ANNUAL SCIENTIFIC REPORT
2020
Instituto de Investigación Sanitaria
Gregorio Marañón

This Annual Scientific Report 2020 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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1. PRESENTATION

Es un orgullo presentar la Memoria Científica del **Instituto de Investigación Sanitaria del Hospital General Universitario Gregorio Marañón (IiSGM)**, con un doble objetivo, por un lado, el de dar difusión a la actividad investigadora e innovadora realizada ante instituciones y agentes sociales y, por otro lado, el de reconocer el **extraordinario esfuerzo realizado por los investigadores** de cada Grupo de Investigación. Este segundo objetivo cobra una relevancia muy especial este año, pues 2020 ha sido, sin lugar a ninguna duda, el más difícil de la historia reciente de nuestra institución, motivo por el cual deseamos destacar y agradecer especialmente la dedicación y la extraordinaria labor desempeñada por todos los integrantes del Instituto en circunstancias de complejidad sin precedentes derivadas de la pandemia de la COVID.

La destacada actividad investigadora desarrollada, a pesar de las condiciones particularmente difíciles mencionadas, ha sufrido un espectacular crecimiento (cercano al 40% con respecto a la anualidad anterior) de la producción científica del Instituto, lo que ha supuesto en el año 2020 alcanzar los **6647 puntos de factor de impacto**. Es conveniente destacar el extremo rigor con el que se analiza la adjudicación de publicaciones al IiSGM, lo que determina claramente la robustez del indicador. A ello se suma el significativo número de publicaciones (46%) con liderazgo de investigadores del IiSGM, el grado de colaboración internacional en las diferentes publicaciones y la proporción de originales en revistas de primer decil y cuartil (46%).

En la misma línea, destaca la **actividad de innovación del IiSGM** que le permite presumir de una cartera de activos de innovación, incluyendo dos "spin-offs" y una tercera actualmente en creación, adaptada a las necesidades actuales del sistema de salud (un 52% de nuestras patentes están licenciadas) y, sobre todo, con gran potencial de crecimiento futuro y de gran atractivo para el sector productivo e industrial.

Esta actividad investigadora e innovadora es posible gracias la excelente capacidad de los investigadores para **concurrir con éxito a las convocatorias competitivas**, tanto de proyectos como de recursos humanos. Este último aspecto es especialmente destacable, pues supone la base para asegurar el relevo generacional de los investigadores del centro. En este sentido, es importante destacar el compromiso de los grupos del IiSGM con la **formación de investigadores**, fruto del cual destaca el importante número de tesis doctorales defendidas a lo largo del año 2020 y el ambicioso **Plan de Formación** de Investigadores (con hasta 13 cursos acreditados) que desarrolla bajo la coordinación de la **Comisión de Formación del IiSGM**.

El IiSGM, a través su órgano gestor, la **Fundación para la Investigación Biomédica Hospital Gregorio Marañón (FIBHGM)**, realiza un esfuerzo continuo para mejorar sus procesos internos de **gestión y de mejora continua de la calidad**, fruto del cual cuenta con el sello europeo de excelencia en la gestión de recursos humanos "**Human Resources Strategy For Researchers (HRS4R)**, es el **primer Instituto de Investigación Sanitaria certificado de forma integral bajo la norma ISO9001:2015**, reconocimiento que ha renovado recientemente por un nuevo trienio.

Aprovechamos de nuevo esta oportunidad para expresar un sincero agradecimiento a todos los **investigadores** del IiSGM por su esfuerzo mantenido en un contexto tan sensible como el que representa la investigación científica en los hospitales. Únicamente un esfuerzo colectivo cohesionado, debidamente alineado con una estrategia en torno a la mejora de la salud de los pacientes, proporciona los excelentes resultados que se recogen en esta memoria. De la misma manera, es importante hacer patente el agradecimiento a todos los **Coordinadores de Área, Jefes de Grupo, Grupos de Investigación, Servicios de Apoyo a la Investigación (SAIs), Servicios Clínicos y muy especialmente a los investigadores jóvenes**, que constituyen la base del desarrollo y la actividad del IiSGM.

Un año más, los resultados que se presentan en esta memoria permiten comprobar que nuestra Institución mantiene su evolución y crecimiento, generando excelentes expectativas de futuro y colocándola en una posición de privilegio para afrontar los enormes retos futuros que se vislumbran, para asegurar, no sólo el cumplimiento de los requerimientos de la nueva **Guía Técnica de Evaluación de Acreditaciones** de Institutos de Investigación Sanitaria del Instituto de Salud Carlos III, si no, especialmente, para alumbrar los fundamentos de la investigación biomédica: la observación, generadora de preguntas, en la práctica clínica y la investigación cooperativa multidisciplinar que permita responderlas.

Muchas gracias

Dr. Ismael Buño Borde
Scientific Director
IiSGM

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

2. INTRODUCTION

Mission

IiSGM is an institution that aims to carry out the highest quality cooperative translational research for generation of knowledge and fast application of advances in care practice and that contributes to the training of researchers.
All in all, to favor the efficiency of the National Health System by providing added value.

Vision

IiSGM must position itself as a leading center in biomedical investigation and technological and scientific innovation at both National and international level through quality groundbreaking cooperative multidisciplinary activity by generating innovative and efficient responses to the main challenges facing the public health.

Values

Ethics, leadership competitiveness, commitment, excellence, and innovation.

The Institute is made up of the following bodies:

- Servicio Madrileño de Salud (SERMAS [Madrid Health Service]) through Hospital Universitario Gregorio Marañón, which is the basic core of the Institute, and groups from primary care in the hospital's catchment area
- Universidad Complutense de Madrid (UCM)
- Universidad Carlos III de Madrid (UCIII MADRID)
- Fundación para la investigación biomédica del Hospital Gregorio Marañón (FIBHGM [Foundation for Biomedical Researchof Hospital Gregorio Marañón]) as the management body, and
- Dirección General de Investigación, Formación e Infraestructuras Sanitarias (General Directorate for Research, Training, and Health Infrastructure) of the Consejería de Sanidad de la Comunidad de Madrid (Health Council of the Autonomous Community of Madrid).

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

3. EXECUTIVE SUMMARY

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 collectionof 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.

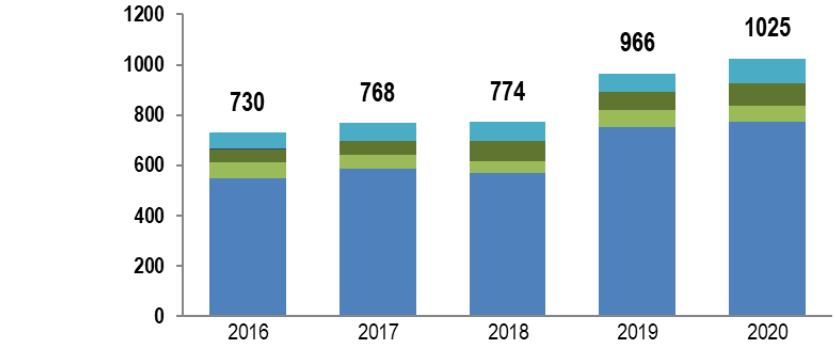
As in previous years, the total sum for the impact factor only takes into account information from indexed publications (eg, original articles, reviews, editorials, and proceedings papers) and excludes other types of publication (eg, letters to the editor and case reports). Of note, the impact factor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

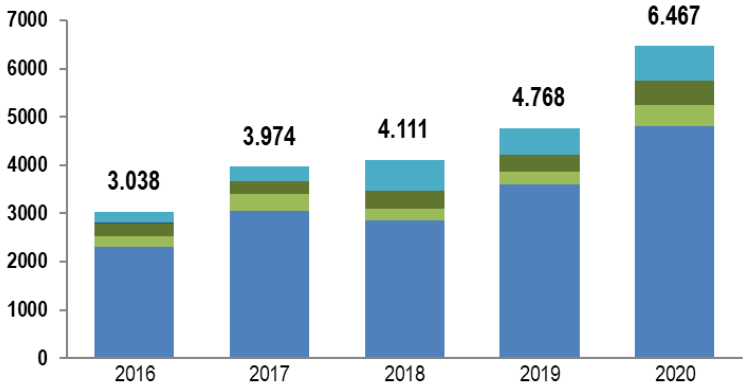
The following graphs provide a quantitative representation of the scientific output of IiSGM during the year 2020.

The graphs show strong consolidation of the growth trend observed in recent years, with a total of **1025** indexed publications (926 excluding letters), which represent a global impact factor over **6467** points [5753 excluding letters], that is, an increase of **3429** points since 2016, as well as an increase of **1699** points with respect to the previous year and **47 %** in the last 5 years.



	2016	2017	2018	2019	2020
Letter	63	72	76	75	99
Proceedings Paper	2				
Review	53	55	83	72	90
Editorial Material	61	54	45	68	64
Article	551	587	570	751	772
Total general	730	768	774	966	1025

Scientific output of IiSGM in indexed journals with impact factor:
NUMBER OF PUBLICATIONS BY TYPE OF PUBLICATION

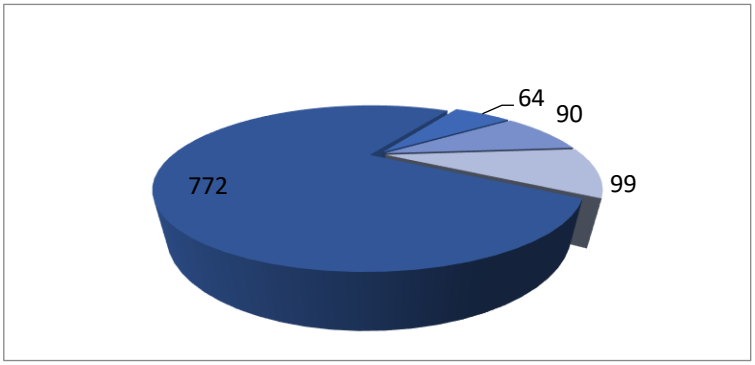


	2016	2017	2018	2019	2020
Letter	235	317	639	552	714
Proceedings Paper	5				
Review	274	254	386	344	498
Editorial Material	217	351	224	264	446
Article	2308	3053	2862	3609	4808
Total general	3038	3974	4111	4768	6467

