (Article).
- Zarragoikoetxea, I; Pajares, A; Moreno, I; Porta, J; Koller, T; Cegarra, V; González, AI; Eiras, M; Sandoval, E; Sarralde, JA; Quintana-Villamandos, B; Guillén, RV. *SEDAR/SECCE ECMO management consensus document*. REVISTA ESPANOLA DE ANESTESIOLOGIA Y REANIMACION. 2021; 68(8) 443-471. (Article).



7.18. Peritransplant evaluation of the liver

Group Head: JOSÉ MARÍA PÉREZ PEÑA

Organisms involved: HGUGM

Type: Associated group

Research lines

- ▶ L1: Evaluation of early graft function in human liver transplantation.
- ▶ L2: Usefulness of cardiac biomarkers in liver transplantation.

The members of the research group are part of the Anesthesiology and Recovery Department of Hospital Gregorio Marañón. Their care activity is aimed at the field of anesthesia and postoperative recovery in major abdominal surgery. Since 1990, when we started the liver transplant (LT) program in HGU Gregorio Marañón, we have formed part of the anesthesia team responsible for LT and have developed various research lines in this field and in major liver surgery in close collaboration with the Hepatology and Surgery Services.

During the last few years, we have been developing the following research lines:

1. Methods for the rapid diagnosis of early graft failure in LT. One of the challenges of LT is that of early diagnosis of graft failure in order to review potential factors involved (especially arterial thrombosis, which can be addressed using surgery) in order to treat them before they become irreversible. One of the methods proposed is indocyanine green clearance, which involves elimination of a dye from vascular circulation exclusively via hepatic uptake and biliary clearance. Our group has developed a research line on the predictive ability of hepatic clearance of indocyanine green in liver graft failure, morbidity and mortality, and early lesions of the biliary tract after LT.
2. Use of cardiac biomarkers and cardiac hemodynamic monitoring in cirrhotic patients undergoing LT. Our group has previously studied the preoperative assessment of cardiomyopathy in cirrhotic patients and its influence on the intraoperative course during HT. We are currently investigating the usefulness of cardiac biomarkers and intraoperative monitoring of different

haemodynamic parameters during HT in relation to perioperative morbidity and mortality and transplant outcome. We have studied the prognostic value of intraoperative high-sensitivity troponin T (Tp) elevation in HT, the intraoperative evolution of Tp levels and their relationship with changes in haemodynamic variables during surgery. Based on these findings, we are investigating the origin of Tp elevation in HT and the possible relationship with the transplanted liver and liver function.

3. Our group is part of a multidisciplinary clinical and experimental research team in which hepatologists, surgeons, pathologists, biochemists and anaesthesiologists from the HGU Gregorio Marañón participate. In recent years, this team has developed a line of research in a porcine experimental model on the pathophysiological mechanisms involved in the development of acute liver failure after extended liver resection and small for size syndrome, as well as the effects of normothermic perfusion on marginal donor liver graft recovery and liver regeneration.
4. In 2021 we started the programme for the recovery of organs initially discarded for liver transplantation. In this programme we collaborate with the surgery and hepatology services within the liver transplant unit, investigating the mechanisms involved and the effect of preservation with a normothermic perfusion machine prior to transplantation on the liver function of these initially discarded organs.

Group members

- Duque González, Patricia: R2. Recognised Researcher.
- Lisbona Sáez, Cristina Julia: R2. Recognised Researcher.
- Pérez Peña, José M^a: R4. Leading Researcher.
- Vilchez Monge, Almudena Lucía: R1. First Stage Researcher.

7.18. PERITRANSPLANT EVALUATION OF THE LIVER

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
Others	Spanish Perioperative Audit and Research Network (REDGERM)	Coordinating group

Doctoral theses. Bachelor theses and Master theses

Type	Candidate	Title	Name/s Director/s	University	Date defended
Ph Thesis	Almudena Lucía Vilchez Monge	Monitorización anestésica avanzada durante el trasplante hepático: valor clínico de la determinación intraoperatoria de troponina	Rafael Bañares Cañizares, José Mª Pérez Peña, Ignacio Garutti Martínez	U Complutense	17/11/2021

Publications

Total Impact Factor: 31.3

	Nº	IF
Own publications	2	8.0
Joint publications	4	23.3
First decile publications	1	13.4
First quartile publications	3	26.6
Second quartile publications	0	0.0
Third quartile publications	0	0.0
Fourth quartile publications	3	4.7
Nonindexed publications / No IF	2	-
Total publications (including those without IF)	8	31.3

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Duque, P; Chasco-Ganuza, M; Burgos-Santamaría, A; Terradillos, E. *Increased resistance to fibrinolysis activation in patients with coronavirus disease 2019: a case series*. BLOOD COAGULATION & FIBRINOLYSIS. 2021; 32(4) 298-301. FI: 1.061. Cuartil: 4. (Article).
- Martín-Rojas, RM; Chasco-Ganuza, M; Casanova-Prieto, S; Delgado-Pinos, VE; Pérez-Rus, G; Duque-González, P; Sancho, M; Díez-Martín, JL; Pascual-Izquierdo, C. *A mild deficiency of ADAMTS13 is associated with severity in COVID-19: comparison of the coagulation profile in critically and noncritically ill patients*. BLOOD COAGULATION & FIBRINOLYSIS. 2021; 32(7) 458-467. FI: 1.061. Cuartil: 4. (Article).
- Zaballos, M; Power, M; Canal-Alonso, MI; González-Nicolás, MA; Vázquez-Jiménez, W; Lozano-Lominchar, P; Cabrerizo-Torrente, P; Palencia-García, N; Gago-Quiroga, S; Ginel-Feito, MD; Jiménez, C; Lázaro, A; González-Bayon, L. *Effect of Cilastatin on Cisplatin-Induced Nephrotoxicity in Patients Undergoing Hyperthermic Intraperitoneal Chemotherapy*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(3). FI: 6.208. Cuartil: 1. (Article).
- Viguera, L; Blasi, A; Reverter, E; Arjona, B; Caballero, M; Chocron, I; García-López, JA; Gutiérrez, R; Martín, MJ; Pérez-Pena, J; Pitera, J; Zarragoikoetxea, I; Sabate, A; Soc Espanola Transplante Hepatico. *Liver transplant with controlled donors after circulatory death with normothermic regional perfusion and brain dead donors: A multicenter cohort study of transfusion, one-year graft survival and mortality*. INTERNATIONAL JOURNAL OF SURGERY. 2021; 96 106169-106169. FI: 13.4. Cuartil: 1. (Article).
- Viguera, L; Blasi, A; Reverter, E; Arjona, B; Caballero, M; Chocron, I; García-López, JA; Gutiérrez, R; Martín, MJ; Pérez-Pena, J; Pitera, J; Zarragoikoetxea, I; Sabate, A. *Baseline haemoglobin and thromboelastometry are predictive of red blood cell requirements and one-year mortality in liver transplantation*. TRANSFUSION AND APHERESIS SCIENCE. 2021; 60(6) 103259-103259. FI: 2.596. Cuartil: 4. (Article).
- Duque, P; Calvo, A; Lockie, C; Schochl, H. *Pathophysiology of Trauma-Induced Coagulopathy*. TRANSFUSION MEDICINE REVIEWS. 2021; 35(4) 80-86. FI: 6.969. Cuartil: 1. (Review).



Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Duque, P; González-Zarco, L; Martínez, R; Gago, S; Varela, JA. *Tranexamic acid use in severely injured patients, is it always appropriate?*. REVISTA ESPANOLA DE ANESTESIOLOGIA Y REANIMACION. 2021; 68(5) 301-303. (Article)

Other publications

- Duque P; González-Zarco L; Martínez R; Gago S; Varela JA. *Tranexamic acid use in severely injured patients, is it always appropriate?*. REVISTA ESPANOLA DE ANESTESIOLOGIA Y REANIMACION. 2021; 68(5) 301-303. (Article).

7.19. Perianesthesia assessment

Group Head: M^a CARMEN FERNÁNDEZ RIVEIRA

Organisms involved: HGUGM

Type: Associated group

Group members

- Del Castillo, Teresa: R1. First Stage Researcher.
- Díaz Ruano, Susana: R1. First Stage Researcher.
- Fernández Fernández, Alejandro: R1. First Stage Researcher.
- Fernández Riveira, M^a Carmen: R4. Leading Researcher.
- Membrillo Rubalcaba, M^a José: R1. First Stage Researcher.
- Miguel Guijarro, M^a Ángeles: R1. First Stage Researcher.
- Orozco Galeano, Hugo David: R1. First Stage Researcher.
- Palencia Jorge, María: R1. First Stage Researcher.
- Reyes Osorio, Fidel Eduardo: R1. First Stage Researcher.
- Riaño Méndez, Bibiana: R1. First Stage Researcher.
- San Juan López, Erika: R1. First Stage Researcher.
- Sanz Fernández, Javier: R2. Recognised Researcher.
- Torre Oñate, M^a Teresa: R1. First Stage Researcher.
- Valera Cabo, Jesús Alberto: R1. First Stage Researcher.



7.20. Anesthesia, toxins and arrhythmias

Group Head: MATILDE ZEBALLOS GARCÍA

Organisms involved: HGUGM

Type: Associated group

Research lines

Axis 1: Anesthetic agents and cardiac electrophysiology

- ▶ L1: Study of anesthetic agents in the electrical properties of the heart. Leader: Matilde Zaballos.
- ▶ L2: Study of the cardiac toxicity of local anesthetics and reversion with antidotes. Leader: Matilde Zaballos.
- ▶ L3: Study of the pharmacokinetics of local anesthetics in peripheral block in animal models and electrophysiological effects.

Axis 2: Anesthetic agents and cardiac electrophysiology

- ▶ L1: Supraglottic Devices in Major Outpatient Surgery. Leader: Matilde Zaballos.
- ▶ L2: Pain in outpatient surgery.

Group members

- Almendral Garrote, Jesús: R3. Established Researcher.
- Anadón Baselga, M^a José: R2. Recognised Researcher.
- Callejo Crespo, David: R1. First Stage Researcher.
- García Ramos, Sergio.
- Quintela Jorge, Óscar: R1. First Stage Researcher.
- Sevilla Bayón, Raúl: R2. Recognised Researcher.
- Varela García, Olalla: R1. First Stage Researcher. I.
- Zaballos García, Matilde: R4. Leading Researcher.



Clinical Practice Guidelines

Authors	Title	Journal/ Reference
Ramirez JM, et al (Zaballos como revisor externo)	Via Clínica RICA de RecuperaCión intensificada en cirugía del adulto.	

Publications

Total Impact Factor: 6.2

	Nº	IF
Own publications	19	6.2
Joint publications	34	0.0
First decile publications	18	-
First quartile publications	26	6.2
Second quartile publications	6	0.0
Third quartile publications	0	0.0
Fourth quartile publications	21	0.0
Nonindexed publications / No IF	5	-
Total publications (including those without IF)	58	6.2

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Zaballos, M; Power, M; Canal-Alonso, MI; González-Nicolás, MA; Vasquez-Jiménez, W; Lozano-Lominchar, P; Cabrerizo-Torrente, P; Palencia-García, N; Gago-Quiroga, S; Ginel-Feito, MD; Jiménez, C; Lázaro, A; González-Bayon, L. *Effect of Cilastatin on Cisplatin-Induced Nephrotoxicity in Patients Undergoing Hyperthermic Intraperitoneal Chemotherapy*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(3). FI: 6.208. Cuartil: 1. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Zaballos, M; Escriba, F; López, S; Zaballos, J; Montero, J; Fernández, I; López, AM. *A multicenter and observational study of the Ambu (TM) AuraGain (TM) laryngeal mask in adult patients*. REVISTA ESPANOLA DE ANESTESIOLOGIA Y REANIMACION. 2021; 68(2) 73-81. (Article).
- Sanjuan, E; Álvarez-Baena, L; Callejo, D; Romera, A. *Snakebite management in a pediatric patient: More doubts than certainties*. REVISTA ESPANOLA DE ANESTESIOLOGIA Y REANIMACION. 2021; 68(5) 304-305. (Letter).

Other publications

- García Ramos, Sergio; ZABALLOS, M. *EMULSIONES LIPÍDICAS EN LA INTOXICACIÓN POR ANESTÉSICOS LOCALES Y OTROS FÁRMACOS*. Rev Esp Anestesiol Reanim 2021. REVISTA ESPANOLA DE ANESTESIOLOGIA Y REANIMACION. 2021; . (Article).

7.21. Biopathology of aging

Group Head: JOSÉ ANTONIO SERRA REXACH

Organisms involved: HGUGM

Type: Consolidated group

Research lines

Axis 1: Frailty and geriatric syndromes.

- ▶ L1: Frailty and cardiovascular disease
- ▶ L2: Frailty and cognition.
- ▶ L3: Frailty and hip fracture.
- ▶ L4: Use of communication and information technologies (CIT) to help frailty patients with disability.

Axis 2: Hospitalization-associated disability.

- ▶ L1: Physical exercise to prevent disability during hospitalization.

Axis 3: Geriatric oncology.

- ▶ L1: Relevance of comprehensive geriatric assessment in colorectal cancer older patients.
- ▶ L2: Physical exercise for older people with colorectal cancer.

Group members

- **González Senac, Nicolás María:** R1. First Stage Researcher.
- **Mayordomo Cava, Jennifer:** R2. Recognised Researcher.
- **Montero Fernández, Nuria:** R1. First Stage Researcher.
- **Ortiz Alonso, Javier:** R3. Established Researcher.
- **Rodríguez López, Carlos:** R2. Recognised Researcher.
- **Serra Rexach, José Antonio:** R4. Leading Researcher.
- **Vidán Astiz, M^a Teresa:** R3. Established Researcher.
- **Zarralanga Lasobras, Teresa:** R1. First Stage Researcher.

Our group develops its research activity in the clinical field with a clear vocation for translational research. The group is currently made up of three main clinical researchers (Vidán, Ortiz, Serra) who are able to successfully apply for competitive calls for projects and human resources.

Our field of research covers a wide range of pathology related to ageing, especially linked to frailty: cardiovascular pathology, hip fracture, physical activity, etc. We have also designed interventions to improve the prognosis in hospitalised elderly people (prevention of functional deterioration and confusional disorder). We have also assessed the usefulness of ICTs in the care of the elderly. Our most relevant contributions have contributed to modify clinical practice in pathologies as important as the management of acute confusional disorder or hip fracture.

Recently, we have consolidated the opening of a new research line of observational and intervention studies on the relevance of comprehensive geriatric assessment, as well as the role of physical exercise, in the treatment of elderly patients with colorectal cancer, which is funded by the ISCIII. On the other hand, our group (Dr. Vidán) has participated in the design of an Integrated Project of Excellence "Athero-Brain: Heart to Head (H2H) Study", together with the National Centre for Cardiovascular Research and the Cardiology Service of the Hospital 12 de Octubre in Madrid.

This solid track record has contributed to our group being part of one of the 20 CIBER groups on "frailty and ageing" (CIBERFES), which facilitates collaboration and optimisation of resources that ultimately help to promote knowledge and innovation in this area.



7.21. BIOPATHOLOGY OF AGING

Research Projects – Competitive Calls

Competitive projects

- Title: **Entrenamiento físico y educación sanitaria en la prevención del deterioro funcional asociado a la hospitalización en ancianos.** PI17/02021
Director: Serra Rexach, José Antonio
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2018
End date: 30/06/2022

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
CIBER	CIBERFES. Fragilidad y envejecimiento saludable	Collaborating group

Publications

Total Impact Factor: 32.9

	Nº	IF
Own publications	1	4.6
Joint publications	6	28.3
First decile publications	0	-
First quartile publications	3	18.1
Second quartile publications	3	11.7
Third quartile publications	1	3.1
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	3	-
Total publications (including those without IF)	10	32.9

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Cortés-Beringola, A; Vicent, L; Martín-Asenjo, R; Puerto, E; Domínguez-Pérez, L; Maruri, R; Moreno, G; Vidán, MT; Arribas, F; Bueno, H. *Diagnosis, prevention, and management of delirium in the intensive cardiac care unit*. AMERICAN HEART JOURNAL. 2021; 232 164-176. FI: 5.099. Cuartil: 2. (Article).
- Ayesta, A; Masa, MJV; Vidán, MT; Luna-López, R; Segovia-Cubero, J; García-Cosío, MD; Gómez, LP; Pérez, PC; López-Ibor, JV; Nuche, J; Martínez-Sellés, M. *Prevalence and characterization of frailty, depression, and cognitive impairment in patients listed for heart transplantation: Results of the FELICITAR prospective registry*. CLINICAL TRANSPLANTATION. 2021; 35(9). FI: 3.456. Cuartil: 2. (Article).
- Esteve-Pastor, MA; Martín, E; Alegre, O; Formiga, F; Sanchis, J; López-Palop, R; Sellés, MM; Vidán, MT; Bueno, H; Díez-Villanueva, P; Abu Assi, E; Ariza-Solé, A; Marín, F; Domínguez, JCC; LONGEVO-SCA Registry Investigators. *Impact of frailty and atrial fibrillation in elderly patients with acute coronary syndromes*. EUROPEAN JOURNAL OF CLINICAL INVESTIGATION. 2021; 51(5). FI: 5.722. Cuartil: 1. (Article).
- Pazan, F; Petrovic, M; Cherubini, A; Onder, G; Cruz-Jentoft, AJ; Denkiner, M; van der Cammen, TJM; Stevenson, JM; Ibrahim, K; Rajkumar, C; Bakken, MS; Baeyens, JP; Crome, P; Fruhwald, T; Gallagher, P; Gudmundsson, A; Knol, W; O'Mahony, D; Pilotto, A; Ron. *Current evidence on the impact of medication optimization or pharmacological interventions on frailty or aspects of frailty: a systematic review of randomized controlled trials*. EUROPEAN JOURNAL OF CLINICAL PHARMACOLOGY. 2021; 77(1) 1-12. FI: 3.064. Cuartil: 3. (Review).
- Díez-Villanueva, P; Vera, A; Ariza-Solé, A; Formiga, F; Martínez-Sellés, M; Alegre, O; Sanchis, J; Marín, F; Vidán, M; López-Palop, R; Abu-Assi, E; Bueno, H; Alfonso, F; LONGEVO-SCA Registry Investigators. *Baseline CHA(2)DS(2)-*

VASc score and prognosis in octogenarians with non-ST segment elevation acute coronary syndrome. INTERNATIONAL JOURNAL OF CLINICAL PRACTICE. 2021; 75(6). FI: 3.149. Cuartil: 2. (Article).

- González-Senac, NM; Mayordomo-Cava, J; Macías-Valle, A; Aldama-Marín, P; González, SM; Arnes, MLC; Jiménez-Gómez, LM; Vidán-Astiz, MT; Serra-Rexach, JA. *Colorectal Cancer in Elderly Patients with Surgical Indication: State of the Art, Current Management, Role of Frailty and Benefits of a Geriatric Liaison*. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2021; 18(11). FI: 4.614. Cuartil: 1. (Review).
- Malafarina, V; Rexach, JAS; Masanes, F; Cervera-Díaz, MC; Lacasa, LL; Ortigas, AO; Cruz-Jentoft, AJ. *Results of High-Protein, High-Calorie Oral Nutritional Supplementation in Malnourished Older People in Nursing Homes: An Observational, Multicenter, Prospective, Pragmatic Study (PROT-e-GER)*. JOURNAL OF THE AMERICAN MEDICAL DIRECTORS ASSOCIATION. 2021; 22(9) 1919-. FI: 7.802. Cuartil: 1. (Article).

Other publications

- Romero Estarlich V; Hernández Benito A; Blanco Parra V; Serra Rexach JA. *Fracaso renal agudo y amiloidosis sistémica AA en nonagenaria*. REVISTA ESPANOLA DE GERIATRIA Y GERONTOLOGIA. 2021; 56(3) 184-185. (Article).
- Tarazona-Santabalbina FJ; Cuadra L; Cancio JM; Carbonell FR; Garrote JMP; Casas-Herrero Á; Martínez-Velilla N; Serra-Rexach JA; Formiga F. *VitaminD supplementation for the prevention and treatment of COVID-19: a position statement from the Spanish Society of Geriatrics and Gerontology*. REVISTA ESPANOLA DE GERIATRIA Y GERONTOLOGIA. 2021; 56(3) 177-182. (Article).
- Tarazona-Santabalbina FJ; de la Cámara de Las Heras JM; Vidán MT; García Navarro JA. *Enfermedad por coronavirus 2019 (COVID-19) y edadismo: revisión narrativa de la literatura*. REVISTA ESPANOLA DE GERIATRIA Y GERONTOLOGIA. 2021; 56(1) 47-53. (Article).

7.22. Neonatal and developmental physiology

Group Head: MANUEL SÁNCHEZ LUNA

Organisms involved: HGUGM

Type: Emerging group

Research lines

Axis 1: Pulmonary protection of preterm infants

- ▶ L1.1: Prevention and treatment of bronchopulmonary dysplasia. Leaders: Dr. Sánchez Luna and Dra. Ramos.
- ▶ L1.2: Noninvasive respiratory support. Leader: Dra. Ramos.
- ▶ L1.3: High-frequency oscillatory ventilation with very low volumes. Leaders: Dr. Sánchez Luna and Dra. González.
- ▶ L1.4: Noninvasive administration of pulmonary surfactants. Leader: Dra. Ramos.
- ▶ L1.5: Aerosolised surfactant in an animal model. Leader: Dr. Sánchez Luna.

Axis 2: Neonatal Brain Pathology

- ▶ L2.1: Epigenetic mechanisms involved in neurodevelopmental disorders. Leaders: Dra. Blanco and Dra. Arriaga.
- ▶ L2.2: Biomarkers of oxidative stress and inflammation. Leaders: Dra. Blanco and Dra. Arriaga.
- ▶ L2.3: Study of the incidence of post-hemorrhagic hydrocephalus and associated risk factors. Leader: Dra. Arriaga.
- ▶ L2.4: Evaluation of an ultrasound prognostic score in preterm infants with gestational age less than or equal to 28 weeks with periventricular venous infarction. Leader: Dra. Arriaga.
- ▶ L2.5: Study of cerebral and somatic oxygenation during percutaneous closure of patent ductus arteriosus. Leader: Dra. Rodríguez.
- ▶ L2.6: Renal damage in patients with hypoxic-ischaemic encephalopathy. Leader: Dra. Arriaga.

Axis 3: Neonatal imaging

- ▶ L3.1: Lung ultrasound as a diagnostic and prognostic tool in the pulmonary pathology of the premature patient. Leaders: Dr. Sánchez Luna and Dra. Gregorio.
- ▶ L3.2: Pulmonary ultrasound as a prognostic tool in the patient with heart disease. Leader: Dra. Gregorio.
- ▶ L3.3: Lung ultrasound and establishment of CFR at birth in preterm infants. Leader: Dr. Zeballos.

Axis 4: Personalised Neonatal Nutrition

- ▶ L4.1: Evaluation of additional individualised protein supplementation to preterm infants fed standard fortified human milk. Leaders: Dra. Sánchez and Dra. Vigil.
- ▶ L4.2: Evaluation of the implementation of a personalised nutrition unit in a high complexity neonatal service. Leaders: Dra. Pescador and Dra. Sánchez.

Axis 5: Neonatal pain research. Leader: Dra. Marsinyach.

- ▶ L5.1: Prospective observational study to assess normal values of NIPE (parasympathetic tone) in preterm infants under 32 weeks at various times of development.
- ▶ L5.2: Study of the prevalence of prolonged pain in newborns during neonatal intensive care.
- ▶ L5.3: Study of the efficacy of implementation of neonatal pain assessment tools.

Continued on next page



Research lines (cont.)

Axis 6: COVID 19 during gestation and in newborns

- ▶ L6.1: Clinical and immunovirological aspects of SARSCoV-2 infection in a cohort of pregnant women and newborns. Leaders: Dr. Sánchez Luna and Dra. Vigil.

Axis 7: Congenital heart disease

- ▶ L7.1: Management of chylothorax in cardiac surgery. Leader: Dra. Pérez.
- ▶ L7.2: Perinatal management of the newborn with complete congenital atrioventricular block. Prospective study. Leader: Dra. Zeballos.
- ▶ L7.3: Study of renal damage in patients with heart disease. Leader: Dra. González.

Axis 8: Morbimortality in the premature patient

- ▶ L8.1: Evolution of Mortality and Morbidity in preterm infants born before 32 weeks of gestation. Impact of changes in perinatal and neonatal management. Leader: Dra. Ramos.
- ▶ L8.2: Prospective validation by means of a statewide multicentre study (REDSAMID) of predictive models of prenatal mortality in premature infants. Leader: Dra. Zeballos.
- ▶ L8.3: Magnesium sulphate: relationship with meconium ileus in newborns under 32 weeks of gestational age. Leader: Dra. Arriaga.
- ▶ L8.4: Magnesium sulphate as neuroprotection. Leader: Dra. Villar.

Axis 9: Optimisation of blood product administration

- ▶ L9.1: Value of oximetry as an indicator of the need for red cell concentrate transfusion. Leader: Dra. Sanz.

Axis 10: Technological innovation

- ▶ L10.1: Development of non-ionising neonatal imaging incubator. Leader: Dra. Sánchez Luna.

Axis 11: Neonatal resuscitation training

- ▶ L11.1: Study of the impact of periodic assessment on the retention of skills and knowledge acquired in neonatal resuscitation courses. Leader: Dra. Zeballos.

Group members

- Arriaga Redondo, María.
- Bernardo Atienza, Ana Belén.
- Blanco Bravo, Dorotea.
- Caballero Martín, Sylvia.
- Chimenti Camacho, Paz.
- Franco Fernández, M^a Luisa.
- González Pacheco, Noelia.
- Gregorio Hernández, Rebeca.
- Maderuelo Rodríguez, Elena.
- Marsinyach Ros, M^a Itziar.
- Pérez Pérez, Alba.
- Pescador Chamorro, M^a Isabel.
- Ramos Navarro, M^a Cristina.
- Rodríguez Corrales, Elena.
- Rodríguez Sánchez de la Blanca, Ana.
- Sánchez Gómez de Orgaz, M^a del Carmen.
- Sánchez Luna, Manuel.
- Sanz López, Esther.
- Vigil Vázquez, Sara.
- Villar Castro, Sonia.
- Zamora Flores, Elena.
- Zeballos Sarrato, Gonzalo.
- Zeballos Sarrato, Susana Elena.

Group with established lines of research in animal and clinical experimental respiratory physiology, neonatal neurobiology, pain and personalised nutrition.



Research Projects – Competitive Calls

Competitive projects

- Title: Ventilación de alta frecuencia oscilatoria con volumen garantizado en la prevención del daño pulmonar inducido por ventilación en un modelo animal neonatal.** PI17/00838
 Director: Sánchez Luna, Manuel
 Project type: Research project
 Funding body: Instituto de Salud Carlos III
 Start date: 01/01/2018
 End date: 30/06/2021
- Title: Surfactante aerosolizado combinado con ventilación de alta frecuencia oscilatoria con volumen garantizado en la prevención del daño pulmonar inducido por ventilación en un modelo animal neonatal.** PI20/01331
 Director: Sánchez Luna, Manuel
 Project type: Research project
 Funding body: Instituto de Salud Carlos III
 Start date: 01/01/2021
 End date: 31/12/2023
- Title: Aspectos clínicos e inmunoviroológicos de la infección por SARS-CoV2 en una cohorte de gestantes y recién nacidos. Proyecto prospectivo multicéntrico 12 hospitales.** COV20/00808
 Director: Navarro, María Luisa
 Project type: Research project
 Funding body: Instituto de Salud Carlos III
 Start date: 01/04/2020
 End date:
- Title: Mecanismos epigenéticos implicados en la génesis y curso de trastornos del neurodesarrollo en prematuros extremos. Estudio de seguimiento a 4 años.** PI20/01342
 Director: Blanco, Dorotea; Pina, Laura
 Project type: Research project
 Funding body: Instituto de Salud Carlos III
 Start date: 01/01/2020
 End date: 01/31/2022

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
ISCIII Platform	Plataforma española de Ensayos clínicos (SCRen)	Collaborating group
Others	Grupo Geidis/ Registro GEIDIS	Collaborating group
	Others	Grupo Geidis/ Registro GEIDIS
	RED SAMID	Collaborating group
	RED Castrillo	Collaborating group
	Red RECLIP	Collaborating group

Doctoral theses, Bachelor theses and Master theses

Type	Candidate	Title	Name/s Director/s	University	Date defended
Ph Thesis	Rebeca Gregorio Hernandez	Utilidad de la ecografía pulmonar en el recién nacido prematuro con dificultad respiratoria	Manuel Sánchez Luna/ María Arriaga	UCM	3 de febrero de 2021



Publications

Total Impact Factor: 75.5

	Nº	IF
Own publications	9	32.4
Joint publications	8	43.1
First decile publications	3	30.5
First quartile publications	8	53.3
Second quartile publications	3	8.0
Third quartile publications	6	14.2
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	4	-
Total publications (including those without IF)	21	75.5

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Loureiro, B; Bertolo, JD; Blanco, D; Ginovart, G; Jiménez, A; Martín, Y; Soriano, J; Torres, MJ; Vento, M; Pallas-Alonso, CR. *National protocol led to significant improvements in follow-up programmes for very low birth weight or very preterm infants*. ACTA PAEDIATRICA. 2021; 110(8) 2357-2358. FI: 4.056. Cuartil: 1. (Article).
- Solís-García, G; Gutiérrez-Vélez, A; Chamorro, IP; Zamora-Flores, E; Vigil-Vázquez, S; Rodríguez-Corales, E; Sánchez-Luna, M. *Epidemiology, management and risk of SARS-CoV-2 transmission in a cohort of newborns born to mothers diagnosed with COVID-19 infection*. ANALES DE PEDIATRIA. 2021; 94(3) 173-178. FI: 2.377. Cuartil: 3. (Article).
- Gómez, JAV; López, ES; Vázquez, SV; del Hoyo, AA. *Herlyn-Werner-Wunderlich syndrome of neonatal diagnosis*. ANALES DE PEDIATRIA. 2021; 94(4) 263-264. FI: 2.377. Cuartil: 3. (Editorial Material).
- Rodríguez, CC; Roca, IG; Ros, MIM; Luna, MS; Chamorro, MIP. *Satisfaction survey on hospital care after birth and follow-up at discharge of the healthy*

newborn. ANALES DE PEDIATRIA. 2021; 95(3) 197-199. FI: 2.377. Cuartil: 3. (Letter).

- Fernández, MGE; González-Pacheco, N; Sánchez-Redondo, MD; Cernada, M; Martín, A; Pérez-Munuzuri, A; Boix, H; Couce, ML; Com Estandares; Soc Espanola Neonatologia. *Sedoanalgesia in neonatal units*. ANALES DE PEDIATRIA. 2021; 95(2). FI: 2.377. Cuartil: 3. (Article).
- Luna, MS; Munuzuri, AP; Pico, MC; Soc Espanola Neonatologia. *Pulse oximetry screening of critical congenital heart defects in the neonatal period. Update of the Spanish National Neonatal Society recommendation*. ANALES DE PEDIATRIA. 2021; 95(6) 492-493. FI: 2.377. Cuartil: 3. (Editorial Material).
- Sánchez-Luna, M. *A New Era in the Respiratory Support of the Sick and Immature Neonate Preface*. CLINICS IN PERINATOLOGY. 2021; 48(4). FI: 2.642. Cuartil: 2. (Editorial Material).
- Sánchez-Luna, M; González-Pacheco, N; Santos-González, M; Tendillo-Cortijo, F. *High-frequency Ventilation*. CLINICS IN PERINATOLOGY. 2021; 48(4) 855-868. FI: 2.642. Cuartil: 2. (Article).
- Prusakov, P; Goff, DA; Wozniak, PS; Cassim, A; Scipion, CEA; Urzua, S; Ronchi, A; Zeng, LK; Ladipo-Ajayi, O; Avilés-Otero, N; Udeigwe-Okeke, CR; Melamed, R; Silveira, RC; Auriti, C; Beltrán-Arroyave, C; Zamora-Flores, E; Sánchez-Codez, M; Donkor, ES; Keko. *A global point prevalence survey of antimicrobial use in neonatal intensive care units: The no-more-antibiotics and resistance (NO-MAS-R) study*. ECLINICALMEDICINE. 2021; 32 100727-100727. FI: 17.033. Cuartil: 1. (Article).
- Luna, MS; Martín, SC; Gómez-de-Organ, CS. *Human milk bank and personalized nutrition in the NICU: a narrative review*. EUROPEAN JOURNAL OF PEDIATRICS. 2021; 180(5) 1327-1333. FI: 3.86. Cuartil: 1. (Review).
- Isidro, EM; Luna, MS; Ramos-Navarro, C. *Long-term outcomes of preterm infants treated with less invasive surfactant technique (LISA)*. JOURNAL OF MATERNAL-FETAL & NEONATAL MEDICINE. 2021; 34(12) 1919-1924. FI: 2.323. Cuartil: 3. (Article).
- Greenough, A; Decobert, F; Field, D; Hallman, M; Hummler, HD; Jonsson, B; Luna, MS; Van Overmeire, B; Carnielli, VP; Potenziano, JL; Mercier, JC. *Inhaled nitric oxide (iNO) for preventing prematurity-related bronchopulmonary dysplasia (BPD): 7-year follow-up of the European Union Nitric Oxide (EUNO)*



7.22. NEONATAL AND DEVELOPMENTAL PHYSIOLOGY

trial. JOURNAL OF PERINATAL MEDICINE. 2021; 49(1) 104-110. FI: 2.716. Cuartil: 2. (Article).

- Guinea J; Mezquita S; Gómez A; Padilla B; Zamora E; Sánchez-Luna M; Sánchez-Carrillo C; Muñoz P; Escribano P. *Whole genome sequencing confirms Candida albicans and Candida parapsilosis microsatellite sporadic and persistent clones causing outbreaks of candidemia in neonates*. MEDICAL MYCOLOGY. 2021; 60(1). FI: 3.747. Cuartil: 1. (Article).
- De la Torre, M; Solé, C; Fanjul, M; Berenguer, B; Arriaga-Redondo, M; de Tomas, E; Lorca-García, C. *Neonatal Fournier's Gangrene Avoiding Extensive Debridement*. PEDIATRIC INFECTIOUS DISEASE JOURNAL. 2021; 40(10) 384-387. FI: 3.806. Cuartil: 1. (Article).
- Solís-García, G; González-Pacheco, N; Ramos-Navarro, C; de la Blanca, ARS; Sánchez-Luna, M. *Target volume-guarantee in high-frequency oscillatory ventilation for preterm respiratory distress syndrome: Low volumes and high frequencies lead to adequate ventilation*. PEDIATRIC PULMONOLOGY. 2021; 56(8) 2597-2603. FI: 4.09. Cuartil: 1. (Article).
- Sánchez-Luna, M; Colomer, BF; Romero, CD; Allen, AA; Souto, AB; Longueira, FC; Badia, MC; Pradell, ZG; López, MG; Herrera, MCL; Bautista, CR; García, LS; Flores, EZ. *Neonates Born to Mothers With COVID-19: Data From the Spanish Society of Neonatology Registry*. PEDIATRICS. 2021; 147(2). FI: 9.703. Cuartil: 1. (Article).
- Velilla, ID; del Rio, ML; Oliva, JCLM; Navarro, CR; Bermejo-Sánchez, E; Ramírez, NB. *Neonatal myocardial ischemia and calcifications. Report of a*

case of generalized arterial calcification of infancy. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(2) 187-189. FI: 6.975. Cuartil: 1. (Letter).

- Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor:
- Pescador, MI; Zeballos, SE; Ramos, C; Sánchez-Luna, M. *Limit of viability: Where are we and where are we going?*. REVISTA MEDICA CLINICA LAS CONDES. 2021; 32(6) 656-663. (Article).

Other publications

- Solís-García G; Gutiérrez-Vélez A; Pescador Chamorro I; Zamora-Flores E; Vigil-Vázquez S; Rodríguez-Corrales E; Sánchez-Luna M. *Epidemiology, management and risk of SARS-CoV-2 transmission in a cohort of newborns born to mothers diagnosed with COVID-19 infection*. ANALES DE PEDIATRIA. 2021; 94(3) 173-178. (Article).
- Espinosa Fernández MG; González-Pacheco N; Sánchez-Redondo MD; Cernada M; Martín A; Pérez-Muñuzuri A; Boix H; Couce ML. *Sedoanalgesia in neonatal units*. ANALES DE PEDIATRIA. 2021; 95(2). (Article).
- Carrasco I; Muñoz-Chapulí M; Vigil-Vázquez S; Aguilera-Alonso D; Hernández C; Sánchez-Sánchez C; Oliver C; Ríaza M; Pareja M; Sanz O; Pérez-Seoane B; López J; Márquez E; Domínguez-Rodríguez S; Hernanz-Lobo A; De León-Luis JA; Sánchez-Luna M; Navarro ML. *SARS-COV-2 infection in pregnant women and newborns in a Spanish cohort (GESNEO-COVID) during the first wave*. BMC PREGNANCY AND CHILDBIRTH. 2021; 21(1) 326-326. (Article).

7.25. Artificial Circulation Laboratory

Group Head: JUAN FRANCISCO DEL CAÑIZO LÓPEZ

Organisms involved: HGUGM

Type: Emerging group

Research lines

Axis 1: Circulatory assistance

- ▶ L1: Mechanical circulatory assistance. Effects of different types of flow (pulsatile and non-pulsatile) on the perfusion of different organs. Leader: Ignacio Fernández López.
- ▶ L2: Liver decellularisation.

Axis 2: Transplant preservation methods

- ▶ L1: Normothermic perfusion of the isolated liver.

Axis 3: 3D bioprinting

- ▶ L1: 3D skin printing.

Group members

- Barrio Gutiérrez, José M^a: R2. Recognised Researcher.
- Beneyto Cruz, Rosario.
- Cuerpo Caballero, Gregorio Pablo: R2. Recognised Researcher.
- Del Cañizo López, Juan Francisco: R4. Leading Researcher.
- Fernández López, Ignacio: R1. First Stage Researcher.
- Rivera Muñoz, Andrés: R1. First Stage Researcher.
- Ruiz Fernández, Manuel: R1. First Stage Researcher.
- Zamorano Serrano, José Ángel.

Multidisciplinary group focused on research and innovation in artificial circulation and ventricular assist devices.

Research Projects – Competitive Calls

Competitive projects

- Title:** Efectos del tipo de flujo sanguíneo (continuo o pulsátil) sobre la microcirculación en un modelo animal de asistencia ventricular. PI17/01319

Director: Ruiz Fernández, Manuel

Project type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2018

End date: 30/06/2021
- Title:** Nuevas Tecnologías de Fabricación y Optimización de Tejidos : La Piel como sistema Modelo S2018/BAA-4480

Director: Del Cañizo López, Juan Francisco

Project Type: Programa de Actividades de I+D en biomedicina

Funding Body: Consejería de Educación e Investigación. Comunidad de Madrid

Start date: 06/03/2019

End date: 06/03/2022
- Title:** Mejora de las prestaciones del area quirurgica del servicio de medicina y cirugía experimental para el apoyo a los investigadores del Instituto de Investigación Sanitaria del Hospital Gregorio Marañón PEJ2018-004026-A

Director: Del Cañizo López, Juan Francisco

Project type: Human Resources

Funding body: MICINN

Start date: 01/01/2019

End date: 31/10/2021

Industrial and intellectual property registrations

Industrial property

Title	Reference*	Owner	Inventors
Equipo y simulación para control de hemorragias	P201730568	FIBHGM – Medical Simulator	Manuel Desco, Juan Francisco del Cañizo
Dispositivo para prevenir la neumonía asociada a ventilación mecánica	U 2014 30814	FIBHGM	Juan Francisco del Cañizo, Emilio Bouza, M ^a Jesús Pérez

■ Transferred Industrial Property.

* Reference: P (Patent), PCT (international patent), EP (European patent), US (USA patent), U (Utility model), M (Trademark)



Publications

Total Impact Factor: 65.5

	Nº	IF
Own publications	1	4.8
Joint publications	7	60.7
First decile publications	2	45.8
First quartile publications	3	50.6
Second quartile publications	3	11.9
Third quartile publications	0	0.0
Fourth quartile publications	2	3.0
Nonindexed publications / No IF	6	-
Total publications (including those without IF)	14	65.5

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Martínez-Solano, J; Ortiz-Bautista, C; Zataráin-Nicolás, E; Sousa-Casasnovas, I; Pedraz-Prieto, A; Barrio-Gutiérrez, JM; Pascual-Izquierdo, C; Fernández-Avilés, F. *Management of Intracranial Hemorrhage During Pulsatile Long-Term Biventricular Support: When Necessity Is the Mother of Invention*. ASAIO JOURNAL. 2021; 67(10) 172-175. FI: 3.826. Cuartil: 2. (Article).
- Alcázar, MC; Hernández-Vaquero, D; Cubero-Gallego, H; Menéndez, JL; Piñón, M; Martín, JA; Caballero, GC; Carnicer, JC; Villamor, C; Forteza, A; Pascual, I; Castellanos, LCM. *Retrospective cohort analysis of Spanish national trends of coronary artery bypass grafting and percutaneous coronary intervention from 1998 to 2017*. BMJ OPEN. 2021; 11(4). FI: 3.006. Cuartil: 2. (Article).
- Gil-Jaurena, JM; Pardo, C; Pita, A; Pérez-Caballero, R; ZaMorano, J; Camino, M; Gil-Villanueva, N; Zataráin, E; Prieto, R. *Technical modifications for transplant in the failing Fontan*. CARDIOLOGY IN THE YOUNG. 2021; 31(3) 400-405. FI: 1.023. Cuartil: 4. (Article).
- Pérez-Granda, MJ; Barrio, JM; Cruces, R; Alonso, B; Martín-Rabadán, P; Collado, I; Guembe, M. *How should microbiology laboratories interpret cultures of the sonicate of closed needleless connectors?*. ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA. 2021; 39(2) 72-77. FI: 1.994. Cuartil: 4. (Article).
- Quintana-Villamandos, B; Barranco, M; Fernández, I; Ruiz, M; del Cañizo, JF. *New Advances in Monitoring Cardiac Output in Circulatory Mechanical Assistance Devices. A Validation Study in a Porcine Model*. FRONTIERS IN PHYSIOLOGY. 2021; 12 634779-634779. FI: 4.755. Cuartil: 1. (Article).
- Pérez Lago L; Pérez Latorre L; Herranz M; Tejerina F; Sola-Campoy PJ; Sicilia J; Suárez-González J; Andrés-Zayas C; Chiner-Oms A; Jiménez-Serrano S; García-González N; Comas I; González-Candelas F; Martínez-Laperche C; Catalán P; Muñoz P; García de Viedma. *Complete Analysis of the Epidemiological Scenario around a SARS-CoV-2 Reinfection: Previous Infection Events and Subsequent Transmission*. MSPHERE. 2021; 6(5). FI: 5.029. Cuartil: 2. (Article).
- López, MG; Chiner-Oms, A; de Viedma, DG; Ruiz-Rodríguez, P; Bracho, MA; Cancino-Muñoz, I; D'Auria, G; de Marco, G; García-González, N; Goig, GA; Gómez-Navarro, I; Jiménez-Serrano, S; Martínez-Priego, L; Ruiz-Hueso,

7.25. ARTIFICIAL CIRCULATION LABORATORY

P; Ruiz-Roldán, L; Torres-Puente, M; Alb. *The first wave of the COVID-19 epidemic in Spain was associated with early introductions and fast spread of a dominating genetic variant*. NATURE GENETICS. 2021; 53(10) 1405-1414. FI: 41.307. Cuartil: 1. (Article).