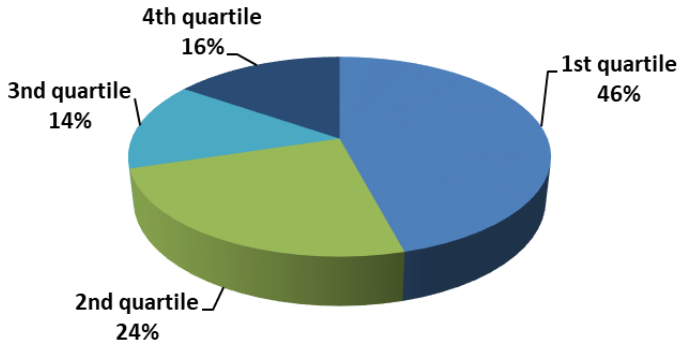
Scientific output of IiSGM:
TOTAL IMPACT FACTOR BY TYPE OF PUBLICATION

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

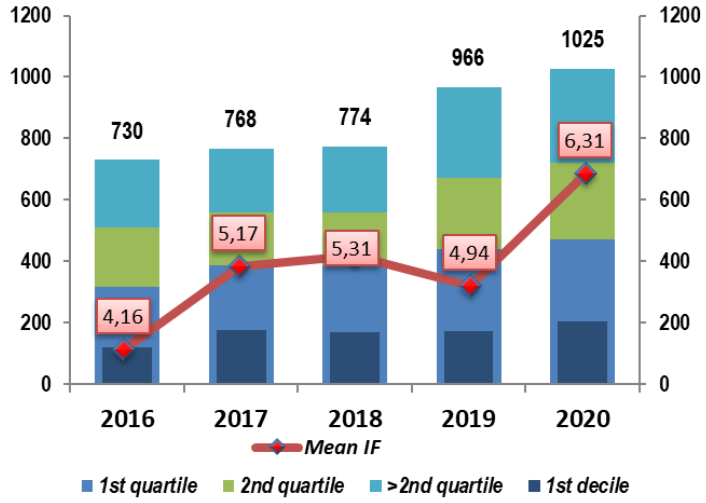
As can be observed, in this year 2020 the highest impact factor corresponds (in order) to: original articles, letters, reviews and editorials.



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 IiSGM in indexed journals with impact factor:
DISTRIBUTION BY QUARTILES (Relative to 2020)

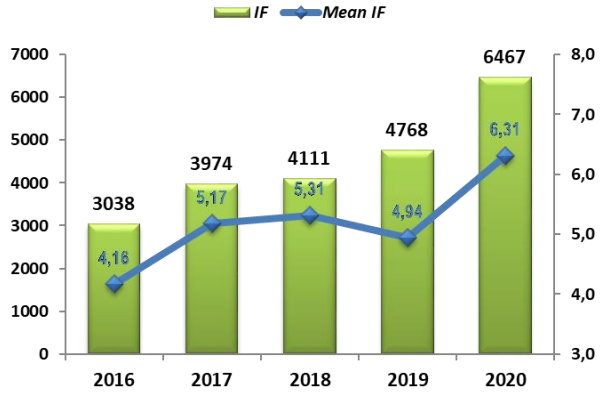


Scientific output of IiSGM in indexed journals with impact factor:

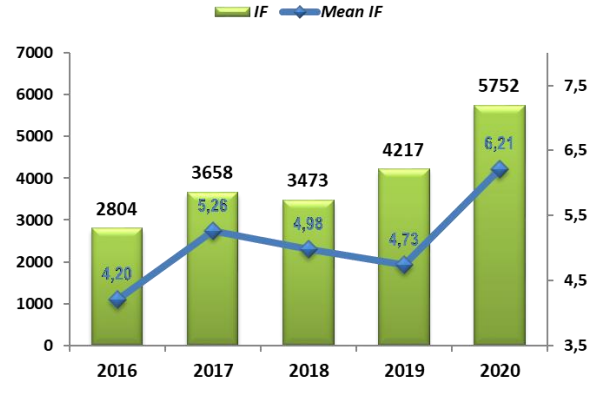
DISTRIBUTION OF PUBLICATIONS BY DECILES AND QUARTILES

(absolute values)

The distribution of IiSGM 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.

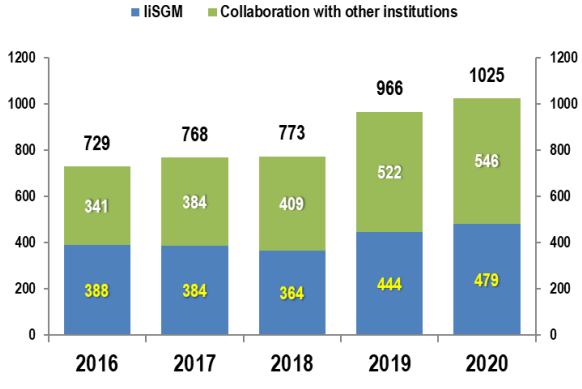


Including letters

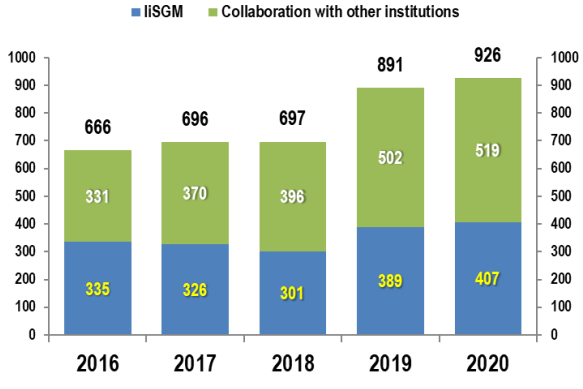


No letters

GLOBAL IMPACT FACTOR AND MEAN IMPACT FACTOR BY PUBLICATION



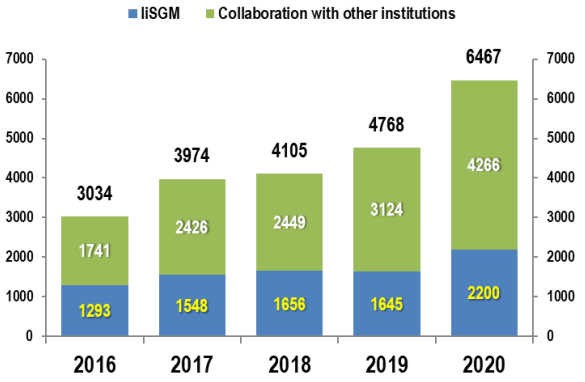
Including letters



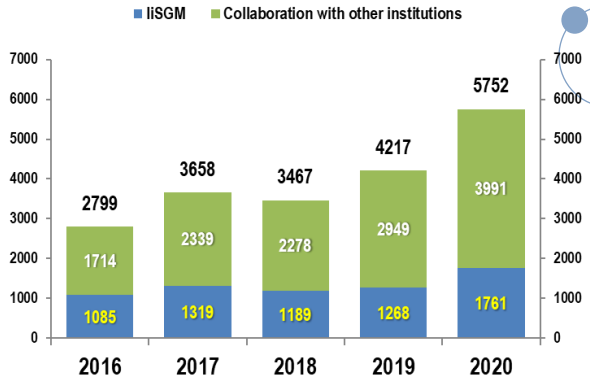
No letters

Scientific output of IiSGM in indexed journals with impact factor:

TOTAL NUMBER OF PUBLICATIONS



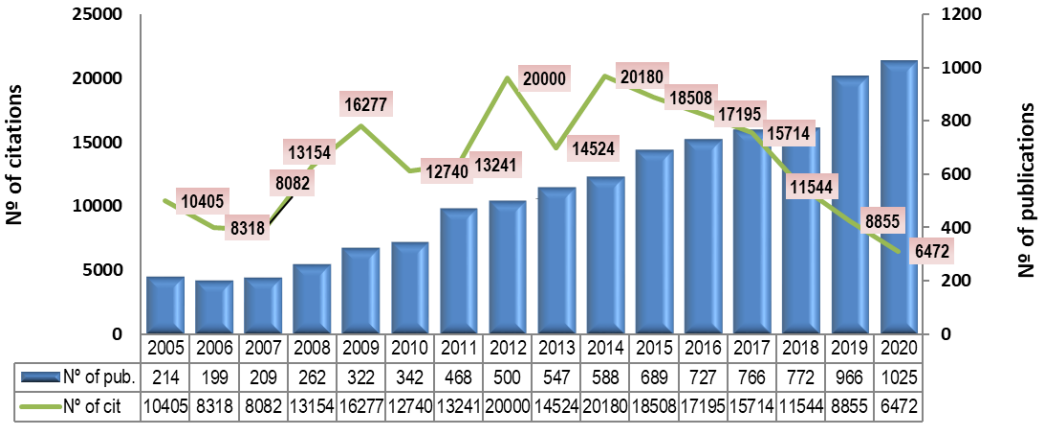
Including letters



No letters

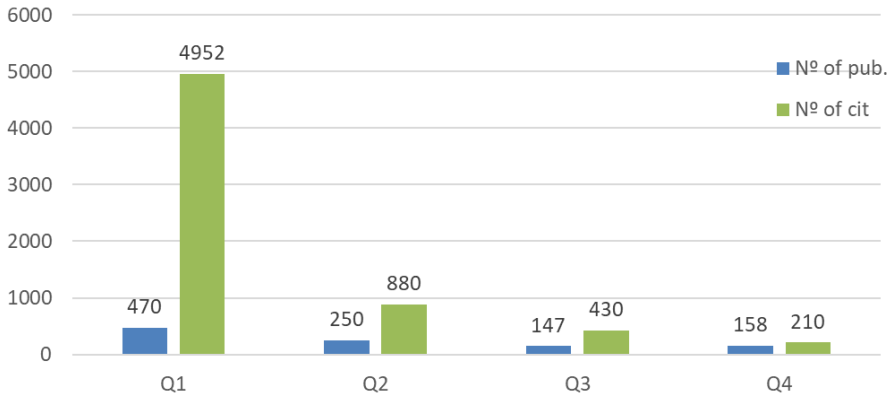
Scientific output of IiSGM in indexed journals with impact factor:

IMPACT FACTOR



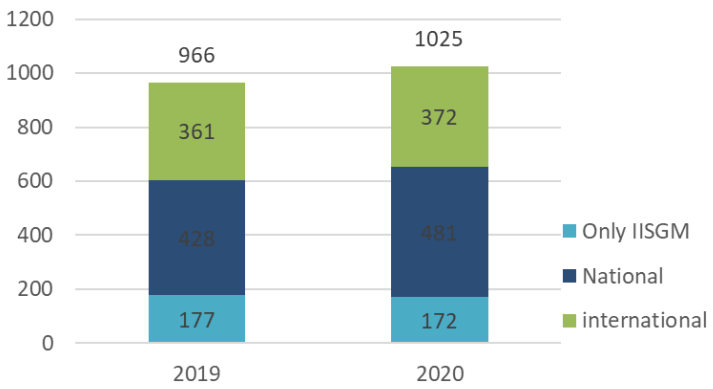
NUMBER OF PUBLICATIONS AND CITATIONS (no letters)

The number of citations for Institute publications over time is logically greater in elder publications, although the number of citations in relatively recent publications (2008-2014) 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

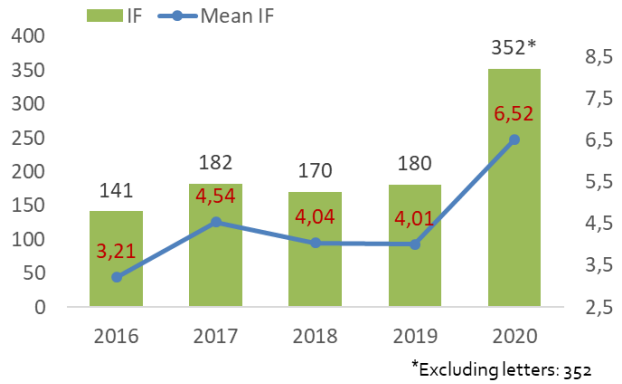
Finally, one of the most relevant elements within the scientific structure of Health Research Institutes is the grouping of research activity to priority areas, which are characterized by their scientific and social relevance and by their capacity for transferring knowledge to society

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

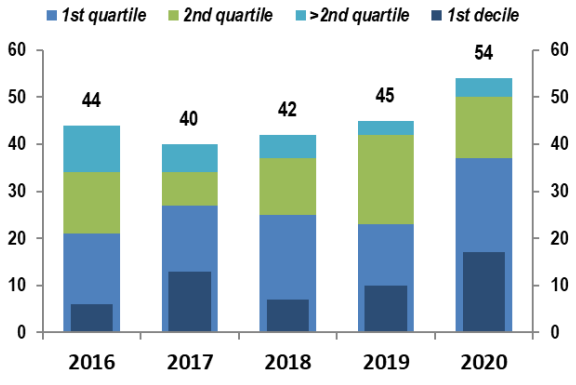
- **the first (on the left) summarizes the total impact factor together with the mean impact factor by publication**
- **the second (on the right) summarizes the scientific output of the research area distributed by first decile and quartiles.**

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

AREA 1: BIOMEDICAL ENGINEERING

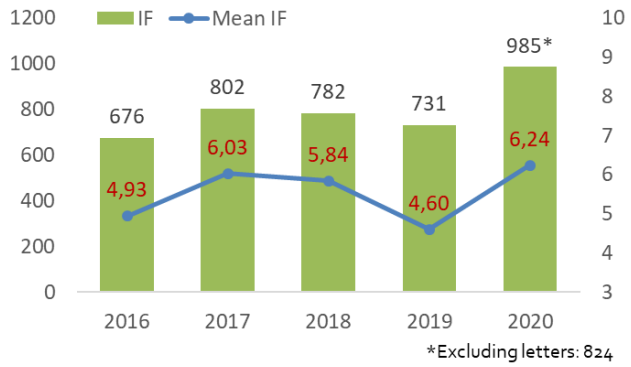


Scientific output of Area 1 in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)

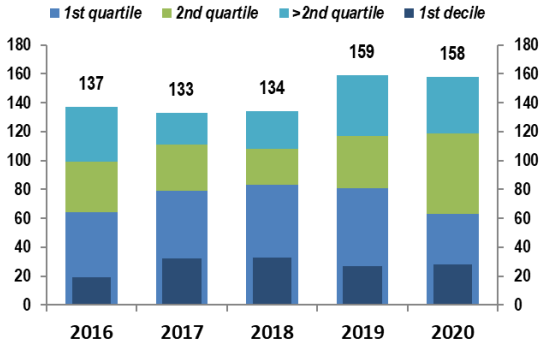


Scientific output of Area 1 in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)

AREA 2: CARDIOVASCULAR DISEASES

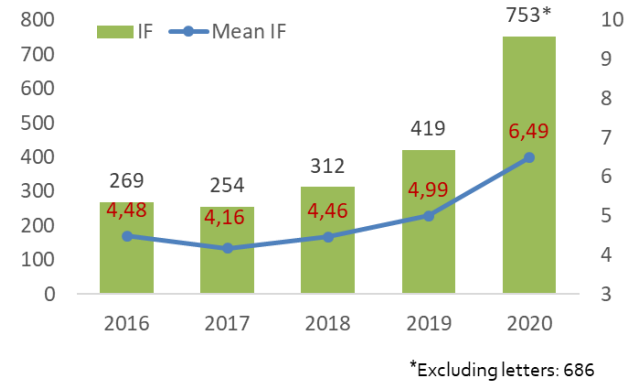


Scientific output of Area 2 in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)

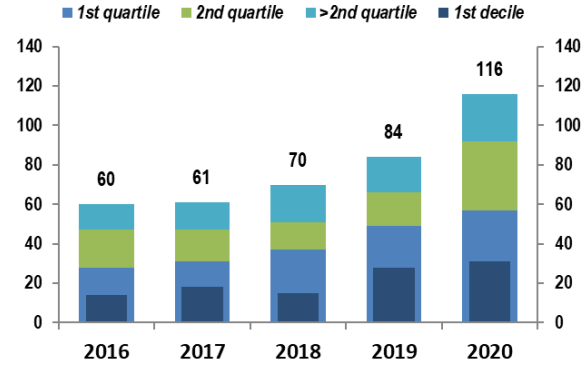


Scientific output of Area 2 in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)

AREA 3: NEUROSCIENCE AND MENTAL HEALTH

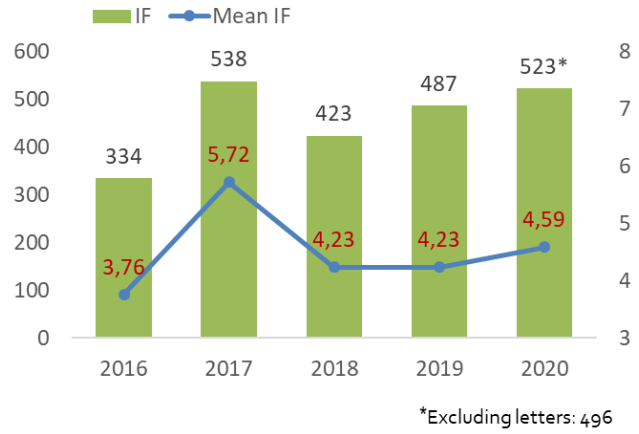


Scientific output of Area 3 in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)

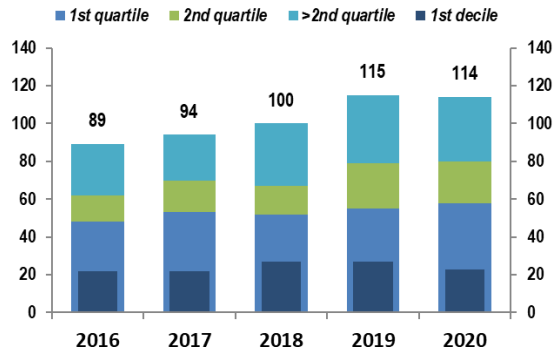


Scientific output of Area 3 in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)

AREA 4: CLINICAL MICROBIOLOGY, INFECTIOUS DISEASES AND AIDS

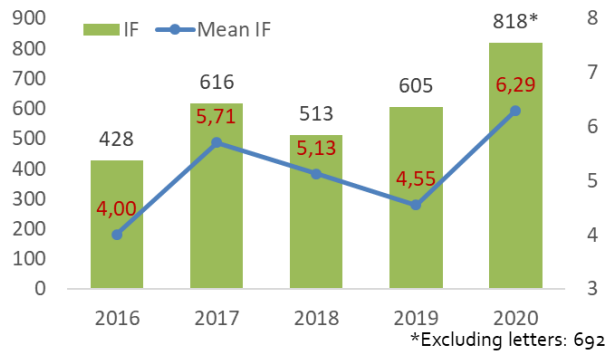


Scientific output of Area 4 in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)

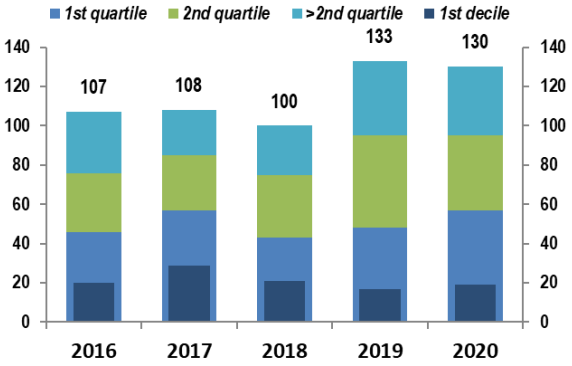


Scientific output of Area 4 in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)

AREA 5: DISEASES OF THE IMMUNE SYSTEM

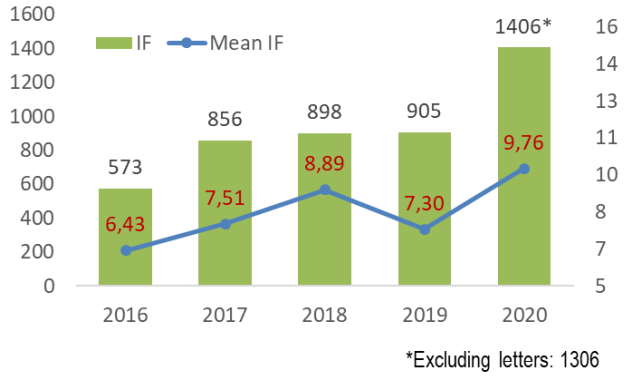


Scientific output of Area 5 in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)

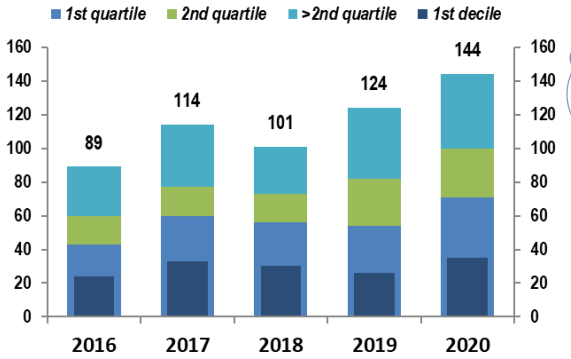


Scientific output of Area 5 in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)