- Rodríguez-Grande, C; Catalán, P; Alcalá, L; Buenestado-Serrano, S; Adan-Jiménez, J; Rodríguez-Maus, S; Herranz, M; Sicilia, J; Acosta, F; Pérez-Lago, L; Muñoz, P; de Viedma, DG; Gregorio Maranon M. *Different dynamics of mean SARS-CoV-2 RT-PCR Ct values between the first and second COVID-19 waves in the Madrid population*. TRANSBOUNDARY AND EMERGING DISEASES. 2021; 68(6) 3103-3106. FI: 4.521. Cuartil: 1. (Article).

Publications of the main WOS collection in journals without impact factor

- Calvo-Haro, JA; Pascau, J; Asencio-Pascual, JM; Calvo-Manuel, F; Cancho-Gil, MJ; López, JFD; Fanjul-Gómez, M; García-Leal, R; González-Casaurrán, G; González-Leyte, M; León-Luis, JA; Mediavilla-Santos, L; Ochandiano-Caicoya, S; Pérez-Caballero, R; Ribed-S. *Point-of-care manufacturing: a single university hospital's initial experience*. 3D PRINTING IN MEDICINE. 2021; 7(1) 11-11. (Article).
- Gil-Jaurena, JM; Pérez-Caballero, R; Pita, A; Pardo, C; Monzon, D; Pérez, R; Ramírez, B; ZaMorano, J. *Neonatal aortic arch surgery on by-pass*. CIRUGIA CARDIOVASCULAR. 2021; 28(1) 8-13. (Article).
- Caballero, GC; Menéndez, JL; López, LP; Hernández, TC; Alcázar, MC; Fuster, RG; García-Verdugo, PG; Aroca, JMB. *Cardiovascular surgery in Spain in 2019. Interventions registry from the Spanish Society of Cardiovascular Surgery (SECCE)*. CIRUGIA CARDIOVASCULAR. 2021; 28(3) 162-176. (Review).
- López, LP; Hernández, TC; Caballero, GC; Menéndez, JL; Fuster, RG; García-Verdugo, PG; Aroca, JMB; Soc Espanola Cirugia Cardiovasc En. *Spanish Society of Cardio & Endovascular Surgery registry of interventions in patients with congenital heart disease: 2019, and retrospective of the last 8 years*. CIRUGIA CARDIOVASCULAR. 2021; 28(3) 151-161. (Article).
- Cuerpo, G; Pedraz, A; Pinto, A. *Impact of the COVID-19 pandemic on cardiac surgery in Spain*. CIRUGIA CARDIOVASCULAR. 2021; 28(4) 187-189. (Editorial Material).

- Valerio, M; Vasquez, V; Álvarez-Uría, A; Zataráin-Nicolás, E; Pavone, P; Martínez-Jiménez, MD; Barrio-Gutiérrez, JM; Cuerpo, G; Guinea-Ortega, J; Vena, A; Peligros-Gómez, MI; Bouza, E; Muñoz, P. *Disseminated lomentosporiosis in a heart transplant recipient: Case report and review of the literature*. TRANSPLANT INFECTIOUS DISEASE. 2021; 23(4). (Review).



7.26. Evaluation of health services and clinical epidemiology

Group Head: NIEVES LOPEZ FRESNEÑA

Organisms involved: HGUGM

Type: Emerging group

Research lines

Axis 1: Precision medicine, innovation, regenerative medicine and big data

- ▶ Line 1: Evaluation of health services and public health programs. Leader: Nieves Lopez Fresneña.
- ▶ Line 2: Patient safety and management of risks resulting from clinical practice. Leader: Alicia Díaz Redondo.
- ▶ Line 3: Prevention of health care-related infections. Leader: Dolores Vigil Escribano.

Axis 2: Boosting research in primary care and nursing

- ▶ Line 1: Evaluation of health services and public health services. Leader: Nieves López Fresneña.



Group members

- Díaz Redondo, Alicia.
- Fernán Pérez, Patricia.
- Funes Molina, Carmen.
- García Expósito, Esther.
- Garzón Sánchez, Ana.
- González Verdú, Gemma.
- Grande Armesto, Marta Beatriz.
- Izquierdo Membrilla, M^a Isabel.
- López Fresneña, Nieves.
- Martín García, Paula.
- Martínez de Albéniz Arriarán, M^a Elena.
- Molina Villaverde, Diana.
- Morano Vázquez, Aitana.
- Moreno Ortega, Elena.
- Nieto Pereda, Beatriz.
- Plá Mestre, Rosa.
- Puente González, Dolores.
- Rapela Freire, Alba.
- Rodríguez Campelo, Dan.
- Ruano Santa Engracia, M^a Jesús.
- Ruiz Tornero, Ana.
- Vigil Escribano, M^a Dolores.

7.26. EVALUATION OF HEALTH SERVICES AND CLINICAL EPIDEMIOLOGY

Publications		Total Impact Factor: 7.0
	Nº	IF
Own publications	0	0.0
Joint publications	2	7.0
First decile publications	0	-
First quartile publications	0	0.0
Second quartile publications	1	5.0
Third quartile publications	0	0.0
Fourth quartile publications	1	2.0
Nonindexed publications / No IF	1	-
Total publications (including those without IF)		3

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Hernández-García, M; Díaz-Agero, C; Pérez-Viso, B; Sánchez, AM; López-Fresneña, N; Morosini, MI; Ruiz-Garbajosa, P; Cantón, R. *Implementation of contact isolation strategy for the containment of extended-spectrum beta-lactamase carriers in a University Hospital positively affects the epidemiology of carbapenemase-producing Enterobacterales*. ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA. 2021; 39(9) 429-435. FI: 1.994. Cuartil: 4. (Article).
- Pérez-Lago L; Martínez-Lozano H; Pajares-Díaz JA; Díaz-Gómez A; Machado M; Sola-Campoy PJ; Herranz M; Valerio M; Olmedo M; Suárez-González J; Quesada-Cubo V; Gómez-Ruiz MDM; López-Fresneña N; Sánchez-Arcilla I; Comas I; González-Candelas F; García de San. *Overlapping of Independent SARS-CoV-2 Nosocomial Transmissions in a Complex Outbreak*. MSPHERE. 2021; 6(4). FI: 5.029. Cuartil: 2. (Article).

Other publications

- Alonso J; Vilagut G; Mortier P; Ferrer M; Alayo I; Aragón-Peña A; Aragonès E; Campos M; Cura-González ID; Emparanza JI; Espuga M; Forjaz MJ; González-Pinto A; Haro JM; López-Fresneña N; Salázar ADM; Molina JD; Ortí-Lucas RM; Parellada M; Pelayo-Terán JM. *Mental health impact of the first wave of COVID-19 pandemic on Spanish healthcare workers: A large cross-sectional survey*. REVISTA DE PSIQUIATRIA Y SALUD MENTAL. 2021; 14(2) 90-105. (Article).



7.27. Hospital pharmacy and pharmacogenomics

Group Head: MARÍA SANJURJO SÁEZ

Organisms involved: HGUGM

Type: Emerging group

Research lines

Axis 1: Drug therapy and safety. Leader: María Sanjurjo Sáez

- ▶ Line 1: Pharmaceutical care and quality in drug therapy.
- ▶ Line 2: Safety in the medication use process.
- ▶ Line 3: New models in drug development.

Axix 2. Pharmacogenetics and pharmacogenomics. Leader: Luis Andrés López Fernández

- ▶ Line 1: Pharmacogenetics and pharmacogenomics.

The Hospital Pharmacy and Pharmacogenomics research group is included in the Research Area called Large System Pathology and Organ Transplantation. This research group was set up in 2009 and is currently classified as a consolidated group. Its head is Dr. María Sanjurjo Sáez, Head of the Pharmacy Service. Its mission is to combine clinical research of a high scientific-technical level with quality basic research in order to improve people's health and quality of life by contributing to scientific progress.

Group members

- Ais Larisgoitia, M^a Aránzazu: R1. First Stage Researcher.
- Cavada Carranza, Irene: R1. First Stage Researcher.
- Chamorro de Vega, Esther: R2. Recognised Researcher.
- Collado Borrel, Roberto: R2. Recognised Researcher.
- De Lorenzo Pinto, Ana: R2. Recognised Researcher.
- Durán García, M^a Esther: R2. Recognised Researcher.
- Escudero Vilaplana, Vicente: R2. Recognised Researcher.
- Ferris Villanueva, María: R1. First Stage Researcher.
- Fraile Rodríguez, Carlos: R1. First Stage Researcher.
- García González, Xandra: R2. Recognised Researcher.
- García Moreno, Félix Jesús: R1. First Stage Researcher.
- García Sánchez, Sebastián: R2. Recognised Researcher.
- Giménez Manzorro, Álvaro: R2. Recognised Researcher.
- Gómez Costas, Daniel: R1. First Stage Researcher.
- Gómez Martínez-Sagrera, Patricia: R1. First Stage Researcher.
- González-Haba Peña, Eva: R2. Recognised Researcher.
- Herranz Alonso, Ana: R2. Recognised Researcher.
- Herrero Bermejo, Sergio: R1. First Stage Researcher.
- Ibáñez García, Sara: R2. Recognised Researcher.
- Lobato Matilla, M^a Elena: R1. First Stage Researcher.
- López Fernández, Luis Andrés: R3. Established Researcher.
- López Santiago, Marta: R1. First Stage Researcher.

Continued on next page

Group members (*cont.*)

- Manrique Rodríguez, Silvia: R2. Recognised Researcher.
- Martín Barbero, M^a Luisa: R1. First Stage Researcher.
- Martínez Fernández-Llamazares, Cecilia: R2. Recognised Researcher.
- Marzal Alfaro, M^a Belén: R2. Recognised Researcher.
- Melgalejo Ortuño, Alejandra: R1. First Stage Researcher.
- Montero Antón, María Pilar: R1. First Stage Researcher.
- Mur Mur, Ana: R1. First Stage Researcher.
- Narrillos Moraza, Álvaro: R1. First Stage Researcher.
- Ortega Navarro, M^a Cristina: R1. First Stage Researcher.
- Pernia López, M^a Sagrario: R1. First Stage Researcher.
- Pizarro Gómez, Carolina: R1. First Stage Researcher.
- Revuelta Herrero, José Luis: R1. First Stage Researcher.
- Ribed Sánchez, Almudena: R2. Recognised Researcher.
- Rioja Díez, Yeray: R1. First Stage Researcher.
- Rodríguez González, Carmen Guadalupe: R2. Recognised Researcher.
- Romero Jiménez, Rosa M^a: R2. Recognised Researcher.
- Ruiz Briones, Paula: R1. First Stage Researcher.
- Salvador Martín, Sara: R2. Recognised Researcher.
- Sánchez Fresneda, M^a Norberta: R1. First Stage Researcher.
- Sanjurjo Sáez, María: R4. Leading Researcher.
- Sarobe González, Camino: R1. First Stage Researcher.
- Somoza Fernández, Beatriz: R1. First Stage Researcher.
- Taladriz Sender, Irene: R1. First Stage Researcher.
- Torroba Sanz, Beatriz: R1. First Stage Researcher.
- Vicente Valor, Juan: R1. First Stage Researcher.
- Villanueva Bueno, Cristina: R1. First Stage Researcher.

Research Projects – Competitive Calls

Competitive projects

- Title: **Proyecto de Alerta en Neumonía Grave (PANG). Impacto de un bundle multidisciplinar de intervención diagnóstica y terapéutica.** PI20/01350
Director: Galar Recalde, Alicia
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2021
End date: 31/12/2023
- Title: **Marcadores genéticos, transcriptómicos y celulares de respuesta a terapia biológica en enfermedad inflamatoria intestinal pediátrica.** PI19/00792
Director: López Fernández, Luis Andrés
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022
- Title: **Patient-reported Outcomes in Lung cancer: Estudio PeOpLe.**
Director: Escudero Vilaplana, Vicente
Project type: Research project
Funding body: Fundación Española de Farmacia Hospitalaria
Start date: 01/01/2018
End date:
- Title: **Aprendizaje máquina y computación masiva para medicina personalizada y análisis cuantitativo del clima (CLARA).** RTI2018-099655-B-I00
Director: Artés Rodríguez, Antonio
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2019
End date:
- Title: **Tratamiento preventivo del CMV en pacientes inmunocompetentes de alto riesgo con cirugía cardíaca mayor. Un ensayo clínico multicén-**

trico, doble ciego, aleatorizado, fase III (GAN-CAR). ICI19/00079

Director: Muñoz, Patricia

Project type: Research project

Funding body: Instituto de Salud Carlos III

Start date: 01/01/2020

End date: 31/12/2021

- Title: **Registro Español de Resultados de Farmacoterapia frente a COVID-19.** SEF-LOP-2020-02

Director: Rodríguez González, Carmen

Project type: Research project

Funding body: SEFH

Start date: 01/01/2020

End date:

- Title: **Estudio multicéntrico de conciliación de la medicación al ingreso en pacientes crónicos pediátricos: en busca de un algoritmo.** CON-CIMED-PED

Director: Cuervas Mons, Margarita; Martínez Fernández-Llamazares, Cecilia

Project type: Research project

Funding body: Fundación Española de Farmacia Hospitalaria

Start date: 01/01/2019

End date:

- Title: **Estandarización y caracterización de la terapia intravenosa en pediatría: un paso más en materia de seguridad**

Director: Manrique Rodríguez, Silvia

Project type: Research project

Funding body: Fundación Española de Farmacia Hospitalaria

Start date: 01/01/2020

End date:

Industrial and intellectual property registrations

Industrial property

Title	Reference*	Owner	Inventors
Manual de Atención farmacéutica al paciente oncohematológico	Nº Asiento Registral: 16/2021/7894	FIBHGM	Luis Carreño. Inmaculada de la Torre. Larissa Valor. Tamara del Río. Vicente Escudero. Diana Hernández. Carmen Rodríguez
e-MIDCARE: aplicación de la e-Salud en la comunicación y seguimiento de los pacientes diagnosticados de enfermedades inflamatorias inmunomediadas (IIMID)	Nº Asiento Registral: 16/2022/660	FIBHGM	Vicente Escudero, Rosa María Romero, Eshter Chamorro, María Aranzazu Ais, María Elena Lobato, Ana María Herranz, María Sanjurjo

■ Transferred Industrial Property.

* Reference: P (Patent), PCT (international patent), EP (European patent), US (USA patent), U (Utility model), M (Trademark)

Intellectual property

Title	Reference	Owner	Inventors
Recomendaciones sobre el manejo de Infecciones Fúngicas Invasoras (IFIs)	Nº Asiento Registral: 16/2014/5265	FIBHGM	Patricia Muñoz, Emilio Bouza, María Sanjurjo, Carmen Rodríguez, Maricela Valerio
Manual para la creación de una unidad funcional de terapias biológicas en pacientes con artritis crónicas	Nº Asiento Registral: 16/2013/5179	FIBHGM	Luis Carreño, Inmaculada de la Torre, Larissa Valor, Tamara del Río, Vicente Escudero, Diana Hernández, Carmen Rodríguez
Biblioteca de fármacos para bombas de infusión inteligentes en las unidades de cuidados intensivos pediátricos	Nº Asiento Registral: 16/2011/7360	FIBHGM	Amelia Caridad Sánchez y Silvia Manrique Rodríguez
Curso sobre el manejo seguro de los sistemas automatizados de dispensación por el personal de enfermería de planta y evaluación de su competencia	Nº Asiento Registral: 16/2015/503	FIBHGM	Elena Lobato, María Sanjurjo, Ana Herranz, Carmen Rodríguez

7.27. HOSPITAL PHARMACY AND PHARMACOGENOMICS

Intellectual property (cont.)

Title	Reference	Owner	Inventors
E-OncoSalud: Programa de Telemedicina aplicado al tratamiento ambulatorio del paciente onco-hematológico	Nº Asiento Registral: 16/2016/987	FIBHGM	María Sanjurjo, Ana Mª Herranz, Vicente Escudero, Almudena Ribed, Roberto Collado, Sara Ibáñez.
NefroRules: Reglas clínicas para aumentar la seguridad del tratamiento en pacientes con insuficiencia renal	Nº Asiento Registral: 16/2016/989	FIBHGM	Sara Ibáñez, María Sanjurjo, Ana Herranz Carmen Rodríguez, Mª Luisa Martín, Mª Ángeles Goicoechea, Eduardo Verde, José Luño
Thromborules: reglas clínicas para aumentar la seguridad del tratamiento en pacientes anticoagulantes O / antiagregados	Nº Asiento Registral: 16/2017/507	FIBHGM	Sara Ibáñez, Ana de Lorenzo, Ana Herranz, María Sanjurjo, Ana María Rodríguez
Control-Sugar24: calculadora para la insulinización subcutánea del paciente diabético durante las primeras 24 horas de atención hospitalaria	Nº Asiento Registral: 16/2017/6705	FIBHGM	Ana de Lorenzo, María Sanjurjo, Raquel García, Rogelio García
PK-GUIDE: Guía para monitorización clínica de fármacos	Nº Asiento Registral: 16/2017/6956	FIBHGM	Xandra García, Sara Ibáñez, Ana Herranz, Gema Sánchez, Gabriela Rodríguez, Mª Luisa Galiano, Margarita Ganzo, María Sanjurjo, Mª Teresa Vidán
PK-RULES: Reglas clínicas para aumentar la seguridad y eficacia de los tratamientos mediante monitorización farmacocinética	Nº Asiento Registral: 16/2017/6957	FIBHGM	Xandra García, Sara Ibáñez, Ana Herranz, Gema Sánchez, Gabriela Rodríguez, Mª Luisa Galiano, Margarita Ganzo, María Sanjurjo, Mª Teresa Vidán

■ Transferred Intellectual Property.

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
ISCIII Platform	SCReN: Spanish Clinical Research Network	Collaborating group

Doctoral theses, Bachelor theses and Master theses

Type	Candidate	Title	Name/s Director/s	University	Date defended
Ph Thesis	Xandra García González	Marcadores farmacogenéticos asociados a toxicidad severa a fluoropirimidinas. Utilidad y viabilidad clínica	Luis Andrés López Fernández	Universidad de Alcalá de Henares	30/04/2021



Clinical Practice Guidelines

Authors	Title	Journal/ Reference
Alvaro Giménez Manzorro y colaboradores	Criterios para el uso racional de inmunoglobulinas humanas. Madrid: Consejería de Sanidad, Servicio Madrileño de Salud	https://saludanv.salud.madrid.org/farmacia/Paginas/Publicaciones/GuiasProtocolos.aspx
Silvia Valero-García, Eva González-Haba, María Queralto Gorgas-Torner, José María Alonso-Herreros, Ana Cristina Cercós Lleti, José Luis Poveda-Andrés, Miguel Ángel Calleja-Hernandez, Olga Delgado-Sánchez	Monitoring contamination of hazardous drug compounding surfaces at hospital pharmacy departments. A consensus Statement. Practice guidelines of the Spanish Society of Hospital Pharmacists (SEFH)	http://www.aulamedica.es/fh/pdf/11655.pdf
Cecilia Martínez, Silvia Manrique, Elena Lobato, Arantza Ais, Roberto Collado	Atención Farmacéutica en pediatría	978-84-123162-8-5
Álvaro Giménez, Ana de Lorenzo, Vicente Escudero	Evaluación y selección de medicamentos	978-84-123162-8-5
Ana de Lorenzo	Infección del tracto urinario. Pielonefritis aguda y cólico nefrítico	Plataforma informática de AppleStore y PlayStore

Publications

Total Impact Factor: 143.6

	Nº	IF
Own publications	17	71.1
Joint publications	14	72.5
First decile publications	2	23.1
First quartile publications	12	80.7
Second quartile publications	9	38.0
Third quartile publications	6	18.4
Fourth quartile publications	4	6.6
Nonindexed publications / No IF	8	-
Total publications (including those without IF)	39	143.6

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Galar, A; Valerio, M; Catalán, P; García-González, X; Burillo, A; Fernández-Cruz, A; Zataráin, E; Sousa-Casasnovas, I; Anaya, F; Rodríguez-Ferrero, ML; Muñoz, P; Bouza, E. *Valganciclovir-Ganciclovir Use and Systematic Therapeutic Drug Monitoring. An Invitation to Antiviral Stewardship*. ANTIBIOTICS-BASEL. 2021; 10(1). FI: 5.222. Cuartil: 1. (Article).
- Souza-Neto, FV; Jiménez-González, S; Delgado-Valero, B; Jurado-López, R; Genty, M; Romero-Miranda, A; Rodríguez, C; Nieto, ML; Martínez-Martínez, E; Cachofeiro, V. *The Interplay of Mitochondrial Oxidative Stress and Endoplasmic Reticulum Stress in Cardiovascular Fibrosis in Obese Rats*. ANTIOXIDANTS. 2021; 10(8). FI: 7.675. Cuartil: 1. (Article).
- Amor-García, MA; Ibáñez-García, S; García-González, X; Mombiola, T; Villanueva-Bueno, C; Herranz-Alonso, A; Sanjurjo-Sáez, M. *Clinical evaluation of pulmonary hypertension using patient-reported outcomes: a cross-sectional study*. BMC PULMONARY MEDICINE. 2021; 21(1) 48-48. FI: 3.32. Cuartil: 3. (Article).
- Salvador-Martín, S; Pujol-Muncunill, G; Bossacoma, F; Navas-López, VM; Gallego-Fernández, C; Segarra, O; Clemente, S; Muñoz-Codoceo, R; Viada, J; Magallares, L; Martínez-Ojinaga, E; Moreno-Álvarez, A; Solar-Boga, A; Loverdos, I; Merino-Bohorquez, V; Balbo. *Pharmacogenetics of trough serum anti-TNF levels in paediatric inflammatory bowel disease*. BRITISH JOURNAL OF CLINICAL PHARMACOLOGY. 2021; 87(2) 447-457. FI: 3.716. Cuartil: 2. (Article).
- Melgarejo-Ortuño, A; Ribed-Sánchez, A; Giménez-Manzorro, A; Zorrilla-Ortuzar, J; Sanjurjo-Sáez, M. *Are we overdosing parenteral metamizole?*. CIRUGIA ESPANOLA. 2021; 99(1) 68-70. FI: 2.242. Cuartil: 3. (Letter).
- Ruiz-Pinto, S; Pita, G; Martín, M; Núñez-Torres, R; Cuadrado, A; Shahbazi, MN; Caronia, D; Kojic, A; Moreno, LT; de la Torre-Montero, JC; Lozano, M; López-Fernández, LA; Ribelles, N; García-Saenz, JA; Alba, E; Milne, RL; Losada, A; Pérez-Moreno, M; Beníte. *Regulatory CDH4 Genetic Variants Associate With Risk to Develop Capecitabine-Induced Hand-Foot Syndrome*. CLINICAL PHARMACOLOGY & THERAPEUTICS. 2021; 109(2) 462-470. FI: 6.903. Cuartil: 1. (Article).



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- Pulido-Pérez, A; Parra-Blanco, V; Bergón-Sendín, M; Carretero-López, F; Nieto-Benito, LM; Rosell-Díaz, A; Romero-Jiménez, R; Suárez-Fernández, R. *Intralesional cidofovir as neoadjuvant therapy in a squamous cell carcinoma of the nail bed*. DERMATOLOGIC THERAPY. 2021; 34(1). FI: 3.858. Cuartil: 2. (Letter).
- Manrique-Rodríguez, S; Heras-Hidalgo, I; Pernia-López, MS; Herranz-Alonso, A; Pisabarro, MCD; Suárez-Mier, MB; Cubero-Pérez, MA; Viera-Rodríguez, V; Cortés-Rey, N; Lafuente-Cabrero, E; Martínez-Ortega, MC; Bermejo-López, E; Diez-Saenz, C; López-Sánchez, P. *Standardization and Chemical Characterization of Intravenous Therapy in Adult Patients: A Step Further in Medication Safety*. DRUGS IN R&D. 2021; 21(1) 39-64. FI: 3.203. Cuartil: 3. (Article).
- Batson, S; Herranz, A; Rohrbach, N; Canobbio, M; Mitchell, SA; Bonnabry, P. *Automation of in-hospital pharmacy dispensing: a systematic review*. EUROPEAN JOURNAL OF HOSPITAL PHARMACY. 2021; 28(2) 58-64. FI: 2.537. Cuartil: 3. (Review).
- Chamorro-de-Vega, E; Rodríguez-González, CG; Manrique-Rodríguez, S; Lobato-Matilla, E; García-Moreno, F; Olmedo, M; Correa-Rocha, R; Valerio, M; Aldamiz-Echevarría, T; Machado, M; Sancho-González, M; López-Bernaldo-de-Quirós, JC; Ruiz-Briones, P; Romero-J. *Clinical course of severe patients with COVID-19 treated with tocilizumab: report from a cohort study in Spain*. EXPERT REVIEW OF CLINICAL PHARMACOLOGY. 2021; 14(2) 249-260. FI: 4.108. Cuartil: 2. (Article).
- GIL, S.; CARBONELL, D.; López, L.; MIGUENS, I.; ALONSO, R.; BUÑO, I.; Muñoz, P.; Ochando Cano, Jordi; PION, M.; CORREA, R. *Induction of high levels of specific humoral and cellular responses to SARS-CoV-2 after the administration of Covid-19 mRNA vaccines requires several days*. FRONTIERS IN IMMUNOLOGY. 2021; 12 726960-726960. FI: 8.786. Cuartil: 1. (Article).
- Marzal-Alfaro, MB; Escudero-Vilaplana, V; Revuelta-Herrero, JL; Collado-Borrell, R; Herranz-Alonso, A; Sanjurjo-Sáez, M. *Chimeric Antigen Receptor T Cell Therapy Management and Safety: A Practical Tool From a Multidisciplinary Team Perspective*. FRONTIERS IN ONCOLOGY. 2021; 11 636068-636068. FI: 5.738. Cuartil: 2. (Article).
- Rodríguez-González, CG; Chamorro-de-Vega, E; Valerio, M; Amor-García, MA; Tejerina, F; Sancho-González, M; Narrillos-Moraza, A; Giménez-Manzorro, A; Manrique-Rodríguez, S; Machado, M; Olmedo, M; Escudero-Vilaplana, V; Villanueva-Bueno, C; Torroba-Sanz, B. *COVID-19 in hospitalised patients in Spain: a cohort study in Madrid*. INTERNATIONAL JOURNAL OF ANTIMICROBIAL AGENTS. 2021; 57(2) 106249-106249. FI: 15.441. Cuartil: 1. (Article).
- Ibáñez-García, S; Zataráin-Nicolás, E; García-González, X; Rodríguez-Ferrero, ML; Fernández-Yáñez, J; Díaz, FJFA; Sáez, MS. *Levels of tacrolimus after treatment for chronic hepatitis C with direct antiviral agents in solid organ transplant recipients*. INTERNATIONAL JOURNAL OF CLINICAL PHARMACY. 2021; 43(3) 731-736. FI: 2.305. Cuartil: 4. (Article).
- Rubio-Salvador, AR; Escudero-Vilaplana, V; Rodríguez, JAM; Mangués-Bafalluy, I; Bernardez, B; Collado, CG; Collado-Borrell, R; Fernández, MDA; López-Muñiz, JIC; Cortés, MY; Barrera, MG; Calleja-Hernández, MA. *Cost of Venous Thromboembolic Disease in Patients with Lung Cancer: COSTECAT Study*. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2021; 18(2). FI: 4.614. Cuartil: 1. (Article).
- Machado, M; de Vega, EC; Martínez-Jiménez, MD; Rodríguez-González, CG; Vena, A; Navarro, R; Zamora-Cintas, MI; Agnelli, C; Olmedo, M; Galar, A; Guinea, J; Fernández-Cruz, A; Alonso, R; Bouza, E; Muñoz, P; Valerio, M. *Utility of 1,3 beta-d-Glucan Assay for Guidance in Antifungal Stewardship Programs for Oncologic Patients and Solid Organ Transplant Recipients*. JOURNAL OF FUNGI. 2021; 7(1). FI: 5.724. Cuartil: 1. (Article).
- Margusino-Framinan, L; Fernández-Llamazares, CM; Negro-Vega, E; Tortajada-Goitia, B; Lizeaga, G; Mercadal-Orfila, G; Almeida-González, C; Morillo-Verdugo, R. *Outpatients' Opinion And Experience Regarding Telepharmacy During The COVID-19 Pandemic: The Enopex Project*. JOURNAL OF MULTIDISCIPLINARY HEALTHCARE. 2021; 14 3621-3632. FI: 2.919. Cuartil: 3. (Article).
- Melgarejo-Ortuno, A; Escudero-Vilaplana, V; Revuelta, JL; Bailén, R; Collado-Borrell, R; Gómez-Centurión, I; Oarbeascoa, G; Kwon, M; Heranz, A; Diez-Martín, JL; Sanjurjo, M. *Tocilizumab as salvage treatment of refractory pulmonary acute graft-versus-host disease*. JOURNAL OF ONCOLOGY PHARMACY PRACTICE. 2021; 27(3) 751-755. FI: 1.416. Cuartil: 4. (Article).
- Amor-García, MA; Fernández-Llamazares, CM; Manrique-Rodríguez, S; Narrillos-Moraza, A; García-Morín, M; Huerta-Aragonés, J; Sanjurjo-Sáez, M. *Bromocriptine for the treatment of postoperative cerebellar mutism syndrome*



in pediatric patients: Three case reports. JOURNAL OF ONCOLOGY PHARMACY PRACTICE. 2021; 27(7) 1753-1757. FI: 1.416. Cuartil: 4. (Article).

- Escudero-Vilaplana, V; Collado-Borrell, R; Villanueva-Bueno, C; Álvarez, R; Herranz, A; Sanjurjo, M. *Acute pancreatitis in a patient treated with imatinib and gefitinib.* JOURNAL OF ONCOLOGY PHARMACY PRACTICE. 2021; 27(4) 980-983. FI: 1.416. Cuartil: 4. (Article).
- Villalvazo, P; Marzal-Alfaro, B; García-Alfonso, P; Revuelta-Herrero, JL; Thomas, F; López-Tarruella, S; García-González, X; Calvo, A; Yakoubi, M; Salvador-Martin, S; López-López, F; Aguilar, I; Sanjurjo-Sáez, M; Martín, M; López-Fernández, LA. *DPYD Exome, mRNA Expression and Uracil Levels in Early Severe Toxicity to Fluoropyrimidines: An Extreme Phenotype Approach.* JOURNAL OF PERSONALIZED MEDICINE. 2021; 11(8). FI: 3.508. Cuartil: 2. (Article).
- García-González X; Salvador-Martin S. *Pharmacogenetics to Avoid Adverse Reactions in Cardiology: Ready for Implementation?.* JOURNAL OF PERSONALIZED MEDICINE. 2021; 11(11). FI: 3.508. Cuartil: 2. (Article).
- Laserna-Mendieta, EJ; Salvador-Martin, S; Marín-Jiménez, I; Menchen, LA; López-Cauce, B; López-Fernández, LA; Lucendo, AJ. *Comparison of a new rapid method for determination of serum anti-adalimumab and anti-infliximab antibodies with two established ELISA kits.* JOURNAL OF PHARMACEUTICAL AND BIOMEDICAL ANALYSIS. 2021; 198 114003-114003. FI: 3.571. Cuartil: 2. (Article).
- Salvador-Martin, S; Kaczmarczyk, B; Álvarez, R; Navas-López, VM; Gallego-Fernández, C; Moreno-Álvarez, A; Solar-Boga, A; Sánchez, C; Tolín, M; Velasco, M; Muñoz-Codoceo, R; Rodríguez-Martínez, A; Vayo, CA; Bossacoma, F; Pujol-Muncunill, G; Fobelo, MJ; Mil. *Whole Transcription Profile of Responders to Anti-TNF Drugs in Pediatric Inflammatory Bowel Disease.* PHARMACEUTICS. 2021; 13(1). FI: 6.525. Cuartil: 1. (Article).
- Salvador-Martin, S; Melgarejo-Ortuno, A; López-Fernández, LA. *Biomarkers for Optimization and Personalization of Anti-TNFs in Pediatric Inflammatory Bowel Disease.* PHARMACEUTICS. 2021; 13(11). FI: 6.525. Cuartil: 1. (Review).
- Soria-Chacartegui, P; Villapalos-García, G; López-Fernández, LA; Navares-Gómez, M; Mejía-Abril, G; Abad-Santos, F; Zubiaur, P. *Clinical Relevance of Novel Polymorphisms in the Dihydropyrimidine Dehydrogenase (DPYD) Gene*

in Patients with Severe Fluoropyrimidine Toxicity: A Spanish Case-Control Study. PHARMACEUTICS. 2021; 13(12). FI: 6.525. Cuartil: 1. (Article).

- Martín, M; Ramos-Medina, R; Bernat, R; García-Saenz, JA; del Monte-Millán, M; Álvarez, E; Cebollero, M; Moreno, F; González-Haba, E; Bueno, O; Romero, P; Massarrah, T; Echavarria, I; Jerez, Y; Herrero, B; del Val, RG; Lobato, N; Rincón, P; Palomero, MI; M. *Activity of docetaxel, carboplatin, and doxorubicin in patient-derived triple-negative breast cancer xenografts.* SCIENTIFIC REPORTS. 2021; 11(1) 7064-7064. FI: 4.996. Cuartil: 2. (Article).
- Nieto-González, JC; Trives-Folguera, L; Melgarejo-Ortuno, A; Ais, A; Serrano-Benavente, B; Sanjurjo, M; Álvaro-Gracia, JM; Sáez, IM. *Persistence and adherence to biologic therapies in juvenile idiopathic arthritis.* SCIENTIFIC REPORTS. 2021; 11(1) 16195-16195. FI: 4.996. Cuartil: 2. (Article).
- Sánchez-Rubio, J; Vélez-Díaz-Pallares, M; González, CR; Fenollera, PS; Yubero, CG; García-Valdecasas, MFP. *HIV postexposure prophylaxis during the COVID-19 pandemic: experience from Madrid.* SEXUALLY TRANSMITTED INFECTIONS. 2021; 97(2) 100-100. FI: 4.199. Cuartil: 3. (Letter).
- Escudero-Vilaplana, V; Collado-Borrell, R; del Monte-Millán, M; Hoyo-Muñoz, A; Martínez-Sagrera, PG; Revuelta-Herrero, JL; Marzal-Alfaro, B; González-Haba, E; Cobo, SLT; Gilarranz, YJ; Herranz, A; Sanjurjo, M; Martín, M. *Assessment of diarrhea as side effect of oral targeted antineoplastic agents in clinical practice.* SUPPORTIVE CARE IN CANCER. 2021; 29(8) 4673-4681. FI: 3.359. Cuartil: 1. (Article).
- García-Martin, E; Escudero-Vilaplana, V; Fox, B; Collado-Borrell, R; Marzal-Alfaro, B; Sánchez-Isac, M; Solano-Garzón, ML; del Val, RG; Cano-González, JM; de Lucas, NP; Bravo-Guillén, AI; Valero-Salinas, J; González-Haba, E; Sanjurjo, M; Martín, M. *Aggressiveness of end-of-life cancer care: what happens in clinical practice?.* SUPPORTIVE CARE IN CANCER. 2021; 29(6) 3121-3127. FI: 3.359. Cuartil: 1. (Article).

Publications of the main WOS collection in journals without impact factor

- Calvo-Haro, JA; Pascau, J; Asencio-Pascual, JM; Calvo-Manuel, F; Cancho-Gil, MJ; López, JFD; Fanjul-Gómez, M; García-Leal, R; González-Casaurrán, G; González-Leyte, M; León-Luis, JA; Mediavilla-Santos, L; Ochandiano-



7.27. HOSPITAL PHARMACY AND PHARMACOGENOMICS

Caicoya, S; Pérez-Caballero, R; Ribed-S. *Point-of-care manufacturing: a single university hospital's initial experience*. 3D PRINTING IN MEDICINE. 2021; 7(1) 11-11. (Article).

- Garrido-Corro, B; Fernández-Llamazares, CM; Rodríguez-Marrodan, B; Pozas, M; Solano-Navarro, C; Otero, MJ. *Multicentric study on the incidence and preventability of medication-related incidents in patients visiting pediatric emergency departments*. FARMACIA HOSPITALARIA. 2021; 45(3) 115-120. (Article).
- Valero-García, S; González-Haba, E; Gorgas-Torner, MQ; Alonso-Herreros, JM; Lleti, ACC; Poveda-Andrés, JL; Calleja-Hernández, MA; Delgado-Sánchez, O. *Monitoring contamination of hazardous drug compounding surfaces at hospital pharmacy departments. A consensus Statement. Practice guidelines of the Spanish Society of Hospital Pharmacists (SEFH)*. FARMACIA HOSPITALARIA. 2021; 45(2) 96-107. (Article).
- Herranz, A; Pernia, S. *Centralized drug compounding units: an essential driver of patient safety*. FARMACIA HOSPITALARIA. 2021; 45(4) 163-164. (Editorial Material).

- de Lorenzo-Pinto, A; García-Sánchez, R; Ortega-Navarro, C; De Miguel-Yanes, JM. *Comments on prescription of antihypertensives pro re nata*. JOURNAL OF HEALTHCARE QUALITY RESEARCH. 2021; 36(2) 117-118. (Letter).
- Morillo Verdugo R; Calvin Lamas M; Delgado Latorre ATJ; Ferrando Piqueres R; Fernández-Llamazares CM; Negro Vega E; Tortajada Goitia B. *Desarrollo de la norma Q-PEX de certificación de calidad de la atención farmacéutica a pacientes externos de los servicios de Farmacia*. JOURNAL OF HEALTHCARE QUALITY RESEARCH. 2021; 36(6) 324-332. (Article).

Other publications

- GARCÍA, X.; SALVADOR, S. *Pharmacogenetics to Avoid Adverse Reactions in Cardiology: Ready for Implementation?*. JOURNAL OF PERSONALIZED MEDICINE. 2021; . (Article).
- SALVADOR, S.; MELGAREJO, A.; López, L. *Biomarkers for Optimization and Personalization of Anti-TNFs in Pediatric Inflammatory Bowel Disease*. PHARMACEUTICS. 2021; 13(11). (Review).

7.28. Clinical nutrition

Group Head: M^a CRISTINA DE LA CUERDA COMPÉS

Organisms involved: HGUGM

Type: Emerging group

Research lines

Axis 1: Assessment of nutritional status

- ▶ L1: Spanish translation and validation VGS-GP QUESTIONNAIRE
- ▶ L2: NUTRITIONAL SCREENING at hospital admission.
- ▶ L3: Role of vitamin D deficiency in key events in cirrhosis of the liver and impact of supplements.
- ▶ L4: Evolution of Energy Expenditure and blood levels of amino acids and Acylcarnitines in patients in the hematopoietic precursor transplantation program.
- ▶ L5: Nutritional assessment for patients on biological treatments.
- ▶ L6: Assessment of nutritional status and body composition in PC patients undergoing cytoreduction and QUIOH.
- ▶ L7: Prevalence of malnutrition in gastrointestinal surgical oncology patients
- ▶ L8: Ultrasound assessment of body composition in hip fracture patients: prognostic implications.
- ▶ L9: Application of phase angle in the assessment of nutritional status and prognosis of patients with peritoneal surface cancer undergoing cytoreduction and QUIOH.
- ▶ L10: Assessment of body composition in patients with head and neck cancer by bioimpedanciometry during radiotherapy treatment.

Axis 2: Artificial nutrition at home

- ▶ L11. Quality of care in NPD.
- ▶ L12. Economic evaluation of home parenteral nutrition at the Hospital General Universitario Gregorio Marañón.
- ▶ L13. Virtual reality for the management and care of central venous access for NPD.
- ▶ L14. Design and evaluation of a comprehensive programme of DOCUMENTARY CARE IN PARENTERAL NUTRITION.
- ▶ L15. Nutrihome Patient Quality of Life Study.
- ▶ L16. Retrospective cost study in patients with NPD and CIS.

Axis 3: COVID 19

- ▶ L17. Effect of nutritional treatment on mortality and outcome in critically ill patients COVID-19
- ▶ L18. Nutritional care in critically ill patients hospitalized for the COVID-19: an observational study 1-year follow-up study
- ▶ L19. Effect of leucine- and vitamin D-enriched supplementation on the nutritional status of patients with COVID19 pneumonia undergoing high-flow nasal oxygen therapy.
- ▶ L20. Observational study on body composition in post-ICU patients with COVID or other respiratory distress syndromes undergoing nutritional intervention and motor rehabilitation.



7.28. CLINICAL NUTRITION

The mission of the Clinical Nutrition research group is to contribute to research in the area of nutrition, with the aim of improving the quality of life of patients with nutritional pathologies through a multidisciplinary approach.

Group members

- **Arhip, Loredana:** R1. First Stage Researcher.
- **Bretón Lesmes, Irene:** R1. First Stage Researcher.
- **Cambor Álvarez, Miguel:** R1. First Stage Researcher.
- **Carrascal Fabián, M^a Luisa:** Other.
- **De la Cuerda Compés, M^a Cristina:** R4. Leading Researcher.
- **Frías Soriano, Laura:** R1. First Stage Researcher.
- **Morales Cerchiaro, Ángela Patricia:** R1. First Stage Researcher.
- **Motilla de la Cámara, Marta Luisa:** R1. First Stage Researcher.
- **Serrano Moreno, Clara:** R1. First Stage Researcher.
- **Velasco Gimeno, Cristina:** R1. First Stage Researcher.