AREA 6: TRANSLATIONAL ONCOLOGY

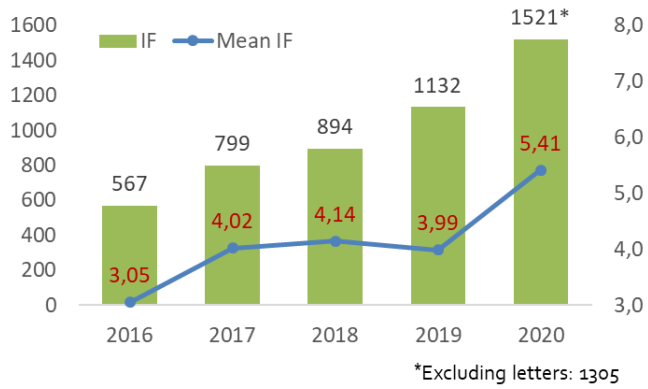


Scientific output of Area 6 in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)

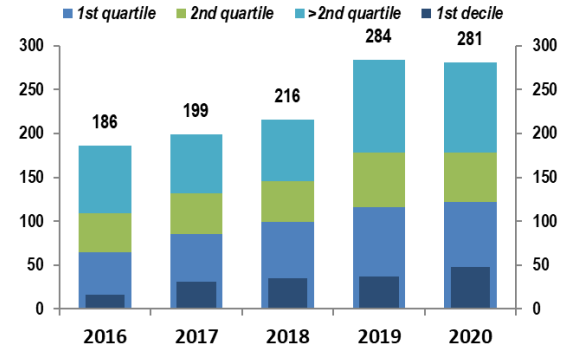


Scientific output of Area 6 in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)

AREA 7: SYSTEMIC DISEASES AND ORGAN TRANSPLANTATION

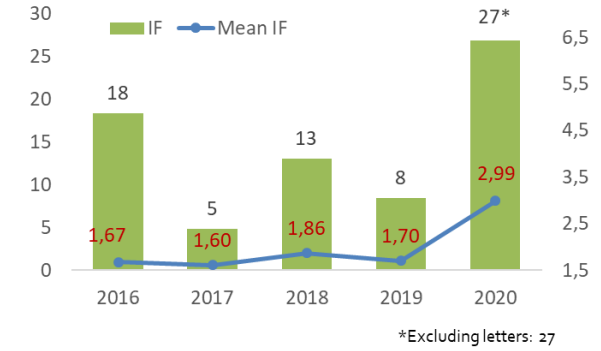


Scientific output of Area 7 in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)

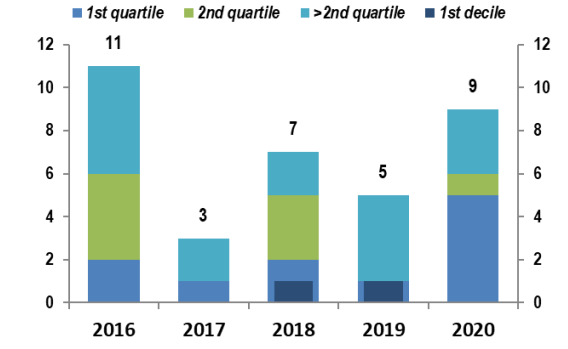


Scientific output of Area 7 in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)

NURSING RESEARCH GROUP



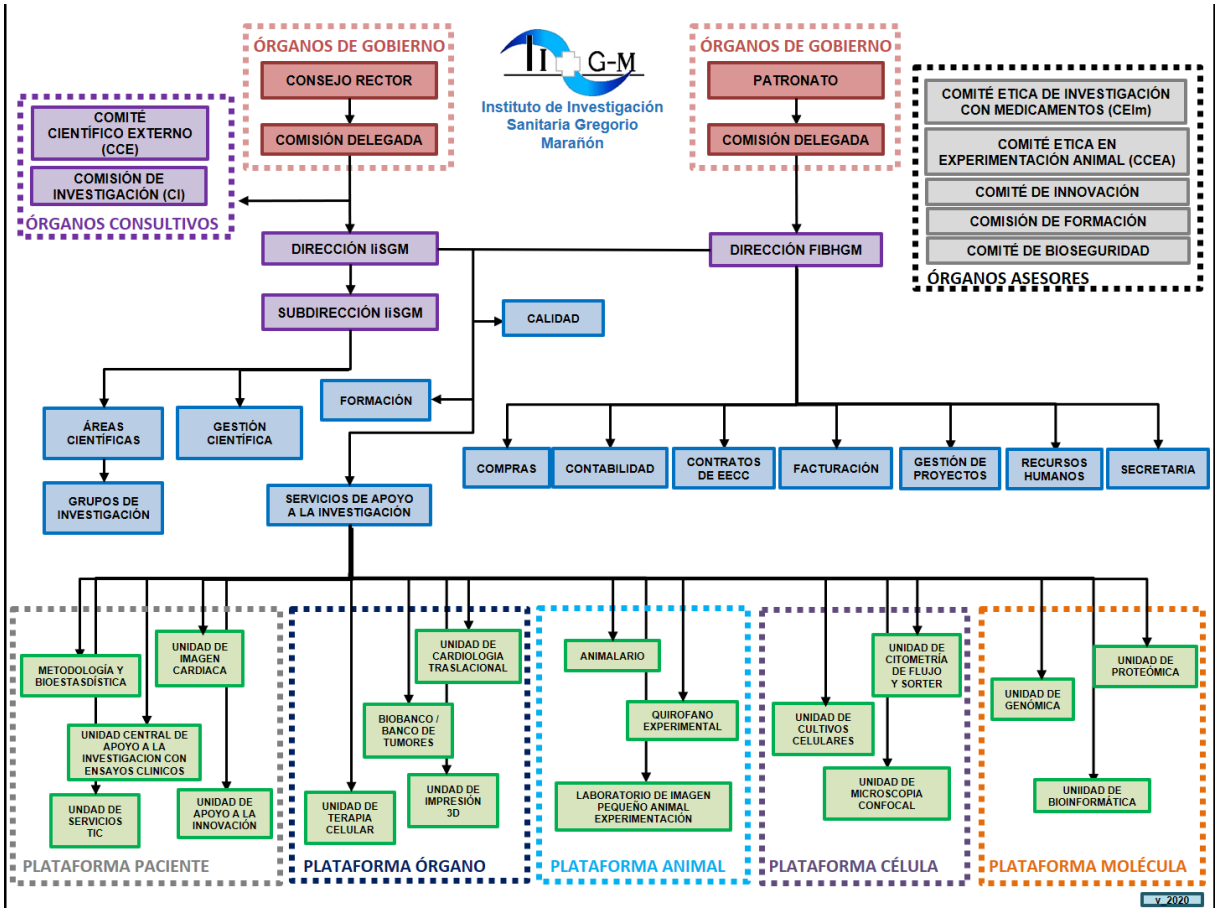
Scientific output of Nursing group in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)



Scientific output of Nursing group in indexed journals with impact factor:
DISTRIBUTION OF PUBLICATIONS BY DECILE AND QUARTILE (absolute values)

Organizational Structure of IiSGM

i. ORGANIZATIONAL CHART



ii. 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
	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
	Francisco Javier Prieto Fernández	UC3M. Trustee of the FIBHGM
Secretary	**Thierry Bardinet**	Director of the FIBHGM

iii. ADVISORY BODIES

EXTERNAL SCIENTIFIC COMMITTEE

Agustín Albillos Martínez	*Head of Gastroenterology and Hepatology, Hospital Universitario Ramón y Cajal, IRYCIS. Professor of Medicine, Universidad de Alcalalá, 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	**Constancio Medrano López**	HGUGM
Members	**Luis Álvarez-Sala Walther**	HGUGM
	Celso Arango López	HGUGM
	Antonio Artés Rodríguez	UC3M
	Fernando Asensio Rubio	HGUGM
	Felipe Atienza Fernández	HGUGM
	Rafael Bañares Cañizares	HGUGM

	José Mª Bellón Cano	HGUGM
	Javier Bermejo Thomas	HGUGM
	Rafael Correa Rocha	HGUGM
	Mª Carmen de la Cruz Arguedas	HGUGM
	Juan Francisco del Cañizo López	UCM Vicedean in HGUGM
	Manuel Desco Menéndez	HGUGM
	Francisco Fernández-Avilés Díaz	HGUGM
	Eduardo Fernández-Cruz	HGUGM
	Ana Mª 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
	Luis Alberto Menchén Viso	HGUGM
	Javier de Miguel Díez	Teaching Committee of the HGUGM
	Laura Moreno Márquez	Technical Secretary of the FIBHGM
	Patricia Muñoz García de Paredes	HGUGM
	Marisa Navarro Gómez	HGUGM
	Beatriz Nieto Pereda	HGUGM
	Francisco Pérez Vizcaíno	UCM
Invited	**Arantzazu Miner Vélez**	Scientific Management of IiSGM

iv. SUPPORTING BODIES

CLINICAL RESEARCH ETHICS COMMITTEE	
Chair	**Felipe Atienza Fernández**
Vice-chair	**Andrés Jesús Muñoz Martin**
Secretary	**Roberto Collado Borrell**
Members	**Mª Luisa Baeza Ochoa de Ocariz**
	Ana Mª Iglesias Mohedano
	Mª del Carmen Heras Escobar
	Juan Antonio Andueza Lillo
	Rafael Carrión Galindo
	Mª del Carmen de la Cruz Arguedas
	Ana Esther López Pérez
	Vicente del as Peñas Gil
	Mª Luisa Navarro Gómez
	Pilar Aitana Calvo Ferrandiz
	Mª Luisa Baeza Ochoa de Ocáriz
	Ana Mur Mur
	Carlos Rojas-Marcos Asensi
	Javier de Miguel Díez
	Patricia Font López
	Luis Andrés López Fernández
	Antonio Muiño Miguez
	Diego Rincón Rodríguez
	Isabel Gómez Valbuena
Secretary	**Santos Puerta Cruz**
Administrative	**María José Martín Muñoz**

ANIMAL EXPERIMENTATION ETHICS COMMITTEE	
Chair	**Fernando Asensio Rubio**
Members	**Carlos Simón Adiego**
	Laura Moreno Márquez
	Alberto Tejedor Jorge
	Begoña Quintana Villamandos