Research Projects – Competitive Calls

Competitive projects

- Title: **Utilidad de la realidad virtual y uso de una app para la enseñanza y monitorización de los cuidados de catéter en pacientes con nutrición parenteral domiciliaria.** PI19/01275
Director: De la Cuerda Compés, M^a Cristina
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2022

Clinical Practice Guidelines

Authors	Title	Journal/ Reference
Cuerda, C; Home artificiaa Nutr Chronic ltestin; Pironi, L; Arends, J; Bozzetti, F; Gillanders, L; Jeppesen, PB; Joly, F; Kelly, D; Lal, S; Staun, M; Szczepanek, K; Van Gossum, A; Wanten, G; Schneider, SM; Bischoff, SC	ESPEN practical guideline: Clinical nutrition in chronic intestinal failure	Clin Nutr. 2021 Sep;40(9):5196-5220
Fiaccadori, E; Sabatino, A; Barazzoni, R; Carrero, JJ; Cupisti, A; De Waele, E; Jonckheer, J; Singer, P; Cuerda, C	ESPEN guideline on clinical nutrition in hospitalized patients with acute or chronic kidney disease	Clin Nutr. 2021 Apr;40(4):1644-1668
Barazzoni R, Bischoff SC, Busetto L, Cederholm T, Chourdakis M, Cuerda C, Delzenne N, Genton L, Schneider S, Singer P, Boirie Y; endorsed by the ESPEN Council	Nutritional management of individuals with obesity and COVID-19: ESPEN expert statements and practical guidance	Clin Nutr 2021 doi: 10.1016/j.clnu.2021.05.006
Ocón Bretón MJ, Tapia Guerrero MJ, Ramírez Rodríguez JM, Peteiro Miranda C, Ballesteros Pomar MD, Botella Romero F, Martínez Olmos M ^a , Luengo Pérez LM, Cancer Minchot E, García Malpartida K, López Gómez JJ, Zugasti Murillo A, Álvarez Hernández J, Bretón Lesmes I; en representación del grupo de trabajo NutRICA del Área de Nutrición de la SEEN y del GERM	Multidisciplinary consensus on nutritional and metabolic therapy in enhanced recovery after abdominal surgery programs: NutRICA Project.	Endocrinol Diabetes Nutr 2021 doi: 10.1016/j.endinu.2021.02.005



Publications

Total Impact Factor: 52.8

	Nº	IF
Own publications	8	36.6
Joint publications	6	16.2
First decile publications	0	-
First quartile publications	5	38.2
Second quartile publications	0	0.0
Third quartile publications	1	3.2
Fourth quartile publications	8	11.3
Nonindexed publications / No IF	5	-
Total publications (including those without IF)	19	52.8

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor:

- Fiaccadori, E; Sabatino, A; Barazzoni, R; Carrero, JJ; Cupisti, A; De Waele, E; Jonckheer, J; Singer, P; Cuerda, C. *ESPEN guideline on clinical nutrition in hospitalized patients with acute or chronic kidney disease*. CLINICAL NUTRITION. 2021; 40(4) 1644-1668. FI: 7.643. Cuartil: 1. (Article).
- Cuerda, C; Muscaritoli, M; Krznaric, Z; Pirlich, M; Van Gossum, A; Schneider, S; Ellegard, L; Fukushima, R; Chourdakis, M; Della Rocca, C; Milovanovic, D; Lember, M; Arias-Díaz, J; Stylianidis, E; Anastasiadis, K; Alunni, V; Mars, T; Hellerman, M; Kujund. *Original article Nutrition education in medical schools (NEMS) project: Joining ESPEN and university point of view*. CLINICAL NUTRITION. 2021; 40(5) 2754-2761. FI: 7.643. Cuartil: 1. (Article).
- Arhip, L; Serrano-Moreno, C; Romero, I; Cambor, M; Cuerda, C. *The economic costs of home parenteral nutrition: Systematic review of partial and full economic evaluations*. CLINICAL NUTRITION. 2021; 40(2) 339-349. FI: 7.643. Cuartil: 1. (Review).
- Cardenas, D; Correia, MITD; Ochoa, JB; Hardy, G; Rodríguez-Ventimilla, D; Bermúdez, CE; Papapietro, K; Hankard, R; Briend, A; Ungpinitpong, W; Zakka, KM; Pounds, T; Cuerda, C; Barazzoni, R. *Clinical nutrition and human rights. An International position paper*. CLINICAL NUTRITION. 2021; 40(6) 4029-4036. FI: 7.643. Cuartil: 1. (Article).
- Cuerda, C; Home artificaial Nutr Chronic ltestin; Pironi, L; Arends, J; Bozzetti, F; Gillanders, L; Jeppesen, PB; Joly, F; Kelly, D; Lal, S; Staun, M; Szczepanek, K; Van Gossum, A; Wanten, G; Schneider, SM; Bischoff, SC. *ESPEN practical guideline: Clinical nutrition in chronic intestinal failure*. CLINICAL NUTRITION. 2021; 40(9) 5196-5220. FI: 7.643. Cuartil: 1. (Article).
- Minchot, EC; Somoza, FJE; Pérez, CF; Sobrino, JLB; Lesmes, IB; Romero, FB. *RECALSEEN. Subgrupo: la atenci?n al paciente en las unidades de nutrici?n cl?nica del Sistema Nacional de Salud*. ENDOCRINOLOGIA DIABETES Y NUTRICION. 2021; 68(5) 354-362. FI: 1.833. Cuartil: 4. (Article).
- Sandi, JS; González, EN; Ruiz, AH; Nivela, OB; Pomar, MB; San Martín, FJE; Lesmes, IB. *Portfolio of services in Endocrinology and Nutrition. 2020 update*. ENDOCRINOLOGIA DIABETES Y NUTRICION. 2021; 68(8) 577-588. FI: 1.833. Cuartil: 4. (Article).
- Breton, I; de Hollanda, A; Vilarrasa, N; Herrera, MAR; Lecube, A; Salvador, J; García-Luna, PP; Tinahones, FJ; Santos, RS; Huelgas, RG; Gómez, JC; Moize, V; García, JP; Iparraguirre, ST; Ledesma, AFP; Escalada, J; SEEN; SEEDO; SEMI; SEDYN; SEMERGEN. *Obesity and COVID-19. A necessary position statement*. ENDOCRINOLOGIA DIABETES Y NUTRICION. 2021; 68(8) 573-576. FI: 1.833. Cuartil: 4. (Editorial Material).
- Lesmes, IB; Hernández, JA. *Pillars for excellence in nutrition support units. Regulation*. NUTRICION HOSPITALARIA. 2021; 38(Spec No1) 8-14. FI: 1.169. Cuartil: 4. (Article).
- Hernández, JA; Moreno, A; Velasco, C; Cuesta, F; Adel-lah, O; Gomis, P; Higuera, I; Botella, F; Messia, R. *Debate: healthcare professionals in nutrition support teams*. NUTRICION HOSPITALARIA. 2021; 38 42-45. FI: 1.169. Cuartil: 4. (Article).
- Wanden-Berghe, C; Casas, NV; Compes, CC; Boluda, ER; Cunill, JLP; Jiménez, MIM; Grp NADYA-SENPE Anexo 1. *Home and Ambulatory Artificial Nutrition (NADYA) Group report: home parenteral nutrition in Spain, 2019*. NUTRICION HOSPITALARIA. 2021; 38(6) 1304-1309. FI: 1.169. Cuartil: 4. (Article).

7.28. CLINICAL NUTRITION

- Brox-Torrecilla, N; Arhip, L; Miguélez-González, M; Castellano-Gasch, S; Contreras-Chicote, A; Rodríguez-Ferrero, ML; Motilla-de la Cámara, ML; Serrano-Moreno, C; Compes, CC. *Late-onset methylmalonic acidemia and homocysteinemia*. NUTRICION HOSPITALARIA. 2021; 38(4) 871-875. FI: 1.169. Cuartil: 4. (Article).
- Martín-Folgueras, T; Vidal-Casariago, A; Benítez-Brito, N; Luengo-Pérez, LM; Seguro-Gurrutxaga, H; Gimeno, CV; Pelaez, RB; Álvarez-Hernández, J; Irles-Rocamora, JA. *Standards of the nutritional support process in Spain - Towards benchmarking*. NUTRICION HOSPITALARIA. 2021; 38(3) 661-666. FI: 1.169. Cuartil: 4. (Article).
- Cardenas, D; Correia, MITD; Ochoa, JB; Hardy, G; Rodríguez-Ventimilla, D; Bermúdez, CE; Papapietro, K; Hankard, R; Briend, A; Ungpinitpong, W; Zakka, KM; Pounds, T; Cuerda, C; Barazzoni, R. *Clinical nutrition and human rights. An International position paper*. NUTRITION IN CLINICAL PRACTICE. 2021; 36(3) 534-544. FI: 3.204. Cuartil: 3. (Article).

Publications of the main WOS collection in journals without impact factor:

- Pironi, L; Steiger, E; Joly, F; Jeppesen, PB; Wanten, G; Sasdelli, AS; Chambrier, C; AiMassó, U; Mundi, MS; Szczepanek, K; Jukes, A; Theilla, M; Kunecki, M; Daniels, J; Serlie, M; Poullenot, F; Cooper, SC; Rasmussen, HH; Compher, C;

Seguy, D; Crivelli, A. *Characteristics of adult patients with chronic intestinal failure due to short bowel syndrome: An international multicenter survey*. CLINICAL NUTRITION ESPEN. 2021; 45 433-441. (Article).

Other publications

- Sandi JS; González EN; Ruiz AH; Nivelá OB; Pomar MB; Martín FJES; Lesmes IB. *Portfolio of services in Endocrinology and Nutrition. 2020 update*. ENDOCRINOLOGIA DIABETES Y NUTRICION. 2021; 68(8) 577-588. (Article).
- Cancer Minchot E; Elola Somoza FJ; Fernández Pérez C; Bernal Sobrino JL; Bretón Lesmes I; Botella Romero F. *RECALSEEN. Subgroup: Patient care in the clinical nutrition units of the Spanish National Health System*. ENDOCRINOLOGIA DIABETES Y NUTRICION. 2021; 68(5) 354-362. (Article).
- Rubio Herrera MA; Bretón Lesmes I. *Obesity in the COVID era: A global health challenge*. ENDOCRINOLOGIA, DIABETES Y NUTRICION. 2021; 68(2) 123-129. (Article).
- Ballesteros Pomar MD; Vilarrasa García N; Rubio Herrera MÁ; Barahona MJ; Bueno M; Caixàs A; Calañas Continente A; Ciudin A; Cordido F; de Hollanda A; Díaz MJ; Flores L; García Luna PP; García Pérez-Sevillano F; Goday A; Lecube A; López Gómez JJ; Miñambres. *The SEEN comprehensive clinical survey of adult obesity: Executive summary*. ENDOCRINOLOGIA, DIABETES Y NUTRICION. 2021; 68(2) 130-136. (Article).



7.29. Pharmacology and vascular pathophysiology

Group Head: FRANCISCO PÉREZ VIZCAÍNO

Organisms involved: HGUGM / UCM

Type: Consolidated Group

Research lines

Axis 1: Pulmonary Hypertension

- ▶ L1. Pulmonary vascular dysfunction in pulmonary hypertension (PH). Leader: Francisco Pérez Vizcaino.
- ▶ L2. Role of vitamin D and the microbiota in pulmonary hypertension (PH). Leader: Francisco Pérez Vizcaino.
- ▶ L3. Role of TASK1 and Kv7 potassium channels in pulmonary hypertension. Leader: Ángel Cogolludo Torralba.
- ▶ L4. Role of mutations in the KCNA5 gene in pulmonary hypertension patients. Leader: Ángel Cogolludo Torralba.
- ▶ L5. Liver-lung axis. How liver exosomes from healthy and cirrhotic animals influence the lung. Leader: Laura Moreno Gutiérrez / Ángel Cogolludo Torralba.

Axis 2: Erectile dysfunction

- ▶ L1. Role of vitamin D and microbiota in erectile dysfunction. Leader: Francisco Pérez Vizcaino.

Axis 3: Acute lung damagen

- ▶ L1. Acute Respiratory Distress Syndrome (ARDS). Leader: Laura Moreno Gutiérrez.
- ▶ L2. Bronchodysplasia of the lung (BDP). Leader: Laura Moreno Gutiérrez.

Pulmonary hypertension is a condition characterized by an increase in pulmonary vascular resistance whose pathophysiology is complex and not yet well characterized. Our interest is mainly focused on the mechanisms involved in pulmonary vasodilation and in the inhibition of cell proliferation in order to identify and design new drugs that may be potentially useful in the treatment of pulmonary hypertension.

Acute lung damage (ALI) or its most severe form, acute respiratory distress syndrome (ARDS), is characterized by pulmonary edema and alveolar collapse leading to severe arterial hypoxemia. Although protective ventilatory support strategies have improved the prognosis of patients, the associated mortality remains unbearably high. Our interest is to characterize the pulmonary vascular inflammatory response associated with acute lung damage and the identification of therapeutic targets to improve the prognosis in these patients.

Our work focuses on analyzing the pathophysiological and therapeutic role of different signaling pathways in these pathologies:

- 1) Vitamin D and VDR signaling.
- 2) K⁺ channels.
- 3) Endothelial progenitor cells.

Group members

- Barreira Barba, Bianca: Other.
- Callejo Arranz, María: R1. First Stage Researcher.
- Cogolludo Torralba, Ángel: R3. Established Researcher.
- Esquivel Ruiz, Sergio Antonio: R1. First Stage Researcher.
- Jerónimo Albaladejo, Marta: Other.
- Gimeno Longas, M^a José: R2. Recognised Researcher.
- Macías Montero, Miguel: R1. First Stage Researcher.
- Moreno Gutiérrez, Laura: R3. Established Researcher.
- Olivencia Plaza, Miguel Ángel: R1. First Stage Researcher.
- Pérez Vizcaíno, Francisco: R4. Leading Researcher.
- Sánchez Sánchez, Cristina: Other.
- Sancho González, María: R2. Recognised Researcher.
- Vera Zambrano, Alba: R2. Recognised Researcher.
- Villegas Esguevillas, Marta: R1. First Stage Researcher.

Research Projects – Competitive Calls

Competitive projects

Not managed by the FIBHGM

- Title: **Coinfection of HIV and schistosomiasis on the pulmonary vascular bed.** FIBHGM-CCA028-2017
Director: Cogolludo Torralba, Ángel
Project type: Research project
Funding body: Cardiovascular Medical Research and Education Fund.
Start date: 01/01/2017
End date:

- Title: **Canales Kv como dianas farmacológicas en la hipertensión arterial pulmonar y la disfunción eréctil.** PID2020-117939RB-I00
Director: Cogolludo Torralba, Ángel
Project type: Research project
Funding body: Plan Nacional de I+D (CICYT)
Start date: 01/09/2021
End date:
- Title: **Papel de la hipoxia y la inflamación en la disfunción de células endoteliales progenitoras en hipertensión pulmonar pediátrica.** PI19/01616
Director: Moreno Gutiérrez, Laura
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2023
- Title: **Papel fisiopatológico de la vitamina D y la microbiota en la hipertensión pulmonar y en la disfunción eréctil VIMIPHED.** PID2019-107363RB-I00
Director: Pérez Vizcaino, Francisco
Project type: Research project
Funding body: Plan Nacional de I+D (CICYT)
Start date: 01/01/2020
End date: 31/12/2023
- Title: **Ensayo clínico de Fase IIb-III para evaluar la eficacia de las MSCs en recién nacidos prematuros como estrategia preventiva para reducir la incidencia y severidad de la Displasia Broncopulmonar.** ICI19/00092
Director: Del Cerro, M^a Jesus
Project type: Research project
Funding body: Instituto de Salud Carlos III
Start date: 01/01/2020
End date: 31/12/2023
- Title: **Contratos predoctorales Miguel Servet II** CPII17/00020
Director: Olivencia Plaza, Miguel Ángel
Project type: Human resources
Funding body: Instituto de Salud Carlos III
Start date: 16/11/2018
End date: 31/12/2022



- Title: **Ayudante de Investigación** PEJ-2020-AI/BMD-19249
Director: Jerónimo Albaladejo, Marta
Project type: Human resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 03/01/2021
End date:
- Title: **Ayudante de Investigación** PEJ-2019-AI/BMD-13475
Director: Sánchez Sánchez, Cristina
Project type: Human resources
Funding body: Consejería de Educación e Investigación. Comunidad de Madrid
Start date: 01/01/2020
End date:
- Title: **Contratos predoctorales de personal investigador en formación** CT63/19-CT64/19
Director: Olivencia Plaza, Miguel Ángel
Project type: Human resources
Funding body: UCM
Start date: 16/11/2020
End date:

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
CIBER	CIBERES (Enfermedades Respiratorias)	Collaborating group

Publications

Total Impact Factor: 114.0

	Nº	IF
Own publications	8	114.0
Joint publications	0	0.0
First decile publications	5	98.1
First quartile publications	6	102.9
Second quartile publications	2	11.1
Third quartile publications	0	0.0
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	8	114.0

7.29. PHARMACOLOGY AND VASCULAR PATHOPHYSIOLOGY

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Morales-Cano, D; Barreira, B; Navarro, BD; Callejo, M; Mondejar-Parreno, G; Esquivel-Ruiz, S; Lorente, JA; Moreno, L; Barbera, JA; Cogolludo, A; Pérez-Vizcaino, F. *Oxygen-Sensitivity and Pulmonary Selectivity of Vasodilators as Potential Drugs for Pulmonary Hypertension*. ANTIOXIDANTS. 2021; 10(2). FI: 7.675. Cuartil: 1. (Article).
- Callejo, M; Morales-Cano, D; Mondejar-Parreno, G; Barreira, B; Esquivel-Ruiz, S; Olivencia, MA; Moreno, L; Cogolludo, A; Pérez-Vizcaino, F. *Restoration of Vitamin D Levels Improves Endothelial Function and Increases TASK-Like K⁺ Currents in Pulmonary Arterial Hypertension Associated with Vitamin D Deficiency*. BIOMOLECULES. 2021; 11(6). FI: 6.064. Cuartil: 2. (Article).
- Olivencia, MA; Martínez-Casales, M; Peraza, DA; García-Redondo, AB; Mondejar-Parreno, G; Hernanz, R; Salaices, M; Cogolludo, A; Pennington, MW; Valenzuela, C; Briones, AM. *K(V)1.3 channels are novel determinants of macrophage-dependent endothelial dysfunction in a mouse model with angiotensin II-induced hypertension*. BRITISH JOURNAL OF PHARMACOLOGY. 2021; 178(8) 1836-1854. FI: 9.473. Cuartil: 1. (Article).
- Callejo, M; Blanco, I; Barbera, JA; Pérez-Vizcaino, F. *Vitamin D deficiency, a potential cause for insufficient response to sildenafil in pulmonary arterial hypertension*. EUROPEAN RESPIRATORY JOURNAL. 2021; 58(5). FI: 33.795. Cuartil: 1. (Letter).
- Pérez-Vizcaino, F; Moreno, L; Lorente, JA. *Interleukin-6 and intrapulmonary shunt*. EUROPEAN RESPIRATORY JOURNAL. 2021; 58(2). FI: 33.795. Cuartil: 1. (Letter).
- Esquivel-Ruiz, S; González-Rodríguez, P; Lorente, JA; Pérez-Vizcaino, F; Herrero, R; Moreno, L. *Extracellular Vesicles and Alveolar Epithelial-Capillary Barrier Disruption in Acute Respiratory Distress Syndrome: Pathophysiological Role and Therapeutic Potential*. FRONTIERS IN PHYSIOLOGY. 2021; 12 752287-752287. FI: 4.755. Cuartil: 1. (Review).
- Mondejar-Parreno, G; Cogolludo, A; Pérez-Vizcaino, F. *Potassium (K⁺) channels in the pulmonary vasculature: Implications in pulmonary hypertension Physiological, pathophysiological and pharmacological regulation*. PHARMACOLOGY & THERAPEUTICS. 2021; 225 107835-107835. FI: 13.4. Cuartil: 1. (Review).
- Pérez-Vizcaino, F; Cogolludo, A; Mondejar-Parreno, G. *Transcriptomic profile of cationic channels in human pulmonary arterial hypertension*. SCIENTIFIC REPORTS. 2021; 11(1) 15829-15829. FI: 4.996. Cuartil: 2. (Article).

7.31. Pathophysiology in women, pregnancy, labor and puerperium

Group Head: SANTIAGO LIZARRAGA BONELLI AND JUAN ANTONIO DE LEÓN LUIS

Organisms involved: HGUGM

Type: Emerging group

Research lines

- ▶ L1: Role of the maternal, placental, and embryonic profile in maternal-perinatal morbidity and mortality.
- ▶ L2: Hemodynamic changes in adverse perinatal outcomes.
- ▶ L3: Cancer and pregnancy.
- ▶ L4: Algorithm for ultrasound examination of the extended fetal cardiovascular system.
- ▶ L5: Maternal-perinatal morbidity and mortality in twin pregnancies.
- ▶ L6: Fetal surgery in the monochorionic pregnancy.
- ▶ L7: Care during labor and breastfeeding.
- ▶ L8: Maternal-neonatal morbidity and mortality during and after labor.
- ▶ L9: Role of female sex hormones on vaginal immunity.
- ▶ L10: Role of progesterone on development of melanoma.
- ▶ L11: Chemotherapy-induced ovarian failure.
- ▶ L12: Genomic predictors of response to therapy in breast cancer.
- ▶ L13: Prediction of response to taxane-based adjuvant chemotherapy in breast cancer.
- ▶ L14: Multimodal guidance and planning in breast cancer surgery.
- ▶ L15: Conservative and surgical treatment in gynecological disease.

Group members

- Caballero Campo, Miguel: R2. Recognised Researcher.
- Campos Fernández, Raúl.
- Ceballos García, Elena: R1. First Stage Researcher.
- Collazos Blanco, Ana.
- De León Luis, Juan Antonio: R4. Leading Researcher.
- Gámez Alderete, Francisco: R2. Recognised Researcher.
- García-Tizón Larroca, Santiago: R1. First Stage Researcher.
- Lizarraga Bonelli, Santiago: R4. Leading Researcher.
- Llamas Santos, Leticia: R1. First Stage Researcher I.
- Mendizábal Vicente, Elsa: R2. Recognised Researcher.
- Mercader Cidoncha, Enrique: R1. First Stage Researcher I.
- Moreno Molinero, Verónica: R1. First Stage Researcher.
- Muñoz-Chapulí Gutiérrez, M^a Mar: R1. First Stage Researcher.
- Navarro González, Teresa: R1. First Stage Researcher.
- Pereira Sánchez, Augusto: R2. Recognised Researcher.
- Pérez Fernández-Pacheco, Ricardo: R2. Recognised Researcher.
- Pérez Milán, Federico: R3. Recognised Researcher.
- Pintado Recarte, Pilar: R2. Recognised Researcher.
- Relloso Cereceda, Miguel: R3. Recognised Researcher.
- Ruiz Labarta, Javier: R1. First Stage Researcher.
- Trobo Marina, Duna: R1. First Stage Researcher.
- Veiga Fernández, Amanda.
- Viñuela Benítez, M^a del Carmen: R1. First Stage Researcher.



7.31. PATHOPHYSIOLOGY IN WOMEN, PREGNANCY, LABOR AND PUERPERIUM

Research Projects – Competitive Calls

Competitive projects

- Title: La respuesta inflamatoria anti-espermatozoide para evitar la diseminación de infecciones de transmisión sexual como causa de infertilidad.** PI19/00078
 Director: Relloso Cereceda, Miguel
 Project type: Research project
 Funding body: Instituto de Salud Carlos III
 Start date: 01/01/2020
 End date: 31/12/2023
- Title: Estudio del impacto del factor género en el pronóstico del melanoma cutáneo: Análisis epidemiológico y búsqueda de patrones pronósticos.** FMM20/04
 Director: Mercader Cidoncha, Enrique
 Project type: Research project
 Funding body: Fundación Mutua Madrileña
 Start date: 19/10/2020
 End date: 18/10/2023
- Title: Relación del fallo de implantación embrionaria con la dosis de progesterona sérica** PEJ2018-003326-A
 Director: Pérez Milán, Federico
 Project type: Research project
 Funding body: MICINN
 Start date: 01/01/2019
 End date: 28/02/2022

Industrial and intellectual property registrations

Industrial property

Title	Reference*	Owner	Inventors
Maqueta didáctica armable	U201530218	FIBHGM	Juan Antonio León

■ Transferred industrial patents.

* Reference: P (Patent), PCT (international patent), EP (European patent), US (USA patent), U (Utility model), M (Trademark).

Copyright

Title	Reference	Owner	Inventors
Parto vaginal en 3D	Nº Asiento Registral: 16 /2019 /2823	FIBHGM	Juan Antonio de León

■ Transferred Intellectual Property.

Publications

Total Impact Factor: 122.1

	Nº	IF
Own publications	12	48.4
Joint publications	14	73.7
First decile publications	3	23.8
First quartile publications	6	39.6
Second quartile publications	16	75.1
Third quartile publications	2	6.8
Fourth quartile publications	2	0.6
Nonindexed publications / No IF	4	-
Total publications (including those without IF)	30	122.1

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Ortega, MA; Sánchez-Trujillo, L; Bravo, C; Fraile-Martínez, O; García-Montero, C; Sáez, MA; Álvarez-Mon, MA; Sainz, F; Álvarez-Mon, M; Bujan, J; De León-Luis, JA; García-Honduvilla, N. *Newborns of Mothers with Venous Disease during Pregnancy Show Increased Levels of Lipid Peroxidation and Markers of Oxidative Stress and Hypoxia in the Umbilical Cord*. ANTIOXIDANTS. 2021; 10(6). FI: 7.675. Cuartil: 1. (Article).
- Gutiérrez-Seijo, A; García-Martínez, E; Barrio-Alonso, C; Pareja-Malagón, M; Acosta-Ocampo, A; Fernández-Santos, ME; Puig-Kroger, A; Parra-Blanco, V; Mercader, E; Márquez-Rodas, I; Avilés-Izquierdo, JA; Samaniego, R; Sánchez-Mateos, P. *CCL20/TNF/VEGFA Cytokine Secretory Phenotype of Tumor-Associated Macrophages Is a Negative Prognostic Factor in Cutaneous Melanoma*. CANCERS. 2021; 13(16). FI: 6.575. Cuartil: 1. (Article).
- Avilés-Izquierdo, JA; Mercader-Cidoncha, E; Escat-Cortés, JL; Márquez-Rodas, I; Parra-Blanco, V; Rodríguez-Lomba, E. *When is it worth performing lymphadenectomy in patients with melanoma micrometastases? A 20-year experience retrospective analysis*. CIRUGIA Y CIRUJANOS. 2021; 89(4) 457-460. FI: 0.416. Cuartil: 4. (Article).
- García-Carbonero, R; Teresa, FM; Mercader-Cidoncha, E; Mitjavila-Casanovas, M; Robledo, M; Tena, I; Álvarez-Escola, C; Aristegui, M; Bella-Cueto, MR; Ferrer-Albiach, C; Hanzu, FA. *Multidisciplinary practice guidelines for the diagnosis, genetic counseling and treatment of pheochromocytomas and paragangliomas*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2021; 23(10) 1995-2019. FI: 3.34. Cuartil: 3. (Article).
- Joigneau, L; Ruiz, Y; Bravo, C; Buján, J; Ortega, MA; De León-Luis, J. *The brainstem-tentorium angle revisited. Difficulties encountered and possible solutions*. CLINICAL AND EXPERIMENTAL OBSTETRICS & GYNECOLOGY. 2021; 48(4) 991-994. FI: 0.192. Cuartil: 4. (Article).
- Pascual-Mancho, J; Pintado-Recarte, P; Romero-Román, C; Morales-Camino, JC; Hernández-Martín, C; Bujan, J; Ortega, MA; De León-Luis, J. *Influence of Cerebral Vasodilation on Blood Reelin Levels in Growth Restricted Fetuses*. DIAGNOSTICS. 2021; 11(6). FI: 3.992. Cuartil: 2. (Article).
- Calvo, VE; Melguizo, SC; Abascal-Sai, A; Acebal, LF; Sánchez-Migallon, A; Recarte, PP; Marín, CC; Puig, BM; Fernández, PGD; Velasco, ON; Conty, MLD; Martínez-Pérez, O; Spanish Obstetric Emergency Grp. *Perinatal outcomes of pregnancies resulting from assisted reproduction technology in SARS-CoV-2-infected women: a prospective observational study*. FERTILITY AND STERILITY. 2021; 116(3) 731-740. FI: 7.49. Cuartil: 1. (Article).
- Asunsolo, A; Chen, CW; Ortega, MA; Coca, S; Borrell, LN; De León-Luis, J; García-Honduvilla, N; Álvarez-Mon, M; Bujan, J. *Association Between Lower Extremity Venous Insufficiency and Intrapartum Fetal Compromise: A Nationwide Cross-Sectional Study*. FRONTIERS IN MEDICINE. 2021; 8 577096-577096. FI: 5.058. Cuartil: 2. (Article).
- Labarta, FJR; Recarte, MPP; Prieto, LJ; Arribas, CB; Bujan, J; Ortega, MA; De León-Luis, JA. *Factors Associated with Failure of Bakri Balloon Tamponade for the Management of Postpartum Haemorrhage. Case Series Study and Systematic Review*. HEALTHCARE. 2021; 9(3). FI: 3.16. Cuartil: 2. (Review).
- Gutiérrez, MMC; Durán-Vila, A; Ruiz-Labarta, J; Paya-Martínez, P; Recarte, PP; Buján, J; Ortega, MA; De León-Luis, J. *A New Multiplatform Model for Outpatient Prenatal and Postpartum Care in a Cohort of COVID-19-Affected Obstetric Patients*. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2021; 18(10). FI: 4.614. Cuartil: 1. (Article).
- Aracil Moreno I; Rodríguez-Benítez P; Ruiz-Minaya M; Bernal Claverol M; Ortega Abad V; Hernández Martín C; Pintado Recarte P; Yllana F; Oliver-Barrecheguren C; Álvarez-Mon M; Ortega MA; De León-Luis JA. *Maternal Perinatal Characteristics in Patients with Severe Preeclampsia: A Case-Control Nested Cohort Study*. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2021; 18(22). FI: 4.614. Cuartil: 1. (Article).
- Ortega, MA; Fraile-Martínez, O; Sáez, MA; Álvarez-Mon, MA; Gómez-Lahoz, AM; Bravo, C; Luis, JAD; Sainz, F; Coca, S; Asunsolo, A; Monserrat, J; Guijarro, LG; Álvarez-Mon, M; Bujan, J; García-Honduvilla, N. *Abnormal proinflammatory and stressor environmental with increased the regulatory cellular IGF-1/ PAPP-A/ STC and Wnt-1/beta-Catenin canonical pathway in placenta of women with Chronic venous Disease during Pregnancy*. INTERNATIONAL JOURNAL OF MEDICAL SCIENCES. 2021; 18(13) 2814-2827. FI: 3.642. Cuartil: 2. (Article).

AREA 7: Systemic Diseases and Organ Transplantation

- Barca, JA; Bravo, C; Pintado-Recarte, MP; Asunsolo, A; Cueto-Hernández, I; Ruiz-Labarta, J; Bujan, J; Ortega, MA; De León-Luis, JA. *Pelvic Floor Morbidity Following Vaginal Delivery versus Cesarean Delivery: Systematic Review and Meta-Analysis*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(8). FI: 4.964. Cuartil: 2. (Review).
- Cunarro-López, Y; Pintado-Recarte, P; Cueto-Hernández, I; Hernández-Martín, C; Paya-Martínez, MP; Muñoz-Chapuli, MD; Cano-Valderrama, O; Bravo, C; Bujan, J; Álvarez-Mon, M; Ortega, MA; De León-Luis, JA. *The Profile of the Obstetric Patients with SARS-CoV-2 Infection According to Country of Origin of the Publication: A Systematic Review of the Literature*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(2). FI: 4.964. Cuartil: 2. (Review).
- Cunarro-López, Y; Larroca, SGT; Pintado-Recarte, P; Hernández-Martín, C; Prats-Rodríguez, P; Cano-Valderrama, O; Cueto-Hernández, I; Ruiz-Labarta, J; Muñoz-Chapuli, MD; Martínez-Pérez, O; Ortega, MA; De León-Luis, JA. *Influence of the Human Development Index on the Maternal-Perinatal Morbidity and Mortality of Pregnant Women with SARS-CoV-2 Infection: Importance for Personalized Medical Care*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(16). FI: 4.964. Cuartil: 2. (Article).
- Rodríguez-Benítez, P; Moreno, IA; Barrecheguren, CO; López, YC; Yllana, F; Recarte, PP; Arribas, CB; Álvarez-Mon, M; Ortega, MA; De León-Luis, JA. *Maternal-Perinatal Variables in Patients with Severe Preeclampsia Who Develop Acute Kidney Injury*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(23). FI: 4.964. Cuartil: 2. (Article).
- Cunarro-López, Y; Pintado-Recarte, P; Hernández-Martín, C; Paya-Martínez, P; López-Pérez, R; Cueto-Hernández, I; Ruiz-Labarta, J; Cano-Valderrama, O; Martínez-Pérez, O; Bravo-Arribas, C; Ortega, MA; De León-Luis, JA. *Comparing Infection Profiles of Expectant Mothers with COVID-19 and Impacts on Maternal and Perinatal Outcomes between the First Two Waves of the Pandemic*. JOURNAL OF PERSONALIZED MEDICINE. 2021; 11(7). FI: 3.508. Cuartil: 2. (Article).
- Barca, JA; Bravo, C; Pintado-Recarte, MP; Cueto-Hernández, I; Ruiz-Labarta, J; Cunarro, Y; Buján, J; Álvarez-Mon, M; Ortega, MA; De León-Luis, JA. *Risk Factors in Third and Fourth Degree Perineal Tears in Women in a Tertiary Centre: An Observational Ambispective Cohort Study*. JOURNAL OF PERSONALIZED MEDICINE. 2021; 11(8). FI: 3.508. Cuartil: 2. (Article).
- Ortega, MA; Asunsolo, A; Fraile-Martínez, O; Sainz, F; Sáez, MA; Bravo, C; De León-Luis, JA; Álvarez-Mon, MA; Coca, S; Álvarez-Mon, M; Buján, J; García-Honduvilla, N. *An increase in elastogenic components in the placental villi of women with chronic venous disease during pregnancy is associated with decreased EGFL7 expression level*. MOLECULAR MEDICINE REPORTS. 2021; 24(2). FI: 3.423. Cuartil: 3. (Article).
- Martín, M; Ramos-Medina, R; Bernat, R; García-Saenz, JA; del Monte-Millán, M; Álvarez, E; Cebollero, M; Moreno, F; González-Haba, E; Bueno, O; Romero, P; Massarrah, T; Echavarría, I; Jerez, Y; Herrero, B; del Val, RG; Lobato, N; Rincón, P; Palomero, MI; M. *Activity of docetaxel, carboplatin, and doxorubicin in patient-derived triple-negative breast cancer xenografts*. SCIENTIFIC REPORTS. 2021; 11(1) 7064-7064. FI: 4.996. Cuartil: 2. (Article).
- Saccone, G; Sen, C; Di Mascio, D; Galindo, A; Grunebaum, A; Yoshimatsu, J; Stanojevic, M; Kurjak, A; Chervenak, F; Suárez, MJR; Gambacorti-Passerini, ZM; Baz, MDA; Galán, EVA; López, YC; Luis, JAD; Hernández, IC; Herraiz, I; Villalain, C; Venturella, R; R. *Maternal and perinatal outcomes of pregnant women with SARS-CoV-2 infection*. ULTRASOUND IN OBSTETRICS & GYNECOLOGY. 2021; 57(2) 232-241. FI: 8.678. Cuartil: 1. (Article).
- García-Montero, C; Fraile-Martínez, O; Bravo, C; Torres-Carranza, D; Sánchez-Trujillo, L; Gómez-Lahoz, AM; Guijarro, LG; García-Honduvilla, N; Asunsolo, A; Bujan, J; Monserrat, J; Serrano, E; Álvarez-Mon, M; De León-Luis, JA; Álvarez-Mon, MA; Ortega, MA. *An Updated Review of SARS-CoV-2 Vaccines and the Importance of Effective Vaccination Programs in Pandemic Times*. VACCINES. 2021; 9(5). FI: 4.961. Cuartil: 2. (Review).
- Conty, MLD; Pardilla, MBE; Sánchez, MG; Rodríguez, LG; Muner-Hernando, ML; Vicente, AR; Recarte, PP; Varea, AM; Diago, CM; Melguizo, SC; Martínez-Pérez, O; Spanish Obstet Emergency Grp. *Impact of Recommended Maternal Vaccination Programs on the Clinical Presentation of SARS-CoV-2 Infection: A Prospective Observational Study*. VACCINES. 2021; 9(1). FI: 4.961. Cuartil: 2. (Article).
- Melguizo, SC; Conty, MLD; Payan, PC; Abascal-Saiz, A; Recarte, PP; Rodríguez, LG; Marín, CC; Varea, AM; Cuesta, ABO; Rodríguez, PP; Buhigas, IF; Gallego, MVR; Alonso, AMF; Pérez, RL; Molanes, JRB; Pardilla, MBE; Gómez, MR; Gimeno, MJG; Muñoz, AS; Martínez. *Pregnancy Outcomes and SARS-CoV-2*



Infection: The Spanish Obstetric Emergency Group Study. VIRUSES-BASEL. 2021; 13(5). FI: 5.818. Cuartil: 2. (Article).

- Cruz-Lemini, M; Pérez, EF; Conty, MLD; Aguilar, AC; Pardilla, MBE; Rodríguez, PP; Hernando, MM; Acebal, LF; Recarte, PP; Mallen, MDM; Pérez, NP; Rodríguez, JC; Yarza, AV; Velasco, ON; Fernández, PGD; Lago, CMO; Puig, BM; Abellana, BM; Ricoy, LF; Vicente. *Obstetric Outcomes of SARS-CoV-2 Infection in Asymptomatic Pregnant Women.* VIRUSES-BASEL. 2021; 13(1). FI: 5.818. Cuartil: 2. (Article).
- Antolín, EM; Molanes, JRB; Conty, MLD; Pardilla, MBE; Martín, MDG; Bueno, JAS; Acebal, LF; Recarte, PP; Bartolomé, AA; Cendan, JPM; Martínez-Pérez, O; Spanish Obstet Emergency Grp. *SARS-CoV-2 Infection and C-Section: A Prospective Observational Study.* VIRUSES-BASEL. 2021; 13(11). FI: 5.818. Cuartil: 2. (Article).

Publications of the main WOS collection in journals without impact factor

- Calvo-Haro, JA; Pascau, J; Asencio-Pascual, JM; Calvo-Manuel, F; Cancho-Gil, MJ; López, JFD; Fanjul-Gómez, M; García-Leal, R; González-Casaurrán, G; González-Leyte, M; León-Luis, JA; Mediavilla-Santos, L; Ochandiano-Caicoya, S; Pérez-Caballero, R; Ribed-S. *Point-of-care manufacturing: a single university hospital's initial experience.* 3D PRINTING IN MEDICINE. 2021; 7(1) 11-11. (Article).

- de Nova, JLM; Franch-Arcas, G; Mejía-Abril, GP; Flores-Ruiz, ME; Muñoz-Pérez, N; Pintos-Sánchez, E; González, FJG; de Anca, AV; Mercader-Cidoncha, E; De la Quintana-Basarrate, A; Osorio-Silla, I; Ros-López, S; Gallego-Otaegui, L; Santos-Molina, E; Martine. *Efficacy and safety of preoperative preparation with Lugol's iodine solution in euthyroid patients with Graves' disease (LIGRADIS Trial): Study protocol for a multicenter randomized trial.* CONTEMPORARY CLINICAL TRIALS COMMUNICATIONS. 2021; 22 100806-100806. (Article).
- Cuesta-Guardiola, T; Carretero, AQ; Martínez-Martínez, J; Cunarro-López, Y; Pereira-Sánchez, A; Fernández-Corona, A; de León-Luis, JA. *Identification and characterization of endometrial carcinoma with tumor markers HE4 and CA125 in serum and endometrial tissue samples.* JOURNAL OF THE TURKISH-Germán GYNECOLOGICAL ASSOCIATION. 2021; 22(3) 161-167. (Article).

Other Publications

- Carrasco I; Muñoz-Chapuli M; Vigil-Vázquez S; Aguilera-Alonso D; Hernández C; Sánchez-Sánchez C; Oliver C; Ríaza M; Pareja M; Sanz O; Pérez-Seoane B; López J; Márquez E; Domínguez-Rodríguez S; Hernanz-Lobo A; De León-Luis JA; Sánchez-Luna M; Navarro ML. *SARS-COV-2 infection in pregnant women and newborns in a Spanish cohort (GESNEO-COVID) during the first wave.* BMC PREGNANCY AND CHILDBIRTH. 2021; 21(1) 326-326. (Article).

7.32. Physical medicine and rehabilitation

Group Head: PILAR CRESPO COBO AND MARTA SUPERVÍA POLA

Organisms involved: HGUGM

Type: Emerging group

Research lines

- ▶ L1: Infant cardiac rehabilitation. Leader: Marta Supervía.
- ▶ L2: Adult cardiac rehabilitation. Leader: Marta Supervía.

Group members

- Arroyo Riaño, M^a Olga: R2. Recognised Researcher.
- Crespo Cobo, Pilar: R4. Leading Researcher.
- García Delgado, Isabel: R2. Recognised Researcher.
- López Chicharro, José: R3. Established Researcher.
- Moreno Palacios, Antonio: Recognised Researcher.
- Pérez Ruiz, Margarita: R3. Established Researcher.
- Supervía Pola, Marta: R4. Leading Researcher.
- Úbeda Tikkanen, Ana: R4. Leading Researcher.

Publications

Total Impact Factor: 34.9

	Nº	IF
Own publications	2	9.5
Joint publications	6	25.4
First decile publications	0	-
First quartile publications	1	4.8
Second quartile publications	5	24.3
Third quartile publications	2	5.8
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	8	34.9

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor:

- Chacin-Suárez, A; Grace, SL; Anchique-Santos, C; Supervia, M; Turk-Adawi, K; Britto, RR; Scantlebury, DC; Araya-Ramírez, F; González, G; Benaim, B; Fernández, R; Hol, J; Burdiat, G; Salmon, R; Lomeli, H; Mamataz, T; Medina-Inojosa, JR; López-Jiménez, F. *Cardiac rehabilitation availability and characteristics in Latin America and the Caribbean: A Global Comparison*. AMERICAN HEART JOURNAL. 2021; 240 16-27. FI: 5.099. Cuartil: 2. (Article).
- Supervia, M; Medina-Inojosa, JR; Pérez-Terzic, CM; Sharma, S; Goel, K; Douglas, KV; Salz, K; Thomas, RJ. *Impact of Musculoskeletal Limitations on Cardiac Rehabilitation Participation*. FRONTIERS IN CARDIOVASCULAR MEDICINE. 2021; 8 688483-688483. FI: 5.846. Cuartil: 2. (Article).
- Iturriaga, T; Yvert, T; Sánchez-Lorente, IM; Díez-Vega, I; Fernández-Eliás, VE; Sánchez-Barroso, L; Domínguez-Balmaseda, D; Larrosa, M; Pérez-Ruiz, M; Santiago, C. *Acute Impacts of Different Types of Exercise on Circulating alpha-Klotho Protein Levels*. FRONTIERS IN PHYSIOLOGY. 2021; 12 716473-716473. FI: 4.755. Cuartil: 1. (Article).
- Turk-Adawi, K; Supervia, M; López-Jiménez, F; Adawi, A; Sadeghi, M; Grace, SL. *Women-Only Cardiac Rehabilitation Delivery Around the World*. HEART LUNG AND CIRCULATION. 2021; 30(1) 135-143. FI: 2.838. Cuartil: 3. (Article).
- Ding, RJ; Smith, JR; Medina-Inojosa, JR; Zhang, SS; Supervia, M; Fischer, KM; Squires, RW; Olson, TP; Leth, SE; Zhang, WL; Lin, G; Thomas, RJ. *Cardiac Rehabilitation Referral and Participation Rates for Heart Failure With Reduced Ejection Fraction*. JOURNAL OF CARDIOPULMONARY REHABILITATION AND PREVENTION. 2021; 41(2) 126-127. FI: 3.646. Cuartil: 2. (Letter).
- Thomas, RJ; Petersen, CE; Olson, TP; Beatty, AL; Ding, RJ; Supervia, M. *Asynchronous and Synchronous Delivery Models for Home-Based Cardiac Rehabilitation A SCIENTIFIC REVIEW*. JOURNAL OF CARDIOPULMONARY REHABILITATION AND PREVENTION. 2021; 41(6) 407-412. FI: 3.646. Cuartil: 2. (Review).
- Medina-Inojosa, JR; Grace, SL; Supervia, M; Stokin, G; Bonikowske, AR; Thomas, R; López-Jiménez, F. *Dose of Cardiac Rehabilitation to Reduce Mortality and Morbidity: A Population-Based Study*. JOURNAL OF THE AMERICAN HEART ASSOCIATION. 2021; 10(20). FI: 6.106. Cuartil: 2. (Article).
- de Sire, A; Inzitari, MT; Moggio, L; Pinto, M; de Sire, G; Supervia, M; Petraroli, A; Rubino, M; Carbotti, D; Succurro, E; Ammendolia, A; Andreozzi, F. *Effects of Intermittent Pneumatic Compression on Lower Limb Lymphedema in Patients with Type 2 Diabetes Mellitus: A Pilot Randomized Controlled Trial*. MEDICINA-LITHUANIA. 2021; 57(10). FI: 2.948. Cuartil: 3. (Article).

7.33. Pathological Anatomy

Group Head: JAVIER MENÁRGUEZ PALANCA

Organisms involved: HGUGM

Type: Emerging group

Research lines

- ▶ Line 1: Prognostic and predictive factors in digestive cancer.
- ▶ Line 2: Prognostic and predictive factors in urogenital cancer.
- ▶ Line 3: Prognostic and predictive factors in sarcomas.
- ▶ Line 4: Prognostic and predictive factors in CNS neoplasms.
- ▶ Line 5: Prognostic factors in lupus nephropathy.
- ▶ Line 6: Renal transplant pathology.
- ▶ Line 7: Pathology of hepatic transplantation.

Group members

- Agra Pujol, Carolina: R1. First Stage Researcher.
- Alijo Serrano, Francisco: R1. First Stage Researcher.
- De la Peña Navarro, Itziar: R1. First Stage Researcher.
- Díaz Crespo, Francisco Javier: R1. First Stage Researcher.
- García Martos, María: R1. First Stage Researcher.
- López Martínez-Bernal, Beatriz: R1. First Stage Researcher.
- López Vacas, Rocío: R1. First Stage Researcher.
- López Varela, Carmen: R1. First Stage Researcher.
- Menárguez Palanca, Francisco Javier.
- Parra Blanco, Verónica.
- Sola Vendrell, Emma: R1. First Stage Researcher.

Publications

Total Impact Factor: 117.1

	Nº	IF
Own publications	3	8.6
Joint publications	15	108.5
First decile publications	4	57.5
First quartile publications	10	93.6
Second quartile publications	4	18.9
Third quartile publications	1	2.1
Fourth quartile publications	3	2.6
Nonindexed publications / No IF	1	-
Total publications (including those without IF)	19	117.1

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Luis-Cardo, A; González-García, FJ; Agra-Pujol, C; Hernández-Cavieres, J; Hernández-Fernández, C. *Giant solitary fibrous tumor of the kidney*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(10) 656-658. FI: 0.887. Cuartil: 4. (Letter).
- Fernández-Aceñero, MJ; Barderas, R; García, AP; Martínez-Useros, J; Díez-Valladares, L; Pérez-Aguirre; Medina, LO; Esteban, SD; García-Botella, S; del Arco, CD; Galindo, C. *Aryl hydrocarbon receptor interacting protein (AIP) significantly influences prognosis of pancreatic carcinoma*. ANNALS OF DIAGNOSTIC PATHOLOGY. 2021; 53 151742-151742. FI: 2.134. Cuartil: 3. (Article).
- Martín-Román, L; Lozano, P; Vasquez, W; Palencia, N; Gómez, Y; Fernández-Aceñero, MJ; González-Bayón, L. *Defining stage in mucinous tumours of the appendix with peritoneal dissemination: the importance of grading terminology: systematic review*. BJS OPEN. 2021; 5(4). FI: 3.875. Cuartil: 1. (Review).
- Rodríguez-Cobos, J; Vinal, D; Poves, C; Fernández-Aceñero, MJ; Peinado, H; Pastor-Morate, D; Prieto, MI; Barderas, R; Rodríguez-Salas, N; Domínguez, G. *Delta Np73, TAp73 and Delta 133p53 Extracellular Vesicle Cargo as Early Diagnosis Markers in Colorectal Cancer*. CANCERS. 2021; 13(9). FI: 6.575. Cuartil: 1. (Article).
- Gutiérrez-Seijo, A; García-Martínez, E; Barrio-Alonso, C; Pareja-Malagón, M; Acosta-Ocampo, A; Fernández-Santos, ME; Puig-Kroger, A; Parra-Blanco, V; Mercader, E; Márquez-Rodas, I; Avilés-Izquierdo, JA; Samaniego, R; Sánchez-Mateos, P. *CCL20/TNF/VEGFA Cytokine Secretory Phenotype of Tumor-Associated Macrophages Is a Negative Prognostic Factor in Cutaneous Melanoma*. CANCERS. 2021; 13(16). FI: 6.575. Cuartil: 1. (Article).
- Avilés-Izquierdo, JA; Mercader-Cidoncha, E; Escat-Cortés, JL; Márquez-Rodas, I; Parra-Blanco, V; Rodríguez-Lomba, E. *When is it worth performing lymphadenectomy in patients with melanoma micrometastases? A 20-year experience retrospective analysis*. CIRUGIA Y CIRUJANOS. 2021; 89(4) 457-460. FI: 0.416. Cuartil: 4. (Article).
- de la Torre-Ruiz, EH; García-Piqueras, P; Parra-Blanco, V; Rodríguez-Lomba, E; Avilés-Izquierdo, JA; Rosell-Díaz, AM. *Dermatopath & Clinic: Dermal melanocytic nevus associated with dermatofibroma*. EUROPEAN JOURNAL OF DERMATOLOGY. 2021; 31(4) 584-585. FI: 2.805. Cuartil: 2. (Editorial Material).
- Nieto-Benito, LM; Bergón-Sendín, M; Pulido-Pérez, A; Rosell-Díaz, AM; Parra-Blanco, V; Suárez-Fernández, R. *Defining dipeptidyl peptidase-4 inhibitors-related bullous pemphigoid: A single-centre retrospective study*. EXPERIMENTAL DERMATOLOGY. 2021; 30(9) 1345-1351. FI: 4.511. Cuartil: 1. (Article).
- Muñoz, P; Kwon, M; Carbonell, D; Chicano, M; Bailén, R; Oarbeascoa, G; Suárez-González, J; Andrés-Zayas, C; Menárguez, J; Dorado, N; Gómez-Centurión, I; Anguita, J; Díez-Martín, JL; Martínez-Laperche, C; Buño, I. *Clinical Utility of the Detection of the Loss of the Mismatched HLA in Relapsed Hematological Patients After Haploidentical Stem Cell Transplantation With High-Dose Cyclophosphamide*. FRONTIERS IN IMMUNOLOGY. 2021; 12 642087-642087. FI: 8.786. Cuartil: 1. (Article).
- Chavez, JEA; Rodríguez, DR; Palanca, JM; Aceñero, MJF. *Pyloric adenoma in the transverse colon*. GASTROENTEROLOGIA Y HEPATOLOGIA. 2021; 44(8) 575-576. FI: 5.867. Cuartil: 2. (Editorial Material).
- Álvarez-Uría, A; Escribano, P; Parra-Blanco, V; Cano-Lira, JF; Stchigel, AM; Oarbeascoa, G; Muñoz, P; Guinea, J. *First Report of an Invasive Infection by Cephalotrichum gorgonifer in a Neutropenic Patient with Hematological Malignancy under Chemotherapy*. JOURNAL OF FUNGI. 2021; 7(12). FI: 5.724. Cuartil: 1. (Article).
- Nieto-Benito, LM; Parra-Blanco, V; Gómez-Navarro, Y; Menárguez-Palanca, J; Pulido-Pérez, A. *Histopathological features and outcomes of DUSP22 rearrangement in primary cutaneous anaplastic large cell lymphoma: a case report and review of the literature*. JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY. 2021; 35(10) 670-672. FI: 9.228. Cuartil: 1. (Letter).
- Villa, M; Díaz-Crespo, F; de José, AP; Verdalles, U; Verde, E; Ruiz, FA; Acosta, A; Mijaylova, A; Goicoechea, M. *A case of ANCA-associated vasculitis after AZD1222 (Oxford-AstraZeneca) SARS-CoV-2 vaccination: casualty or causality?*. KIDNEY INTERNATIONAL. 2021; 100(4) 937-938. FI: 18.998. Cuartil: 1. (Letter).

7.33. PATHOLOGICAL ANATOMY

- Frontzek, F; Staiger, AM; Zapukhlyak, M; Xu, WD; Bonzheim, I; Borgmann, V; Sander, P; Baptista, MJ; Heming, JN; Berning, P; Wullenkord, R; Erdmann, T; Lutz, M; Veratti, P; Ehrenfeld, S; Wienand, K; Horn, H; Goodlad, JR; Wilson, MR; Anagnostopoulos, I; Lam. *Molecular and functional profiling identifies therapeutically targetable vulnerabilities in plasmablastic lymphoma*. NATURE COMMUNICATIONS. 2021; 12(1) 5183-5183. FI: 17.694. Cuartil: 1. (Article).
- de las Heras, SGG; Fernández, CG; Tovar, JR; Fernández-Aceñero, MJ. *Preoperative management of obese patients undergoing bariatric surgery: Role of endoscopy and Helicobacter eradication*. OBESITY RESEARCH & CLINICAL PRACTICE. 2021; 15(3) 289-290. FI: 5.214. Cuartil: 2. (Letter).
- Rincón, JO; Oliveros, MB; Fernández, CM; Aradas, VP; Pujol, CA. *Identification, by Tc-99m-HDP-SPECT/CT imaging, of unknown pulmonary metastases in patients with osteosarcoma*. REVISTA ESPANOLA DE MEDICINA NUCLEAR E IMAGEN MOLECULAR. 2021; 40(5) 325-327. FI: 1.247. Cuartil: 4. (Editorial Material).
- Bastos-Oreiro, M; Suárez-González, J; Andrés-Zayas, C; Carrión, NC; Moreno, S; Carbonell, D; Chicano, M; Muñiz, P; Sanz, L; Díaz-Crespo, FJ; Menárguez,

J; Díez-Martín, JL; Buño, I; Martínez-Laperche, C. *Incorporation of next-generation sequencing in clinical practice using solid and liquid biopsy for patients with non-Hodgkin's lymphoma*. SCIENTIFIC REPORTS. 2021; 11(1) 22815-22815. FI: 4.996. Cuartil: 2. (Article).

- Cenigaonandia-Campillo, A; Serna-Blasco, R; Gómez-Ocabo, L; Solánes-Casado, S; Banos-Herraiz, N; Del Puerto-Nevado, L; Canas, JA; Aceñero, MJ; García-Foncillas, J; Aguilera, O. *Vitamin C activates pyruvate dehydrogenase (PDH) targeting the mitochondrial tricarboxylic acid (TCA) cycle in hypoxic KRAS mutant colon cancer*. THERANOSTICS. 2021; 11(8) 3595-3606. FI: 11.6. Cuartil: 1. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- García-Pardo, M; Ortega, L; Fernández-Aceñero, MJ; Alfonso, PG; Martín, M; Muñoz, AJ. *Molecular Profiling and Targeted Therapy in Cholangiocarcinoma: An Observational, Retrospective Multicenter Study*. JOURNAL OF GASTROINTESTINAL CANCER. 2021; 52(2) 814-818. (Article).



7.34. Multimorbidity, chronic diseases and health services. Primary care

Group Head: ISABEL DEL CURA GONZÁLEZ / JESÚS MARTÍN FERNÁNDEZ

Organisms involved: HGUGM

Type: Emerging group

Research group that brings together researchers who develop their research mainly in the community and in primary care.

Research lines

- ▶ Line 1: Characterization of chronicity and evaluation of performance and health policies in the care of chronically ill patients.
- ▶ L2: Effectiveness and cost-effectiveness of community-based interventions for patients, caregivers and professionals.
- ▶ L3: Health inequities prevention and health promotion.
- ▶ L4: Impact of Covid 19 at the community level.
- ▶ L5: Urban health.

Group members

- Álvarez Villalba, María del Mar: R3. Established Researcher.
- Angulo Ardoy, María: R1. First Stage Researcher.
- Ares Blanco, Sara: R2. Recognised Researcher.
- Ariza Cardiel, Gloria: R3. Established Researcher.
- Azcoaga Lorenzo, Amaya: R3. Established Researcher.
- Barrio Cortés, Jaime: R2. Recognised Researcher.
- Del Cura González, Isabel: R4. Leading Researcher.

- Estevan Burdeus, Patricia: R2. Recognised Researcher.
- Folguera Álvarez, M^a del Carmen: R3. Established Researcher.
- Garcia Olmos, Luis Miguel: R3. Established Researcher.
- Garrido Elustondo, Sofía: R3. Established Researcher.
- Gefaell Larrondo, Ileana.
- González González, Ana Isabel.
- Herraiz Ahijado, Borja Jesús: R3. Established Researcher.
- López Miguel, Miguel.
- López Rodríguez, Juan Antonio: R3. Established Researcher.
- Lozano Hernández, Cristina: R1. First Stage Researcher.
- Martín Fernández, Jesús: R4. Leading Researcher.
- Medina García, Rodrigo: R2. Recognised Researcher.
- Minue Estirado, María: R1. First Stage Researcher.
- Morey Montalvo, Mariel: R2. Recognised Researcher.
- Nuevo Coello, Lucía: R1. First Stage Researcher.
- Olmedo Galindo, Jorge: R3. Established Researcher.
- Polentinos Castro, Elena: R3. Established Researcher.
- Rico Blázquez, Milagros: R3. Established Researcher.
- Rodríguez Barrientos, Ricardo: R3. Established Researcher.
- Rogero Blanco, Maria Eloisa: R3. Established Researcher.
- Rumayor Lorenzo, Mercedes.
- Saldaña Alonso, Irmina: R1. First Stage Researcher.
- Sánchez Celaya del Pozo, Marta: R3. Established Researcher.
- Sanz Cuesta, Teresa: R3. Established Researcher.

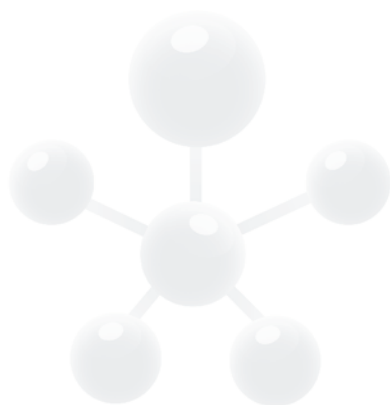


7.34. MULTIMORBIDITY, CHRONIC DISEASES AND HEALTH SERVICES. PRIMARY CARE

Publications

Total Impact Factor: 40.5

	Nº	IF
Own publications	7	18.6
Joint publications	5	21.9
First decile publications	1	6.6
First quartile publications	4	21.3
Second quartile publications	2	6.4
Third quartile publications	4	9.4
Fourth quartile publications	2	3.3
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	12	40.5



Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor:

- Bartolomé, CB; Polentinos-Castro, E; Arbaizar, A. *When do we resume our training? AFyC residents in COVID-19 times*. ATENCION PRIMARIA. 2021; 53(2). FI: 2.206. Cuartil: 3. (Editorial Material).
- Ariza-Cardiel, G; del Cura-González, I; Polentinos-Castro, E; López-Rodríguez, JA; Gil-Moreno, JC; Martín-Fernández, J. *Implementation of Recommendations and Clinical Practice Guidelines by residents: the role of the Multiprofessional Family and Community Care Teaching Units in Spain*. ATENCION PRIMARIA. 2021; 53(3). FI: 2.206. Cuartil: 3. (Article).
- Pereira-de-Sousa, AM; López-Rodríguez, JA. *Self-perceived health in Spanish and Portuguese young seniors after the great recession according to the European Health Survey: A cross-sectional study*. ATENCION PRIMARIA. 2021; 53(7). FI: 2.206. Cuartil: 3. (Article).
- Guisado-Clavero, M; Gil, AH; Álvarez, MP; Jurado, MC; Marinas, AH; Ruiz, VA; Iarrondo, IG; Orenga, MM; Ares-Blanco, S. *Clinical characteristics of SARS-CoV-2 pneumonia diagnosed in a primary care practice in Madrid (Spain)*. BMC FAMILY PRACTICE. 2021; 22(1). FI: 2.634. Cuartil: 2. (Article).
- Martín-Fernández, J; López-Nicolás, A; Oliva-Moreno, J; Medina-Palomino, H; Polentinos-Castro, E; Ariza-Cardiel, G. *Risk aversion, trust in institutions and contingent valuation of healthcare services: trying to explain the WTA-WTP gap in the Dutch population*. COST EFFECTIVENESS AND RESOURCE ALLOCATION. 2021; 19(1). FI: 2.803. Cuartil: 3. (Article).
- Guisado-Clavero, M; Ares-Blanco, S; Ben Abdellah, LD. *Using mobile applications and websites for the diagnosis of COVID-19 in Spain*. ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA. 2021; 39(9) 454-457. FI: 1.994. Cuartil: 4. (Article).
- Rogero-Blanco, E; del-Cura-González, I; Aza-Pascual-Salcedo, M; González, FGD; Terron-Rodas, C; Chimen-Sánchez, S; García-Domingo, E; López-Rodríguez, JA; grp MULTIPAP. *Drug interactions detected by a computer-assisted prescription system in primary care patients in Spain: MULTIPAP study*. EUROPEAN JOURNAL OF GENERAL PRACTICE. 2021; 27(1) 90-96. FI: 3.636. Cuartil: 1. (Article).



- Dinh, TS; González-González, AI; Meid, AD; Snell, KIE; Rudolf, H; Brueckle, MS; Blom, JW; Thiem, U; Trampisch, HJ; Elders, PJM; Donner-Banzhoff, N; Gerlach, FM; Harder, S; van den Akker, M; Glasziou, PP; Haefeli, WE; Muth, C. *Are Anticholinergic Symptoms a Risk Factor for Falls in Older General Practice Patients With Polypharmacy? Study Protocol for the Development and Validation of a Prognostic Model*. FRONTIERS IN PHARMACOLOGY. 2021; 11. FI: 5.988. Cuartil: 1. (Article).
- Rico-Blazqueza, M; García-Sanz, P; Martín-Martín, M; López-Rodríguez, JA; Morey-Montalvo, M; Sanz-Cuesta, T; Rivera-Álvarez, A; Araujo-Calvo, M; Frias-Redondo, S; Escortell-Mayor, E; del Cura-González, I; CuidaCare Grp. *Effectiveness of a home-based nursing support and cognitive restructuring intervention on the quality of life of family caregivers in primary care: A pragmatic cluster-randomized controlled trial*. INTERNATIONAL JOURNAL OF NURSING STUDIES. 2021; 120. FI: 6.612. Cuartil: 1. (Article).
- Camus-García, E; González-González, AI; Heijmans, M; de Guzmán, EN; Valli, C; Beltrán, J; Pardo-Hernández, H; Ninov, L; Strammiello, V; Immonen, K; Mavridis, D; Ballester, M; Sunol, R; Orrego, C. *Self-management interventions for adults living with Chronic Obstructive Pulmonary Disease (COPD): The development of a Core Outcome Set for COMPAR-EU project*. PLOS ONE. 2021; 16(3). FI: 3.752. Cuartil: 2. (Article).
- Polentinos-Castro, E; Biec-Amigo, T; Delgado-Magdalena, M; Flores-Acosta, JM; Sánchez-Perruca, L; Rabanal-Carrera, A; Vinas-Calvo, A; Camarellas-Guillem, F. *Chronic diseases and multimorbidity in patients with toxic oil syndrome: a comparative study with general population*. REVISTA ESPANOLA DE SALUD PUBLICA. 2021; 95 1-10. FI: 1.333. Cuartil: 4. (Article).
- Ayala, A; Forjaz, MJ; Ramallo-Farina, Y; Martín-Fernández, J; García-Pérez, L; Bilbao, A. *Response Mapping Methods to Estimate the EQ-5D-5L From the Western Ontario McMaster Universities Osteoarthritis in Patients With Hip or Knee Osteoarthritis*. VALUE IN HEALTH. 2021; 24(6) 874-883. FI: 5.101. Cuartil: 1. (Article).

Other Publications

- Rogero-Blanco, E; González-García, V; García, RM; Muñoz-Molina, P; Machin-Hamalainen, S; López-Rodríguez, JA; Grp COVID AP. *Characteristics of a COVID-19 confirmed case series in primary care (COVID-19-PC project): a cross-sectional study (vol 22, 66, 2021)*. BMC FAMILY PRACTICE. 2021; 22(1). FI: 2.634. Cuartil: 2. (Correction).



NURSING CARE RESEARCH GROUP

Area coordinator:
Ana García Pozo



Nursing Care Research Group

Coordinator: ANA GARCÍA POZO

Research lines

Axis 1: Nursing care

- ▶ Line 1: Chronic patient care.
- ▶ Line 2: Care for critical patients.
- ▶ Line 3: Care for patients with mental health problems.
- ▶ Line 4: Physiotherapy and rehabilitation.
- ▶ Line 5: Gender violence.

Axis 2: Innovation in health care and services

- ▶ Line 1: Development of applications and patents.
- ▶ Line 2: Simulation.

Axis 3: Management of human resources

- ▶ Line 1: Professional skills and competence.

Axis 4: Qualitative approach to care research

- ▶ Line 1: Care and rehabilitation for vulnerable populations.

It is an independent research group that aims to increase evidence in nursing care and encourage group research.

Group members

- **Arrogante Maroto, Óscar:** R2. Recognised Researcher.
- **Bretón Santos, Álvaro:** R1. First Stage Researcher.
- **Calderari Fernández, Elena:** R2. Recognised Researcher.
- **Cid Expósito, Gema:** R2. Recognised Researcher.
- **Corral Liria, Inmaculada:** R2. Recognised Researcher.
- **Durango Limárquez, M^a Isabel:** R1. First Stage Researcher.
- **Fernández Arranz, Julita:** R2. Recognised Researcher.
- **Fernández Alonso, Víctor:** R2. Recognised Researcher.
- **Fernández Blanco, Raquel:** R2. Recognised Researcher.
- **Flores García, Rubén:** R2. Recognised Researcher.
- **García Perea, Eva:** R2. Recognised Researcher.
- **García Pozo, Ana M^a:** R4. Leading Researcher.
- **González Baz, M^a Dolores:** R1. First Stage Researcher.
- **González Lluva, Concepción:** R1. First Stage Researcher.
- **Guerra Sánchez, Luis:** R2. Recognised Researcher.
- **Guerrero Márquez, Gloria:** R1. First Stage Researcher.
- **Guijarro Jiménez, Esther:** R1. First Stage Researcher.
- **Leñero Cirujano, Miriam:** R2. Recognised Researcher.
- **Lobo Rodríguez, Carmen:** R2. Recognised Researcher.

Continued on next page



Group members (*cont.*)

- **López Sánchez, Raquel:** R2. Recognised Researcher.
- **López Calleja, Ana M^a:** R1. First Stage Researcher.
- **López Esteban, Amparo:** R1. First Stage Researcher.
- **Lorente del Río, Natalia:** R1. First Stage Researcher.
- **Luengo González, Raquel:** R2. Recognised Researcher.
- **Martín Fernández, Milagros:** R1. First Stage Researcher.
- **Medina Torres, Margarita:** R1. First Stage Researcher.
- **Moro Tejedor, M^a Nieves:** R2. Recognised Researcher.
- **Palacios Ceña, Domingo:** R3. Established Researcher.
- **Pastor Cordero, Ana M^a:** R1. First Stage Researcher.
- **Ponce Figueroa, M^a Ángeles:** R1. First Stage Researcher.
- **Recio Vivas, Ana M^a:** R2. Recognised Researcher.
- **Robledo Martín, Juana:** R2. Recognised Researcher.
- **Soto Lucía, M^a Consuelo:** R1. First Stage Researcher.
- **Suárez Bustamante, Rosa:** R1. First Stage Researcher.
- **Toraño Olivera, M^a José:** R1. First Stage Researcher.
- **Trujillo Gallego, Fernando:** R1. First Stage Researcher.
- **Vaquero Lozano, M^a Paz:** R1. First Stage Researcher.
- **Velarde García, Juan Francisco:** R2. Recognised Researcher.
- **Visiers Jiménez, Laura:** R2. Recognised Researcher.

Industrial and intellectual property registrations

Copyright

Title	Reference	Owner	Inventors
Nos vamos de excursión a las Urgencias del Gregorio Marañón	Nº Asiento Registral: 16/2016/3799	FIBHGM	Laura Cervantes, Paula Vázquez, David García
App para la gestión eficiente del gasto sanitario	Nº Asiento Registral: 16/2021/1641	FIBHGM	M ^a del Pilar Álvaro, M ^a de las Nieves Moro

■ Transferred Intellectual Property.

Cooperative Research Structures

Type (RETIC, CIBER, others)	Name of Network	Role
Plataforma ISCIII	Plataforma Española de Ensayos clínicos SCReN	Collaborating group

Doctoral theses, Bachelor theses and Master theses

Type	Candidate	Title	Name/s Director/s	University	Date defended
Ph Thesis	Victor Fernandez Alonso	La profesión de enfermería en el proceso de donación de órganos en la Comunidad de Madrid	Ana García Pozo; Domingo Ceña Palacios	Universidad Rey Juan Carlos	18/05/2021
Ph Thesis	Noelia Mancebo Slas	Grado de alfabetización en salud de los alumnos de grado de enfermería en España	José Vicente Tuells Hernández/ M ^a Nieves Moro Tejedor	Universidad de Alicante	20/09/2021



Clinical Practice Guidelines

Authors	Title	Journal/Reference
Guerrero Márquez et al.	Protocolos diagnósticos y terapéuticos en urgencias de pediatría	https://seup.org/protocolos/
Laura Aliaga, Olga Delgado, Jaime Espín, Antoni Gilabert, César Hernández, Carlos Lens, Andoni Lorenzo, Ana Sánchez, Víctor Mendonça, Paz Vaquero y Emilio Vargas	Documento de Consenso de la Asociación Española de Medicamentos Genéricos (AESEG) para poner en valor los medicamentos con valor añadido (VAM) y analizar los retos que supone introducir estos fármacos en el actual Sistema Nacional de Salud (SNS) (2021-2022)	AESEG - Asociación Española de Medicamentos Genéricos
Silvia A. Alonso, Susana A. López, Almudena B. Rodríguez, Luisa P. Hernandez, Paz V. Lozano, Lidia P. López, Ana Campillo, Ana Frías, María E. Jiménez, and David P. Otero	Respiratory Nursing Group Neumomadrid - served as reviewers of the nursing diagnosis, Ineffective airway clearance. The revised version of the diagnosis is published in the NANDA-I Classification of Nursing Diagnoses 2021-2023	Nursing NANDA International Nursing Diagnoses (thieme.com)

Publications

Total Impact Factor: 40.3

	Nº	IF
Own publications	7	21,6
Joint publications	4	18,8
First decile publications	3	16,7
First quartile publications	4	21,3
Second quartile publications	3	10,9
Third quartile publications	3	6,5
Fourth quartile publications	1	1,6
Nonindexed publications / No IF	4	-
Total publications (including those without IF)	15	40,3

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Caballero-Marcos, A; Salcedo, M; Alonso-Fernández, R; Rodríguez-Perálvarez, M; Olmedo, M; Morales, JG; Cuervas-Mons, V; Cachero, A; Loinaz-Seguro, C; Inarrairaegui, M; Castells, L; Pascual, S; Vinaixa-Aunes, C; González-Grande, R; Otero, A; Tome, S; Tej. *Changes in humoral immune response after SARS-CoV-2 infection in liver transplant recipients compared to immunocompetent patients*. AMERICAN JOURNAL OF TRANSPLANTATION. 2021; 21(8) 2876-2884. FI: 9.369. Cuartil: 1. (Article).
- Manrique-Rodríguez, S; Heras-Hidalgo, I; Pernia-López, MS; Herranz-Alonso, A; Pisabarro, MCD; Suárez-Mier, MB; Cubero-Pérez, MA; Viera-Rodríguez, V; Cortés-Rey, N; Lafuente-Cabrero, E; Martínez-Ortega, MC; Bermejo-López, E; Díez-Saenz, C; López-Sánchez, P. *Standardization and Chemical Characterization of Intravenous Therapy in Adult Patients: A Step Further in Medication Safety*. DRUGS IN R&D. 2021; 21(1) 39-64. FI: 3.203. Cuartil: 3. (Article).
- Pérez-Corrales, J; Gueita-Rodríguez, J; Huertas-Hoyas, E; García-Bravo, C; Marconnot, R; Jiménez-Antona, C; Velarde-García, JF; Palacios-Cena, D. *The Meaning of Volunteering among People with Severe Mental Disorders: A Phenomenological Qualitative Study*. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2021; 18(22). FI: 4.614. Cuartil: 1. (Article).
- Fernández-Alonso, V; Palacios-Cena, D; Silva-Martin, C; García-Pozo, A. *Deceased donor care provided by the nurse transplant coordinator: A qualitative research study among Spanish nurses*. INTERNATIONAL JOURNAL OF NURSING PRACTICE. 2021; 27(3). FI: 2.226. Cuartil: 2. (Article).
- Fernández-Alonso, V; Moro-Tejedor, MN; Palacio-Cena, D; Paredes-Garza, F; Gil-Carrasco, MD; De La Matta Cantò M; López-Parra, N; Espin-Faba, JA; Torres-González, JI; García-Pozo, A. *Attitudes towards multi-organ donation among intensive care unit nurses in transplant hospitals*. INTERNATIONAL NURSING REVIEW. 2021; 68(3) 308-317. FI: 3.384. Cuartil: 1. (Article).
- Palacios-Cena, D; Florencio, LL; Hernández-Barrera, V; Fernández-de-las-Penas, C; de Miguel-Díez, J; Martínez-Hernández, D; Carabantes-Alarcón, D; Jiménez-García, R; López-de-Andrés, A; López-Herranz, M. *Trends in Incidence and Outcomes of Hospitalizations for Urinary Tract Infection among Older*



People in Spain (2001-2018). JOURNAL OF CLINICAL MEDICINE. 2021; 10(11). Fl: 4.964. Cuartil: 2. (Article).

- Velarde-García, JF; Cachon-Pérez, JM; Rodríguez-García, M; Oliva-Fernández, O; González-Sanz, P; Espejo, MM; González-Hervias, R; Álvarez-Embarba, B; Moro-López-Menchero, P; Fernández-de-las-Penas, C; Palacios-Cena, D. *The challenges of "learning on the go": A qualitative study of final-year Spanish nursing students incorporated to work during the first Covid-19 pandemic*. NURSE EDUCATION TODAY. 2021; 103 104942-104942. Fl: 3.906. Cuartil: 1. (Article).
- Camacho-Montano, LR; Pérez-Corrales, J; Pérez-de-Heredia-Torres, M; Martín-Pérez, AM; Gueita-Rodríguez, J; Velarde-García, JF; Palacios-Cena, D. *Spiritual Care in Advanced Dementia from the Perspective of Health Providers: A Qualitative Systematic Review*. OCCUPATIONAL THERAPY INTERNATIONAL. 2021; 2021 9998480-9998480. Fl: 1.565. Cuartil: 4. (Review).
- Guerrero-Márquez, G; Miguez-Navarro, MC. *The Physiological Diagnosis Missing in the Pediatric Assessment Triangle*. PEDIATRIC EMERGENCY CARE. 2021; 37(11) 779-779. Fl: 1.602. Cuartil: 3. (Letter).
- Álvarez-Villarreal, M; Velarde-García, JF; García-Bravo, C; Carrasco-Garrido, P; Jiménez-Antona, C; Moro-López-Menchero, P; Palacios-Cena, D. *The experience of being a mother with end stage renal disease: A qualitative study of women receiving treatment at an ambulatory dialysis unit*. PLOS ONE. 2021; 16(9). Fl: 3.752. Cuartil: 2. (Article).

- Carpintero-Rubio, C; Torres-Chica, B; Guadron-Romero, MA; Visiers-Jiménez, L; Pena-Otero, D. *Perception of musculoskeletal pain in the state of confinement: associated factors*. REVISTA LATINO-AMERICANA DE ENFERMAGEM. 2021; 29. Fl: 1.725. Cuartil: 3. (Article).

Publications of the main WOS collection in journals without impact factor

- Mateo González-Román M; Hidalgo García PP; Peña Otero D. *Cytostatic drugs and risk of genotoxicity in health workers. A literature review*. ENFERMERIA CLINICA. 2021; 31(4) 247-253. (Review).
- Moro-Tejedor, MN; Regaira-Martínez, E. *Bias due to selective inclusion and reporting of outcomes and analyses in systematic reviews of randomised trials of healthcare interventions*. ENFERMERIA INTENSIVA. 2021; 32(1) 45-47. (Editorial Material).

Other publications

- Mateo González-Román M; Hidalgo García PP; Peña Otero D. *Cytostatic drugs and risk of genotoxicity in health workers. A literature review*. ENFERMERIA CLINICA (ENGLISH EDITION). 2021; 31(4) 247-253. (Article).
- Pérez-Serrano Liaño, Paloma; Rando Caño, Alberto; Mudarra García, Almudena; Sebastián Viana, Tomás; Arias Rivera, Susana; Granizo García, Juan José; Moro Tejedor Mn; Medina, M.; Solís Muñoz, Montserrat. *Intervenciones enfermeras más prevalentes en la atención de adultos ingresados en unidades de hospitalización*. METAS DE ENFERMERÍA. 2021; 24(5) 63-69. (Article).



OTHER RESEARCH ACTIVITIES

- ▶ Publications generated by clinical researchers associated with the liSGM
- ▶ Publications generated with the participation of the Research Support Services (RSSs)

Publications generated by clinical researchers associated with the IISGM

Clinical researchers associated

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Martín-Escolano, R; Etxebeste-Mitxeltoarena, M; Martín-Escolano, J; Plano, D; Rosales, MJ; Espuelas, S; Moreno, E; Sánchez-Moreno, M; Sanmartín, C; Marín, C. *Selenium Derivatives as Promising Therapy for Chagas Disease: In Vitro and In Vivo Studies*. ACS INFECTIOUS DISEASES. 2021; 7(6) 1727-1738. FI: 5.578. Cuartil: 1. (Article).
- Gegundez-Fernández, JA; Llovet-Osuna, F; Fernández-Vigo, JI; del Barrio, JM; Pablo-Julvez, I; Muñoz-Negrete, FJ; Zarranz-Ventura, J; de la Colina, JD; Silva, VD; Jiménez-Alfaro, I; Calonge-Cano, M; Galindo-Ferreiro, A; Castillo-Gómez, A; Mantolan-Sarmient. *Recommendations for ophthalmologic practice during the easing of COVID-19 control measures*. ACTA OPHTHALMOLOGICA. 2021; 99(7) 973-983. FI: 3.988. Cuartil: 2. (Review).
- Morán-Morán, J; Merida-Velasco, JR; del Valle, EB; Murillo-Gonzalez, J. *A mini-incision carpal tunnel release technique to prevent pillar pain: A technical note*. ACTA ORTHOPAEDICA ET TRAUMATOLOGICA TURCICA. 2021; 55(1) 73-75. FI: 1.557. Cuartil: 4. (Article).
- Jue, JS; Alameddine, M; González, J; Ciancio, G. *Risk factors, management, and survival of bladder cancer after kidney transplantation*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(6) 427-438. FI: 0.887. Cuartil: 4. (Review).
- Cabero, MR; Chacon, GA. *Ureteral hernia into the greater sciatic foramen treated by ureteral stent placement*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(8) 564-565. FI: 0.887. Cuartil: 4. (Letter).
- Ramos-Rincón, JM; Pinargote, H; Ramos-Belinchón, C; de Mendoza, C; Aguilera, A; Soriano, V. *Hepatitis delta in patients hospitalized in Spain (1997-2018)*. AIDS. 2021; 35(14) 2311-2318. FI: 4.632. Cuartil: 2. (Article).
- Vega, MG; Alonso, SB; Espana, AP; Teruel, SJQ; Fernández, SF; Bermejo, TB; Zudaire, LE. *Treatment with proton pump inhibitors as a cofactor in adverse reactions of patients undergoing oral food immunotherapy*. ALLERGOLOGIA ET IMMUNOPATHOLOGIA. 2021; 49(3) 169-172. FI: 2.094. Cuartil: 4. (Article).
- del Arco, CD; Muñoz, LE; Pernaute, AS; Medina, LO; de las Heras, SGG; Martínez, RG; Aceñero, MJF. *Which Lymph Node Staging System Better Predicts Prognosis in Patients With Gastric Carcinoma? A Comparative Study Between 3 Different Lymph Node Classifications for Resected Gastric Cancer in a Western Tertiary Center*. AMERICAN JOURNAL OF CLINICAL ONCOLOGY-CANCER CLINICAL TRIALS. 2021; 44(1) 1-9. FI: 2.787. Cuartil: 4. (Article).
- Lozano-Masdemont, B; Pérez-Tato, B; Zamora-Martínez, E; Rodríguez-Lomba, E. *Regressing eruptive disseminated pigmented Spitz (Reed) nevi in a young adult*. ANAIS BRASILEIROS DE DERMATOLOGIA. 2021; 96(6) 768-770. FI: 2.113. Cuartil: 3. (Article).
- Díaz Del Arco C; Estrada Muñoz L; Sánchez Pernaute A; Ortega Medina L; García Gómez de Las Heras S; García Martínez R; Fernández Aceñero MJ. *Development of a simplified tumor-lymph node ratio classification system for patients with resected gastric cancer: A western study*. ANNALS OF DIAGNOSTIC PATHOLOGY. 2021; 50 151677-151677. FI: 2.134. Cuartil: 3. (Article).
- del Arco, CD; Muñoz, LE; Pernaute, AS; Medina, LO; de las Heras, SGG; Martínez, RG; Aceñero, MJF. *Towards standardization of lymph-node ratio classifications: Validation and comparison of different lymph node ratio classifications for predicting prognosis of patients with resected gastric cancer*. ANNALS OF DIAGNOSTIC PATHOLOGY. 2021; 52 151738-151738. FI: 2.134. Cuartil: 3. (Article).
- Penuelas, O; del Campo-Albendea, L; de Aledo, ALG; Anon, JM; Rodríguez-Solís, C; Mancebo, J; Vera, P; Ballesteros, D; Jiménez, J; Maseda, E; Figueira, JC; Franco, N; Algaba, A; Avilés, JP; Díaz, R; Abad, B; Canabal, A; Abella, A; Gordo,



- F; García, J; Suar. *Long-term survival of mechanically ventilated patients with severe COVID-19: an observational cohort study*. ANNALS OF INTENSIVE CARE. 2021; 11(1) 143-143. FI: 10.318. Cuartil: 1. (Article).
- Vincenzi, P; González, J; Guerra, G; Gaynor, JJ; Álvarez, A; Ciancio, G. *Complex Surgical Reconstruction of Upper Pole Artery in Living-Donor Kidney Transplantation*. ANNALS OF TRANSPLANTATION. 2021; 26. FI: 1.479. Cuartil: 4. (Article).
 - Villanueva-Paz, M; Morán, L; López-Alcantara, N; Freixo, C; Andrade, RJ; Lucena, MI; Cubero, FJ. *Oxidative Stress in Drug-Induced Liver Injury (DILI): From Mechanisms to Biomarkers for Use in Clinical Practice*. ANTIOXIDANTS. 2021; 10(3). FI: 7.675. Cuartil: 1. (Review).
 - Roccuzzo, A; Molinero-Mourelle, P; Ferrillo, M; Cobo-Vázquez, C; Sánchez-Labrador, L; Ammendolia, A; Migliario, M; de Sire, A. *Type I Collagen-Based Devices to Treat Nerve Injuries after Oral Surgery Procedures. A Systematic Review*. APPLIED SCIENCES-BASEL. 2021; 11(9). FI: 2.838. Cuartil: 2. (Review).
 - Velasco, R; Lejarzegi, A; Gómez, B; de la Torre, M; Durán, I; Cámara, A; de la Rosa, D; Manzano, S; Rodríguez, J; González, A; Lopes, AA; Rivas, A; Martínez, I; Angelats, CM; Moya, S; Corral, S; Alonso, J; del Rio, P; Sancho, E; del Olmo, IR; Nieto, I; Ve. *Febrile young infants with abnormal urine dipstick at low risk of invasive bacterial infection*. ARCHIVES OF DISEASE IN CHILDHOOD. 2021; 106(8) 758-763. FI: 4.92. Cuartil: 1. (Article).
 - Fernández-López, I; Pena-Otero, D; Atin-Arratibel, MD; Eguillor-Mutiloa, M. *Effects of Manual Therapy on the Diaphragm in the Musculoskeletal System: A Systematic Review*. ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION. 2021; 102(12) 2402-2415. FI: 4.06. Cuartil: 1. (Review).
 - Soriano, JB; Alfageme, I; Miravittles, M; de Lucas, P; Soler-Cataluna, JJ; García-Rio, F; Casanova, C; Rodríguez González-Moro JM; Cosío, B; Sánchez, G; Ancochea J. *Prevalence and Determinants of COPD in Spain: EPISCAN II*. ARCHIVOS DE BRONCONEUMOLOGIA. 2021; 57(1) 61-69. FI: 6.333. Cuartil: 1. (Article).
 - González, FJL; Alfonso, LG; Hernández, JC; Prota, MA; Huertas, JH; Valverde, TH; Álvarez, IR; Rivas, HET; Fernández, LMF; Rodríguez, AIE; Clemente, MMG; González, VG. *Biopsy of Intrapulmonary Lesions in Lungs with Atelectasis*. ARCHIVOS DE BRONCONEUMOLOGIA. 2021; 57(6) 438-439. FI: 6.333. Cuartil: 1. (Letter).
 - de Granda-Orivea, JI; Solano-Reina, S; Jimenez-Ruiz, CA. *Is Smoking Outside an Enclosed Space Enough to Prevent Second and Third-Hand Exposure?*. ARCHIVOS DE BRONCONEUMOLOGIA. 2021; 57(2) 83-84. FI: 6.333. Cuartil: 1. (Editorial Material).
 - González, J; Jue, JS; Farag, A; Ciancio, G. *ANATOMICAL BASIS OF RENAL TRANSPLANTATION*. ARCHIVOS ESPANOL DE UROLOGIA. 2021; 74(10) 922-932. FI: 0.43. Cuartil: 4. (Article).
 - Florensa-Zanuy, E; Garro-Martínez, E; Adell, A; Castro, E; Díaz, A; Pazos, A; Mac-Dowell, KS; Martín-Hernández, D; Pilar-Cuellar, F. *Cannabidiol antidepressant-like effect in the lipopolysaccharide model in mice: Modulation of inflammatory pathways*. BIOCHEMICAL PHARMACOLOGY. 2021; 185 114433-114433. FI: 6.1. Cuartil: 1. (Article).
 - Ciancio, G; González, J. *Renal cell carcinoma and tumour thrombus: devil is in the details of the technique not in the surgical approach*. BJU INTERNATIONAL. 2021; 128(1) 122-123. FI: 5.969. Cuartil: 1. (Letter).
 - Ipekci, AM; Buitrago-García, D; Meili, KW; Krauer, F; Prajapati, N; Thapa, S; Wildisen, L; Araujo-Chaveron, L; Baumann, L; Shah, S; Whiteley, T; Solís-García, G; Tsotra, F; Zhelyazkov, I; Imeri, H; Low, N; Counotte, MJ. *Outbreaks of publications about emerging infectious diseases: the case of SARS-CoV-2 and Zika virus*. BMC MEDICAL RESEARCH METHODOLOGY. 2021; 21(1) 50-50. FI: 4.612. Cuartil: 1. (Article).
 - Macia-Rodríguez, C; de Ona, AA; Martín-Iglesias, D; Barrera-López, L; Pérez-Sanz, MT; Moreno-Díaz, J; González-Munera, A. *Burn-out syndrome in Spanish internists during the COVID-19 outbreak and associated factors: a cross-sectional survey*. BMJ OPEN. 2021; 11(2). FI: 3.006. Cuartil: 2. (Article).
 - Perea, J; Marti, M; Espin, E; Hernández-Villafranca, S; Orihuela, P; Tocino, RV; Alcázar, JA; Vivas, A; Narvaez, C; Prieto, I; Asensio, L; Rojo, IL; García, SE; Hurtado, E; Jiménez, LM; Jiménez, F; Cervero, A; Álvaro, E; Fuenmayor, ML; Toscano, MJ; Comas. *Cohort profile: the Spanish Early-onset Colorectal Cancer (SECOC) cohort: a multicentre cohort study on the molecular basis of colorectal cancer among young individuals in Spain*. BMJ OPEN. 2021; 11(12). FI: 3.006. Cuartil: 2. (Article).