	Javier Urbano Villaescusa	
	Batiste Andreu Martínez Climent	
	Mª Victoria Gómez Gaviro	
	Lorena Cussó Mula	
	Javier Vaquero Martín	
	Mª Luisa Baeza Ocariz	
	Antonio Martínez Escandell	
	Jesús López Herce Cid	
Secretary	**Miguel Relloso Cereceda**	

INNOVATION COMMITTEE

Chair	**Ismael Buño Borde**	IiSGM Scientific Director
Vice-chair	**Manuel Desco Menéndez**	UAI Director
Members	**Thierry Bardinet**	FIBHGM Manager
	Francisco Fernández Avilés Díaz	HGUGM
	Rafael Correa Rocha	FIBHGM inestigator
	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	**Beatriz Pérez de Urbina**	UAI

TRAINING COMMITTEE

Chair	**Constancio Medrano López**
Members	**Ismael Buño Borde**
	Thierry Bardinet
	José María Bellón Cano
	Rafael Correa Rocha
	Fernando Asensio Rubio
	Irene Lomba Iriarte
	Arantzazu Miner Vélez

BIOSECURITY COMMITTEE

Chair	**Ignacio Sánchez-Arcilla**
Members	**Ismael Buño Borde**
	Thierry Bardinet
	Ana Cabrero
	Pilar Álvaro
	Julio Soto
	Fernando Asensio
	Mº 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	**José María Bellón Cano**
the Research	**María del C. de la Cruz Arguedas**
Support Services	**Beatriz Pérez de Urbina**
	Javier Bermejo Thomas
	María Ángeles Muñoz-Fernández

Mª Eugenia Fernández Santos
Rubén Pérez Mañanes
Fernando Asensio Rubio
Lorena Cussó
Laura Díaz Muñoz
Maribel Clemente Mayoral
Rafael Samaniego
Julia Suárez González
Concha Gil García
Antonio Clemente Picornell Company

v. MANAGEMENT BODY OF IiSGM

HOSPITAL GREGORIO MARAÑÓN BIOMEDICAL RESEARCH FOUNDATION	
Director	**Thierry Bardinet**
Scientific and Quality Management	**Arantzazu Miner Vélez**
Scientific Management	**Irene Lomba Iriarte**
Project Management	**Laura Moreno Márquez**
	Rosa del Ser Toral
	Carlos Arias López
	Montserrat Roura Portillo
Clinical Trial Management	**María del Carmen de la Cruz Arguedas**
	Mª Luisa Morales Jerez
Human resources	**Alberto Gómez Moreno**
	María González Rodríguez
Accounting	**Estefanía Lavilla Guevara**
	Mª 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 Rodriguez	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	CONSOLIDATED (in the process of integration)	UC3M

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 Cachofeiro Ramos	CONSOLIDATED	UCM
2.03 Cardiac celular 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 infl ammatory and immunological diseases	Eduardo Fernández-Cruz Pérez	CONSOLIDATED	HGUGM
5.02 Molecular biology of HIV	Mª 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	EMERGING	HGUGM
5.07 Infections in pediatric patients	María Luisa Navarro Gómez	CONSOLIDATED	HGUGM

AREA 6: Translational Oncology

COORDINATOR: Miguel Martín Jiménez

Group	Group leader	Type of Group	Organization
6.01 Interdisciplinary oncology and biotechnology	Javier Serrano Andreu	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 infl ammation in chronic kidney disease, dialysis, and kidney transplantation. Pathophysiology ofthe 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 insuffi ciency and respiratory disorders of sleep	Luis Puente Maestu Ignacio Garutti Martínez	CONSOLIDATED	HGUGM
7.06 Regenerative medicine in plastic surgery	Rosa Pérez Cano José Mª Lasso	EMERGING	HGUGM
7.07 Experimental kidney transplantation	Enrique Lledó García	EMERGING	HGUGM
7.08 Pediatric endocrinology	María Dolores Rodríguez Arnao	ASOCIADTED	HGUGM
7.10 Regeneration and biomaterials in musculoskeletal disease	Francisco Javier Vaquero Martín	ASOCIADTED	HGUGM-UCM
7.11 Iron metabolism disorders	María Rosa Peraita Adrados	ASOCIADTED	HGUGM
7.12 Emergency medicine	Javier Muñoz González	ASOCIADTED	HGUGM
7.16 Regenerative medicine and system development: cardiovascular and osteochondral	Mª Begoña Quintana Villamandos	EMERGING	HGUGM
7.18 Peritransplant evaluation (liver)	José María Pérez Peña	ASOCIADO	HGUGM
7.19 Perianesthetic assessment	Carmen Fernández Riveira	ASOCIADTED	HGUGM
7.20 Anesthesia, toxins, and arrhythmias	Matilde Zaballos García	ASOCIADTED	HGUGM
81	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 Freneña	EMERGING	HGUGM
7.27 Hospital pharmacy and pharmacogenomics	María Sanjurjo Sáez	CONSOLIDATED	HGUGM
7.28 Clinical nutrition	Mª Cristina de la Cuerda Compés	EMERGING	HGUGM
7.29 Vascular pathophysiology and pharmacology	Francisco Pérez Vizcaíno	CONSOLIDATED	UCM
7.31 Pathophysiology in women, pregnancy, labor, and puerperium	Santiago Lizarraga Bonelli Juan Antonio deLeón	EMERGING	HGUGM
7.32 Physical medicine and rehabilitation	Pilar Crespo Cobo Marta Supervía Pola	EMERGING	HGUGM

Nursing Research Group

COORDINATOR: Ana García Pozo

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

COMPETITIVE PUBLICLY FUNDED RESEARCH STAFF CONTRACTS

INSTITUTO DE SALUD CARLOS III
Miguel Servet Tipo I contracts

	Area	Group
Susana Carmona Cañavate	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Marta Rapado Castro	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Laura Pérez García	4.Infectious diseases and AIDS	4.01 Infectious diseases
Pilar Escribano Martos	4.Infectious diseases and AIDS	4.01 Infectious diseases

INSTITUTO DE SALUD CARLOS III
Miguel Servet Tipo II contracts

	Area	Group
María Guembe Ramírez	4.Infectious diseases and AIDS	4.01 Infectious diseases
Belén Rodríguez Sánchez	4.Infectious diseases and AIDS	4.01 Infectious diseases

INSTITUTO DE SALUD CARLOS III
Sara Borrell contracts

	Area	Group
Ana Mª Santos Coquillat	1.Biomedical Engineering	1.01 Advanced technological applications and human health
Marta Martinez Bonet	5.Diseases of the Immune System	5.06 mmune regulation and homeostasis in diseases of the immune system

INSTITUTO DE SALUD CARLOS III
Río Hortega contracts

	Area	Group
Antonia Delgado Moreno	2. Cardiovascular diseases	2.01 Natural history of heart disease
Javier Castrodeza Calvo	2. Cardiovascular diseases	2.01 Natural history of heart disease
Manuel Durán Cutilla	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Miriam del Valle Ayora Rodriguez	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 Uria	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 Garcia San Prudencio	7. Systemic Diseases and Organ Transplantation	7.04 Diseases of the critically ill child

INSTITUTO DE SALUD CARLOS III
Juan Rodés contracts

	Area	Group

Mª Covadonga Martínez Díaz-Caneja	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Alicia Galar Recalde	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Mª Teresa Aldamiz Echevarria Lois	4. Clinical microbiology, infectious diseases and AIDS	4.02 Clinical and epidemiological aspects of HIV infection and associated conditions
Leire Pérez Latorre	4. Clinical microbiology, infectious diseases and AIDS	4.02 Clinical and epidemiological aspects of HIV infection and associated conditions
Rafael González Cortés	7. Systemic Diseases and Organ Transplantation	7.04 Diseases of the critically ill child

INSTITUTO DE SALUD CARLOS III
Predoctoral contracts (PFIS)

	Area	Group
Magdalena Martínez García	1.Biomedical Engineering	1.01 Advanced technological applications and human health
Jorge García Carreño	2. Cardiovascular diseases	2.01 Natural history of heart disease
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
Sara Fuentelsaz Romero	5. Diseases of the Immune System	5.01 Pathophysiology and clinical research into chronic infl ammatory and immunological diseases
Marta Fernández Castillo	5.Diseases of the Immune System	5.06 mmune regulation and homeostasis in diseases of the immune system
Jorge Gallego Valle	5.Diseases of the Immune System	5.06 mmune regulation and homeostasis in diseases of the immune system

INSTITUTO DE SALUD CARLOS III
Research Management Contracts

	Area	Group
Irene Lomba Iriarte		Technical Unit FIBHGM

INSTITUTO DE SALUD CARLOS III
Bioinformatics Technicians Contracts

	Area	Group
Laura Castro Labrador		Bioinformatic UnitM

MINISTERIO DE CIENCIA E INNOVACIÓN
Predoctoral Contracts

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

MINISTERIO DE EDUCACIÓN Y CIENCIA
FPU Contracts (University Teacher Trainig Contracts)

	Area	Group
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
Laura Colomar Molla	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Alba Martín Moreno	5. Diseases of the Immune System	5.02 Molecular biology of HIV
Patricia Rubio Fernández	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment

MINISTERIO DE CIENCIA E INNOVACIÓN
Young employement Program contracts

	Area	Group
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
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 Albadalejo Navarro		Animal Facility

COMUNIDAD AUTÓNOMA DE MADRID
Young employement Program contracts

	Area	Group
Vanessa Gomez Rangel	1.Biomedical Engineering	1.01 Advanced technological applications and human health
Ana María Santos Coquillat	1.Biomedical Engineering	1.01 Advanced technological applications and human health
Patricia Cantón Lobera	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
Sara Gómez Aguililla	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
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
Lidia Quiroga Maroto	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Ana Valera Pérez	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
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
José Egido Basaltegui	5. Diseases of the Immune System	5.01 Pathophysiology and clinical research into chronic inflammatory and immunological diseases
Kristofer Miguel Limay Carré	5. Diseases of the Immune System	5.01 Pathophysiology and clinical research into chronic inflammatory and immunological diseases
Yaiza Perez García	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
Marta Fernández Castillo	5. Diseases of the Immune System	5.06 Immune regulation and homeostasis in diseases of the immune system
Paula Muñiz Sevilla	6. Translational Oncology	6.03 Genetics and clinical aspects of hematologic malignancies and hematopoietic stem cell transplantation
Gonzalo Pérez Balsera	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
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 infl ammation in chronic kidney disease, dialysis, and kidney transplantation. Pathophysiology ofthe kidney
Beatriz Martín Sánchez	7. Systemic Diseases and Organ Transplantation	7.01 Vascular damage and infl ammation in chronic kidney disease, dialysis, and kidney transplantation. Pathophysiology ofthe 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
Judith Abarca Zabadía	7. Systemic Diseases and Organ Transplantation	7.27 Hospital pharmacy and pharmacogenomics
Miguel Ángel Olivenza Plaza	7. Systemic Diseases and Organ Transplantation	7.29
Virginia Albaladejo García		Animal Facility
Alicia Sánchez Martín		Animal Facility
Lara Sanz Criado		Cardiology Traslational Research Laboratory
Alba Gutierrez Seijó		Confocal Microscopy Unit
Celia Barrio Alonso		Confocal Microscopy Unit