PUBLICATIONS GENERATED BY CLINICAL RESEARCHERS ASSOCIATED WITH THE IISGM

- Paredes, I; León, AMC; Lagares, A; Roldán, LJ; Pérez-Núñez, A; González-León, P; Delgado-Fernández, J; Eiriz, C; García-Pérez, D; Moreno-Gómez, LM; Esteban-Sinovas, O; Delgado-López, P; Martín-Alonso, J; Kaen, A; Tirado-Caballero, J; Carmona, MO; Romero. *Impact of the first wave of the SARS-CoV-2 pandemic on the outcome of neurosurgical patients: a nationwide study in Spain*. BMJ OPEN. 2021; 11(12). FI: 3.006. Cuartil: 2. (Article).
- Verdura, E; Rodríguez-Palmero, A; Vélez-Santamaría, V; Planas-Serra, L; de la Calle, I; Raspall-Chaure, M; Roubertie, A; Benkirane, M; Saettini, F; Pavinato, L; Mandrile, G; O'Leary, M; O'Heir, E; Barredo, E; Chacon, A; Michaud, V; Goizet, C; Ruiz, M; Sch. *Biallelic PI4KA variants cause a novel neurodevelopmental syndrome with hypomyelinating leukodystrophy*. BRAIN. 2021; 144(9) 2659-2669. FI: 15.255. Cuartil: 1. (Article).
- Marinello, FG; Jiménez, LM; Talavera, E; Fracalvieri, D; Alberti, P; Ostiz, F; Frago, R; Blanco, A; Pellino, G; Espin-Basany, E. *Percutaneous tibial nerve stimulation in patients with severe low anterior resection syndrome: randomized clinical trial*. BRITISH JOURNAL OF SURGERY. 2021; 108(4) 380-387. FI: 11.122. Cuartil: 1. (Article).
- González, J; Gaynor, JJ; Ciano, G. *Renal Cell Carcinoma with or without Tumor Thrombus Invading the Liver, Pancreas and Duodenum*. CANCERS. 2021; 13(7). FI: 6.575. Cuartil: 1. (Article).
- Egea-Benavente, D; Ovejero, JG; Morales, MD; Barber, DF. *Understanding MNPs Behaviour in Response to AMF in Biological Milieus and the Effects at the Cellular Level: Implications for a Rational Design That Drives Magnetic Hyperthermia Therapy toward Clinical Implementation*. CANCERS. 2021; 13(18). FI: 6.575. Cuartil: 1. (Review).
- Oliva-Arnanz, A; Romay-Barrero, H; Romero-Galisteo, RP; Pinero-Pinto, E; Lirio-Romero, C; Palomo-Carrión, R. *Families' Perceptions of the Motor Development and Quality of Life of Their Children Aged 0-3 Years during Home Confinement Due to the COVID-19 Pandemic. A Descriptive Study*. CHILDREN-BASEL. 2021; 8(12). FI: 2.835. Cuartil: 2. (Article).
- González Aguña A; Fernández Batalla M; Arias Baelo C; Monsalvo San Macario E; Gonzalo de Diego B; Santamaría García JM. *Usability Evaluation by Nurses of a Knowledge-Based System of Care Plans for People Hospitalized by COVID-19*. CIN-COMPUTERS INFORMATICS NURSING. 2021; 40(3) 186-200. FI: 2.146. Cuartil: 2. (Article).
- Retuerto, M; Trujillo, E; Valero, C; Fernández-Espartero, C; Soletto, CY; García-Valle, A; Aurrecoechea, E; Garijo, M; López, A; Loricera, J; Pablos, JL. *Efficacy and safety of switching Jak inhibitors in rheumatoid arthritis: an observational study*. CLINICAL AND EXPERIMENTAL RHEUMATOLOGY. 2021; 39(3) 453-455. FI: 4.862. Cuartil: 2. (Article).
- Zárate, YA; Bosanko, KA; Thomas, MA; Miller, DT; Cusmano-Ozog, K; Martinez-Monseny, A; Curry, CJ; Graham, JM; Velsher, L; Bekheirnia, MR; Seidel, V; Dedousis, D; Mitchell, AL; DiMarino, AM; Riess, A; Balasubramanian, M; Fish, JL; Caffrey, AR; Fleischer, N. *Growth, development, and phenotypic spectrum of individuals with deletions of 2q33.1 involving SATB2*. CLINICAL GENETICS. 2021; 99(4) 547-557. FI: 4.296. Cuartil: 2. (Article).
- Balleste, C; Navarro, A; Escalante, JL; Quiralte, A; Vera, E; Franca, A; Avsec, D; Leitchman, A; Valero, R; Istrate, M; Gómez, MP; Zhou, MK; Arredondo, E; Boni, R; Domínguez-Roldán, JM; Zhao, HT; Wang, HB; Pu, M; Lu, W; Li, L; Manyalich, M; Kunming Recomm. *Leadership, management, quality, and innovation in organ donation: 2019 Kunming recommendations for One Belt & One Road countries*. CLINICAL TRANSPLANTATION. 2021; 35(10). FI: 3.456. Cuartil: 2. (Editorial Material).
- Torres, A; Motos, A; Riera, J; Fernández-Barat, L; Ceccato, A; Pérez-Arnal, R; García-Gasulla, D; Penuelas, O; Lorente, JA; Rodríguez, A; de Gonzalo-Calvol, D; Almansa, R; Gabarrus, A; Menéndez, R; Bermejo-Martin, JF; Ferrer, R; Villar, RA; Anon, JM; Barb. *The evolution of the ventilatory ratio is a prognostic factor in mechanically ventilated COVID-19 ARDS patients*. CRITICAL CARE. 2021; 25(1) 331-331. FI: 19.334. Cuartil: 1. (Article).
- Jue, JS; Mikhail, D; González, J; Alameddine, M. *Value of MRI to Improve Deep Learning Model That Identifies High-Grade Prostate Cancer. Comment on Gentile et al. Optimized Identification of High-Grade Prostate Cancer by Combining Different PSA Molecular Forms and PSA Density in a Deep Learning Model. D*. DIAGNOSTICS. 2021; 11(7). FI: 3.992. Cuartil: 2. (Editorial Material).
- Salvador, JFS; Giménez-Arnau, AM; de la Fuente, EG; del Castillo, JG; Virtos, AMM; Blanco, IM; Serra-Baldrich, E; Llorens, P. *Urticaria in the emergency department: the view of allergy and immunology specialists Reply*. EMERGENCIAS. 2021; 33(4) 325-326. FI: 5.345. Cuartil: 1. (Letter).
- Salvador, JFS; Giménez-Arnau, AM; de la Fuente, EG; del Castillo, JG; Virto, AMM; Blanco, IM; Serra-Baldrich, E; Llorens, P. *Managing urticaria in the*



emergency department: recommendations of a multidisciplinary expert panel. EMERGENCIAS. 2021; 33(4) 299-308. FI: 5.345. Cuartil: 1. (Article).

- González, PA; Delgado, RC; Álvarez, TC; Gonzalo, GG; Monzon, CM; Corres, NP; Soler, AR; Pareja, RR; Fuentes, FT. *Ten years using the advanced triage model for out-of-hospital emergencies (META): the 2020 version*. EMERGENCIAS. 2021; 33(5) 387-391. FI: 5.345. Cuartil: 1. (Editorial Material).
- Araujo-Castro, M; Centro, RG; López-García, MC; Escola, CA; Gutiérrez, MC; Carrera, CB; Novoa, PD; Gallego, NV; Hanzu, FA; Gimeno, PG; Fernández-Ladreda, MT; Hualpa, JCP; Porta, MM; Álvaro, JL; Pian, H; Caracuel, IR; Dehesa, AS; Dos Santos, VG; Romero, A. *Surgical outcomes in the pheochromocytoma surgery. Results from the PHEO-RISK STUDY*. ENDOCRINE. 2021; 74(3) 676-684. FI: 3.925. Cuartil: 3. (Article).
- Araujo-Castro, M; Centeno, RG; López-García, MC; Lamas, C; Álvarez-Escola, C; Gutiérrez, MC; Blanco-Carrera, C; Novoa, PD; Valdes, N; Gimeno, PG; Fernández-Ladreda, MT; Ojeda, CM; Hualpa, JCP; Mora, M; Vidal, O; Romero, AS; Hanzu, FA; Dos Santos, VG. *Risk factors for intraoperative complications in pheochromocytomas*. ENDOCRINE-RELATED CANCER. 2021; 28(11) 695-703. FI: 5.9. Cuartil: 1. (Article).
- Fernández, LG; Ramos, RJA; Montenegro, AMR; Torrecilla, NB; González, MM; Moreno, DM; Goni, JA; Weber, B; Guerra, AL; Ishishi, YLO; Hualpa, JCP; Albarran, OG; Centeno, RG. *Inferior petrosal sinus sampling and stimulation with CRH: 15 years of experience in a tertiary hospital*. ENDOCRINOLOGIA DIABETES Y NUTRICION. 2021; 68(6) 381-388. FI: 1.833. Cuartil: 4. (Article).
- Díez, JJ; Anda, E; Sastre, J; Pérez-Corral, B; Álvarez-Escola, C; Manjon, L; Paja, M; Sambo, M; Santiago-Fernández, P; Blanco-Carrera, C; Galofre, JC; Navarro, E; Zafon, C; Sanz, E; Oleaga, A; Bandres, O; Donnay, S; Megia, A; Picallo, M; Sánchez-Ragnarso. *Recovery of parathyroid function in patients with thyroid cancer treated by total thyroidectomy: An analysis of 685 patients with hypoparathyroidism at discharge of surgery*. ENDOCRINOLOGIA DIABETES Y NUTRICION. 2021; 68(6) 398-407. FI: 1.833. Cuartil: 4. (Article).
- Moreno, DM; González, MM; Fernández, LG; Hualpa, JCP. *A review of systemic infiltrative diseases and associated endocrine diseases*. ENDOCRINOLOGIA DIABETES Y NUTRICION. 2021; 68(5) 312-320. FI: 1.833. Cuartil: 4. (Article).
- Hofman, P; Ilie, M; Chamorey, E; Brest, P; Schiappa, R; Nakache, V; Antoine, M; Barberis, M; Begueret, H; Bibeau, F; Bonnetaud, C; Bostrom, P; Brousset, P; Bubendorf, L; Carvalho, L; Cathomas, G; Cazes, A; Chalabreysse, L; Chenard, MP; Copin, MC; Cote, JF. *Clinical and molecular practice of European thoracic pathology laboratories during the COVID-19 pandemic. The past and the near future*. ESMO OPEN. 2021; 6(1) 100024-100024. FI: 6.883. Cuartil: 1. (Article).
- Boas, PV; Frings, V; Gran, F; Lesort, C; Machado, A; Arianayagam, S. *What's new? EUROPEAN JOURNAL OF DERMATOLOGY*. 2021; 31(2) 281-282. FI: 2.805. Cuartil: 2. (Editorial Material).
- Balaguer-Franch, I; Lozano-Masdemont, B; Rodríguez-Lomba, E. *sQuiz your knowledge! A tender nodule in the umbilicus of a young fertile woman*. EUROPEAN JOURNAL OF DERMATOLOGY. 2021; 31(2) 300-302. FI: 2.805. Cuartil: 2. (Editorial Material).
- Lefevre MA; Mohme S; Alband N; Nogueira M; Rosell Díaz A; Rodríguez-Lomba E. *Journal club: New small molecules for atopic dermatitis management*. EUROPEAN JOURNAL OF DERMATOLOGY. 2021; 31(6) 849-852. FI: 2.805. Cuartil: 2. (Article).
- Frings, VG; Gran, F; Machado, A; Lesort, C; Vilas Boas, P; Arianayagam, S. *Journal Club*. EUROPEAN JOURNAL OF DERMATOLOGY. 2021; 31(3) 424-426. FI: 2.805. Cuartil: 2. (Editorial Material).
- Mohme, S; Alband, N; Díaz, AR; Lefevre, MA; Rodríguez-Lomba, E; Nogueira, M; Goebeler, M; Hamm, H. *Update on systemic therapies in paediatric dermatology*. EUROPEAN JOURNAL OF DERMATOLOGY. 2021; 31(5) 672-675. FI: 2.805. Cuartil: 2. (Editorial Material).
- Tost, J; Llorens, P; Cotter, G; Davison, B; Jacob, J; Gil, V; Herrero, P; Martín-Sánchez, FJ; Donea, R; Rodríguez, B; Lucas-Imbernon, FJ; Andueza, JA; Mecina, AB; Torres-Garate, R; Pinera, P; Alquezar-Arbe, A; Espinosa, B; Mebazaa, A; Chioncel, O; Miró, O. *Outcomes of patients with heart failure with preserved ejection fraction discharged on treatment with neurohormonal antagonists after an episode of decompensation*. EUROPEAN JOURNAL OF INTERNAL MEDICINE. 2021; 94 73-84. FI: 7.749. Cuartil: 1. (Article).
- Jove-Blanco, A; Solís-García, G; Torres-Soblechero, L; Escobar-Castellanos, M; Mora-Capin, A; Rivas-García, A; Castro-Rodríguez, C; Maranon, R.



PUBLICATIONS GENERATED BY CLINICAL RESEARCHERS ASSOCIATED WITH THE IISGM

Video discharge instructions for pediatric gastroenteritis in an emergency department: a randomized, controlled trial. EUROPEAN JOURNAL OF PEDIATRICS. 2021; 180(2) 569-575. FI: 3.86. Cuartil: 1. (Article).

- Caballero, JM; González, LG; Cuéllar, ER; Herrero, EF; Algar, CP; Jodra, VV; Díaz, MDP; Dziakova, J; Romanillos, RS; Di Martino, M; Rodríguez, AD; Martín, MG; López, DS; Virosta, MG; Bartolomé, MD; de Lama, MDP; Samaniego, MG; Pérez, DD; Jiménez, DA; Nava. *Multicentre cohort study of acute cholecystitis management during the COVID-19 pandemic.* EUROPEAN JOURNAL OF TRAUMA AND EMERGENCY SURGERY. 2021; 47(3) 683-692. FI: 2.374. Cuartil: 3. (Article).
- Maria, FM; Lorena, MR; Luz, FVM; Cristina, RV; Dolores, PD; Fernando, TF. *Overall management of emergency general surgery patients during the surge of the COVID-19 pandemic: an analysis of procedures and outcomes from a teaching hospital at the worst hit area in Spain.* EUROPEAN JOURNAL OF TRAUMA AND EMERGENCY SURGERY. 2021; 47(3) 693-702. FI: 2.374. Cuartil: 3. (Article).
- Fankhauser, CD; Oldenburg, J; Albers, P; Algaba, F; Bokemeyer, C; Boormans, JL; Fischer, S; Fizazi, K; Gremmels, H; de Castro, JM; Janisch, F; Muilwijk, T; Leao, R; Nicol, D; Nicolai, N; Tandstad, T; Laguna, MP. *Recommendations to Balance Benefits and Risks Of Thromboprophylaxis and to Avoid Central Venous-access Devices During First-line Chemotherapy in Men with Metastatic Germ Cell Tumors: The European Association Of Urology Testicular Cancer Panel Position in.* EUROPEAN UROLOGY. 2021; 80(1) 4-6. FI: 24.267. Cuartil: 1. (Editorial Material).
- González, J; Gaynor, JJ; Ciancio, G. *Response to systemic therapy in locally advanced and metastatic renal cell carcinoma: can it be predicted?.* EXPERT REVIEW OF ANTICANCER THERAPY. 2021; 21(6) 629-639. FI: 3.627. Cuartil: 3. (Review).
- Saeed, K; Legramante, JM; Angeletti, S; Curcio, F; Miguens, I; Poole, S; Tascini, C; Sozio, E; Del Castillo, JG. *Mid-regional pro-adrenomedullin as a supplementary tool to clinical parameters in cases of suspicion of infection in the emergency department.* EXPERT REVIEW OF MOLECULAR DIAGNOSTICS. 2021; 21(4) 397-404. FI: 5.67. Cuartil: 1. (Review).
- De La Calle, M; Delgado, JL; Verloren, S; Escudero, AI; Bartha, JL; Campillos, JM; De La Cruz, AA; Chantraine, F; Hernández, JAG; Herraiz, I; Llurba, E; Kurka,

H; Guo, G; Sillman, J; Hund, M; Marín, AP. *Gestational Age-Specific Reference Ranges for the sFlt-1/PlGF Immunoassay Ratio in Twin Pregnancies.* FETAL DIAGNOSIS AND THERAPY. 2021; 48(4) 288-296. FI: 2.208. Cuartil: 4. (Article).

- Parente, A; Ortiz, R; Fernández-Bautista, B; Burgos, L; Angulo, JM. *Micro-Ureteroscopy as a Treatment of Renal Pelvis Lithiasis in Young Children.* FRONTIERS IN PEDIATRICS. 2021; 9 593743-593743. FI: 3.569. Cuartil: 2. (Article).
- Lucena, LB; Bautista, BF; Hernández, AP; Rodríguez, RO; Madero, JMA. *Extracorporeal Shock Wave Lithotripsy and Combined Therapy in Children: Efficacy and Long-Term Results.* FRONTIERS IN PEDIATRICS. 2021; 9 609664-609664. FI: 3.569. Cuartil: 2. (Article).
- Prats-Urbe, A; Tobed, M; Villacampa, JM; Aguero, A; García-Bastida, C; Tato, JI; Rodriganez, L; Holguera, VD; Hernández-García, E; Poletti, D; Simónetti, G; Villarraga, V; Meler-Claramonte, C; Barrueco, AS; Chiesa-Estomba, C; Casasayas, M; Parente-Arias. *Timing of elective tracheotomy and duration of mechanical ventilation among patients admitted to intensive care with severe COVID-19: A multicenter prospective cohort study.* HEAD AND NECK-JOURNAL FOR THE SCIENCES AND SPECIALTIES OF THE HEAD AND NECK. 2021; 43(12) 3743-3756. FI: 3.821. Cuartil: 1. (Article).
- Perestelo-Pérez, L; Rivero-Santana, A; González-González, AI; Bermejo-Caja, CJ; Ramos-García, V; Koatz, D; Torre-Castano, A; Ballester, M; Muñoz-Balsa, M; del Rey-Granado, Y; Pérez-Rivas, FJ; Canellas-Criado, Y; Ramírez-Puerta, AB; Pacheco-Huergo, V; Orre. *Cross-cultural validation of the patient-practitioner orientation scale among primary care professionals in Spain.* HEALTH EXPECTATIONS. 2021; 24(1) 33-41. FI: 3.318. Cuartil: 2. (Article).
- Vehmeijer, JT; Koyak, Z; Leerink, JM; Zwinderman, AH; Harris, L; Peinado, R; Oechslin, EN; Robbers-Visser, DE; Groenink, M; Boekholdt, SM; De Winter, RJ; Oliver, JM; Bouma, BJ; Budts, W; Van Gelder, IC; Mulder, BJM; de Groot, JR. *Identification of patients at risk of sudden cardiac death in congenital heart disease: The PROSPectiVE study on implanTable cardIOverter defibrillator therapy and sudden cardiac death in Adults with Congenital Heart Disease (PREVENTION-ACHD).* HEART RHYTHM. 2021; 18(5) 785-792. FI: 6.779. Cuartil: 2. (Article).
- del Arco, CD; Medina, LO; Muñoz, LE; Heras, SGG; Aceñero, MJF. *Is there still a place for conventional histopathology in the age of molecular medicine?*



Lauren classification, inflammatory infiltration and other current topics in gastric cancer diagnosis and prognosis. HISTOLOGY AND HISTOPATHOLOGY. 2021; 36(6) 587-613. FI: 2.13. Cuartil: 3. (Review).

- Díez, JJ; Anda, E; Sastre, J; Corral, BP; Álvarez-Escola, C; Manjon, L; Paja, M; Sambo, M; Fernández, PS; Carrera, CB; Galofre, JC; Navarro, E; Zafon, C; Sanz, E; Oleaga, A; Bandres, O; Donnay, S; Megia, A; Picallo, M; Ragnarsson, CS; Baena-Nieto, G; Fern. *Late Recovery of Parathyroid Function after Total Thyroidectomy: A Case-Control Study.* HORMONE AND METABOLIC RESEARCH. 2021; 53(10) 654-661. FI: 2.788. Cuartil: 4. (Article).
- Araujo-Castro, M; Ramirez, PP; Lázaro, CR; Centeno, RG; Gimeno, PG; Fernández-Ladreda, MT; Núñez, MAS; Marazuela, M; Escobar-Morreale, HF; Valderrabano, P. *Accuracy of the dexamethasone suppression test for the prediction of autonomous cortisol secretion-related comorbidities in adrenal incidentalomas.* HORMONES-INTERNATIONAL JOURNAL OF ENDOCRINOLOGY AND METABOLISM. 2021; 20(4) 735-744. FI: 3.419. Cuartil: 3. (Article).
- Saro-Buendia, M; Marrero-Sánchez, A; de Morales, DGR; Chiara-Graciani, G; Coderch-Carretero, J; Asin, MAPJ; Silva, JT; Fernández-Ruiz, M; Arrazola, P; Aguado, JM; López-Medrano, F. *Implementation of a program to improve influenza vaccination rates among medical students: a comparative study involving two university affiliated hospitals.* HUMAN VACCINES & IMMUNOTHERAPEUTICS. 2021; 17(10) 3662-3669. FI: 4.526. Cuartil: 2. (Article).
- Balandin, B; Ballesteros, D; de Luna, RR; López-Vergara, L; Pintado, V; Sancho-González, M; Soriano-Cuesta, C; Pérez-Pedrero, MJ; Asensio-Martín, MJ; Fernández-Simón, I; Rodríguez-Serrano, D; Silva, A; Chicot, M; Iranzo, R; Martínez-Sagasti, F; Royuela, A. *Multicenter study of ceftolozane/tazobactam for treatment of Pseudomonas aeruginosa infections in critically ill patients.* INTERNATIONAL JOURNAL OF ANTIMICROBIAL AGENTS. 2021; 57(3) 106270-106270. FI: 15.441. Cuartil: 1. (Article).
- Riesco-Miranda, JA; Solano-Reina, S; Rabade-Castedo, C; de Granda-Orive, JI; Pastor-Esplá, E; García-Rueda, M; Callejas-González, FJ; Azpeitia-Anadon, A; Mas, S; Jiménez-Ruiz, CA. *Certified Smoking Cessation Units in Spain: High Potential for Detection of Undiagnosed Chronic Obstructive Pulmonary Disease and Profile of Newly Diagnosed Cases.* INTERNATIONAL JOURNAL OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE. 2021; 16 443-450. FI: 2.893. Cuartil: 4. (Article).
- de la Calle, M; Bartha, JL; García, L; Cuerva, MJ; Ramiro-Cortijo, D. *Women Aged over 40 with Twin Pregnancies Have a Higher Risk of Adverse Obstetrical Outcomes.* INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2021; 18(24). FI: 4.614. Cuartil: 1. (Article).
- Rojas, P; Ramirez, AI; Cadena, M; Fernández-Albarral, JA; Salobar-García, E; López-Cuenca, I; Santos-García, I; de Lago, E; Urcelay-Segura, JL; Ramirez, JM; de Hoz, R; Salazar, JJ. *Retinal Ganglion Cell Loss and Microglial Activation in a SOD1G93A Mouse Model of Amyotrophic Lateral Sclerosis.* INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(4). FI: 6.208. Cuartil: 1. (Article).
- Maroto, E. *Penilloate and penicilloate concentrations in practical guidance recommendations.* JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY-IN PRACTICE. 2021; 9(3) 1418-1419. FI: 11.022. Cuartil: 1. (Letter).
- Garzón, JC; Sastre, JA; Gómez-Ríos, MA; López, T; Garzón-Sánchez, A; Pandit, JJ. *Comparing the dynamics of changes in regional cerebral oxygen saturation with arterial oxygen partial pressure with two techniques of preoxygenation in healthy adults.* JOURNAL OF CLINICAL ANESTHESIA. 2021; 68. FI: 9.375. Cuartil: 1. (Letter).
- Pelletier, F; Perrier, S; Cayami, FK; Mirchi, A; Saikali, S; Tran, LT; Ulrick, N; Guerrero, K; Rampakakis, E; van Spaendonk, RML; Naidu, S; Pohl, D; Gibson, WT; Demos, M; Goizet, C; Tejera-Martín, I; Potic, A; Fogel, BL; Brais, B; Sylvain, M; Sebire, G; L. *Endocrine and Growth Abnormalities in 4H Leukodystrophy Caused by Variants in POLR3A, POLR3B, and POLR1C.* JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM. 2021; 106(2) 660-674. FI: 6.134. Cuartil: 1. (Article).
- Gutiérrez, MDA; Rubio-Rivas, M; Gómez, CR; Sáez, AM; de Pedro, IP; Homs, N; García, BA; Carvajal, CC; Fernández, FA; Pérez, JLB; Núñez, JAV; Giménez, LL; Fernández, CS; Bailon, MM; de Almeida, CT; Moraleja, JG; García-Monge, MD; Amezua, CH; Montero, MDF. *Autoimmune Diseases and COVID-19 as Risk Factors for Poor Outcomes: Data on 13,940 Hospitalized Patients from the Spanish Nationwide SEMI-COVID-19 Registry.* JOURNAL OF CLINICAL MEDICINE. 2021; 10(9). FI: 4.964. Cuartil: 2. (Article).
- Ciancio, G; Tabbara, MM; Martucci, M; Gaynor, JJ; Morsi, M; González, J. *Surgical Management of Upper Urinary Tract Urothelial Cell Carcinoma with Venous Tumor Thrombus: A Liver Transplant-Based Approach.* JOURNAL OF CLINICAL MEDICINE. 2021; 10(24). FI: 4.964. Cuartil: 2. (Article).

PUBLICATIONS GENERATED BY CLINICAL RESEARCHERS ASSOCIATED WITH THE IISGM

- Araujo-Castro, M; Ramírez, PP; Lázaro, CR; Centeno, RG; Gimeno, PG; Fernández-Ladreda, MT; Núñez, MAS; Marazuela, M; Escobar-Morreale, HF; Valderrabano, P. *Predictors of Tumour Growth and Autonomous Cortisol Secretion Development during Follow-Up in Non-Functioning Adrenal Incidentalomas*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(23). Fl: 4.964. Cuartil: 2. (Article).
- Antúñez-Conde, R; Cuéllar, CN; Escobar, JIS; Díez-Montiel, A; Cuéllar, IN; Orabona, GD; de Vera, JLD; Vila, CN; Carretero, JLC. *Intraosseous Venous Malformation of the Zygomatic Bone: Comparison between Virtual Surgical Planning and Standard Surgery with Review of the Literature*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(19). Fl: 4.964. Cuartil: 2. (Review).
- Muñoz-Gómez, A; Fernández-Cruz, A; Lavilla-Olleros, C; Giner-Galvan, V; Ausin-García, C; Wikman, P; Bendala-Estrada, AD; Vargas, JA; Rubio-Rivas, M; Laureiro, J; Fernández-Bermúdez, D; Buonaiuto, VA; de Larriva, AAP; Pascual-Pérez, MD; Alcalá-Pedrajas, JN. *Real-Life Impact of Glucocorticoid Treatment in COVID-19 Mortality: A Multicenter Retrospective Study*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(20). Fl: 4.964. Cuartil: 2. (Article).
- Martín-Loeches I; Motos A; Menéndez R; Gabarrús A; González J; Fernández-Barat L; Ceccato A; Pérez-Arnal R; García-Gasulla D; Ferrer R; Riera J; Lorente JÁ; Peñuelas Ó; Bermejo-Martín JF; Gonzalo-Calvo D; Rodríguez A; Barbé F; Aguilera L; Amaya-Villar R. *ICU-Acquired Pneumonia Is Associated with Poor Health Post-COVID-19 Syndrome*. JOURNAL OF CLINICAL MEDICINE. 2021; 11(1). Fl: 4.964. Cuartil: 2. (Article).
- López-Morinigo, JD; Boldrini, M; Ricca, V; Oquendo, MA; Baca-García, E. *Aggression, Impulsivity and Suicidal Behavior in Depressive Disorders: A Comparison Study between New York City (US), Madrid (Spain) and Florence (Italy)*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(14). Fl: 4.964. Cuartil: 2. (Article).
- Martínez, M; Martín-Hernández, D; Virto, L; MacDowell, KS; Montero, E; González-Bris, A; Marín, MJ; Ambrosio, N; Herrera, D; Leza, JC; Sanz, M; García-Bueno, B; Figuero, E. *Periodontal diseases and depression: A pre-clinical in vivo study*. JOURNAL OF CLINICAL PERIODONTOLOGY. 2021; 48(4) 503-527. Fl: 7.478. Cuartil: 1. (Article).
- Cuéllar, CN; Alonso, DG; Antúñez-Conde, R; Martínez, MA; Martínez, EM; Cuéllar, IN; Fernández-Micheltorena, PM; Escobar, JIS. *Secondary Cervicofacial Soft Tissue Reconstruction With Upper Trapezius Myocutaneous Flap in "Frozen Neck" With Bone Flap and Reconstructive Plate Exposure*. JOURNAL OF CRANIOFACIAL SURGERY. 2021; 32(Suppl 3) 1241-1246. Fl: 1.172. Cuartil: 4. (Article).
- Antúñez-Conde, R; Salmerón, JI; Navarro, C. *Intraosseous Venous Malformation of the Zygomatic Bone: Virtual Surgical Planning and Reconstruction With Customized CAD-CAM Titanium Implant*. JOURNAL OF CRANIOFACIAL SURGERY. 2021; 32(8) 757-759. Fl: 1.172. Cuartil: 4. (Article).
- Araujo-Castro, M; Lázaro, CR; Ramírez, PP; Centeno, RG; Gimeno, PG; Fernández-Ladreda, MT; Núñez, MAS; Marazuela, M; Escobar-Morreale, HF; Valderrabano, P. *Maximum adenoma diameter, regardless of uni- or bilaterality, is a risk factor for autonomous cortisol secretion in adrenal incidentalomas*. JOURNAL OF ENDOCRINOLOGICAL INVESTIGATION. 2021; 44(11) 2349-2357. Fl: 5.467. Cuartil: 2. (Article).
- Di Martino, M; Mora-Guzmán, I; Jodra, VV; Dehesa, AS; García, DM; Ruiz, RC; Nisa, FGM; Moreno, FM; Batanero, SA; Sampedro, JEQ; Cumplido, PL; Bravo, AA; Rubio-Pérez, I; Asensio-Gómez, L; Aranda, FP; Farrarons, SS; Moreno, CR; Moreno, CMM; Lasarte, AS; Cal. *How to Predict Postoperative Complications After Early Laparoscopic Cholecystectomy for Acute Cholecystitis: the Chole-Risk Score*. JOURNAL OF GASTROINTESTINAL SURGERY. 2021; 25(11) 2814-2822. Fl: 3.267. Cuartil: 2. (Article).
- Artero, A; Madrazo, M; Fernández-Garcés, M; Míguez, AM; García, AG; Vieitez, AC; Guijarro, EG; Aizpuru, EMF; Gómez, MG; Manrique, MA; Cilleros, CM; Moreno, MDF; Amigo, JL; Sánchez, RG; Pejenaute, ER; Vázquez, LA; Navarro, RC; Marquinez, MNS; Sánchez, FJC. *Severity Scores in COVID-19 Pneumonia: a Multicenter, Retrospective, Cohort Study*. JOURNAL OF GENERAL INTERNAL MEDICINE. 2021; 36(5) 1338-1345. Fl: 6.473. Cuartil: 1. (Article).
- Díaz-Simón, R; Lalueza, A; Lora-Tamayo, J; Rubio-Rivas, M; Mendo, CL; Martínez, MLT; Méndez, CA; Fontan, PMP; Cruz, AF; Cabrera, JLR; Rodríguez, BC; Rubio, AE; de Ávila, VSR; García, GMG; Osorio, LC; González-Fernández, M; Noya, AG; Wittel, MB; Fernández. *Clinical Characteristics and Risk Factors of Respiratory Failure in a Cohort of Young Patients Requiring Hospital Admission with SARS-CoV2 Infection in Spain: Results of the Multicenter SEMI-COVID-19 Registry*. JOURNAL OF GENERAL INTERNAL MEDICINE. 2021; 36(10) 3080-3087. Fl: 6.473. Cuartil: 1. (Article).



- García-Cervera, C; Giner-Galvan, V; Wikman-Jorgensen, P; Laureiro, J; Rubio-Rivas, M; Arena, AG; Arnalich-Fernández, F; Pérez, JLB; Núñez, JAV; Igual, JGG; Díez-Manglano, J; Bailon, MM; Blanco, MJG; Castro, SJF; Lobo, JA; Manzano, L; Gamboa, JOM; Pérez, L. *Estimation of Admission D-dimer Cut-off Value to Predict Venous Thrombotic Events in Hospitalized COVID-19 Patients: Analysis of the SEMI-COVID-19 Registry*. JOURNAL OF GENERAL INTERNAL MEDICINE. 2021; 36(11) 3478-3486. FI: 6.473. Cuartil: 1. (Article).
- Fernández-Checa, JC; Bagnaninchi, P; Ye, H; Sancho-Bru, P; Falcón-Pérez, JM; Royo, F; García-Ruiz, C; Konu, O; Miranda, J; Lunov, O; Dejneka, A; Elfick, A; McDonald, A; Sullivan, GJ; Aithal, GP; Lucena, MI; Andrade, RJ; Fromenty, B; Kranendonk, M; Cubero. *Advanced preclinical models for evaluation of drug-induced liver injury - consensus statement by the European Drug-Induced Liver Injury Network [PRO-EURO-DILI-NET]*. JOURNAL OF HEPATOLOGY. 2021; 75(4) 935-959. FI: 30.083. Cuartil: 1. (Article).
- Lora-Tamayo, J; Maestro, G; Lalueza, A; Rubio-Rivas, M; Paul, GV; Fernández, FA; Pérez, JLB; Núñez, JAV; Barrio, ML; Bermejo, CL. *Early Lopinavir/ritonavir does not reduce mortality in COVID-19 patients: Results of a large multicenter study*. JOURNAL OF INFECTION. 2021; 82(6) 293-298. FI: 38.637. Cuartil: 1. (Letter).
- Barranco, P; Palao, P; Ruiz, I; Domínguez-Ortega, J; Vila-Nadal, G; Pola, B; Quirce, S. *Relationship Between IgE-Mediated Sensitization to Staphylococcus aureus Enterotoxin B, Asthma Severity, and Atopy*. JOURNAL OF INVESTIGATIONAL ALLERGOLOGY AND CLINICAL IMMUNOLOGY. 2021; 31(2) 170-173. FI: 8.185. Cuartil: 1. (Editorial Material).
- Dona, I; Blanca-López, N; Boteanu, C; Cueva-Oliver, B; Fernández-Sánchez, FJ; Gajate, P; García-Avilés, MC; García-Núñez, I; Lobera, T; Moreno, E; Rojas, P; Rosado, A. *Clinical Practice Guidelines for Diagnosis and Management of Hypersensitivity Reactions to Quinolones*. JOURNAL OF INVESTIGATIONAL ALLERGOLOGY AND CLINICAL IMMUNOLOGY. 2021; 31(4) 292-307. FI: 8.185. Cuartil: 1. (Article).
- García-Duque, S; García-Leal, R; Iza-Vallejo, B; Castro-Reyes, E; Fortea, F; Villoria, F; Langer, DJ; Diamantopoulos, J; Belda-Iniesta, C; Ayuso-Sacido, A. *Brain Arteriovenous Malformations: Impact of Neurologic Status, Bleeding, and Type of Treatment on Final Outcome*. JOURNAL OF NEUROLOGICAL SURGERY PART A-CENTRAL EUROPEAN NEUROSURGERY. 2021; 82(02) 130-137. FI: 0.984. Cuartil: 4. (Article).
- Vidal-Sicart, S; Rioja, ME; Prieto, A; Goni, E; Gómez, I; Albala, MD; Lumbreras, L; León, LF; Gómez, JR; Campos, F. *Sentinel Lymph Node Biopsy in Breast Cancer with Tc-99m-Tilmanocept: A Multicenter Study on Real-Life Use of a Novel Tracer*. JOURNAL OF NUCLEAR MEDICINE. 2021; 62(5) 620-627. FI: 11.082. Cuartil: 1. (Article).
- Navarro Cuéllar C; Martínez, EB; Navarro Cuéllar I; López, AML; Rial, MT; Pérez, AS; Salmerón Escobar JI. *Primary Maxillary Reconstruction With Fibula Flap and Dental Implants : A Comparative Study Between Virtual Surgical Planning and Standard in Class IIC Defects*. JOURNAL OF ORAL AND MAXILLOFACIAL SURGERY. 2021; 79(1) 237-248. FI: 2.136. Cuartil: 4. (Article).
- Ordonez, J; Pérez-Egido, L; García-Casillas, MA; del Cañizo, A; Fanjul, M; de la Torre, M; Bada, I; Blanco, MD; Cerda, J; Molina, E; Pelaez, D; de Agustín, JC. *Management and results of thyroidectomies in pediatric patients with MEN 2 syndrome*. JOURNAL OF PEDIATRIC SURGERY. 2021; 56(11) 2058-2061. FI: 2.549. Cuartil: 2. (Article).
- Fernández-Bautista, B; Angulo, JM; Burgos, L; Ortiz, R; Parente, A. *Surgical approach to prune-belly syndrome: A review of our series and novel surgical technique*. JOURNAL OF PEDIATRIC UROLOGY. 2021; 17(5). FI: 1.921. Cuartil: 3. (Review).
- Rojas, P; de Hoz, R; Cadena, M; Salobarra-García, E; Fernández-Albarral, JA; López-Cuenca, I; Elvira-Hurtado, L; Urcelay-Segura, JL; Salazar, JJ; Ramírez, JM; Ramírez, AI. *Neuro-Ophthalmological Findings in Friedreich's Ataxia*. JOURNAL OF PERSONALIZED MEDICINE. 2021; 11(8). FI: 3.508. Cuartil: 2. (Review).
- Klassen, AF; Rae, C; Bulstrode, NW; Berenguer, B; Cui, CX; Fisher, DM; Kasrai, L; Li, YY; Lloyd, M; Panchapakesan, V; Pusic, A; Reinsch, J; Stewart, K; Todd, A; Frank, R; Tsangaris, E; Wang, Y; Riff, KWWY; Zhang, RH; Cano, S. *An international study to develop the EAR-Q patient-reported outcome measure for children and young adults with ear conditions*. JOURNAL OF PLASTIC RECONSTRUCTIVE AND AESTHETIC SURGERY. 2021; 74(9) 2341-2348. FI: 3.022. Cuartil: 2. (Article).
- Collgros, H; Rodríguez-Lomba, E; Pereira, AR; Lo, SN; Scolyer, RA; Guitera, P. *Lentiginous melanoma (lentigo maligna and lentigo maligna melanoma) in*