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

Intramural Program to Promote Research

Predoctoral contracts

	Area	Group
Nicolás Lamanna Rama	1.Biomedical Engineering	1.01 Advanced technological applications and human health
Jorge Gallego Valle	5. Diseases of the Immune System	5.06 Immune regulation and homeostasis in diseases of the immune system
Sara Salvador Martín	7. Systemic diseases and organ transplantation	7.27 Hospital pharmacy and pharmacogenomics

Maria Consuelo Latorre Sanz	7. Systemic diseases and organ transplantation	7.31 Pathophysiology in women, pregnancy, labor, and puerperium

FUNDACIÓN PARA LA INVESTIGACIÓN BIOMÉDICA DEL IISGM (IINSTITUTO DE INVESTIGACIÓN SANITARIA GREGORIO MARAÑÓN)
Intramural Program to Promote Research
Predoctoral in healthcare innovation Contract

	Area	Group
Alicia Díez de la Lastra Pose	1.Biomedical Engineering	1.01 Advanced technological applications and human health

FUNDACIÓN PARA LA INVESTIGACIÓN BIOMÉDICA DEL IISGM (IINSTITUTO DE INVESTIGACIÓN SANITARIA GREGORIO MARAÑÓN)
Intramural Program to Promote Research
Post-specialized Health Training Contracts.

	Area	Group
Mª Amalia Tamargo Delpón	2. Cardiovascular diseases	2.01 Natural history of heart disease
María López Blazquez	2. Cardiovascular diseases	2.05 Cardiology and heart transplantation in infants
Luis Alberto Sánchez Cámara	7. Systemic diseases and organ transplantation	7.01 Vascular damage and infl ammation in chronic kidney disease, dialysis, and kidney transplantation. Pathophysiology ofthe kidney
Gema Pérez Yagüe	7. Systemic diseases and organ transplantation	7.04 Diseases of the critically ill child

FUNDACIÓN PARA LA INVESTIGACIÓN BIOMÉDICA DEL IISGM (IINSTITUTO DE INVESTIGACIÓN SANITARIA GREGORIO MARAÑÓN)
Intramural Program to Promote Research
Post-doctoral Contracts.

	Area	Group
Clara Alloza Romero	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment

FUNDACIÓN PARA LA INVESTIGACIÓN BIOMÉDICA DEL IISGM (IINSTITUTO DE INVESTIGACIÓN SANITARIA GREGORIO MARAÑÓN)
Intramural Program to Promote Research
Intensification of research activity contracts (I+D+I and Nursing care)

	Area	Group
Francisco J. Fernández-Avilés Díaz	2. Cardiovascular diseases	2.01 Natural history of heart disease
Manuel Martínez Selles	2. Cardiovascular diseases	2.01 Natural history of heart disease
Mª José Parellada Redondo	3. Neuroscience and Mental Health	3.01 Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment
Patricia Muñoz García	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Elena Reigadas Ramírez	4. Clinical microbiology, infectious diseases and AIDS	4.01 Infectious diseases
Juan Berenguer Berenguer	4. Clinical microbiology, infectious diseases and AIDS	4.02 Clinical and epidemiological aspects of HIV infection and associated conditions
Magdalena Salcedeo Plaza	7. Systemic diseases and organ transplantation	7.01 Vascular damage and infl ammation in chronic kidney disease, dialysis, and kidney transplantation. Pathophysiology ofthe kidney
Isabel Gutiérrez Cuellar		Nursing Group

Julita Fernández Arranz		Nursing Group
Cristina Béliz Mendiola		Nursing Group

FUNDACIÓN PARA LA INVESTIGACIÓN BIOMÉDICA DEL IISGM (IINSTITUTO DE INVESTIGACIÓN SANITARIA GREGORIO MARAÑÓN)
Researches Stabilization Contracts

	Area	Group
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
Mª Jesús Serramía Lobera	4. Clinical microbiology, infectious diseases and AIDS	4.02 Clinical and epidemiological aspects of HIV infection and associated conditions
Amaya Rocío Puig Kröger	5. Diseases of the Immune System	5.01 Pathophysiology and clinical research into chronic infl ammatory 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 mmune regulation and homeostasis in diseases of the immune system
Marjorie Pion	5. Diseases of the Immune System	5.06 mmune regulation and homeostasis in diseases of the immune system
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 Relloso Cereceda	7. Systemic Diseases and Organ Transplantation	7.30 Pathophysiology in women, pregnancy, labor, and puerperium

FUNDACIÓN PARA LA INVESTIGACIÓN BIOMÉDICA DEL IISGM (IINSTITUTO DE INVESTIGACIÓN SANITARIA GREGORIO MARAÑÓN)
Research Support Technician and Technical Staff

	Area	Group
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

RESEARCH SUPPORT SERVICES (RSSs

IiSGM has organized research support services into various technology platforms according to the object of research. Thus, IiSGM 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**

Patient Platform	Organ Platform	Animal Platform	Cell Platform	Molecular Platform
Methodology and Biostatistics Unit	Biobank	Experimental Operating Room	Cell Therapy Unit	Genomics Unit
Clinical Research Central Support Unit	Cardiology Translational Research Laboratory	Animal Facility	Flow Cytometry and Cell Sorter Unit	Proteomics Unit
Innovation Support Unit	3D Medical Printing Unit	Experimental Small-Animal Imaging Laboratory	Cell Culture Unit	Bioinformatics Unit
Cardiac Imaging Unit			Confocal Microscopy	
ICT Services Unit				

PATIENT PLATFORM
METHODOLOGY AND BIOSTATISTICS UNIT

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 carriers 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

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PATIENT PLATFORM
CLINICAL RESEARCH CENTRAL SUPPORT UNIT

CLINICAL RESEARCH CENTRAL SOPPORT UNIT
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 (planta baja) 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
IT-IPE-06: Management of contracts
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

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PATIENT PLATFORM
INNOVATION SUPPORT UNIT

INNOVATION SUPPORT UNIT

Mission

To support and advise researchers during the various stages of the process of innovation and transfer so that ideas can become products and services that provide value to the health system and society.

Description

The Unit is a Research Support Service that helps researchers channel innovative ideas and proposals in the hospital setting. The Unit provides advice and dialogue aimed at all those who require assistance at any stage of the innovation and transfer process in the following areas: evaluation of ideas and results of research, support in the drafting and planning of innovation projects, prototyping, search for funding, search for technology and/or commercial partners, strategies for the protection of industrial and intellectual property, advice on the process of technological transfer, licenses, and company formation.

The objective of these activities is that innovation projects in these areas have greater potential for transfer to society in general and to the patient in particular.

The Innovation Support Unit of IiSGM (ISU) also provides training and information on transfer processes to bring the culture of innovation and entrepreneurship closer to the health care sector.

Services provided

The Unit provides support at each of the stages in the innovation process. In order to cover all stages, the Unit maintains alliances with external bodies, such as patent offices, consultancy companies, and business in general.

- Idea evaluation.
- Support in the valorization of ideas and research results.
- Prototyping (functional analysis and technical evaluation, design, manufacture of prototypes).
- Support in the drafting and planning of innovation projects.
- Search for funding.
- Support in the search for technological or commercial partners.
- Advice on contracts (drafting of collaboration agreements, licencing contracts, etc.).
- Advice on aspects referring to the strategy for protection of industrial and intellectual property.
- Advice on the administrative steps for technology transfer, licenses, and company formation.
- Outreach activities.
- Training on the management of innovation, creativity, and entrepreneurship.

Location

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

Resources

Mechanical workshop.
Electronic workshop.
IT workshop.
Access to specialized databases.

Staff

Team comprising 2 postgraduates specialized in management of innovation.
Engineering support team for development of prototypes.

Contact

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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 Marañon. 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 IiSGM 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

*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 IiSGM (PR-SPE-06) will be applied.

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

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PATIENT PLATFORM
ICT SERVICES UNIT

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)

ORGAN PLATFORM
BIOBANK

BIOBANK

Mission

To contribute to the advancement of scientifi c 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 scientifi c 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 Biobank 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.
- 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 (4º).
- 1 freezer (–20ºC).
- 11 freezers (–80ºC).
- 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.

ORGAN PLATFORM
BIOBANK

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ORGAN PLATFORM
CARDIOLOGY TRANSLATIONAL RESEARCH LABORATORY

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 DirectorThe Cardiology Traslational 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.objective is to obtain decellularized matrices and organs from animal and human organs in order to 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:
  a) Vascular fat fraction or "fresh cells" from liposuction.
  b) Bone marrow mononuclear cells.
  c) Bone marrow mesenchymal cells.
  d) Fatty tissue mesenchymal cells.
  e) Obtaining iPS cells.
  f) 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 Scientifi c Microm HM525-U.
- Carousel-type automatic tissue processor: Thermo Scientific Microm STP120-2.
- Modular embedding center: Thermo Scientifi c Microm EC350.
- Histology bath: Termofi n 3000459, Selecta.
- Microtome: Thermo Scientifi c 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

- CO_2 incubators: Nuaire, Nu-4850-E, and with control of CO_2 and O_2 Nuaire, Nu-4950-E.
- Laminar fl ow biosafety cabinets: Nuaire, Nu-437-400-E.
- Safety cabinet: Safefast Elite.
- Ovens: 37ºC (TherMark) and 22ºC (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 (–80ºC): 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: Masterfl ex 7524-45.
- Patch-Clamp set.

ORGAN PLATFORM
CARDIOLOGY TRANSLATIONAL RESEARCH LABORATORY

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. Its covers 275 m2 and is home to several work areas: the histology area, culture area, electrophysiology area, and genetics, genomics, and transcriptomics area.

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ORGAN PLATFORM
3D MEDICAL PRINTING UNIT

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 bioreproducts from medical image segmentation (CT, CBCT, MR, PET)
- Final product development: medical training, surgical simulation, positioning guides, customized instruments
- Advice on integrating 3D printing technology into the clinical process

RESOURCES

Material Resources

3D printing laboratory room with aeration and soundproofing system

Multiestation of work composed of computer equipment of last generation with high capacity of file and data processing

Post-processing tools

3D Printers FDM technology

3D Surface Scanner

Polymers and thermoplastic materials

Human Resources

Multidisciplinary team of medical specialists and biomedical engineers

Support team by means of pre and post grade students

LOCATION

Medical 3D printing laboratory is located on the first floor of the central building (IPQM) of the HGUGM

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ANIMAL PLATFORM
I EXPERIMENTAL OPERATING ROOM

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 fi ttings, 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

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 offi ce, and changing rooms.

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ANIMAL FACILITY

Misision

To support translational research based on animal models. Biomedical research requires the use of small experimental animals that fulfi ll, 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

ANIMAL PLATFORM
ANIMAL FACILITY

Technicians:
Francisco Sánchez Cobos, Animal Experimentation Technician.
Alicia Sánchez Martín, Animal Experimentation Technician.
Lidia Albadalejo Navarro, Animal Experimentation Technician.

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ANIMAL PLATFORM

EXPERIMENTAL SMALL-ANIMAL IMAGING LABORATORY

EXPERIMENTAL SMALL-ANIMAL IMAGING LABORATORY

Mission

The main objectives of the group are to perform research on advanced biomedical imaging technologies and to provide imaging services to researchers from the hospital and from other centers.

The group has led and currently leads various networks of excellence in Spain, such as "Red de Imagen Molecular y Multimodalidad" (Multimodality and Molecular Imaging Network) and "Red de Innovación Tecnológica en Hospitales" (Technological Innovation in Hospitals Network), as well as large consortia for technology transfer (CENIT program).

Description

The Small Experimental Animal Imaging Laboratory has an instrument platform for molecular imaging of small animals. Its 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 in procedures in animals for both basic studies (administration of substances, blood sampling, perfusions, necropsy, etc.) and advanced studies (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). Another 500-m² area is also available on the campus of Universidad Carlos III de Madrid, which is oriented more toward technological development.

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)
- Planar optical imaging systems (bioluminescence and fluorescence)
- 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 (respiration and heart rate)
- Radiopharmacy Unit for in situ production of radiotracers
- Autoradiography system (BAS-5000, Fujifilm)
- Inhaled anesthesia systems (sevoflurane)

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CELL THERAPY UNIT

Mission

The Cell Therapy 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.

• Cell Production Unit: Infrastructure that provides support to clinical research in regenerative medicine and cell therapy. 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/133/15) for the production of 7 cell types: 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. 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 (IP Nos. 05-042 and 13-037).
– Stromal vascular fraction (fresh fat cells) (IP No. 11-027).
– Autologous bone marrow mesenchymal cells (IP No. 09-065).
– Allogenic bone marrow mesenchymal cells (IP No.12-088).
– Fatty tissue mesenchymal cells (IP No. 09-019 and 11-164).
– Periodontal ligament cells (IP No. 13-143).
– Stimulated and nonexpanded NK cells (IP: 17-025).
- Treg lymphocytic cells, differentiated, autologous, thymic tissue, expanded and stimulated with IL-2 (thyTreg) (PEI No. 19-083)

• Preparation of Investigational Medicinal Product Dossiers and standardized operating procedures. Validation of and reporting on cell products for which no IP number is available for 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 fl ow cabinet.
– Thermo CO_2 incubator.
– AXIOVER40 fl uorescence microscope.
– SEPAX system. EPPENDORF 5810R Biosafe for cell separation and refrigerated centrifuge.
– Barnstead MAXQ Mini 4450 shaker.

• Cell Production Unit (GMP):
– TELSTAR BIO II-A and II-A-P laminar fl ow cabinet equipped with continuous particle counters.
– Thermo 371 and STERI-CULT CO_2 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 (37ºC and 22ºC).

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/125I/18; July de 2018]. At the present time there are several new products under review for authorization by the AEMPs,

Contact

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FLOW CYTOMETRY AND CELL SORTER UNIT

Misión

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.

Descripción

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 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 (640nm, 592 nm, 561 nm, 532 nm, 488nm, 405 nm) and 7 phinols. It currently has 2 lasers (488nm and 640nm).
- Depending on the application, the acquisition speed can be up to 100,000cel/sec; self-recognition by photomultipliers (PMT) and PODs that allows different configurations depending on the target.
Various collection systems: multiwell plates, propylene tubes, etc.

CELL PLATFORM

FLOW CYTOMETRY AND CELL SORTER UNIT

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

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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, CO_2 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, CO_2; and in environment of humidity saturation; Model: Model 3100 Series. Forma Series II water jacket CO_2 Incubator Brand: Thermo Scientific
- 1 Inverted microscope; Model: Labovert 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
- 3 bacteriological stoves; 2 of Haraeus brand and 1 Selecta Incudigit
- 1 centrifuge; Model: Digitor 21 Make: Orthoaresa

Radioactive Culture Laboratory

- 1 Class II biological safety cabinet; Model: EuroAIre TDI CSB95 cabinet
- 1 Incubator of water jacket with temperature control, CO_2; and in environment of saturation of humidity; Model: Function Line Brand: Haraeus Instruments
- 1 Analog Thermostatic Bath Brand: Labbox
- 1 Inverted microscope; Make: Leica

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 2 confocal microscopes at its disposal. These make it possible to acquire fluorescence images of fixed or 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, and cell density).

The Confocal Microscopy Unit has its own 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 tissue sections. This service is aimed at research groups from the Institute and from other institutions that request it.

Services provided

- Spectral confocal microscopy of fixed samples: cells, tissues, and organs
- Video microscopy (time-lapse) of live samples in a CO_2- and temperature-controlled environment using a digital camera or in confocal mode (including FRAP).

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

Technology

1. CONFOCAL FLUORESCENCE MICROSCOPE (LEICA-SP2, INSTALLED IN 2004): CONFOCAL MODULE

- High-sensitivity multiband with AOBS
- Three independent and adjustable internal fluorescence detectors (PMT) and an internal detector for differential interference contrast (DIC)
- Digitalization of images: 4096 x 4096 pixels, 8 and 12 bits per channel
- Laser sweeping system with AOTF: maximum 2000 lines/s ROI scan under varying conditions for each region

Laser module: Multiple laser configuration with 7 excitation lines:

- Laser: 405 nm
- Ar/ArKr laser: 458, 476, 488, 496, and 514 nm
- Laser: 561 nm

Inverted motorized microscope (DM IRE2 Fluo TCS)

Objective lenses:

- HC PL-APO 10x/numerical aperture of 0.4
- HC PL-APO 20x/0.70 multi-immersion Lambda Blue
- HCX PL-APO 40x/1.25-0.75 oil immersion
- HCX PL-APO 63x/1.4-0.6 oil immersion
- PL-APO 63x/1.3 glycerol immersion

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

Three fluorescence filter blocks: DAPI, FITC, and Rhodamine

Computer equipment: Two HP computers running Windows XP (acquisition and processing).

Software: LCS version 15.37 and "Microlab" software license for FRAP.

2. 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 fi lter blocks: DAPI, FITC, Rhodamine, and Cy5

Environmental monitoring (temperature and CO_2) for experiments with cells and live tissue.

Computer equipment

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

3. 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.

CELL PLATFORM
CONFOCAL MICROSCOPY

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GENOMICS UNIT

MissionTo 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 quantifi cation 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 specifi c to the region to be studied.
2. Analysis of the size and quantity of fl uorescence-labeled DNA fragments using an in-house or commercial kit and analysis of fragments of a singlenucleotide polymorphism (SNP) using capillary electrophoresis. Software: GeneMapper. Filters: D, F, E5, G5. 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 amplifi cation 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 fi ling 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
Mª José Delmas González, Laboratory technician
Ainhoa Simón Zárate, Laboratory technician
María Lozano, Laboratory technician

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MOLECULAR PLATFORM
PROTEOMICS UNIT

PROTEOMICS UNIT

Mission

The principal objective of the Proteomics Unit is to promote scientifi c research and technological development in the fi eld 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)
Reparative 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 Hernáez 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.

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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.

Services provided

1 Genome Analysis

a. 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.
b. Analysis of the human exome. Variant calling and annotation and CNVs.
c. 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

a. 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.
b. Microarray analysis. These are performed using both commercial and custom platforms, followed by a simple analysis of differences in expression between sample groups.
c. 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.
d. 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.
e. Studies on alternative splicing and isoforms using mRNA-Seq data.
f. Studies of expression using the platform nCounter from NanoString.

3 Programming and Statistical Support

a. 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.
b. Evaluation of batch effects. Evaluation of batch effects in experimental data using clustering, PCA, multidimensional scaling (MDS), and special programs.
c. 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

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INNOVATION, KNOWLEDGE TRANSFER, AND TRANSLATION TO PRACTICE

INNOVATION SUPPORT UNIT

Innovation is a key element in the development of the research community, especially in the health care sector. IiSGM's commitment to this activity is unwavering and has led to the creation of a structure aimed at providing researchers with a smooth path from the innovative idea to the development of the end product.

The objectives of the IiSGM include encouraging and developing innovation within the organization by promoting the transfer of the results obtained by its professionals to society, the health system, the scientific community, and the financial system.

The Innovation Support Unit came into being from a powerful research and technological development group in the area of biomedical instrumentation and engineering at Hospital General Universitario Gregorio Marañón, with a solid record in transferring technology to the industrial sector.

The unit is structured in such a way that it provides channels for the ideas and proposals of professionals working at the hospital. Thus, the unit can support and advise researchers along the different stages of the innovation and transfer process, with the aim of turning their proposals into products and services that add value to the health system and society.