PUBLICATIONS GENERATED BY CLINICAL RESEARCHERS ASSOCIATED WITH THE IISGM

- Australia: clinicopathological characteristics, management and recurrence rates after 10-year follow-up at a tertiary centre.* JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY. 2021; 35(6) 1315-1322. FI: 9.228. Cuartil: 1. (Article).
- Giménez-Roldán, S; Steele, JC; Palmer, VS; Spencer, PS. *Lyticobodig in Guam: Historical links between diet and illness during and after Spanish colonization.* JOURNAL OF THE HISTORY OF THE NEUROSCIENCES. 2021; 30(4) 335-374. FI: 0.644. Cuartil: 3. (Article).
 - García-Azorin, D; Abildua, MJA; Aguirre, MEE; Fernández, SF; Monco, JCG; Guijarro-Castro, C; Platas, MG; Delgado, FR; Andrés, JML; Ezpeleta, D; Spanish NeuroCOVID Registry Grp. *Neurological presentations of COVID-19: Findings from the Spanish Society of Neurology neuroCOVID-19 registry.* JOURNAL OF THE NEUROLOGICAL SCIENCES. 2021; 423 117283-117283. FI: 4.553. Cuartil: 2. (Article).
 - Martínez-Sanz, J; Vivancos, MJ; Sánchez-Conde, M; Gómez-Ayerbe, C; Polo, L; Labrador, C; González, P; Mesa, A; Muriel, A; Chamorro, C; de la Fuente, Y; Elías, PP; Uranga, A; Herrero, M; Ares, S; Barea, R; Moreno, S; Pérez-Elías, MJ. *Hepatitis C and HIV combined screening in primary care: A cluster randomized trial.* JOURNAL OF VIRAL HEPATITIS. 2021; 28(2) 345-352. FI: 3.517. Cuartil: 3. (Article).
 - Ramos-Rincón, JM; Buonaiuto, V; Ricci, M; Martín-Carmona, J; Paredes-Ruiz, D; Calderón-Moreno, M; Rubio-Rivas, M; Beato-Pérez, JL; Amalich-Fernández, F; Monge-Monge, D; Vargas-Núñez, JA; Acebes-Repiso, G; Méndez-Bailon, M; Perales-Fraile, I; García-García. *Clinical Characteristics and Risk Factors for Mortality in Very Old Patients Hospitalized With COVID-19 in Spain.* JOURNALS OF GERONTOLOGY SERIES A-BIOLOGICAL SCIENCES AND MEDICAL SCIENCES. 2021; 76(3) 28-37. FI: 6.591. Cuartil: 1. (Article).
 - Ramos-Rincón, JM; Pérez-Belmonte, LM; Carrasco-Sánchez, FJ; Jansen-Chaparro, S; De-Sousa-Baena, M; Bueno-Fonseca, J; Pérez-Aguilar, M; Arevalo-Canas, C; Cebrian, MB; Méndez-Bailon, M; Mera, IF; García, AG; Romero, FN; de Almeida, CT; Nicolás, GM; Noya, AG. *Cardiometabolic Therapy and Mortality in Very Old Patients With Diabetes Hospitalized due to COVID-19.* JOURNALS OF GERONTOLOGY SERIES A-BIOLOGICAL SCIENCES AND MEDICAL SCIENCES. 2021; 76(8) 102-109. FI: 6.591. Cuartil: 1. (Article).
 - Martínez-Cuadron, D; Serrano, J; Gil, C; Tormo, M; Martínez-Sánchez, P; Pérez-Simón, JA; García-Boyer, R; Rodríguez-Medina, C; López-Pavia, M; Benavente, C; Bergua, J; Lavilla-Rubira, E; Amigo, ML; Herrera, P; Alonso-Domínguez, JM; Bernal, T; Colorado, M. *Evolving treatment patterns and outcomes in older patients (>= 60 years) with AML: changing everything to change nothing?.* LEUKEMIA. 2021; 35(6) 1571-1585. FI: 12.883. Cuartil: 1. (Article).
 - Palanques-Pastor, T; Megias-Vericat, JE; Martínez, P; Lorenzo, JLL; Navascues, JC; Macías, GR; Cano, I; SanGermán, MA; Vicente, MBV; Algarra, JLA; Foncillas, MA; Herrera, P; Prieto, CB; Vives, S; Álvarez, AF; Palomares, LC; Sobas, M; Gonzalo, AC; García. *Characteristics, clinical outcomes, and risk factors of SARS-COV-2 infection in adult acute myeloid leukemia patients: experience of the PETHEMA group.* LEUKEMIA & LYMPHOMA. 2021; 62(12) 2928-2938. FI: 2.996. Cuartil: 3. (Article).
 - Alonso-Beato, R; Morales-Ortega, A; Fernández, FJD; Moron, AIP; Ríos-Fernández, R; Rubio, JLC; Centeno, NO. *Immune thrombocytopenia and COVID-19: Case report and review of literature.* LUPUS. 2021; 30(9) 1515-1521. FI: 2.858. Cuartil: 4. (Review).
 - Ovejero, JG; Spizzo, F; Morales, MP; Del Bianco, L. *Nanoparticles for Magnetic Heating: When Two (or More) Is Better Than One.* MATERIALS. 2021; 14(21). FI: 3.748. Cuartil: 1. (Review).
 - Ninchritz-Becerra, E; Soriano-Reixach, MM; Mayo-Yáñez, M; Calvo-Henriquez, C; de Apodaca, PMR; Saga-Gutiérrez, C; Parente-Arias, P; Villareal, IM; Viera-Artiles, J; Poletti-Serafini, D; Alobid, I; Ayad, T; Saussez, S; Lechien, JR; Chiesa-Estomba, CM. *Subjective evaluation of smell and taste dysfunction in patients with mild COVID-19 in Spain.* MEDICINA CLINICA. 2021; 156(2) 61-64. FI: 3.2. Cuartil: 2. (Article).
 - Sancho, M; Muñoz, J; Cardinal-Fernández, P. *Tocilizumab in patients infected by SARS-CoV2.* MEDICINA CLINICA. 2021; 156(8) 402-406. FI: 3.2. Cuartil: 2. (Editorial Material).
 - Ortiz-Gómez, JR; Pereperez-Candel, M; Pavón-Benito, A; Torrón-Abad, B; Dorronsoro-Auzmendi, M; Martínez-García, O; Zabaleta-Zuniga, IAR; Azcona-Calahorra, IMA; Fornet-Ruiz, I; Ortiz-Domínguez, A; Palacio-Abizanda, FJ. *A randomized clinical trial comparing six techniques of postoperative analgesia for elective total hip arthroplasty under subarachnoid anesthesia with*



- opioids. MINERVA ANESTESIOLOGICA. 2021; 87(6) 663-674. FI: 3.396. Cuartil: 3. (Article).
- Ovejero, JG; Garcia, MA; Herrasti, P. *Self-Assembly of Au-Fe₃O₄ Hybrid Nanoparticles Using a Sol-Gel Pechini Method*. MOLECULES. 2021; 26(22). FI: 4.927. Cuartil: 2. (Article).
 - Montalvo-Afonso, A; Delgado-López, PD; Lista-Araujo, MT; Rodríguez-Salazar, A. *Angiographically occult and spontaneously thrombosed large brain arteriovenous malformation*. NEUROCIRUGIA. 2021; 32(4) 203-208. FI: 0.817. Cuartil: 4. (Article).
 - Sánchez, E; Lecube, A; Bellido, D; Monereo, S; Malagón, MM; Tinahones, FJ. *Leading Factors for Weight Gain during COVID-19 Lockdown in a Spanish Population: A Cross-Sectional Study*. NUTRIENTS. 2021; 13(3). FI: 6.706. Cuartil: 1. (Article).
 - Toribio, MJ; Priego-Capote, F; Pérez-Gómez, B; de Larrea-Baz, NF; Ruiz-Moreno, E; Castello, A; Lucas, P; Sierra, MA; Pino, MN; Martínez-Cortés, M; de Castro, MDL; Lope, V; Pollán, M. *Factors Associated with Serum Vitamin D Metabolites and Vitamin D Metabolite Ratios in Premenopausal Women*. NUTRIENTS. 2021; 13(11). FI: 6.706. Cuartil: 1. (Article).
 - Rojas, M; Chavez-Castillo, M; Pirela, D; Parra, H; Nava, M; Chacin, M; Angarita, L; Anez, R; Salazar, J; Ortiz, R; Aguero, SD; Gravini-Donado, M; Bermúdez, V; Díaz-Camargo, E. *Metabolic Syndrome: Is It Time to Add the Central Nervous System?*. NUTRIENTS. 2021; 13(7). FI: 6.706. Cuartil: 1. (Review).
 - Rodríguez-Rubio, E; Gil-Pena, H; Chocron, S; Madariaga, L; de la Cerda-Ojeda, F; Fernández-Fernández, M; de Lucas-Collantes, C; Gil, M; Luis-Yanes, MI; Vergara, I; González-Rodríguez, JD; Ferrando, S; Antón-Gamero, M; Hidalgo-Barquero, MC; Fernández-Escri. *Phenotypic characterization of X-linked hypophosphatemia in pediatric Spanish population*. ORPHANET JOURNAL OF RARE DISEASES. 2021; 16(1) 104-104. FI: 4.303. Cuartil: 2. (Article).
 - Ridge, SE; Chari, DA; Kozin, ED; Remenschneider, AK; Adunka, OF; Aristegui, M; Chang, WT; Cheng, YF; Chung, JW; Cohen, MS; Crowson, MG; Golub, JS; Handzel, O; Isaacson, B; Iyer, A; Kakehata, S; Marchioni, D; Nogueira, JF; Patel, N; Quesnel, AM; Rivas, A. *International Survey of Operative Practices for Otolologists and Neurotologists During the COVID-19 Crisis*. OTOTOLOGY & NEUROTOLOGY. 2021; 42(8) 1275-1284. FI: 2.619. Cuartil: 2. (Article).
 - Míguez, MC; Ferrero, C; Rivas, A; Lorente, J; Muñoz L; Marañón R. *Retrospective Comparison of Intranasal Fentanyl and Inhaled Nitrous Oxide to Intravenous Ketamine and Midazolam for Painful Orthopedic Procedures in a Pediatric Emergency Department*. PEDIATRIC EMERGENCY CARE. 2021; 37(3) 136-140. FI: 1.602. Cuartil: 3. (Article).
 - Pérez-Tarazona, S; Esteban, SR; García-García, ML; Sánchez, MA; Messa, ID; Valarezo, TA; Medina, OM; Callejon, AC; Calderin, EMC; Rodríguez, SA; Vidal, RA; Posadas, AS; Colomer, JC; Miró, XD; Castaneda, MB; Porto-Domínguez, AV; Spanish Soc Pediat Pulmonol. *Respiratory outcomes of "new" bronchopulmonary dysplasia in adolescents: A multicenter study*. PEDIATRIC PULMONOLOGY. 2021; 56(5) 1205-1214. FI: 4.09. Cuartil: 1. (Article).
 - Ciancio, G; Farag, A; González, J; Vincenzi, P; Gaynor, JJ. *Results of a previously unreported extravesical ureteroneocystostomy technique without ureteral stenting in 500 consecutive kidney transplant recipients*. PLOS ONE. 2021; 16(1). FI: 3.752. Cuartil: 2. (Article).
 - Suárez-García, I; Perales-Fraile, I; González-García, A; Muñoz-Blanco, A; Manzano, L; Fabregate, M; Díez-Manglano, J; Aizpuru, EF; Fernández, FA; García, AG; Gómez-Huelgas, R; Ramos-Rincón, JM; SEMI-COVID-19 Network. *In-hospital mortality among immunosuppressed patients with COVID-19: Analysis from a national cohort in Spain*. PLOS ONE. 2021; 16(8). FI: 3.752. Cuartil: 2. (Article).
 - García-Consuegra, A; Morales, MG; Cambeiro, M; Tagliaferri, L; Kovacs, G; Van Limbergen, E; Ramos, LI; Arnaiz, JM; Alcalde, J; Lecanda, F; Martínez-Monge, R. *Dose volume histogram constraints in patients with head and neck cancer treated with surgery and adjuvant HDR brachytherapy: A proposal of the head and neck and skin GEC ESTRO Working group*. RADIOTHERAPY AND ONCOLOGY. 2021; 154 128-134. FI: 6.901. Cuartil: 1. (Article).
 - Cabrera, JAB; Henriquez, MS; Díaz-Curiel, M; Molini, PS; García, FA; Montoya, MJ; Filgueira, J; Olmos, JM; Coco-Martín, MB; Castrillon, JLP; Grp OSTEOMED. *Profile of patients who visit medical internists for an osteoporosis assessment: The OSTEOMED registry*. REVISTA CLINICA ESPANOLA. 2021; 221(1) 9-17. FI: 3.064. Cuartil: 2. (Article).
 - Hernández-Rubio, L; Asensio-Asensio, M; Tortosa-Conesa, D; Alfaro-Sáez, A; García-Escriva, A; Díaz-Román, M; Montoya, J; Méndez-Miralles, MA; Bertol-



PUBLICATIONS GENERATED BY CLINICAL RESEARCHERS ASSOCIATED WITH THE IISGM

- Alegre, V; Castro-Vilanova, MD; Galiano, ML; Blanco-Canto, ME; López-González, F. *Alzemon: a prospective follow-up study of eslicarbazepine acetate monotherapy in patients with newly diagnosed epilepsy*. REVISTA DE NEUROLOGIA. 2021; 72(8) 263-268. FI: 1.235. Cuartil: 4. (Article).
- Lainez, JM; Ashina, M; Belvis, R; Díaz-Insa, S; Ezpeleta, D; García-Azorin, D; González-Oria, C; Guerrero, AL; Guillem, A; Holle-Lee, D; Huerta-Villanueva, M; Irimia, P; Leira, R; Pascual, J; Porta-Etessam, J; Pozo-Rosich, P; Rodríguez-Vico, J; del Rio, M. *1st Post-European Headache Federation Meeting: a review of the latest developments presented at the 2020 European Headache Federation Congress*. REVISTA DE NEUROLOGIA. 2021; 72(s02) 1-19. FI: 1.235. Cuartil: 4. (Review).
 - Castro-Conde, A; Abeytua, M; Esteban, VIA; Pérez, PC; González-Gallarza, RD; Benito, FG; Urbano, RJH; Marqués, JT; Vidal-Pérez, R; Núñez-Gil, IJ. *Feasibility and results of an intensive cardiac rehabilitation program. Insights from the MxM (Mas por Menos) randomized trial*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(6) 518-525. FI: 6.975. Cuartil: 1. (Article).
 - Tejedor, P; Simó, V; Arredondo, J; López-Rojo, I; Baixauli, J; Jiménez, LM; Gómez-Ruiz, M; Pastor, C. *The impact of SARS-CoV-2 infection on the surgical management of colorectal cancer: lessons learned from a multicenter study in Spain*. REVISTA ESPANOLA DE ENFERMEDADES DIGESTIVAS. 2021; 113(2) 85-91. FI: 2.389. Cuartil: 4. (Article).
 - Puime, AO; Gutiérrez-Misis, A; Toledo-Bartolomé, D; Sáez-López, P; Gómez-Campelo, P; Ojeda-Thies, C; Matzucchelli, R; González-Montalvo, LI. *The Spanish National Hip Fractures Registry (RNFC) and the Minimum Basic Data Set (CMBD) are useful for research on hip fractures: comparison of two registries*. REVISTA ESPANOLA DE SALUD PUBLICA. 2021; 95. FI: 1.333. Cuartil: 4. (Article).
 - González-Fernández, L; Anez-Ramos, RJ; Montenegro, AMR; Moreno, DM; Percovich-Hualpa, JC. *Metanephrin-producing adrenocortical carcinoma: a case report*. REVISTA LATINOAMERICANA DE HIPERTENSION. 2021; 16(2) 173-. FI: 0.03. Cuartil: 4. (Article).
 - González-Fernández, L; Anez-Ramos, RJ; Rivas-Montenegro, AM; Moreno, DM; Percovich-Hualpa, JC. *Raynaud's phenomenon caused by cabergoline during the treatment of a macroprolactinoma: a case report*. REVISTA LATINOAMERICANA DE HIPERTENSION. 2021; 16(2) 176-180. FI: 0.03. Cuartil: 4. (Article).
 - Fernández-Codina, A; Pinilla, B; Pinal-Fernández, I; Carballo, I; Feijoo-Massó, C; Toledano-Macias, M; De Miguel-Campo, B; Fonseca-Aizpuru, E; Sáez-Comet, L; López-Dupla, M; Hernández-Rodríguez, J; Martínez-Valle, F. *Performance of the 2019 ACR/EULAR classification criteria for IgG4-related disease and clinical phenotypes in a Spanish multicentre registry (REERIGG4)*. RHEUMATOLOGY. 2021; 60(1) 217-223. FI: 7.046. Cuartil: 1. (Article).
 - del Arco, CD; Muñoz, LE; Roldán, EM; Medina, LO; de las Heras, SGG; Chavez, A; Aceñero, MJF. *Proposal for a clinicopathological prognostic score for resected gastric cancer patients*. SAUDI JOURNAL OF GASTROENTEROLOGY. 2021; 27(1) 44-53. FI: 3.214. Cuartil: 3. (Article).
 - Tendilla-Beltrán, H; CoatI-Cuaya, H; Meneses-Prado, S; Vázquez-Roque, RA; Brambila, E; Tapia-Rodríguez, M; Martín-Hernández, D; Garcés-Ramírez, L; Madrigal, JLM; Leza, JC; Flores, G. *Neuroplasticity and inflammatory alterations in the nucleus accumbens are corrected after risperidone treatment in a schizophrenia-related developmental model in rats*. SCHIZOPHRENIA RESEARCH. 2021; 235 17-28. FI: 4.662. Cuartil: 2. (Article).
 - Fernández-Martínez, M; González-Rico, C; Gozalo-Marguello, M; Marco, F; Gracia-Ahufinger, I; Aranzamendi, M; Sánchez-Díaz, AM; Vicente-Rangel, T; Chaves, F; Montes, JC; Martínez-Martínez, L; Fariñas, MC. *Molecular characterization of multidrug resistant Enterobacteriales strains isolated from liver and kidney transplant recipients in Spain*. SCIENTIFIC REPORTS. 2021; 11(1) 11875-11875. FI: 4.996. Cuartil: 2. (Article).
 - Ramos-Casals, M; Pérez-Álvarez, R; Kostov, B; Gómez-de-la-Torre, R; Feijoo-Massó, C; Chara-Cervantes, J; Pinilla, B; González-García, A; García-Morillo, JS; López-Dupla, M; De-Escalante, B; Rascon, J; Pérez-Guerrero, P; Bonet, M; Cruz-Caparrós, G; Alguaci. *Clinical characterization and outcomes of 85 patients with neurosarcoidosis*. SCIENTIFIC REPORTS. 2021; 11(1) 13735-13735. FI: 4.996. Cuartil: 2. (Article).
 - Ramos-Martínez, A; Parra-Ramírez, LM; Morras, I; Carnevali, M; Jiménez-Ibáñez, L; Rubio-Rivas, M; Arnalich, F; Beato, JL; Monge, D; Asin, U; Suárez, C; Freire, SJ; Méndez-Bailón, M; Perales, I; Loureiro-Amigo, J; Gómez-Belda, AB; Pesqueira, PM; Gómez-Huel. *Frequency, risk factors, and outcomes of hospital*



readmissions of COVID-19 patients. SCIENTIFIC REPORTS. 2021; 11(1) 13733-13733. FI: 4.996. Cuartil: 2. (Article).

- Simó, V; Tejedor, P; Jiménez, LM; Hernan, C; Zorilla, J; Arrredondo, J; Lapuente, F; Pastor, C. *Oncological safety of transanal total mesorectal excision (TaTME) for rectal cancer: mid-term results of a prospective multicentre study.* SURGICAL ENDOSCOPY AND OTHER INTERVENTIONAL TECHNIQUES. 2021; 35(4) 1808-1819. FI: 3.453. Cuartil: 2. (Article).
- Ciancio, G; Farag, A; González, J; Gaynor, JJ. *Adrenal tumors of different types with or without tumor thrombus invading the inferior vena cava: An evaluation of 33 cases.* SURGICAL ONCOLOGY-OXFORD. 2021; 37 101544-101544. FI: 2.388. Cuartil: 3. (Article).
- Grossi, F; Jaskiewicz, P; Ferreira, M; Czyzewicz, G; Kowalski, D; Ciuffreda, L; García-Gómez, R; Caruso, S; Bosch-Barrera, J; Gautier, S; Minh, CTT; Henriët, S; de Castro, G. *Oral vinorelbine and cisplatin as first-line therapy for advanced squamous NSCLC patients: a prospective randomized international phase II study (NAVOTrial 03).* THERAPEUTIC ADVANCES IN MEDICAL ONCOLOGY. 2021; 13. FI: 5.485. Cuartil: 2. (Article).
- Alcibar, OL; Nadal, E; Palomar, IR; Navarro-Martín, A. *Systematic review of stereotactic body radiotherapy in stage III non-small cell lung cancer.* TRANSLATIONAL LUNG CANCER RESEARCH. 2021; 10(1) 529-538. FI: 4.726. Cuartil: 2. (Review).
- González, J; Tekin, A; Vincenzi, P; Álvarez, A; Ciancio, G. *Transplantation of En Bloc Pediatric Kidneys With a Bladder Segment Patch After a Complex Vascular Reconstruction: A Case Report.* TRANSPLANTATION PROCEEDINGS. 2021; 53(8) 2524-2528. FI: 1.014. Cuartil: 4. (Article).
- Tejedor, P; Ayora, SG; López, MO; Arellano, ML; Guadalajara, H; García-Olmo, D; Pastor, C. *Implementation barriers for Enhanced Recovery After Surgery (ERAS) in rectal cancer surgery: a comparative analysis of compliance with colon cancer surgeries.* UPDATES IN SURGERY. 2021; 73(6) 2161-2168. FI: 2.692. Cuartil: 2. (Article).
- Di Martino, M; Mora-Guzmán, I; Jodra, WV; Dehesa, AS; Morales-García, D; Ruiz, RC; Nisa, FGM; Mendoza-Moreno, F; Batanero, SA; Sampedro, JEQ; Cumplido, PL; Bravo, AA; Rubio-Pérez, I; Asensio-Gómez, L; Aranda, FP; Farrarons, SSI; Moreno, CR; Moreno, CMM; L. *Laparoscopic cholecystectomy*

for acute cholecystitis: is the surgery still safe beyond the 7-day barrier? A multicentric observational study. UPDATES IN SURGERY. 2021; 73(1) 261-272. FI: 2.692. Cuartil: 2. (Article).

- Ciancio, G; González, J. *Tumor Thrombus Into the Inferior Vena Cava After Resection of Renal Cell Carcinoma: Recurrence or Tumor Thrombus Left Behind?* UROLOGY. 2021; 148 17-22. FI: 2.633. Cuartil: 3. (Article).
- Bravo-Grande, JL; Blanco-González, MA; de la Torre-Robles, JM; Asmat-Inostrosa, MP; Fernández-Escribano, M; Villalobos, IM; Caso-Pita, MC; Hervella-Ordóñez, M; Cimas, LMC; de la Fuente-Martín, JM; de la Pinta, MLR; Olivas, JRB; Muñoz-Ruipérez, C; López, M. *Vaccination adjuvated against hepatitis B in Spanish National Healthcare System (SNS) workers typed as non-responders to conventional vaccines.* VACCINE. 2021; 39(3) 554-563. FI: 4.169. Cuartil: 3. (Article).
- González-Timoneda, A; Hernández, VH; Moya, SP; Blázquez, RA. *Experiences and attitudes of midwives during the birth of a pregnant woman with COVID-19 infection: A qualitative study.* WOMEN AND BIRTH. 2021; 34(5) 465-472. FI: 3.349. Cuartil: 1. (Article).
- Podda, M; Sylla, P; Baiocchi, G; Adamina, M; Agnoletti, V; Agresta, F; Ansaloni, L; Arezzo, A; Avenia, N; Biffi, W; Biondi, A; Bui, S; Campanile, FC; Carcoforo, P; Comisso, C; Crucitti, A; De'Angelis, N; De'Angelis, GL; De Filippo, M; De Simone, B; Di Sa. *Multidisciplinary management of elderly patients with rectal cancer: recommendations from the SICG (Italian Society of Geriatric Surgery), SIFIPAC (Italian Society of Surgical Pathophysiology), SICE (Italian Society of Endoscopic Surgery and new technolog.* WORLD JOURNAL OF EMERGENCY SURGERY. 2021; 16(1) 35-35. FI: 8.165. Cuartil: 1. (Review).
- Pignatti, M; D'Arpa, S; Roche, N; Giorgini, FA; Lusetti, IL; Lorca-García, C; De Santis, G; Berenguer, B. *Surgical treatment of pressure injuries in children: A multicentre experience.* WOUND REPAIR AND REGENERATION. 2021; 29(6) 961-972. FI: 3.401. Cuartil: 2. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Pingarron, JAP; Gala, LG; Pliego, ES. *Giant cell granuloma of nasal septum.* ACTA OTORRINOLARINGOLOGICA ESPANOLA. 2021; 72(3) 203-204. (Editorial Material).



PUBLICATIONS GENERATED BY CLINICAL RESEARCHERS ASSOCIATED WITH THE IISGM

- Rodríguez-Lomba, E; Lozano-Masdemont, B. *Lisch Nodules: A Key Diagnostic Sign of Neurofibromatosis Type 1*. ACTAS Dermo-Sifiliográficas. 2021; 112(5) 459-460. (Editorial Material).
- Vincenzi, P; Álvarez, A; González, J; Guerra, G; Ciancio, G. *Transplantation of 2-Month-Old En Bloc Pediatric Kidneys After a Complex Vascular Reconstruction - Traveling 2500 Miles to Get Transplanted: A Case Report*. AMERICAN JOURNAL OF CASE REPORTS. 2021; 22. (Article).
- Sánchez, FSL; Asensio, LMR. *José Goyanes. Experimental contributions to vascular surgery*. ANGIOLOGIA. 2021; 73(1) 44-46. (Editorial Material).
- Ferreira, LMP; Auger, C; Zubizarreta, IK; Chinchon, GG; Herrera, I; Pla, A; de Barros, A; Tortajada, C; Rovira, A. *MRI findings in cervical spondylotic myelopathy with gadolinium enhancement: Review of seven cases*. BJR CASE REPORTS. 2021; 7(2). (Review).
- Jue, JS; Mikhail, D; González, J; Alameddine, M. *Assessment of Renal Function in Transgender Patients With Kidney Disease*. CANADIAN JOURNAL OF KIDNEY HEALTH AND DISEASE. 2021; 8. (Letter).
- Carlos, LV; Carlos, NC; Karina, LSM; Sunil, BK; Carlos, PE; Olga, LG. *Comparative study of bacterial microfiltration in the implant-abutment interface, with straight and conical internal connections, in vitro*. CLINICAL AND EXPERIMENTAL DENTAL RESEARCH. 2021; 7(6) 1014-1024. (Article).
- Fernández-López, I; Pena-Otero, D; Atin-Arratibel, MD; Eguillor-Mutiloa, M; Bravo-Llatas, C; Genoves-Crespo, M; Callejas-González, FJ. *Effects of diaphragm muscle treatment in shoulder pain and mobility in subjects with rotator cuff injuries: A dataset derived from a pilot clinical trial*. DATA IN BRIEF. 2021; 35 106867-106867. (Article).
- Bermúdez, V; Salazar, J; Martínez, MS; Olivar, LC; Nava, M; Rojas, M; Ortega, A; Anez, R; Toledo, A; Rojas, J; Chacin, M; Rodríguez, JE; D'Marco, L; Cano, C. *Age-specific waist circumference cutoff-points for abdominal obesity diagnosis: a personalized strategy for a large Venezuelan population*. JOURNAL OF DIABETES AND METABOLIC DISORDERS. 2021; 20(1) 217-227. (Article).
- Bermúdez, V; Salazar, J; Fuenmayor, J; Nava, M; Ortega, A; Durán, P; Rojas, M; Anez, R; Rivas-Montenegro, A; Angarita, L; Chacin, M; Cano, C; Velasco, M; Rojas, J. *Lipid Accumulation Product Is More Related to Insulin Resistance than the Visceral Adiposity Index in the Maracaibo City Population, Venezuela*. JOURNAL OF OBESITY. 2021; 2021 5514901-5514901. (Article).
- Parra Gordo ML; Weiland, GB; García, MG; Choperena, GA. *Radiologic aspects of COVID-19 pneumonia: outcomes and thoracic complications*. RADIOLOGIA. 2021; 63(1) 74-88. (Article).
- Gallar, P. *Spanish radiologists' happy journey*. RADIOLOGIA. 2021; 63(5) 385-390. (Editorial Material).
- Vives, M; Hernández, A; González, AD; Torres, J; Cuesta, P; Villen, T; Carmona, P; Nagore, D; Serna, M; Bengoetxea, U; Borrat, X; de Casasola, GG; Sánchez, E; Campo, R; Mercadal, J; SEDAR; SEMI; SEMES. *Diploma on Ultrasound training and competency for Intensive Care and Emergency Medicine: Consensus document of the Spanish Society of Anesthesia (SEDAR), Spanish Society of Internal Medicine (SEMI) and Spanish Society of Emergency Medicine (SEMES)*. REVISTA ESPANOLA DE ANESTESIOLOGIA Y REANIMACION. 2021; 68(3) 143-148. (Article).
- de la Varga, O; Galve, AI; Romera, A. *Perioperative anesthetic management of reductive glossoplasty in a patient with Beckwith-Wiedemann syndrome*. REVISTA ESPANOLA DE ANESTESIOLOGIA Y REANIMACION. 2021; 68(3) 156-160. (Article).
- Maza, MA; Varela, ECS; Marzano, GEV; Pascual, SF; Luis, JG. *External supervision in multidisciplinary work teams*. REVISTA ROL DE ENFERMERIA. 2021; 44(1) 25-31. (Article).
- Luis, JG; Maza, MA; Martín, JS; Salado, RM. *Nurse's social image analysis through television series (2017-2020 period)*. REVISTA ROL DE ENFERMERIA. 2021; 45(5) 48-55. (Article).
- Merino-Sanz, P; Chapinal, A; Sánchez, PGD; Fadul, FZ. *Inferior oblique muscle belly transposition and myopexy for diplopia*. STRABISMUS. 2021; 29(3) 144-150. (Article).
- de Granda-Orive, JI; Pascual-Lledó, JF; Asensio-Sánchez, S; Solano-Reina, S; García-Rueda, M; Martínez-Muñiz, MA; Lázaro-Asegurado, L; Buljubasich, D; Luhning, S; Pendino, RL; Cienfuegos-Agustín, I; Jiménez-Ruiz, CA; Paris, HM. *Is the motivation to quit smoking a predictor of abstinence maintenance?*. TOBACCO PREVENTION & CESSATION. 2021; 7 1-13. (Article).



Other publications

- Núñez-Samper M; Llanos-Alcázar LF; Viladot-Perice R; Viladot-Voegeli A; Álvarez-Goenaga F; Bailey EJ; Parra-Sánchez G; Caldiño-Lozada I; López-Gavito E; Parra-Téllez P. *Pie plano adquirido del adulto por disfunción del tibial posterior. Opciones para el tratamiento quirúrgico*. ACTA ORTOPÉDICA MEXICANA. 2021; 35(1) 92-117. (Article).
- Caño Velasco J; Polanco Pujol L; Herranz Amo F; González García J; Aragón Chamizo J; Hernández Fernández C. *Utility of preoperative vascular embolization of renal tumors with left renal vein tumor thrombus*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(10) 615-622. (Article).
- Polanco Pujol L; Bueno Chomon G; Caño Velasco J; Rodríguez Fernández E; Díez-Cordero JM; Hernández Cavieres J; Blaha I; Hernández Fernández C. *Laparoscopic pyelolithotomy in pelvic ectopic kidney: Case report and literature review*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(6) 419-426. (Article).
- Quintana Álvarez R; Herranz Amo F; Bueno Chomón G; Subirá Ríos D; Bataller Monfort V; Hernández Cavieres J; Hernández Fernández C. *Surgical management of horseshoe kidney tumors. Literature review and analysis of two cases*. ACTAS UROLOGICAS ESPANOLAS. 2021; 45(7) 493-497. (Article).
- Martín-Bejarano M; Ruiz-Sáez B; Martínez-de-Aragón A; Melero H; Zamora B; Malpica NA; Ramos JT; González-Tomé MI. *A Systematic Review of Magnetic Resonance Imaging Studies in Perinatally HIV-Infected Individuals*. AIDS REV. 2021; 23(4) 167-185. (Article).
- Solís-García G; Gutiérrez-Vélez A; Pescador Chamorro I; Zamora-Flores E; Vigil-Vázquez S; Rodríguez-Corrales E; Sánchez-Luna M. *Epidemiology, management and risk of SARS-CoV-2 transmission in a cohort of newborns born to mothers diagnosed with COVID-19 infection*. ANALES DE PEDIATRIA. 2021; 94(3) 173-178. (Article).
- Cuevas Bravo C; Crespo Quirós J; Noguerado Mellado B; Rojas Pérez-Ezquerria P. *Furacin: More than just contact dermatitis from nitrofurazone*. ANNALS OF ALLERGY ASTHMA & IMMUNOLOGY. 2021; 127(3) 389-390. (Article).
- Taboada AGM; Lominchar PL; Román LM; García-Alfonso P; Martín AJM; Rodríguez JAB; Pascual JMA. *Advances in neoadjuvant therapy for resectable pancreatic cancer over the past two decades*. ANNALS OF HEPATO-BILIARY-PANCREATIC SURGERY. 2021; 25(2) 179-191. (Article).
- Merino Sanz P; Ruiz Del Tiempo MP; Gómez de Liaño Sánchez P. *Efficacy and complications of transposition surgery in Duane esotropia syndrome*. ARCHIVOS DE LA SOCIEDAD ESPANOLA DE OFTALMOLOGIA. 2021; 96(1) 3-9. (Article).
- Carrasco I; Muñoz-Chapuli M; Vigil-Vázquez S; Aguilera-Alonso D; Hernández C; Sánchez-Sánchez C; Oliver C; Ríaza M; Pareja M; Sanz O; Pérez-Seoane B; López J; Márquez E; Domínguez-Rodríguez S; Hernanz-Lobo A; De León-Luis JA; Sánchez-Luna M; Navarro ML. *SARS-COV-2 infection in pregnant women and newborns in a Spanish cohort (GESNEO-COVID) during the first wave*. BMC PREGNANCY AND CHILDBIRTH. 2021; 21(1) 326-326. (Article).
- Lafuente-Romero A; Rodríguez Ogando A. *Selexipag use for paediatric pulmonary hypertension: a single centre report focussed on congenital heart disease patients*. CARDIOLOGY IN THE YOUNG. 2021; 31(9) 1513-1515. (Article).
- Ordóñez Pereira J; Pérez Egido L; García-Casillas MA; Del Cañizo A; Fanjul M; de la Torre M; Bada I; Blanco MD; Cerdá J; Molina E; Peláez D; de Agustín JC. *Thyroid surgery in pediatric patients: causes and results*. CIRUGIA PEDIATRICA : ORGANO OFICIAL DE LA SOCIEDAD ESPANOLA DE CIRUGIA PEDIATRICA. 2021; 34(1) 9-14. (Article).
- Bada-Bosch I; de Agustín JC; de la Torre M; Ordóñez J; Blanco MD; Pérez-Egido L; Fanjul M; Del Cañizo A. *Pediatric surgical activity during the SARS-CoV-2 pandemic: experience at a tertiary hospital*. CIRUGIA PEDIATRICA : ORGANO OFICIAL DE LA SOCIEDAD ESPANOLA DE CIRUGIA PEDIATRICA. 2021; 34(1) 28-33. (Article).
- Peláez Mata D; Herrero Álvarez S; Gómez Sánchez A; Pérez Egido L; Corona Bellostas C; de Agustín Asensio JC. *Laparoscopic learning curves*. CIRUGIA PEDIATRICA : ORGANO OFICIAL DE LA SOCIEDAD ESPANOLA DE CIRUGIA PEDIATRICA. 2021; 34(1) 20-27. (Article).
- Arrobas Velilla T; Brea Á; Valdivielso P; Investigadores del proyecto ARA. *Implantation of a biochemical and genetic screening programme for family hypercholesterolaemia. Collaboration between the clinical laboratory and lipid units: Design of the ARIAN Project*. CLINICA E INVESTIGACION EN ARTERIOSCLEROSIS. 2021; 33(6) 289-295. (Article).



PUBLICATIONS GENERATED BY CLINICAL RESEARCHERS ASSOCIATED WITH THE IISGM

- Rivera J; Castrejón I; Vallejo-Slocker L; Offenbächer M; Molina-Collada J; Trives L; López K; Caballero L; Hirsch JK; Toussaint L; Nieto JC; Álvaro-Gracia JM; Vallejo MA. *Clinical impact of confinement due to the COVID-19 pandemic on patients with fibromyalgia: a cohort study*. CLINICAL AND EXPERIMENTAL RHEUMATOLOGY. 2021; 39 Suppl 130(3) 78-81. (Article).
- Berger MM; Appelberg O; Reintam-Blaser A; Ichai C; Joannes-Boyau O; Casaer M; Schaller SJ; Gunst J; Starkopf J; ESICM-MEN section. *Prevalence of hypophosphatemia in the ICU - Results of an international one-day point prevalence survey*. CLINICAL NUTRITION. 2021; 40(5) 3615-3621. (Article).
- Pellino G; Alós R; Biondo S; Codina-Cazador A; Enríquez-Navascues JM; Espin-Basany E; Roig-Vila JV; Cervantes A; García-Granero E. *Trends and outcome of neoadjuvant treatment for rectal cancer: A retrospective analysis and critical assessment of a 10-year prospective national registry on behalf of the Spanish Rectal Cancer Project*. EJSO. 2021; 47(2) 276-284. (Article).
- González Fernández L; Añez Ramos RJ; Rivas Montenegro AM; Brox Torrecilla N; Miguélez González M; Muñoz Moreno D; Atencia Goñi J; Weber B; López Guerra A; Olmedilla Ishishi YL; Percovich Hualpa JC; González Albarrán O; García Centeno R. *Inferior petrosal sinus sampling and stimulation with CRH: 15 years of experience in a tertiary hospital*. ENDOCRINOLOGIA DIABETES Y NUTRICION. 2021; 68(6) 381-388. (Article).
- Díez JJ; Anda E; Sastre J; Pérez-Corral B; Álvarez-Escolá C; Manjón L; Paja M; Sambo M; Santiago-Fernández P; Blanco-Carrera C; Galofré JC; Navarro E; Zafón C; Sanz E; Oleaga A; Bandrés O; Donnay S; Megía A; Picallo M; Sánchez-Ragnarsson C; Baena-Nieto G. *Recovery of parathyroid function in patients with thyroid cancer treated by total thyroidectomy: An analysis of 685 patients with hypoparathyroidism at discharge of surgery*. ENDOCRINOLOGIA DIABETES Y NUTRICION. 2021; 68(6) 398-407. (Article).
- Rodríguez Á; Parra G; Cuervas-Mons M. *Bioactive glass, a new tool for the treatment in the diabetic foot recalcitrant osteomyelitis: A case series with 24-month follow-up*. FOOT. 2021; 48 101831-101831. (Article).
- Dos Santos-Vaquinhas A; Parra G; Martínez P; Sobrón B; Cuervas-Mons M. *Beaming in the Charcot foot: A case series with 12-month minimum follow-up*. FOOT. 2021; 47 101814-101814. (Article).
- Díez JJ; Anda E; Sastre J; Corral BP; Álvarez-Escolá C; Manjón L; Paja M; Sambo M; Fernández PS; Carrera CB; Galofré JC; Navarro E; Zafón C; Sanz E; Oleaga A; Bandrés O; Donnay S; Megía A; Picallo M; Ragnarsson CS; Baena-Nieto G; Fernández-García JC; Lecu. *Correction: Late Recovery of Parathyroid Function after Total Thyroidectomy: A Case-Control Study*. HORMONE AND METABOLIC RESEARCH. 2021; 53(10). (Article).
- Jové Blanco A; González Roca I; Corredor Andrés B; Bellón Alonso S; Rodríguez Cimadevilla J; Rodríguez-Fernández R. *Impact of an Asthma Education Program During Admission*. HOSPITAL PEDIATRICS. 2021; 11(8) 849-855. (Article).
- Rodríguez-Lomba E; Lozano-Masdemont B. *Pinch biopsy: A modified punch biopsy technique to avoid histological artifacts and surgical tools*. INTERNATIONAL JOURNAL OF WOMEN'S DERMATOLOGY. 2021; 7(4) 496-497. (Article).
- Muñoz-Martínez S; Sapena V; Forner A; Nault JC; Sapisochin G; Rimassa L; Sangro B; Bruix J; Sanduzzi-Zamparelli M; Holówko W; El Kassas M; Mocan T; Bouattour M; Merle P; Hoogwater FJH; Alqahtani SA; Reeves HL; Pinato DJ; Giorgakis E; Meyer T; Villadsen GE. *Assessing the impact of COVID-19 on liver cancer management (CERO-19)*. JHEP REPORTS. 2021; 3(3) 100260-100260. (Article).
- Leaman-Alcibar O; Cigaral C; Déniz C; Romero-Palomar I; Navarro-Martin A. *Quality of Life After Stereotactic Body Radiation therapy Versus Video-Assisted Thoracic Surgery in Early stage Non-small Cell Lung Cancer. Is there Enough Data to Make a Recommendation?*. JOURNAL OF CLINICAL AND TRANSLATIONAL RESEARCH. 2021; 7(2) 209-220. (Article).
- Carrasco-Esteban E; Domínguez-Rullán JA; Barrionuevo-Castillo P; Pelari-Mici L; Leaman O; Sastre-Gallego S; López-Campos F. *Current role of nanoparticles in the treatment of lung cancer*. JOURNAL OF CLINICAL AND TRANSLATIONAL RESEARCH. 2021; 7(2) 140-155. (Article).
- Ausín-García C; Cervilla-Muñoz E; Millán-Nuñez-Cortés J. *Long-term consequences of SARS-COV2 infection: Long-Covid patterns and possible public health implications*. MEDICINA CLINICA (ENGLISH ED.). 2021; 157(7). (Article).



- Sancho M; Muñoz J; Cardinal-Fernández P. *Tocilizumab in patients infected by SARS-CoV2*. MEDICINA CLINICA (ENGLISH ED.). 2021; 156(8) 402-406. (Article).
- Olive-Cirera, G; Fonseca, E; Cantarin-Extremuera, V; Vázquez-López, M; Jiménez-Legido, M; González-Álvarez, V; Camacho-Salas, A; Martínez-González, MJ; Saiz, A; Armangue, T. *Impact of COVID-19 in immunosuppressed children with neuroimmunologic disorders*. MULTIPLE SCLEROSIS JOURNAL. 2021; 27(2_SUPPL) 651-652. FI: 5.855. Cuartil: 1. (Meeting Abstract).
- García Moreno B; Buitrago Weiland G; Sánchez Alegre ML; Vanegas Rodríguez JE. *Accelerated Pulmonary Ossification as a Sequela of SARS-CoV-2 Pneumonia*. RADIOLOGY. CARDIOTHORACIC IMAGING. 2021; 3(2). (Article).
- Blázquez Cabrera JA; Sosa Henriquez M; Díaz-Curiel M; Sánchez Molini P; Arranz García F; Montoya MJ; Filgueira J; Olmos JM; Coco-Martín MB; Castrillón JLP; OSTEOMED Group. *Profile of patients who consult with internists for an osteoporosis assessment: The OSTEOMED registry*. REVISTA CLÍNICA ESPAÑOLA. 2021; 221(1) 9-17. (Article).
- Lavilla Olleros C; López-Rubio M; Fanciulli C; González-Munera A; Millán Núñez-Cortés J. *Diplejía facial aislada como variante atípica del síndrome de Guillain-Barré tras sospecha de infección por SARS-CoV-2*. REVISTA DE LA FACULTAD DE CIENCIAS MEDICAS DE CORDOBA. 2021; 78(4) 405-407. (Article).
- Romero Estarlich V; Hernández Benito A; Blanco Parra V; Serra Rexach JA. *Fracaso renal agudo y amiloidosis sistémica AA en nonagenaria*. REVISTA ESPAÑOLA DE GERIATRIA Y GERONTOLOGIA. 2021; 56(3) 184-185. (Article).
- Díaz Del Arco C; Estrada Muñoz L; Ortega Medina L; Fernández Aceñero MJ. *Actualización en cáncer gástrico. Nuevas clasificaciones moleculares*. REVISTA ESPAÑOLA DE PATOLOGIA. 2021; 54(2) 102-113. (Article).
- Rojo F; Colomer R; López-Ríos F; Bautista F; Álvarez R; de Álava E; Hladun R; Garrido P. *Consenso multidisciplinar para optimizar la determinación de alteraciones del gen NTRK*. REVISTA ESPAÑOLA DE PATOLOGIA. 2021; 54(4) 250-262. (Article).
- Díaz Del Arco C; Saiz-Pardo Sanz M; Ortega Medina L; Fernández Aceñero MJ. *Ber-EP4 staining in effusion cytology: A potential source of false positives*. REVISTA ESPAÑOLA DE PATOLOGIA. 2021; 54(2) 114-122. (Article).
- Marín Soria JL; González de Aledo Castillo JM; Argudo Ramírez A; López Galera RM; Pajares García S; Ribes Rubió A; García Villoria J; Yahyaoui Macías R; Álvarez Ríos AI; Melguizo Madrid E; González Irazabal Y; Hernández de Abajo G; Prieto García B; Cardo. *Inicio, evolución y situación actual de los Programas de Cribado Neonatal en España*. REVISTA ESPAÑOLA DE SALUD PUBLICA. 2021; 95. (Article).
- Otero Puime Á; Gutiérrez-Misis A; Toledo-Bartolomé D; Sáez-López P; Gómez-Campelo P; Ojeda-Thies C; Mazzucchelli R; González-Montalvo JI. *El Registro Nacional de Fracturas de Cadera (RNFC) y el Conjunto Mínimo Básico de Datos son útiles para investigar sobre fracturas de cadera: comparación de ambos registros*. REVISTA ESPAÑOLA DE SALUD PUBLICA. 2021; 95. (Article).



Publications generated with the participation of the Research Support Services (RSSs)

Methodology and Biostatistics Unit

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Carrero, A; Berenguer, J; Hontanón, V; Guardiola, JM; Navarro, J; von Wichmann, MA; Téllez, MJ; Quereda, C; Santos, I; Sanz, J; Galindo, MJ; Hernández-Quero, J; Jiménez-Sousa, MA; Pérez-Latorre, L; Bellón, JM; Resino, S; Esteban, H; Martínez, E; González-. *Effects of Hepatitis C Virus (HCV) Eradication on Bone Mineral Density in Human Immunodeficiency Virus/HCV-Coinfected Patients*. CLINICAL INFECTIOUS DISEASES. 2021; 73(7) 2026-2033. FI: 20.999. Cuartil: 1. (Article).
- Medrano, LM; Berenguer, J; Salguero, S; González-García, J; Díez, C; Hontanón, V; García-Broncano, P; Ibáñez-Samaniego, L; Bellón, JM; Jiménez-Sousa, MA; Resino, S. *Successful HCV Therapy Reduces Liver Disease Severity and Inflammation Biomarkers in HIV/HCV-Coinfected Patients With Advanced Cirrhosis: A Cohort Study*. FRONTIERS IN MEDICINE. 2021; 8 615342-615342. FI: 5.058. Cuartil: 2. (Article).
- Aguilera-Alonso D; Sainz T; Jiménez de Ory S; Bernardino I; Díez C; Torres B; Merino D; Iribarren JA; Portilla I; Ríos MJ; Ibarra S; Sanz J; Bellón JM; Carrasco I; Muñoz-Fernández MÁ; Ramos JT; Navarro ML. *Clinical, Immunological and Virological Outcomes among youths with perinatal HIV after Transition to Adult Units in Spain from 1997 to 2016*. JAIDS- JOURNAL OF ACQUIRED IMMUNE DEFICIENCY SYNDROMES. 2021; 86(2) 240-247. FI: 3.771. Cuartil: 3. (Article).
- Fernández-Rubio, ME; Urcelay-Segura, JL; Bellón-Cano, JM; Cuesta-Rodríguez, T. *Association between the clinical and demographic characteristics of patients undergoing cataract surgery and their prevalence of conjunctival bacteria*. JOURNAL OF CATARACT AND REFRACTIVE SURGERY. 2021; 47(8) 1019-1027. FI: 3.528. Cuartil: 2. (Article).
- Barea, JC; De la Gala, F; Pineiro, P; Reyes, A; Simón, C; Rancan, L; Vara, E; Paredes, S; Bellón, JM; Martínez, IG. *Influence of postoperative complications on long-term outcome after oncologic lung resection surgery. Substudy of a randomized control trial*. JOURNAL OF CLINICAL MONITORING AND COMPUTING. 2021; 35(5) 1183-1192. FI: 1.977. Cuartil: 4. (Article).
- Berenguer, J; Borobia, AM; Ryan, P; Rodríguez-Bano, J; Bellón, JM; Jarrín, I; Carratala, J; Pachón, J; Carcas, AJ; Yllescas, M; Arribas, JR; COVID 19 Spain Grp. *Development and validation of a prediction model for 30-day mortality in hospitalised patients with COVID-19: the COVID-19 SEIMC score*. THORAX. 2021; 76(9) 920-929. FI: 9.102. Cuartil: 1. (Article).

Cardiac Imagin Unit

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor:

- de la Nava, AMS; Atienza, F; Bermejo, J; Fernández-Avilés, F. *Artificial intelligence for a personalized diagnosis and treatment of atrial fibrillation*. AMERICAN JOURNAL OF PHYSIOLOGY-HEART AND CIRCULATORY PHYSIOLOGY. 2021; 320(4) 1337-1347. FI: 5.125. Cuartil: 1. (Review).
- Martínez-Solano, J; Sousa-Casasnovas, I; Fernández, MJ; Devesa-Cordero, C; Fernández-Avilés, F; Martínez-Sellés, M. *Emergent Bedside and Anticoagulation-free Veno-venal Extracorporeal Oxygenation Membrane Cannulation in a Patient with Massive Hemoptysis and Unresponsive Shock*. ARCHIVOS DE BRONCONEUMOLOGIA. 2021; 57(1) 71-73. FI: 6.333. Cuartil: 1. (Letter).
- Rossini, L; Braun, OO; Brambatti, M; Benito, Y; Mizeracki, A; Miramontes, M; Nguyen, C; Martínez-Legazpi, P; Almeida, S; Kraushaar, M; Vu, V; May-Newman, K; Bermejo, J; Adler, ED; Kahn, AM; Del Álamo, JC. *Intraventricular Flow Patterns in Patients Treated with Left Ventricular Assist Devices*. ASAIO JOURNAL. 2021; 67(1) 74-83. FI: 3.826. Cuartil: 2. (Article).

- Martínez-Solano, J; Ortiz-Bautista, C; Zataráin-Nicolás, E; Sousa-Casasnovas, I; Pedraz-Prieto, A; Barrio-Gutiérrez, JM; Pascual-Izquierdo, C; Fernández-Avilés, F. *Management of Intracranial Hemorrhage During Pulsatile Long-Term Biventricular Support: When Necessity Is the Mother of Invention*. ASAIO JOURNAL. 2021; 67(10) 172-175. FI: 3.826. Cuartil: 2. (Article).
- de la Nava, AMS; Mansilla, AG; González-Torrecilla, E; Ávila, P; Datino, T; Bermejo, J; Arenal, A; Fernández-Avilés, F; Atienza, F. *Personalized Evaluation of Atrial Complexity of Patients Undergoing Atrial Fibrillation Ablation: A Clinical Computational Study*. BIOLOGY-BASEL. 2021; 10(9). FI: 5.168. Cuartil: 1. (Article).
- Vicent, L; Bruña, V; Devesa, C; Sousa-Casasnovas, I; Juárez, M; Alcalá, L; Muñoz, P; Fernández-Avilés, F; Martínez-Sellés, M. *Ticagrelor and Infection Risk in Patients with Coronary Artery Disease*. CARDIOLOGY. 2021; 146(6) 698-704. FI: 2.342. Cuartil: 3. (Article).
- Grigorian-Shamagian, L; Sanz-Ruiz, R; Climent, A; Badimon, L; Barile, L; Bolli, R; Chamuleau, S; Grobbee, DE; Janssens, S; Kastrup, J; Kragten-Tabatabaie, L; Madonna, R; Mathur, A; Menasche, P; Pompilio, G; Prosper, F; Sena, E; Smart, N; Zimmermann, WH; F. *Insights into therapeutic products, preclinical research models, and clinical trials in cardiac regenerative and reparative medicine: where are we now and the way ahead. Current opinion paper of the ESC Working Group on Cardiovascular Regenerative and Rep*. CARDIOVASCULAR RESEARCH. 2021; 117(6) 1428-1433. FI: 13.081. Cuartil: 1. (Article).
- Prat-Vidal, C; Crisóstomo, V; Moscoso, I; Báez-Díaz, C; Blanco-Blázquez, V; Gómez-Mauricio, G; Albericio, G; Aguilar, S; Fernández-Santos, ME; Fernández-Avilés, F; Sánchez-Margallo, FM; Bayés-Genis, A; Bernad, A. *Intracoronary Delivery of Porcine Cardiac Progenitor Cells Overexpressing IGF-1 and HGF in a Pig Model of Sub-Acute Myocardial Infarction*. CELLS. 2021; 10(10). FI: 7.666. Cuartil: 2. (Article).
- Dehghani, P; Cantor, WJ; Wang, J; Wood, DA; Storey, RF; Mehran, R; Bainey, KR; Welsh, RC; Rodes-Cabau, J; Rao, S; Lavi, S; Velianou, JL; Natarajan, MK; Ziakas, A; Guiducci, V; Fernández-Avilés, F; Cairns, JA; Mehta, SR. *Complete Revascularization in Patients Undergoing a Pharmacoinvasive Strategy for ST-Segment-Elevation Myocardial Infarction Insights From the COMPLETE Trial*. CIRCULATION-CARDIOVASCULAR INTERVENTIONS. 2021; 14(8) 790-799. FI: 7.514. Cuartil: 1. (Article).
- Povsic, TJ; Sanz-Ruiz, R; Climent, AM; Bolli, R; Taylor, DA; Gersh, BJ; Menasche, P; Perin, EC; Pompilio, G; Atsma, DE; Badimon, L; DeMaria, AN; Hare, JM; Henry, TD; Janssens, S; Kastrup, J; Torella, D; Traverse, JH; Willerson, JT; Fernández-Avilés, F. *Reparative cell therapy for the heart: critical internal appraisal of the field in response to recent controversies*. ESC HEART FAILURE. 2021; 8(3) 2306-2309. FI: 3.612. Cuartil: 2. (Article).
- Bermejo, J; Postigo, A; Baumgartner, H. *The year in cardiovascular medicine 2020: valvular heart disease*. EUROPEAN HEART JOURNAL. 2021; 42(6) 647-656. FI: 35.855. Cuartil: 1. (Article).
- Postigo, A; Vernooij, RWM; Fernández-Avilés, F; Martínez-Sellés, M. *Cardiac troponin and infective endocarditis prognosis: a systematic review and meta-analysis*. EUROPEAN HEART JOURNAL-ACUTE CARDIOVASCULAR CARE. 2021; 10(3) 356-366. FI: 4.766. Cuartil: 2. (Review).
- García-Villalba, M; Rossini, L; Gonzalo, A; Vigneault, D; Martínez-Legazpi, P; Durán, E; Flores, O; Bermejo, J; McVeigh, E; Kahn, AM; Del Álamo, JC. *Demonstration of Patient-Specific Simulations to Assess Left Atrial Appendage Thrombogenesis Risk*. FRONTIERS IN PHYSIOLOGY. 2021; 12 596596-596596. FI: 4.755. Cuartil: 1. (Article).
- de la Nava, AMS; Arenal, A; Fernández-Avilés, F; Atienza, F. *Artificial Intelligence-Driven Algorithm for Drug Effect Prediction on Atrial Fibrillation: An in silico Population of Models Approach*. FRONTIERS IN PHYSIOLOGY. 2021; 12 768468-768468. FI: 4.755. Cuartil: 1. (Article).
- Oliver, JM; Gallego, P; González, AE; Ávila, P; Alonso, A; García-Hamilton, D; Peinado, R; Dos-Subira, L; Pijuan-Domenech, A; Rueda, J; Rodríguez-Puras, MJ; García-Orta, R; Martínez-Quintana, E; Datino, T; Fernández-Avilés, F; Bermejo, J; Spanish ACHD Net. *Predicting sudden cardiac death in adults with congenital heart disease*. HEART. 2021; 107(1) 67-75. FI: 7.365. Cuartil: 1. (Article).
- de Paredes, AGG; Manicardi, N; Téllez, L; Ibáñez, L; Royo, F; Bermejo, J; Blanco, C; Fondevila, C; Lanza, VF; García-Bermejo, L; Falcón-Pérez, JM; Bañares, R; Gracia-Sancho, J; Albillos, A. *Molecular Profiling of Decompensated Cirrhosis by a Novel MicroRNA Signature*. HEPATOLOGY COMMUNICATIONS. 2021; 5(2) 309-322. FI: 5.701. Cuartil: 2. (Article).



PUBLICATIONS GENERATED WITH THE PARTICIPATION OF THE RESEARCH SUPPORT SERVICES (RSSS)

- Vicent, L; Álvarez-García, J; González-Juanatey, JR; Rivera, M; Segovia, J; Worner, F; Bover, R; Pascual-Figal, D; Vázquez, R; Cinca, J; Fernández-Avilés, F; Martínez-Sellés, M. *Prognostic impact of hyponatraemia and hypernatraemia at admission and discharge in heart failure patients with preserved, mid-range and reduced ejection fraction*. INTERNAL MEDICINE JOURNAL. 2021; 51(6) 930-938. FI: 2.611. Cuartil: 3. (Article).
- Ibáñez-García, S; Zataráin-Nicolás, E; García-González, X; Rodríguez-Ferrero, ML; Fernández-Yáñez, J; Díaz, FJFA; Sáez, MS. *Levels of tacrolimus after treatment for chronic hepatitis C with direct antiviral agents in solid organ transplant recipients*. INTERNATIONAL JOURNAL OF CLINICAL PHARMACY. 2021; 43(3) 731-736. FI: 2.305. Cuartil: 4. (Article).
- Gómez-Cid, L; López-Donaire, ML; Velasco, D; Marín, V; González, MI; Salinas, B; Cusso, L; García, A; Bravo, SB; Fernández-Santos, ME; Elvira, C; Sierra, J; Arroba, E; Bañares R; Grigorian-Shamagian, L; Fernández-Avilés, F. *Cardiac Extracellular Matrix Hydrogel Enriched with Polyethylene Glycol Presents Improved Gelation Time and Increased On-Target Site Retention of Extracellular Vesicles*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(17). FI: 6.208. Cuartil: 1. (Article).
- Sanz-Ruiz, R; González-Mansilla, A; Rivera-Juárez, A; Bermejo, J; Fernández-Avilés, F. *1-Step Percutaneous Treatment of Heavily Calcified Left-Heart Valve Stenoses*. JACC-CARDIOVASCULAR INTERVENTIONS. 2021; 14(24) 335-337. FI: 11.075. Cuartil: 1. (Editorial Material).
- Vicent, L; Guerra, J; Vázquez-García, R; González-Juanatey, JR; Dolz, LM; Segovia, J; Pascual-Figal, D; Bover, R; Worner, F; Delgado, J; Fernández-Avilés, F; Martínez-Sellés, M. *Ischemic Etiology and Prognosis in Men and Women with Acute Heart Failure*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(8). FI: 4.964. Cuartil: 2. (Article).
- Ortiz-Bautista, C; Fernández-Avilés, F; Jiménez, JFD. *Serum biomarkers of acute rejection: Towards precision medicine in heart transplant*. JOURNAL OF HEART AND LUNG TRANSPLANTATION. 2021; 40(10) 1090-1097. FI: 13.569. Cuartil: 1. (Article).
- Gudiol, C; Durà-Mirallès, X; Aguilar-Company, J; Hernández-Jiménez, P; Martínez-Cutillas, M; Fernández-Avilés, F; Machado, M; Vázquez, L; Martín-Dávila, P; de Castro, N; Abdala, E; Sorli, L; Andermann, TM; Márquez-Gómez, I; Morales, H; Gabilán, F; Ayaz, C. *Co-infections and superinfections complicating COVID-19 in cancer patients: A multicentre, international study*. JOURNAL OF INFECTION. 2021; 83(3) 306-313. FI: 38.637. Cuartil: 1. (Article).
- Thavendiranathan, P; Zhang, LL; Zafar, A; Drobni, ZD; Mahmood, SS; Cabral, M; Awadalla, M; Nohria, A; Zlotoff, DA; Thuny, F; Heinzerling, LM; Barac, A; Sullivan, RJ; Chen, CL; Gupta, D; Kirchberger, MC; Hartmann, SE; Weinsaft, JW; Gilman, HK; Rizvi, MA; K. *Myocardial T1 and T2 Mapping by Magnetic Resonance in Patients With Immune Checkpoint Inhibitor-Associated Myocarditis*. JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY. 2021; 77(12) 1503-1516. FI: 27.203. Cuartil: 1. (Article).
- Bermejo, J; González-Mansilla, A; Mombiola, T; Fernández, AI; Martínez-Legazpi, P; Yotti, R; García-Orta, R; Sánchez-Fernández, PL; Castano, M; Segovia-Cubero, J; Escribano-Subias, P; San Román, JA; Borrás, X; Alonso-Gómez, A; Botas, J; Crespo-Leiro, MG. *Persistent Pulmonary Hypertension in Corrected Valvular Heart Disease: Hemodynamic Insights and Long-Term Survival*. JOURNAL OF THE AMERICAN HEART ASSOCIATION. 2021; 10(2). FI: 6.106. Cuartil: 2. (Article).
- Attia, ZI; Kapa, S; Dugan, J; Pereira, N; Noseworthy, PA; Jiménez, FL; Cruz, J; Carter, RE; DeSimone, DC; Signorino, J; Halamka, J; Gari, NRC; Madathala, RS; Platonov, PG; Gul, F; Janssens, SP; Narayan, S; Upadhyay, GA; Alenghat, FJ; Lahiri, MK; Dujardin. *Rapid Exclusion of COVID Infection With the Artificial Intelligence Electrocardiogram*. MAYO CLINIC PROCEEDINGS. 2021; 96(8) 2081-2094. FI: 11.104. Cuartil: 1. (Article).
- San Antonio, R; Guasch, E; González-Ascaso, A; Jiménez-Arjona, R; Climent, AM; Pujol-López, M; Doltra, A; Alarcón, F; Garre, P; Liberos, A; Trotta, O; Quinto, L; Borrás, R; Arbelo, E; Roca-Luque, I; Atienza, F; Brugada, J; Fernández-Avilés, F; Guillem, MS. *Optimized single-point left ventricular pacing leads to improved resynchronization compared with multipoint pacing*. PACE-PACING AND CLINICAL ELECTROPHYSIOLOGY. 2021; 44(3) 519-527. FI: 1.912. Cuartil: 4. (Article).
- de Cerio, ALD; Pérez-Esténaga, I; Inoges, S; Abizanda, G; Gavira, JJ; Larequi, E; Andreu, E; Rodríguez, S; Gil, AG; Crisóstomo, V; Sánchez-Margallo, FM; Bermejo, J; Jauregui, B; Quintana, L; Fernández-Avilés, F; Pelacho, B; Prosper, F. *Preclinical Evaluation of the Safety and Immunological Action of*



Allogeneic ADSC-Collagen Scaffolds in the Treatment of Chronic Ischemic Cardiomyopathy. PHARMACEUTICS. 2021; 13(8). FI: 6.525. Cuartil: 1. (Article).

- Ghofrani HA; Gómez Sánchez MA; Humbert M; Pittrow D; Simónneau G; Gall H; Grünig E; Klose H; Halank M; Langleben D; Snijder RJ; Escribano Subias P; Mielniczuk LM; Lange TJ; Vachiéry JL; Wirtz H; Helmersen DS; Tsangaris I; Barberá JA; Pepke-Zaba J; Boonstr. *Riociguat treatment in patients with chronic thromboembolic pulmonary hypertension: Final safety data from the EXPERT registry.* RESPIRATORY MEDICINE. 2021; 178 106220-106220. FI: 4.582. Cuartil: 2. (Article).
- Vicent, L; Fernández-Yáñez, J; Mateos, R; Sousa-Casasnovas, I; Fernández-Avilés, F; Martínez-Sellés, M. *Apical ventricular hypertrophy in the transplanted heart: a 20-year single-center experience.* REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(2) 191-194. FI: 6.975. Cuartil: 1. (Letter).
- Bermejo, J; Díez, J; Fernández-Avilés, F. *(Collaborative) cardiovascular research in Spain: quo vadis?.* REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(11) 898-900. FI: 6.975. Cuartil: 1. (Editorial Material).
- Velásquez-Rodríguez, J; Bruña, V; Vicent, L; Díez-Delhoyo, F; Valero-Masa, MJ; Sousa-Casasnovas, I; Juárez, M; Devesa, C; Fernández-Avilés, F; Martínez-Sellés, M. *Influence of left ventricular systolic function on the long-term benefit of beta-blockers after ST-segment elevation myocardial infarction.* REVISTA PORTUGUESA DE CARDIOLOGIA. 2021; 40(4) 285-290. FI: 1.651. Cuartil: 4. (Article).
- Gómez-Cid, L; Grigorian-Shamagian, L; Sanz-Ruiz, R; de la Nava, AS; Fernández, AI; Fernández-Santos, ME; Fernández-Avilés, F. *The Essential Need for a Validated Potency Assay for Cell-Based Therapies in Cardiac Regenerative and Reparative Medicine. A Practical Approach to Test Development.* STEM CELL REVIEWS AND REPORTS. 2021; 17(6) 2235-2244. FI: 6.692. Cuartil: 1. (Article).
- Fernández, AI; Bermejo, J; Yotti, R; Martínez-González, MA; Mira, A; Gophna, U; Karlsson, R; Al-Daccak, R; Martín-Demiguel, I; Gutiérrez-Ibanes, E; Charron, D; Fernández-Avilés, F; MEDIMACS Res Team. *The impact of Mediterranean diet on coronary plaque vulnerability, microvascular function, inflammation and microbiome after an acute coronary syndrome: study protocol for the MEDIMACS randomized, controlled, mechanistic clinical trial.* TRIALS. 2021; 22(1) 795-795. FI: 2.728. Cuartil: 4. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Flores, CH; del Villar, CP; Fernández-Avilés, F; Bermejo, J. *A multifactorial aetiology for dilated cardiomyopathy.* EUROPEAN HEART JOURNAL-CASE REPORTS. 2021; 5(6). (Editorial Material).
- Méndez, I; Fernández, AI; Espinosa, MA; Cuenca, S; Lorca, R; Rodríguez, JF; Tamargo, M; García-Montero, M; Gómez, C; Vilches, S; Vázquez, N; Álvarez, R; Medrano, C; Yotti, R; Fernández-Avilés, F; Bermejo, J. *Founder mutation in myosin-binding protein C with an early onset and a high penetrance in males.* OPEN HEART. 2021; 8(2). (Article).

Cell Therapy Unit

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Gutiérrez-Seijo, A; García-Martínez, E; Barrio-Alonso, C; Pareja-Malagón, M; Acosta-Ocampo, A; Fernández-Santos, ME; Puig-Kroger, A; Parra-Blanco, V; Mercader, E; Márquez-Rodas, I; Avilés-Izquierdo, JA; Samaniego, R; Sánchez-Mateos, P. *CCL20/TNF/VEGFA Cytokine Secretory Phenotype of Tumor-Associated Macrophages Is a Negative Prognostic Factor in Cutaneous Melanoma.* CANCERS. 2021; 13(16). FI: 6.575. Cuartil: 1. (Article).
- Prat-Vidal, C; Crisóstomo, V; Moscoso, I; Báez-Díaz, C; Blanco-Blázquez, V; Gómez-Mauricio, G; Albericio, G; Aguilar, S; Fernández-Santos, ME; Fernández-Avilés, F; Sánchez-Margallo, FM; Bayés-Genis, A; Bernad, A. *Intracoronary Delivery of Porcine Cardiac Progenitor Cells Overexpressing IGF-1 and HGF in a Pig Model of Sub-Acute Myocardial Infarction.* CELLS. 2021; 10(10). FI: 7.666. Cuartil: 2. (Article).
- Gómez-Cid, L; Grigorian-Shamagian, L; Sanz-Ruiz, R; de la Nava, AS; Fernández, AI; Fernández-Santos, ME; Fernández-Avilés, F. *The Essential Need for a Validated Potency Assay for Cell-Based Therapies in Cardiac Regenerative and Reparative Medicine. A Practical Approach to Test Development.* STEM CELL REVIEWS AND REPORTS. 2021; 17(6) 2235-2244. FI: 6.692. Cuartil: 1. (Article).
- Soria-Juan, B; García-Arranz, M; Jiménez, LL; Aparicio, C; González, A; Fernández, IM; del Moral, LR; Grochowicz, L; Andreu, EJ; Marín, P; Castellanos, G; Moraleda, JM; García-Hernández, AM; Lozano, FS; Sánchez-Guijo, F; Villarón,



PUBLICATIONS GENERATED WITH THE PARTICIPATION OF THE RESEARCH SUPPORT SERVICES (RSSS)

EM; Parra, ML; Yáñez, RM. *Efficacy and safety of intramuscular administration of allogeneic adipose tissue derived and expanded mesenchymal stromal cells in diabetic patients with critical limb ischemia with no possibility of revascularization: study protocol for a randomized cont.* TRIALS. 2021; 22(1) 595-595. FI: 2.728. Cuartil: 4. (Article).

Traslational Cardiology Laboratory

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- de la Nava, AMS; Atienza, F; Bermejo, J; Fernández-Avilés, F. *Artificial intelligence for a personalized diagnosis and treatment of atrial fibrillation.* AMERICAN JOURNAL OF PHYSIOLOGY-HEART AND CIRCULATORY PHYSIOLOGY. 2021; 320(4) 1337-1347. FI: 5.125. Cuartil: 1. (Review).
- Martínez-Solano, J; Sousa-Casasnovas, I; Fernández, MJ; Devesa-Cordero, C; Fernández-Avilés, F; Martínez-Sellés, M. *Emergent Bedside and Anticoagulation-free Veno-venal Extracorporeal Oxygenation Membrane Cannulation in a Patient with Massive Hemoptysis and Unresponsive Shock.* ARCHIVOS DE BRONCONEUMOLOGIA. 2021; 57(1) 71-73. FI: 6.333. Cuartil: 1. (Letter).
- Martínez-Solano, J; Ortiz-Bautista, C; Zataráin-Nicolás, E; Sousa-Casasnovas, I; Pedraz-Prieto, A; Barrio-Gutiérrez, JM; Pascual-Izquierdo, C; Fernández-Avilés, F. *Management of Intracranial Hemorrhage During Pulsatile Long-Term Biventricular Support: When Necessity Is the Mother of Invention.* ASAIO JOURNAL. 2021; 67(10) 172-175. FI: 3.826. Cuartil: 2. (Article).
- de la Nava, AMS; Mansilla, AG; González-Torrecilla, E; Ávila, P; Datino, T; Bermejo, J; Arenal, A; Fernández-Avilés, F; Atienza, F. *Personalized Evaluation of Atrial Complexity of Patients Undergoing Atrial Fibrillation Ablation: A Clinical Computational Study.* BIOLOGY-BASEL. 2021; 10(9). FI: 5.168. Cuartil: 1. (Article).
- Gutiérrez-Seijo, A; García-Martínez, E; Barrio-Alonso, C; Pareja-Malagón, M; Acosta-Ocampo, A; Fernández-Santos, ME; Puig-Kroger, A; Parra-Blanco, V; Mercader, E; Márquez-Rodas, I; Avilés-Izquierdo, JA; Samaniego, R; Sánchez-Mateos, P. *CCL20/TNF/VEGFA Cytokine Secretory Phenotype of Tumor-Associated Macrophages Is a Negative Prognostic Factor in Cutaneous Melanoma.* CANCERS. 2021; 13(16). FI: 6.575. Cuartil: 1. (Article).
- Vicent, L; Bruña, V; Devesa, C; Sousa-Casasnovas, I; Juárez, M; Alcalá, L; Muñoz, P; Fernández-Avilés, F; Martínez-Sellés, M. *Ticagrelor and Infection Risk in Patients with Coronary Artery Disease.* CARDIOLOGY. 2021; 146(6) 698-704. FI: 2.342. Cuartil: 3. (Article).
- Grigorian-Shamagian, L; Sanz-Ruiz, R; Climent, A; Badimon, L; Barile, L; Bolli, R; Chamuleau, S; Grobbee, DE; Janssens, S; Kastrup, J; Kragten-Tabatabaie, L; Madonna, R; Mathur, A; Menasche, P; Pompilio, G; Prosper, F; Sena, E; Smart, N; Zimmermann, WH; F. *Insights into therapeutic products, preclinical research models, and clinical trials in cardiac regenerative and reparative medicine: where are we now and the way ahead. Current opinion paper of the ESC Working Group on Cardiovascular Regenerative and Rep.* CARDIOVASCULAR RESEARCH. 2021; 117(6) 1428-1433. FI: 13.081. Cuartil: 1. (Article).
- Prat-Vidal, C; Crisóstomo, V; Moscoso, I; Báez-Díaz, C; Blanco-Blázquez, V; Gómez-Mauricio, G; Albericio, G; Aguilar, S; Fernández-Santos, ME; Fernández-Avilés, F; Sánchez-Margallo, FM; Bayés-Genis, A; Bernad, A. *Intracoronary Delivery of Porcine Cardiac Progenitor Cells Overexpressing IGF-1 and HGF in a Pig Model of Sub-Acute Myocardial Infarction.* CELLS. 2021; 10(10). FI: 7.666. Cuartil: 2. (Article).
- Dehghani, P; Cantor, WJ; Wang, J; Wood, DA; Storey, RF; Mehran, R; Bainey, KR; Welsh, RC; Rodes-Cabau, J; Rao, S; Lavi, S; Velianou, JL; Natarajan, MK; Ziakas, A; Guiducci, V; Fernández-Avilés, F; Cairns, JA; Mehta, SR. *Complete Revascularization in Patients Undergoing a Pharmacoinvasive Strategy for ST-Segment-Elevation Myocardial Infarction Insights From the COMPLETE Trial.* CIRCULATION-CARDIOVASCULAR INTERVENTIONS. 2021; 14(8) 790-799. FI: 7.514. Cuartil: 1. (Article).
- Povsic, TJ; Sanz-Ruiz, R; Climent, AM; Bolli, R; Taylor, DA; Gersh, BJ; Menasche, P; Perin, EC; Pompilio, G; Atsma, DE; Badimon, L; DeMaria, AN; Hare, JM; Henry, TD; Janssens, S; Kastrup, J; Torella, D; Traverse, JH; Willerson, JT; Fernández-Avilés, F. *Reparative cell therapy for the heart: critical internal appraisal of the field in response to recent controversies.* ESC HEART FAILURE. 2021; 8(3) 2306-2309. FI: 3.612. Cuartil: 2. (Article).
- Postigo, A; Vernooij, RWM; Fernández-Avilés, F; Martínez-Sellés, M. *Cardiac troponin and infective endocarditis prognosis: a systematic review and meta-analysis.* EUROPEAN HEART JOURNAL-ACUTE CARDIOVASCULAR CARE. 2021; 10(3) 356-366. FI: 4.766. Cuartil: 2. (Review).



- de la Nava, AMS; Arenal, A; Fernández-Avilés, F; Atienza, F. *Artificial Intelligence-Driven Algorithm for Drug Effect Prediction on Atrial Fibrillation: An in silico Population of Models Approach*. FRONTIERS IN PHYSIOLOGY. 2021; 12 768468-768468. FI: 4.755. Cuartil: 1. (Article).
- Santillan-García, A; Oliver, E; Shamagian, LG; Climent, AM; Melchor, L. *Ciencia en el Parlamento: the need for a parliamentary office of science and technology advice*. GACETA SANITARIA. 2021; 35(3) 293-297. FI: 2.479. Cuartil: 3. (Article).
- Oliver, JM; Gallego, P; González, AE; Ávila, P; Alonso, A; García-Hamilton, D; Peinado, R; Dos-Subira, L; Pijuan-Domenech, A; Rueda, J; Rodríguez-Puras, MJ; García-Orta, R; Martínez-Quintana, E; Datino, T; Fernández-Avilés, F; Bermejo, J; Spanish ACHD Net. *Predicting sudden cardiac death in adults with congenital heart disease*. HEART. 2021; 107(1) 67-75. FI: 7.365. Cuartil: 1. (Article).
- Vicent, L; Álvarez-García, J; González-Juanatey, JR; Rivera, M; Segovia, J; Worner, F; Bover, R; Pascual-Figal, D; Vázquez, R; Cinca, J; Fernández-Avilés, F; Martínez-Sellés, M. *Prognostic impact of hyponatraemia and hypernatraemia at admission and discharge in heart failure patients with preserved, mid-range and reduced ejection fraction*. INTERNAL MEDICINE JOURNAL. 2021; 51(6) 930-938. FI: 2.611. Cuartil: 3. (Article).
- Ibáñez-García, S; Zataráin-Nicolás, E; García-González, X; Rodríguez-Ferrero, ML; Fernández-Yáñez, J; Díaz, FJFA; Sáez, MS. *Levels of tacrolimus after treatment for chronic hepatitis C with direct antiviral agents in solid organ transplant recipients*. INTERNATIONAL JOURNAL OF CLINICAL PHARMACY. 2021; 43(3) 731-736. FI: 2.305. Cuartil: 4. (Article).
- Gómez-Cid, L; López-Donaire, ML; Velasco, D; Marín, V; González, MI; Salinas, B; Cusso, L; García, A; Bravo, SB; Fernández-Santos, ME; Elvira, C; Sierra, J; Arroba, E; Bañares R; Grigorian-Shamagian, L; Fernández-Avilés, F. *Cardiac Extracellular Matrix Hydrogel Enriched with Polyethylene Glycol Presents Improved Gelation Time and Increased On-Target Site Retention of Extracellular Vesicles*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(17). FI: 6.208. Cuartil: 1. (Article).
- Sanz-Ruiz, R; González-Mansilla, A; Rivera-Juárez, A; Bermejo, J; Fernández-Avilés, F. *1-Step Percutaneous Treatment of Heavily Calcified Left-Heart Valve Stenoses*. JACC-CARDIOVASCULAR INTERVENTIONS. 2021; 14(24) 335-337. FI: 11.075. Cuartil: 1. (Editorial Material).
- Vicent, L; Guerra, J; Vázquez-García, R; González-Juanatey, JR; Dolz, LM; Segovia, J; Pascual-Figal, D; Bover, R; Worner, F; Delgado, J; Fernández-Avilés, F; Martínez-Sellés, M. *Ischemic Etiology and Prognosis in Men and Women with Acute Heart Failure*. JOURNAL OF CLINICAL MEDICINE. 2021; 10(8). FI: 4.964. Cuartil: 2. (Article).
- Ortiz-Bautista, C; Fernández-Avilés, F; Jiménez, JFD. *Serum biomarkers of acute rejection: Towards precision medicine in heart transplant*. JOURNAL OF HEART AND LUNG TRANSPLANTATION. 2021; 40(10) 1090-1097. FI: 13.569. Cuartil: 1. (Article).
- Gudiol, C; Durà-Miralles, X; Aguilar-Company, J; Hernández-Jiménez, P; Martínez-Cutillas, M; Fernández-Avilés, F; Machado, M; Vázquez, L; Martín-Dávila, P; de Castro, N; Abdala, E; Sorli, L; Andermann, TM; Márquez-Gómez, I; Morales, H; Gabilán, F; Ayaz, C. *Co-infections and superinfections complicating COVID-19 in cancer patients: A multicentre, international study*. JOURNAL OF INFECTION. 2021; 83(3) 306-313. FI: 38.637. Cuartil: 1. (Article).
- Thavendiranathan, P; Zhang, LL; Zafar, A; Drobni, ZD; Mahmood, SS; Cabral, M; Awadalla, M; Nohria, A; Zlotoff, DA; Thuny, F; Heinzerling, LM; Barac, A; Sullivan, RJ; Chen, CL; Gupta, D; Kirchberger, MC; Hartmann, SE; Weinsaft, JW; Gilman, HK; Rizvi, MA; K. *Myocardial T1 and T2 Mapping by Magnetic Resonance in Patients With Immune Checkpoint Inhibitor-Associated Myocarditis*. JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY. 2021; 77(12) 1503-1516. FI: 27.203. Cuartil: 1. (Article).
- Bermejo, J; González-Mansilla, A; Mombiola, T; Fernández, AI; Martínez-Legazpi, P; Yotti, R; García-Orta, R; Sánchez-Fernández, PL; Castano, M; Segovia-Cubero, J; Escribano-Subias, P; San Román, JA; Borrás, X; Alonso-Gómez, A; Botas, J; Crespo-Leiro, MG. *Persistent Pulmonary Hypertension in Corrected Valvular Heart Disease: Hemodynamic Insights and Long-Term Survival*. JOURNAL OF THE AMERICAN HEART ASSOCIATION. 2021; 10(2). FI: 6.106. Cuartil: 2. (Article).
- Attia, ZI; Kapa, S; Dugan, J; Pereira, N; Noseworthy, PA; Jiménez, FL; Cruz, J; Carter, RE; DeSimone, DC; Signorino, J; Halamka, J; Gari, NRC; Madathala, RS; Platonov, PG; Gul, F; Janssens, SP; Narayan, S; Upadhyay, GA; Alenghat, FJ;



PUBLICATIONS GENERATED WITH THE PARTICIPATION OF THE RESEARCH SUPPORT SERVICES (RSSS)

Lahiri, MK; Dujardin. *Rapid Exclusion of COVID Infection With the Artificial Intelligence Electrocardiogram*. MAYO CLINIC PROCEEDINGS. 2021; 96(8) 2081-2094. FI: 11.104. Cuartil: 1. (Article).

- San Antonio, R; Guasch, E; González-Ascaso, A; Jiménez-Arjona, R; Climent, AM; Pujol-López, M; Doltra, A; Alarcón, F; Garre, P; Liberos, A; Trotta, O; Quinto, L; Borrás, R; Arbelo, E; Roca-Luque, I; Atienza, F; Brugada, J; Fernández-Avilés, F; Guillem, MS. *Optimized single-point left ventricular pacing leads to improved resynchronization compared with multipoint pacing*. PACE-PACING AND CLINICAL ELECTROPHYSIOLOGY. 2021; 44(3) 519-527. FI: 1.912. Cuartil: 4. (Article).
- de Cerio, ALD; Pérez-Esténaga, I; Inoges, S; Abizanda, G; Gavira, JJ; Larequi, E; Andreu, E; Rodríguez, S; Gil, AG; Crisóstomo, V; Sánchez-Margallo, FM; Bermejo, J; Jauregui, B; Quintana, L; Fernández-Avilés, F; Pelacho, B; Prosper, F. *Preclinical Evaluation of the Safety and Immunological Action of Allogeneic ADSC-Collagen Scaffolds in the Treatment of Chronic Ischemic Cardiomyopathy*. PHARMACEUTICS. 2021; 13(8). FI: 6.525. Cuartil: 1. (Article).
- Ghofrani HA; Gómez Sánchez MA; Humbert M; Pittrow D; Simónneau G; Gall H; Grünig E; Klose H; Halank M; Langleben D; Snijder RJ; Escribano Subias P; Mielniczuk LM; Lange TJ; Vachiéry JL; Wirtz H; Helmersen DS; Tsangaris I; Barberá JA; Pepke-Zaba J; Boonstr. *Riociguat treatment in patients with chronic thromboembolic pulmonary hypertension: Final safety data from the EXPERT registry*. RESPIRATORY MEDICINE. 2021; 178 106220-106220. FI: 4.582. Cuartil: 2. (Article).
- Vicent, L; Fernández-Yáñez, J; Mateos, R; Sousa-Casasnovas, I; Fernández-Avilés, F; Martínez-Sellés, M. *Apical ventricular hypertrophy in the transplanted heart: a 20-year single-center experience*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(2) 191-194. FI: 6.975. Cuartil: 1. (Letter).
- Bermejo, J; Díez, J; Fernández-Avilés, F. *(Collaborative) cardiovascular research in Spain: quo vadis?*. REVISTA ESPANOLA DE CARDIOLOGIA. 2021; 74(11) 898-900. FI: 6.975. Cuartil: 1. (Editorial Material).
- Velásquez-Rodríguez, J; Bruña, V; Vicent, L; Díez-Delhoyo, F; Valero-Masa, MJ; Sousa-Casasnovas, I; Juárez, M; Devesa, C; Fernández-Avilés, F; Martínez-Sellés, M. *Influence of left ventricular systolic function on the long-term*

benefit of beta-blockers after ST-segment elevation myocardial infarction. REVISTA PORTUGUESA DE CARDIOLOGIA. 2021; 40(4) 285-290. FI: 1.651. Cuartil: 4. (Article).

- Gómez-Cid, L; Grigorian-Shamagian, L; Sanz-Ruiz, R; de la Nava, AS; Fernández, AI; Fernández-Santos, ME; Fernández-Avilés, F. *The Essential Need for a Validated Potency Assay for Cell-Based Therapies in Cardiac Regenerative and Reparative Medicine. A Practical Approach to Test Development*. STEM CELL REVIEWS AND REPORTS. 2021; 17(6) 2235-2244. FI: 6.692. Cuartil: 1. (Article).
- Fernández, AI; Bermejo, J; Yotti, R; Martínez-González, MA; Mira, A; Gophna, U; Karlsson, R; Al-Daccak, R; Martín-Demiguel, I; Gutiérrez-Ibanes, E; Charron, D; Fernández-Avilés, F; MEDIMACS Res Team. *The impact of Mediterranean diet on coronary plaque vulnerability, microvascular function, inflammation and microbiome after an acute coronary syndrome: study protocol for the MEDIMACS randomized, controlled, mechanistic clinical trial*. TRIALS. 2021; 22(1) 795-795. FI: 2.728. Cuartil: 4. (Article).
- Soria-Juan, B; García-Arranz, M; Jiménez, LL; Aparicio, C; González, A; Fernández, IM; del Moral, LR; Grochowicz, L; Andreu, EJ; Marín, P; Castellanos, G; Moraleda, JM; García-Hernández, AM; Lozano, FS; Sánchez-Guijo, F; Villarón, EM; Parra, ML; Yáñez, RM. *Efficacy and safety of intramuscular administration of allogeneic adipose tissue derived and expanded mesenchymal stromal cells in diabetic patients with critical limb ischemia with no possibility of revascularization: study protocol for a randomized cont*. TRIALS. 2021; 22(1) 595-595. FI: 2.728. Cuartil: 4. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Flores, CH; del Villar, CP; Fernández-Avilés, F; Bermejo, J. *A multifactorial aetiology for dilated cardiomyopathy*. EUROPEAN HEART JOURNAL-CASE REPORTS. 2021; 5(6). (Editorial Material).
- Méndez, I; Fernández, AI; Espinosa, MA; Cuenca, S; Lorca, R; Rodríguez, JF; Tamargo, M; García-Montero, M; Gómez, C; Vilches, S; Vázquez, N; Álvarez, R; Medrano, C; Yotti, R; Fernández-Avilés, F; Bermejo, J. *Founder mutation in myosin-binding protein C with an early onset and a high penetrance in males*. OPEN HEART. 2021; 8(2). (Article).



Biobank**Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor**

- Sainz, T; Delgado, J; Méndez-Echevarría, A; Santiago, B; López-Varela, E; Aguilera-Alonso, D; Saavedra-Lozano, J; Rodríguez-Fernández, R; Holguín, A; Navarro, ML; Muñoz-Fernández, MA; Rivero-Calle, I; Solána, MJ; López-Herce, J; Calvo, C. *The clinical relevance of the microbiome when managing paediatric infectious diseases-Narrative review*. ACTA PAEDIATRICA. 2021; 110(2) 441-449. FI: 4.056. Cuartil: 1. (Review).
- Genebat, M; Tarancón-Diez, L; de Pablo-Bernal, R; Calderón, A; Muñoz-Fernández, MA; Leal, M. *Coronavirus Disease (COVID-19): A Perspective from Immunosenescence*. AGING AND DISEASE. 2021; 12(1) 3-6. FI: 9.968. Cuartil: 1. (Letter).
- Petit, E; Bosch, L; Costa, AM; Rodríguez-Izquierdo, I; Sepulveda-Crespo, D; Muñoz-Fernández, MA; Vilarrasa, J. *BMS Derivatives C7-Linked to beta-Cyclodextrin and Hyperbranched Polyglycerol Retain Activity against R5-HIV-1(NLAD8) Isolates and Can Be Deemed Potential Microbicides*. CHEMMEDCHEM. 2021; 16(14) 2217-2222. FI: 3.54. Cuartil: 3. (Article).
- Rodríguez-Fernández, R; González-Martínez, F; González-Sánchez, MI; Hernández-Sampelayo, T; Jiménez, JL; Muñoz-Fernández, MA; García-Martos, C; Mejías, A; Ramilo, O. *Longitudinal plasma cytokine concentrations and recurrent wheezing after RSV bronchiolitis*. CYTOKINE. 2021; 140 155434-155434. FI: 3.926. Cuartil: 3. (Article).
- Gasco, S; Muñoz-Fernández, MA. *A Review on the Current Knowledge on ZIKV Infection and the Interest of Organoids and Nanotechnology on Development of Effective Therapies against Zika Infection*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(1). FI: 6.208. Cuartil: 1. (Review).
- Relano-Rodríguez, I; Espinar-Buitrago, MD; Martín-Canadilla, V; Gómez-Ramírez, R; Muñoz-Fernández, MA. *G2-S16 Polyanionic Carbosilane Dendrimer Can Reduce HIV-1 Reservoir Formation by Inhibiting Macrophage Cell to Cell Transmission*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(16). FI: 6.208. Cuartil: 1. (Article).
- Magro-López E; Muñoz-Fernández M. *The Role of BMP Signaling in Female Reproductive System Development and Function*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(21). FI: 6.208. Cuartil: 1. (Article).
- Aguilera-Alonso D; Sainz T; Jiménez de Ory S; Bernardino I; Díez C; Torres B; Merino D; Iribarren JA; Portilla I; Ríos MJ; Ibarra S; Sanz J; Bellón JM; Carrasco I; Muñoz-Fernández MÁ; Ramos JT; Navarro ML. *Clinical, Immunological and Virological Outcomes among youths with perinatal HIV after Transition to Adult Units in Spain from 1997 to 2016*. JAIDS-JOURNAL OF ACQUIRED IMMUNE DEFICIENCY SYNDROMES. 2021; 86(2) 240-247. FI: 3.771. Cuartil: 3. (Article).
- Tarancón-Diez L; Rull A; Herrero P; Vázquez-Alejo E; Peraire J; Guillén S; Navarro-Gómez ML; Viladés C; Muñoz-Fernández MÁ; Vidal F. *Early antiretroviral therapy initiation effect on metabolic profile in vertically HIV-1-infected children*. JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY. 2021; 76(11) 2993-3001. FI: 5.758. Cuartil: 1. (Article).
- Royo-Rubio, E; Rodríguez-Izquierdo, I; Moreno-Domene, M; Lozano-Cruz, T; de la Mata, FJ; Gómez, R; Muñoz-Fernández, MA; Jiménez, JL. *Promising PEGylated cationic dendrimers for delivery of miRNAs as a possible therapy against HIV-1 infection*. JOURNAL OF NANOBIO TECHNOLOGY. 2021; 19(1) 158-158. FI: 9.429. Cuartil: 1. (Article).
- Relano-Rodríguez, I; Espinar-Buitrago, MS; Martín-Canadilla, V; Gómez-Ramírez, R; Jiménez, JL; Muñoz-Fernández, MA. *Nanotechnology against human cytomegalovirus in vitro: polyanionic carbosilane dendrimers as antiviral agents*. JOURNAL OF NANOBIO TECHNOLOGY. 2021; 19(1) 65-65. FI: 9.429. Cuartil: 1. (Article).
- Carrasco, I; Tarancón-Diez, L; Vázquez-Alejo, E; de Ory, SJ; Sainz, T; Apilánez, M; Epalza, C; Guillén, S; Ramos, JT; Díez, C; Bernardino, JI; Iribarren, JA; Zamora, A; Muñoz-Fernández, MA; Navarro, ML. *Innate and adaptive abnormalities in youth with vertically acquired HIV through a multicentre cohort in Spain*. JOURNAL OF THE INTERNATIONAL AIDS SOCIETY. 2021; 24(10). FI: 6.707. Cuartil: 1. (Article).
- Rodríguez-Izquierdo, I; Cena-Diez, R; Serramia, MJ; Rodríguez-Fernández, R; Martínez, I; Muñoz-Fernández, M. *Role of G2-S16 Polyanionic Carbosilane Dendrimer in the Prevention of Respiratory Syncytial Virus Infection In Vitro and In Vivo in Mice*. POLYMERS. 2021; 13(13). FI: 4.967. Cuartil: 1. (Article).
- Consuegra, I; Gasco, S; Serramia, MJ; Jiménez, JL; Mellado, MJ; Muñoz-Fernández, MA. *Establishment of a miRNA profile in paediatric HIV-1*



PUBLICATIONS GENERATED WITH THE PARTICIPATION OF THE RESEARCH SUPPORT SERVICES (RSSS)

patients and its potential as a biomarker for effectiveness of the combined antiretroviral therapy. SCIENTIFIC REPORTS. 2021; 11(1) 23477-23477. FI: 4.996. Cuartil: 2. (Article).

Experimental operating room

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Quintana-Villamandos, B; Barranco, M; Fernández, I; Ruiz, M; del Cañizo, JF. *New Advances in Monitoring Cardiac Output in Circulatory Mechanical Assistance Devices. A Validation Study in a Porcine Model.* FRONTIERS IN PHYSIOLOGY. 2021; 12 634779-634779. FI: 4.755. Cuartil: 1. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor:

- Calvo-Haro, JA; Pascau, J; Asencio-Pascual, JM; Calvo-Manuel, F; Cancho-Gil, MJ; López, JFD; Fanjul-Gómez, M; García-Leal, R; González-Casaurrán, G; González-Leyte, M; León-Luis, JA; Mediavilla-Santos, L; Ochandiano-Caicoya, S; Pérez-Caballero, R; Ribed-S. *Point-of-care manufacturing: a single university hospital's initial experience.* 3D PRINTING IN MEDICINE. 2021; 7(1) 11-11. (Article).

Animal Facility

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Martín, M; Ramos-Medina, R; Bernat, R; García-Saenz, JA; del Monte-Millán, M; Álvarez, E; Cebollero, M; Moreno, F; González-Haba, E; Bueno, O; Romero, P; Massarrah, T; Echavarría, I; Jerez, Y; Herrero, B; del Val, RG; Lobato, N; Rincón, P; Palomero, MI; M. *Activity of docetaxel, carboplatin, and doxorubicin in patient-derived triple-negative breast cancer xenografts.* SCIENTIFIC REPORTS. 2021; 11(1) 7064-7064. FI: 4.996. Cuartil: 2. (Article).

Medical Imaging laboratory

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Ximendes E; Marin R; Shen Y; Ruiz D; Gómez-Cerezo D; Rodríguez-Sevilla P; Lifante J; Viveros-Méndez PX; Gámez F; García-Soriano D; Salas G; Zalbidea C;

Espinosa A; Benayas A; García-Carrillo N; Cussó L; Desco M; Terán FJ; Juárez BH; Jaque D. *Infrared-Emitting Multimodal Nanostructures for Controlled In Vivo Magnetic Hyperthermia.* ADVANCED MATERIALS. 2021; 33(30). FI: 32.086. Cuartil: 1. (Article).

- González-Rico, J; Núñez-Sardinha, E; Valencia, L; Arias, A; Muñoz-Barrutia, A; Velasco, D; García-González, D. *Tuning the Cell and Biological Tissue Environment through Magneto-Active Materials.* APPLIED SCIENCES-BASEL. 2021; 11(18). FI: 2.838. Cuartil: 2. (Review).
- González, MI; González-Arjona, M; Santos-Coquillat, A; Vaquero, J; Vázquez-Ogando, E; de Molina, A; Peinado, H; Desco, M; Salinas, B. *Covalently Labeled Fluorescent Exosomes for In Vitro and In Vivo Applications.* BIOMEDICINES. 2021; 9(1). FI: 4.757. Cuartil: 2. (Article).
- Calvo-Haro, JA; Pascau, J; Mediavilla-Santos, L; Sanz-Ruiz, P; Sánchez-Pérez, C; Vaquero-Martín, J; Pérez-Mañanes, R. *Conceptual evolution of 3D printing in orthopedic surgery and traumatology: from "do it yourself" to "point of care manufacturing".* BMC MUSCULOSKELETAL DISORDERS. 2021; 22(1) 360-360. FI: 2.562. Cuartil: 3. (Article).
- Martínez-García, M; Paternina-Die, M; Barba-Muller, E; de Blas, DM; Beumala, L; Cortizo, R; Pozzobon, C; Marcos-Vidal, L; Fernández-Pena, A; Picado, M; Belmonte-Padilla, E; Massó-Rodríguez, A; Ballesteros, A; Desco, M; Vilarroya, O; Hoekzema, E; Carmona. *Do Pregnancy-Induced Brain Changes Reverse? The Brain of a Mother Six Years after Parturition.* BRAIN SCIENCES. 2021; 11(2). FI: 3.333. Cuartil: 3. (Article).
- Ortega, F; Gómez-Villafuertes, R; Benito-León, M; de la Torre, MM; Olivos-Ore, LA; Arribas-Blázquez, M; Gómez-Gavio, MV; Azcorra, A; Desco, M; Artalejo, AR; Puelles, L; Miras-Portugal, MT. *Salient brain entities labelled in P2rx7-EGFP reporter mouse embryos include the septum, roof plate glial specializations and circumventricular ependymal organs.* BRAIN STRUCTURE & FUNCTION. 2021; 226(3) 715-741. FI: 3.748. Cuartil: 1. (Article).
- Filgueiras-Rama, D; Vasilijevic, J; Jalife, J; Noujaim, SF; Alfonso, JM; Nicolás-Ávila, JA; Gutiérrez, C; Zamarreno, N; Hidalgo, A; Bernabe, A; Cop, CP; Ponce-Balbuena, D; Guerrero-Serna, G; Calle, D; Desco, M; Ruiz-Cabello, J; Nieto, A; Falcón, A. *Human influenza A virus causes myocardial and cardiac-specific conduction system infections associated with early inflammation and*



premature death. CARDIOVASCULAR RESEARCH. 2021; 117(3) 876-889. FI: 13.081. Cuartil: 1. (Article).

- Cedeno, S; Desco, M; Aleman, Y; Macías, N; Fernández-Pena, A; Vega, A; Abad, S; López-Gómez, JM. *Intradialytic hypotension and relationship with cognitive function and brain morphometry*. CLINICAL KIDNEY JOURNAL. 2021; 14(4) 1156-1164. FI: 5.86. Cuartil: 1. (Article).
- de la Lastra, APD; Saenz, LGD; García-Mato, D; Hernández-Álvarez, L; Ochandiano, S; Pascau, J. *Real-Time Tool Detection for Workflow Identification in Open Cranial Vault Remodeling*. ENTROPY. 2021; 23(7). FI: 2.738. Cuartil: 2. (Article).
- Romero-Miguel, D; Lamanna-Rama, N; Casquero-Veiga, M; Gómez-Rangel, V; Desco, M; Soto-Montenegro, ML. *Minocycline in neurodegenerative and psychiatric diseases: An update*. EUROPEAN JOURNAL OF NEUROLOGY. 2021; 28(3) 1056-1081. FI: 6.288. Cuartil: 1. (Review).
- Casquero-Veiga, M; Romero-Miguel, D; MacDowell, KS; Torres-Sánchez, S; García-Partida, JA; Lamanna-Rama, N; Gómez-Rangel, V; Romero-Miranda, A; Berrocoso, E; Leza, JC; Arango, C; Desco, M; Soto-Montenegro, ML. *Omega-3 fatty acids during adolescence prevent schizophrenia-related behavioural deficits: Neurophysiological evidences from the prenatal viral infection with Polyl:C*. EUROPEAN NEUROPSYCHOPHARMACOLOGY. 2021; 46 14-27. FI: 5.415. Cuartil: 1. (Article).
- Pérez-Caballero, L; Soto-Montenegro, ML; Desco, M; Mico, JA; Berrocoso, E. *Sustained escitalopram administration affects glucose metabolism in the rat brain*. EUROPEAN NEUROPSYCHOPHARMACOLOGY. 2021; 51 1-6. FI: 5.415. Cuartil: 1. (Article).
- Lowe, C; Ortega-Gil, A; Moghiseh, M; Anderson, NG; Muñoz-Barrutia, A; Vaquero, JJ; Raja, AY; Matanaghi, A; Chernoglazov, AI; Dapamede, T; Adebileje, SA; Alexander, S; Amma, MR; Anjomrouz, M; Asghariomabad, F; Atharifard, A; Atlas, J; Baer, K; Bell, ST; Bh. *Molecular Imaging of Pulmonary Tuberculosis in an Ex-Vivo Mouse Model Using Spectral Photon-Counting Computed Tomography and Micro-CT*. IEEE ACCESS. 2021; 9 67201-67208. FI: 3.476. Cuartil: 2. (Article).
- García-Sevilla, M; Mediavilla-Santos, L; Moreta-Martínez, R; García-Mato, D; Pérez-Mañanes, R; Calvo-Haro, JA; Pascau, J. *Combining Surgical Navigation*

and 3D Printing for Less Invasive Pelvic Tumor Resections. IEEE ACCESS. 2021; 9 133541-133551. FI: 3.476. Cuartil: 2. (Article).

- Galve, P; Udias, JM; López-Montes, A; Arias-Valcayo, F; Vaquero, JJ; Desco, M; Herraiz, JL. *Super-Iterative Image Reconstruction in PET*. IEEE TRANSACTIONS ON COMPUTATIONAL IMAGING. 2021; 7 248-257. FI: 4.708. Cuartil: 2. (Article).
- García-Mato, D; García-Sevilla, M; Porras, AR; Ochandiano, S; Darriba-Alles, JV; García-Leal, R; Salmerón, JI; Linguraru, MG; Pascau, J. *Three-dimensional photography for intraoperative morphometric analysis in metopic craniosynostosis surgery*. INTERNATIONAL JOURNAL OF COMPUTER ASSISTED RADIOLOGY AND SURGERY. 2021; 16(2) 277-287. FI: 3.421. Cuartil: 2. (Article).
- García-Sevilla, M; Mediavilla-Santos, L; Ruiz-Alba, MT; Pérez-Mañanes, R; Calvo-Haro, JA; Pascau, J. *Patient-specific desktop 3D-printed guides for pelvic tumour resection surgery: a precision study on cadavers*. INTERNATIONAL JOURNAL OF COMPUTER ASSISTED RADIOLOGY AND SURGERY. 2021; 16(3) 397-406. FI: 3.421. Cuartil: 2. (Article).
- Rioboo, RJ; Gontan, N; Sanderson, D; Desco, M; Gómez-Gaviro, MV. *Brillouin Spectroscopy: From Biomedical Research to New Generation Pathology Diagnosis*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(15). FI: 6.208. Cuartil: 1. (Review).
- Gómez-Cid, L; López-Donaire, ML; Velasco, D; Marín, V; González, MI; Salinas, B; Cusso, L; García, A; Bravo, SB; Fernández-Santos, ME; Elvira, C; Sierra, J; Arroba, E; Bañares R; Grigorian-Shamagian, L; Fernández-Avilés, F. *Cardiac Extracellular Matrix Hydrogel Enriched with Polyethylene Glycol Presents Improved Gelation Time and Increased On-Target Site Retention of Extracellular Vesicles*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(17). FI: 6.208. Cuartil: 1. (Article).
- Romero-Miguel, D; Casquero-Veiga, M; MacDowell, KS; Torres-Sánchez, S; García-Partida, JA; Lamanna-Rama, N; Romero-Miranda, A; Berrocoso, E; Leza, JC; Desco, M; Soto-Montenegro, ML. *A Characterization of the Effects of Minocycline Treatment During Adolescence on Structural, Metabolic, and Oxidative Stress Parameters in a Maternal Immune Stimulation Model of Neurodevelopmental Brain Disorders*. INTERNATIONAL JOURNAL OF NEUROPSYCHOPHARMACOLOGY. 2021; 24(9) 734-748. FI: 5.678. Cuartil: 1. (Article).



PUBLICATIONS GENERATED WITH THE PARTICIPATION OF THE RESEARCH SUPPORT SERVICES (RSSS)

- Navas-Sánchez, FJ; Fernández-Pena, A; de Blas, DM; Aleman-Gómez, Y; Marcos-Vidal, L; Guzmán-de-Villoria, JA; Fernández-García, P; Romero, J; Catalina, I; Lillo, L; Muñoz-Blanco, JL; Ordonez-Ugalde, A; Quintans, B; Pardo, J; Sobrido, MJ; Carmona, S; Granda. *Thalamic atrophy in patients with pure hereditary spastic paraplegia type 4*. JOURNAL OF NEUROLOGY. 2021; 268(7) 2429-2440. FI: 6.682. Cuartil: 1. (Article).
- Martínez, C; de Molina, C; Desco, M; Abella, M. *Optimization of a calibration phantom for quantitative radiography*. MEDICAL PHYSICS. 2021; 48(3) 1039-1053. FI: 4.506. Cuartil: 2. (Article).
- Abella, M; Martínez, C; García, I; Moreno, P; De Molina, C; Desco, M. *Tolerance to geometrical inaccuracies in CBCT systems: A comprehensive study*. MEDICAL PHYSICS. 2021; 48(10) 6007-6019. FI: 4.506. Cuartil: 2. (Article).
- Canadas-Ortega, M; Gómez-Cruz, C; Vaquero, JJ; Muñoz-Barrutia, A. *The contribution of microfluidics to the fight against tuberculosis*. NANOTECHNOLOGY REVIEWS. 2021; 11(1) 40-54. FI: 6.739. Cuartil: 1. (Review).
- Gómez-de-Mariscal, E; García-López-de-Haro, C; Ouyang, W; Donati, L; Lundberg, E; Unser, M; Muñoz-Barrutia, A; Sage, D. *DeepImageJ: A user-friendly environment to run deep learning models in ImageJ*. NATURE METHODS. 2021; 18(10) 1192-1195. FI: 47.99. Cuartil: 1. (Article).
- de Francisco, A; Sierra-Palomares, Y; Felipe, M; Calle, D; Desco, M; Cusso, L. *Effect of illumination level [18F]FDG-PET brain uptake in free moving mice*. PLOS ONE. 2021; 16(5). FI: 3.752. Cuartil: 2. (Article).
- Wert-Carvajal, C; Sánchez-García, R; Macías, JR; Sanz-Pamplona, R; Pérez, AM; Alemany, R; Veiga, E; Sorzano, COS; Muñoz-Barrutia, A. *Predicting MHC I restricted T cell epitopes in mice with NAP-CNB, a novel online tool*. SCIENTIFIC REPORTS. 2021; 11(1) 10780-10780. FI: 4.996. Cuartil: 2. (Article).
- Casquero-Veiga, M; Bueno-Fernández, C; Romero-Miguel, D; Lamanna-Rama, N; Nacher, J; Desco, M; Soto-Montenegro, ML. *Exploratory study of the long-term footprint of deep brain stimulation on brain metabolism and neuroplasticity in an animal model of obesity*. SCIENTIFIC REPORTS. 2021; 11(1) 5580-5580. FI: 4.996. Cuartil: 2. (Article).
- Villalba-Orero, M; Jiménez-Rioboo, RJ; Gontan, N; Sanderson, D; López-Olaneta, M; García-Pavia, P; Desco, M; Lara-Pezzi, E; Gómez-Gaviro, MV.

Assessment of myocardial viscoelasticity with Brillouin spectroscopy in myocardial infarction and aortic stenosis models. SCIENTIFIC REPORTS. 2021; 11(1) 21369-21369. FI: 4.996. Cuartil: 2. (Article).

- Gómez-de-Mariscal, E; Guerrero, V; Sneider, A; Jayatilaka, H; Phillip, JM; Wirtz, D; Muñoz-Barrutia, A. *Use of the p-values as a size-dependent function to address practical differences when analyzing large datasets*. SCIENTIFIC REPORTS. 2021; 11(1) 20942-20942. FI: 4.996. Cuartil: 2. (Article).
- Moreta-Martínez, R; Pose-Diez-de-la-Lastra, A; Calvo-Haro, JA; Mediavilla-Santos, L; Pérez-Mañanes, R; Pascau, J. *Combining Augmented Reality and 3D Printing to Improve Surgical Workflows in Orthopedic Oncology: Smartphone Application and Clinical Evaluation*. SENSORS. 2021; 21(4). FI: 3.847. Cuartil: 2. (Article).
- García-Sevilla, M; Moreta-Martínez, R; García-Mato, D; Pose-Diez-de-la-Lastra, A; Pérez-Mañanes, R; Calvo-Haro, JA; Pascau, J. *Augmented Reality as a Tool to Guide PSI Placement in Pelvic Tumor Resections*. SENSORS. 2021; 21(23). FI: 3.847. Cuartil: 2. (Article).

Publications of the main WOS collection in journals indexed in the Journal Citation Reports without impact factor

- Calvo-Haro, JA; Pascau, J; Asencio-Pascual, JM; Calvo-Manuel, F; Cancho-Gil, MJ; López, JFD; Fanjul-Gómez, M; García-Leal, R; González-Casaurrán, G; González-Leyte, M; León-Luis, JA; Mediavilla-Santos, L; Ochandiano-Caicoya, S; Pérez-Caballero, R; Ribed-S. *Point-of-care manufacturing: a single university hospital's initial experience*. 3D PRINTING IN MEDICINE. 2021; 7(1) 11-11. (Article).
- Pérez-Mañanes, R; García-de San José, S; Desco-Menéndez, M; Sánchez-Arcilla, I; González-Fernández, E; Vaquero-Martín, J; González-Garzón, JP; Mediavilla-Santos, L; Trapero-Moreno, D; Calvo-Haro, JA. *Application of 3D printing and distributed manufacturing during the first-wave of COVID-19 pandemic. Our experience at a third-level university hospital*. 3D PRINTING IN MEDICINE. 2021; 7(1) 7-7. (Article).
- García-Mato, D; Moreta-Martínez, R; García-Sevilla, M; Ochandiano, S; García-Leal, R; Pérez-Mañanes, R; Calvo-Haro, JA; Salmerón, JI; Pascau, J. *Augmented reality visualization for craniosynostosis surgery*. COMPUTER



METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING-IMAGING AND VISUALIZATION. 2021; 9(4) 392-399. (Article).

- García-Mato, D; Porras, AR; Ochandiano, S; Rogers, GF; García-Leal, R; Salmerón, JI; Pascau, J; Linguraru, MG. *Effectiveness of Automatic Planning of Fronto-orbital Advancement for the Surgical Correction of Metopic Craniosynostosis*. PLASTIC AND RECONSTRUCTIVE SURGERY-GLOBAL OPEN. 2021; 9(11). (Article).

Other publications

- Martínez-García M; Paternina-Die M; Desco M; Vilarroya O; Carmona S. *Characterizing the Brain Structural Adaptations Across the Motherhood Transition*. FRONTIERS IN GLOBAL WOMEN'S HEALTH. 2021; 2 742775-742775. (Article).

Flow Citometry and cell sorter Unit

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Sainz, T; Delgado, J; Méndez-Echevarría, A; Santiago, B; López-Varela, E; Aguilera-Alonso, D; Saavedra-Lozano, J; Rodríguez-Fernández, R; Holguín, A; Navarro, ML; Muñoz-Fernández, MA; Rivero-Calle, I; Solána, MJ; López-Herce, J; Calvo, C. *The clinical relevance of the microbiome when managing paediatric infectious diseases-Narrative review*. ACTA PAEDIATRICA. 2021; 110(2) 441-449. FI: 4.056. Cuartil: 1. (Review).
- Genebat, M; Tarancón-Díez, L; de Pablo-Bernal, R; Calderón, A; Muñoz-Fernández, MA; Leal, M. *Coronavirus Disease (COVID-19): A Perspective from Immunosenescence*. AGING AND DISEASE. 2021; 12(1) 3-6. FI: 9.968. Cuartil: 1. (Letter).
- Petit, E; Bosch, L; Costa, AM; Rodríguez-Izquierdo, I; Sepulveda-Crespo, D; Muñoz-Fernández, MA; Vilarrosa, J. *BMS Derivatives C7-Linked to beta-Cyclodextrin and Hyperbranched Polyglycerol Retain Activity against R5-HIV-1(NLAD8) Isolates and Can Be Deemed Potential Microbicides*. CHEMMEDCHEM. 2021; 16(14) 2217-2222. FI: 3.54. Cuartil: 3. (Article).
- Rodríguez-Fernández, R; González-Martínez, F; González-Sánchez, MI; Hernández-Sampelayo, T; Jiménez, JL; Muñoz-Fernández, MA; García-Martos, C; Mejías, A; Ramilo, O. *Longitudinal plasma cytokine concentrations and*

recurrent wheezing after RSV bronchiolitis. CYTOKINE. 2021; 140 155434-155434. FI: 3.926. Cuartil: 3. (Article).

- Gasco, S; Muñoz-Fernández, MA. *A Review on the Current Knowledge on ZIKV Infection and the Interest of Organoids and Nanotechnology on Development of Effective Therapies against Zika Infection*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(1). FI: 6.208. Cuartil: 1. (Review).
- Relano-Rodríguez, I; Espinar-Buitrago, MD; Martín-Canadilla, V; Gómez-Ramírez, R; Muñoz-Fernández, MA. *G2-S16 Polyanionic Carbosilane Dendrimer Can Reduce HIV-1 Reservoir Formation by Inhibiting Macrophage Cell to Cell Transmission*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(16). FI: 6.208. Cuartil: 1. (Article).
- Magro-López E; Muñoz-Fernández MÁ. *The Role of BMP Signaling in Female Reproductive System Development and Function*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2021; 22(21). FI: 6.208. Cuartil: 1. (Article).
- Aguilera-Alonso D; Sainz T; Jiménez de Ory S; Bernardino I; Díez C; Torres B; Merino D; Iribarren JA; Portilla I; Ríos MJ; Ibarra S; Sanz J; Bellón JM; Carrasco I; Muñoz-Fernández MÁ; Ramos JT; Navarro ML. *Clinical, Immunological and Virological Outcomes among youths with perinatal HIV after Transition to Adult Units in Spain from 1997 to 2016*. JAIDS-JOURNAL OF ACQUIRED IMMUNE DEFICIENCY SYNDROMES. 2021; 86(2) 240-247. FI: 3.771. Cuartil: 3. (Article).
- Tarancón-Díez L; Rull A; Herrero P; Vázquez-Alejo E; Peraire J; Guillén S; Navarro-Gómez ML; Viladés C; Muñoz-Fernández MÁ; Vidal F. *Early antiretroviral therapy initiation effect on metabolic profile in vertically HIV-1-infected children*. JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY. 2021; 76(11) 2993-3001. FI: 5.758. Cuartil: 1. (Article).
- Relano-Rodríguez, I; Espinar-Buitrago, MS; Martín-Canadilla, V; Gómez-Ramírez, R; Jiménez, JL; Muñoz-Fernández, MA. *Nanotechnology against human cytomegalovirus in vitro: polyanionic carbosilane dendrimers as antiviral agents*. JOURNAL OF NANOBIO TECHNOLOGY. 2021; 19(1) 65-65. FI: 9.429. Cuartil: 1. (Article).
- Royo-Rubio, E; Rodríguez-Izquierdo, I; Moreno-Domene, M; Lozano-Cruz, T; de la Mata, FJ; Gómez, R; Muñoz-Fernández, MA; Jiménez, JL. *Promising*



PUBLICATIONS GENERATED WITH THE PARTICIPATION OF THE RESEARCH SUPPORT SERVICES (RSSS)

PEGylated cationic dendrimers for delivery of miRNAs as a possible therapy against HIV-1 infection. JOURNAL OF NANOTECHNOLOGY. 2021; 19(1) 158-158. FI: 9.429. Cuartil: 1. (Article).

- Carrasco, I; Tarancón-Diez, L; Vázquez-Alejo, E; de Ory, SJ; Sainz, T; Apilánez, M; Epalza, C; Guillén, S; Ramos, JT; Díez, C; Bernardino, JI; Iribarren, JA; Zamora, A; Muñoz-Fernández, MA; Navarro, ML. *Innate and adaptive abnormalities in youth with vertically acquired HIV through a multicentre cohort in Spain.* JOURNAL OF THE INTERNATIONAL AIDS SOCIETY. 2021; 24(10). FI: 6.707. Cuartil: 1. (Article).
- Rodríguez-Izquierdo, I; Cena-Diez, R; Serramia, MJ; Rodríguez-Fernández, R; Martínez, I; Muñoz-Fernández, M. *Role of G2-S16 Polyanionic Carbosilane Dendrimer in the Prevention of Respiratory Syncytial Virus Infection In Vitro and In Vivo in Mice.* POLYMERS. 2021; 13(13). FI: 4.967. Cuartil: 1. (Article).
- Consuegra, I; Gasco, S; Serramia, MJ; Jiménez, JL; Mellado, MJ; Muñoz-Fernández, MA. *Establishment of a miRNA profile in paediatric HIV-1 patients and its potential as a biomarker for effectiveness of the combined antiretroviral therapy.* SCIENTIFIC REPORTS. 2021; 11(1) 23477-23477. FI: 4.996. Cuartil: 2. (Article).

Cell Culture Unit

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Gutiérrez-Seijo, A; García-Martínez, E; Barrio-Alonso, C; Pareja-Malagón, M; Acosta-Ocampo, A; Fernández-Santos, ME; Puig-Kroger, A; Parra-Blanco, V; Mercader, E; Márquez-Rodas, I; Avilés-Izquierdo, JA; Samaniego, R; Sánchez-Mateos, P. *CCL20/TNF/VEGFA Cytokine Secretory Phenotype of Tumor-Associated Macrophages Is a Negative Prognostic Factor in Cutaneous Melanoma.* CANCERS. 2021; 13(16). FI: 6.575. Cuartil: 1. (Article).
- López-Abente, J; Martínez-Bonet, M; Bernaldo-de-Quirós, E; Camino, M; Gil, N; Panadero, E; Gil-Jaurena, JM; Clemente, M; Urschel, S; West, L; Pion, M; Correa-Rocha, R. *Basiliximab impairs regulatory T cell (TREG) function and could affect the short-term graft acceptance in children with heart transplantation.* SCIENTIFIC REPORTS. 2021; 11(1) 827-827. FI: 4.996. Cuartil: 2. (Article).

Confocal Microscopy Unit

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Gutiérrez-Seijo, A; García-Martínez, E; Barrio-Alonso, C; Pareja-Malagón, M; Acosta-Ocampo, A; Fernández-Santos, ME; Puig-Kroger, A; Parra-Blanco, V; Mercader, E; Márquez-Rodas, I; Avilés-Izquierdo, JA; Samaniego, R; Sánchez-Mateos, P. *CCL20/TNF/VEGFA Cytokine Secretory Phenotype of Tumor-Associated Macrophages Is a Negative Prognostic Factor in Cutaneous Melanoma.* CANCERS. 2021; 13(16). FI: 6.575. Cuartil: 1. (Article).
- Fuentelsaz-Romero, S; Cuervo, A; Estrada-Capetillo, L; Celis, R; García-Campos, R; Ramírez, J; Sastre, S; Samaniego, R; Puig-Kroger, A; Canete, JD. *GM-CSF Expression and Macrophage Polarization in Joints of Undifferentiated Arthritis Patients Evolving to Rheumatoid Arthritis or Psoriatic Arthritis.* FRONTIERS IN IMMUNOLOGY. 2021; 11 613975-613975. FI: 8.786. Cuartil: 1. (Article).
- Latorre, MC; Pérez-Granda, MJ; Savage, PB; Alonso, B; Martín-Rabadán, P; Samaniego, R; Bouza, E; Muñoz, P; Guembe, M. *Endotracheal tubes coated with a broad-spectrum antibacterial ceragenin reduce bacterial biofilm in an in vitro bench top model.* JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY. 2021; 76(5) 1168-1173. FI: 5.758. Cuartil: 1. (Article).

Genomics Unit

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Bailén, R; Kwon, M; Pascual-Cascón, MJ; Ferra, C; Sanz, J; Gallardo-Morillo, A; García-Sola, A; Torrent, A; Jiménez-Lorenzo, MJ; Pinana, JL; Montoro, J; Oarbeascoa, G; Dorado, N; Gómez-Centurión, I; Muñoz, C; Martínez-Laperche, C; Anguita, J; Buño, I; Die. *Post-transplant cyclophosphamide for GVHD prophylaxis compared to ATG-based prophylaxis in unrelated donor transplantation.* ANNALS OF HEMATOLOGY. 2021; 100(2) 541-553. FI: 4.03. Cuartil: 2. (Article).
- Pérez-Lago, L; Aldamiz-Echevarría, T; García-Martínez, R; Pérez-Latorre, L; Herranz, M; Sola-Campoy, P; Suárez-González, J; Martínez-Laperche, C; Comas, I; González-Candelas, F; Catalán, P; Muñoz, P; de Viedma, DG; Gregorio Marañón Microbiology-ID. *Different Within-Host Viral Evolution*



Dynamics in Severely Immunosuppressed Cases with Persistent SARS-CoV-2. BIOMEDICINES. 2021; 9(7). Fl: 4.757. Cuartil: 2. (Article).

- Suárez-González, J; Seidel, V; Andrés-Zayas, C; Izquierdo, E; Buño, I. *Novel biallelic variant in BBS9 causative of Bardet-Biedl syndrome: expanding the spectrum of disease-causing genetic alterations.* BMC MEDICAL GENOMICS. 2021; 14(1) 91-91. Fl: 3.622. Cuartil: 2. (Article).
- Bastos-Oreiro, M; Ortiz, J; Pradillo, V; Salas, E; Martinez-Laperche, C; Muñoz, A; Buño, I; Díez-Martín, JL; Soria, JM; Izquierdo, CP. *Incorporating genetic and clinical data into the prediction of thromboembolism risk in patients with lymphoma.* CANCER MEDICINE. 2021; 10(21) 7585-7592. Fl: 4.711. Cuartil: 2. (Article).
- Chicano, M; Carbonell, D; Suárez-González, J; Lois, S; Ballesteros-Culebras, M; Andrés-Zayas, C; Muñiz, P; Rodríguez-Macías, G; Bastos-Oreiro, M; Font, P; Ballesteros, M; Kwon, M; Anguita, J; Díez-Martín, JL; Buño, I; Martínez-Laperche, C. *Next Generation Cytogenetics in Myeloid Hematological Neoplasms: Detection of CNVs and Translocations.* CANCERS. 2021; 13(12). Fl: 6.575. Cuartil: 1. (Article).
- Muñiz, P; Kwon, M; Carbonell, D; Chicano, M; Bailén, R; Oarbeascoa, G; Suárez-González, J; Andrés-Zayas, C; Menárguez, J; Dorado, N; Gómez-Centurión, I; Anguita, J; Díez-Martín, JL; Martínez-Laperche, C; Buño, I. *Clinical Utility of the Detection of the Loss of the Mismatched HLA in Relapsed Hematological Patients After Haploidentical Stem Cell Transplantation With High-Dose Cyclophosphamide.* FRONTIERS IN IMMUNOLOGY. 2021; 12 642087-642087. Fl: 8.786. Cuartil: 1. (Article).
- Solán, L; Carbonell, D; Muñiz, P; Dorado, N; Landete, E; Chicano-Lavilla, M; Anguita, J; Gayoso, J; Kwon, M; Díez-Martín, JL; Martínez-Laperche, C; Buño, I. *Elafin as a Predictive Biomarker of Acute Skin Graft-Versus-Host Disease After Haploidentical Stem Cell Transplantation Using Post-Transplant High-Dose Cyclophosphamide.* FRONTIERS IN IMMUNOLOGY. 2021; 12 516078-516078. Fl: 8.786. Cuartil: 1. (Article).
- GIL, S.; CARBONELL, D.; LÓPEZ, L.; MIGUENS, I.; ALONSO, R.; BUÑO, I.; MUÑOZ, P.; Ochando Cano, Jordi; PION, M.; CORREA, R. *Induction of high levels of specific humoral and cellular responses to SARS-CoV-2 after the administration of Covid-19 mRNA vaccines requires several days.* FRONTIERS IN IMMUNOLOGY. 2021; 12 726960-726960. Fl: 8.786. Cuartil: 1. (Article).
- Pérez-Lago L; Sola Campoy PJ; Buenestado-Serrano S; Pharmacy PC; Estévez A; de la Cueva Technician VM; López MG; Tecnichian MH; Suárez-González J; Alcalá L; Comas I; González-Candelas F; Muñoz P; García de Viedma D. *Epidemiological, clinical and genomic snapshot of the first 100 B.1.1.7 SARS-CoV-2 cases in Madrid.* JOURNAL OF TRAVEL MEDICINE. 2021; 28(4). Fl: 39.194. Cuartil: 1. (Article).
- Carbonell, D; Suárez-González, J; Chicano, M; Andrés-Zayas, C; Díez-Diez, M; Rodríguez-Macías, G; Muñiz, P; Kwon, M; Anguita, J; Díez-Martín, JL; Buño, I; Martínez-Laperche, C. *Genetic biomarkers identify a subgroup of high-risk patients within low-risk NPM1-mutated acute myeloid leukemia.* LEUKEMIA & LYMPHOMA. 2021; 62(5) 1178-1186. Fl: 2.996. Cuartil: 3. (Article).
- Andrés-Zayas, C; Suárez-González, J; Rodríguez-Macías, G; Dorado, N; Osorio, S; Font, P; Carbonell, D; Chicano, M; Muñiz, P; Bastos, M; Kwon, M; Díez-Martín, JL; Buño, I; Martínez-Laperche, C. *Clinical utility of targeted next-generation sequencing for the diagnosis of myeloid neoplasms with germline predisposition.* MOLECULAR ONCOLOGY. 2021; 15(9) 2273-2284. Fl: 7.449. Cuartil: 1. (Article).
- Pérez-Lago L; Martínez-Lozano H; Pajares-Díaz JA; Díaz-Gómez A; Machado M; Sola-Campoy PJ; Herranz M; Valerio M; Olmedo M; Suárez-González J; Quesada-Cubo V; Gómez-Ruiz MDM; López-Fresneña N; Sánchez-Arcilla I; Comas I; González-Candelas F; García de San. *Overlapping of Independent SARS-CoV-2 Nosocomial Transmissions in a Complex Outbreak.* MSPHERE. 2021; 6(4). Fl: 5.029. Cuartil: 2. (Article).
- Pérez Lago L; Pérez Latorre L; Herranz M; Tejerina F; Sola-Campoy PJ; Sicilia J; Suárez-González J; Andrés-Zayas C; Chiner-Oms A; Jiménez-Serrano S; García-González N; Comas I; González-Candelas F; Martínez-Laperche C; Catalán P; Muñoz P; García de Viedma. *Complete Analysis of the Epidemiological Scenario around a SARS-CoV-2 Reinfection: Previous Infection Events and Subsequent Transmission.* MSPHERE. 2021; 6(5). Fl: 5.029. Cuartil: 2. (Article).
- Pérez-Lago, L; Machado, M; Herranz, M; Sola-Campoy, PJ; Suárez-González, J; Martínez-Laperche, C; Comas, I; Alcalá, L; Catalán, P; Muñoz, P; de Viedma, DC; Adan-Jiménez, J. *Host Genetic Analysis Should Be Mandatory for Proper Classification of COVID-19 Reinfections.* OPEN FORUM INFECTIOUS DISEASES. 2021; 8(9). Fl: 4.423. Cuartil: 2. (Letter).
- Bastos-Oreiro, M; Suárez-González, J; Andrés-Zayas, C; Carrión, NC; Moreno, S; Carbonell, D; Chicano, M; Muñiz, P; Sanz, L; Díaz-Crespo, FJ; Menárguez,



PUBLICATIONS GENERATED WITH THE PARTICIPATION OF THE RESEARCH SUPPORT SERVICES (RSSS)

J; Díez-Martín, JL; Buño, I; Martínez-Laperche, C. *Incorporation of next-generation sequencing in clinical practice using solid and liquid biopsy for patients with non-Hodgkin's lymphoma*. SCIENTIFIC REPORTS. 2021; 11(1) 22815-22815. FI: 4.996. Cuartil: 2. (Article).

Bioinformatics Unit

Publications of the main WOS collection in journals indexed in the Journal Citation Reports with impact factor

- Laria, JC; Aguilera-Morillo, MC; Álvarez, E; Lillo, RE; López-Taruella, S; del Monte-Millán, M; Picornell, AC; Martín, M; Romo, J. *Iterative Variable*

Selection for High-Dimensional Data: Prediction of Pathological Response in Triple-Negative Breast Cancer. MATHEMATICS. 2021; 9(3). FI: 2.592. Cuartil: 1. (Article).

- Martín, M; Ramos-Medina, R; Bernat, R; García-Saenz, JA; del Monte-Millán, M; Álvarez, E; Cebollero, M; Moreno, F; González-Haba, E; Bueno, O; Romero, P; Massarrah, T; Echavarria, I; Jerez, Y; Herrero, B; del Val, RG; Lobato, N; Rincón, P; Palomero, MI; M. *Activity of docetaxel, carboplatin, and doxorubicin in patient-derived triple-negative breast cancer xenografts*. SCIENTIFIC REPORTS. 2021; 11(1) 7064-7064. FI: 4.996. Cuartil: 2. (Article).



PARTNER COMPANIES 2021

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During this year 2021, the funding provided to the FIBHGM by Janssen-Cilag S.A. to support the «Fellowship Program for Scientific Research» came to 150,000 €.