The purposes of the Innovation Support Unit include the following points:

- Providing the necessary support to professionals working at the hospital to help them innovate
- Bringing the culture of innovation and entrepreneurism closer to health/ research professionals
- Establishing channels to enable appropriate training and information for professionals working in innovation
- Promoting and strengthening alliances between the Innovation Support Unit and the various agents of innovation, both with other management structures, as well as with companies and R&D organizations and the business fabric
- Acting as a bridge between the agents of innovation from outside the IiSGM by offering ad hoc support services, both as interlocutors and as managers of innovation projects

In 2020, its structure was as follows:

- Head of unit: Manuel Desco Menéndez
- Project manager: Beatriz Pérez de Urbina
- Innovation manager: Hugo Jorge de Navascués Lauzet
- Innovation manager: Eva Caravilla
- Research manager: Trajana Garrido
- Quality control technician: Elena Rodríguez Casaú

Development and promotion of innovation is a specific area of the Strategic Plan of the IISGM.

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 the different professional profiles associated with the IiSGM: 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 (IiSGM Scientific Director).
- Vicepresidente: Manuel Desco Menéndez (Innovation Support Unit Director).
- D. Thierry Bardinet (FIBHGM Manager)

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)
- Secretaría: Beatriz Pérez de Urbina (Innovation Support Unit Project Manager)

The identification and registration of the results of research to ensure that they are protected is key to promoting transfer and use of these results and the development of commercial technology-based projects.

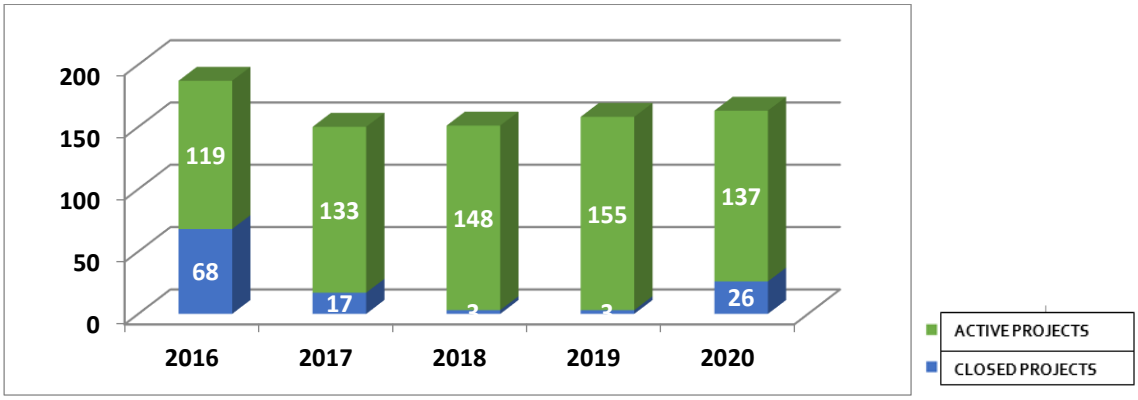
IiSGM activity in innovation during 2020 can be seen in the following areas:

1. **Intellectual and industrial property**

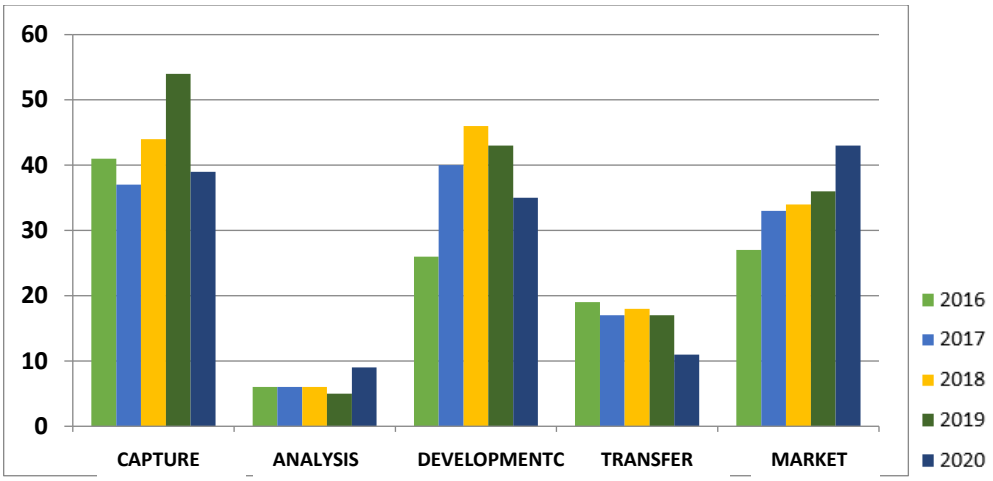
a) Intellectual property applied for: 4
b) Industrial property applied for:
   - 8 international patents
   - 1 national patent
   - 1 utility model
   - 1 trademark
c) Industrial property awarded:
   - 1 international patent
   - 1 national patent
   - 1 trademark
d) Transfer of patents: 1 patent family

2. **Innovation projects portfolio**:

During 2020, 17 new innovation projects were started in the unit. The year closed with 137 active projects. The following figures show the distribution of projects classified by area and development phase over the last 5 years.
With respect to calls for innovation projects, IiSGM has obtained 765.005€.



Total Number of Projects



Total number of projects (per phase)

Contracts:
A total of 9 new contracts have been closed, both with companies and national and international organizations.
Other initiatives and achievements of the Unit during 2020 include the following:

- One project selected to participate in HealthStart: Madri+d Foundation for Knowledge Program to promote the creation of technology start-ups in the health sector
- One project selected obtained funding from the FIPSE call proposals "Estudios de viavilidad de las innovaciones en salud".
- The certification of the R+D+I management system has been validated according to the UNE-166002:2014 standart.
- 41 meetings have been held with companies, collaborators and internal researchers.
- 137 innovation projects managed.
- Participation of the unit in informative sessions on innovation in national events
- Participation of the unit in 47 informative sessions on innovation innational events, and 3 sessions given by the Innovation Support Unit (ISU)

It is noteworthy that the webpage of the IiSGM includes a specific section on innovation, which describes services provided by the ISU, the members of the ISU, contact details, latest news, and notable successes:

- Present an innovative idea or project by contacting http://www.iisgm.com/innovacion/unidad-de-apoyo-a-la-innovacion/comunica-tu-idea-2/
- Material for consultation such as the Innovation Guide http://www.iisgm.com/innovacion/unidad-de-apoyo-a-la-innovacion/normativa-de-invenciones-del-iisgm/

INNOVATION PORTFOLIO

Below, we show the project portfolio, or "innovation funnel", generated by IiSGM and active as at December 2020.

	ICTs Health	Material and devices	Medicines and pharmaceutical products	Biotechnology and molecular diagnosis	Imaging	Care organization
Ideas proposed (not developed)	6	11	53	6	3	10
Ideas under assessment	2	3	0	3	0	1
Ideas under development	6	10	1	9	3	6
Ideas under transfer	3	1	1	4	1	1
Ideas in the market	11	6	4	3	10	9

The intellectual and industrial property of the IiSGM included in the technology portfolio is detailed below.

This information is constantly updated and can be consulted at: http://www.iisgm.com/innovacion/propiedad-intelectual-e-industrial/propiedad-intelectual-e-industrial/

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 7	Group 1.01 Advanced technological applications and human health. Group 7.22 Pathophysiology of the neonate and developing child	Incubadora para imagen con radiación no ionizante	PCT/ES 2007 070214 (3 patents)	FIBHGM	Juan José Vaquero, Manuel Desco, Manuel Sánchez-Luna
1	Group 1.01 Advanced technological applications and human health	Aparato de adquisición de datos para tomografía computerizada por emisión de radiación gamma y su funcionamiento	P 2007 02836	FIBHGM – Universidad Politécnica de Madrid	Juan José Vaquero, Manuel Desco, Pedro Guerra, Andrés de Santos, Giancarlo Sportelli
1	Group 1.01 Advanced technological applications and human health	Procedimiento y dispositivo para la detección y discriminación de eventos válidos en detectores de radiación gamma	PCT/ES 2009 070456 (2 patents)	FIBHGM	Eduardo Lage, Gustavo Tapias, José Antonio Sánchez, Javier del Pino, Juan José Vaquero, Manuel Desco
1 2	Group 1.01 Advanced technological applications and human health Group 2.01 Natural history of heart disease	Método para visualizar la información contenida en imágenes tridimensionales del corazón	P 2010 00363 (4 patents)	FIBHGM - Universidad Politécnica de Madrid	Esther Pérez, Ángel Arenal, Javier Bermejo, Francisco Fernández-Avilés, Manuel Desco, Mª Jesús Ledesma, Andrés de Santos, José Luis Rubio
1	Group 1.01 Advanced technological applications and human health	Ciclotrón clásico superconductor compacto	P 2013 30626 (2 patents)	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
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
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 invasive de focos infecciosos	P 202030838	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 (2 patents)	FIBHGM - UC3M	Gonzalo Ricardo Ríos Muñoz, Antonio Artés Rodríguez, Ángel Arenal Maíz, 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 (5 patents)	FIBHGM – Universidad Politécnica de Valencia – Universidad de Michigan	Andreu Martínez, Felipe Atienza, Miguel Rodrigo, Mª Salud Guillem, Omer Berenfeld
2	Group o 2.01 Natural history of heart disease	Dispositivo de localización de arritmias cardiacas	P 2014 31597 (4 patents)	FIBHGM - Universidad Politécnica de Valencia	Andreu Martínez, Felipe Atienza, Ángel Arenal, Francisco

AREA	GROUP	TITLE	REFERENCE*	OWNER	INVENTORS
					Fernández-Avilés, Mª Salud Guillem
2	Group 2.01 Natural history of heart disease	Mapping and quantifying blood status and thrombus risk in the heart	US 62259494 (4 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	Procedimiento mejorado para evaluar el riesgo cardiovascular	P 2009 01923 (2 patents)	FIBHGM	María Concepción Guisasola, Elena Dulín
3	Group 3.03B Neurological diseases				
3	Group 3.03B Neurological diseases	Control method for a neuroprosthetic device for the reduction of pathological tremors	EP20382416.4	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, Mª Jesús Pérez
4	Group 4.01 Infectious diseases	Dispositivo aplicador de antifúngico coloreado	P 2014 30751	FIBHGM	Pablo Martín-Rabadán
4	Group 4.01 Infectious diseases	Portaobjetos	U 2014 30943	FIBHGM	Pablo Martín-Rabadán Caballero
5	Group 5.02 Molecular biology of HIV	Nanopartículas metálicas estabilizadas con dendrones carbosilano y sus usos	P 2015 00669 (2 patents)	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 , Mª Ángeles Muñoz, José Luis Jiménez, Pilar García
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	Mª 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, Mª Ángeles Muñoz-Fernández, Verónica Briz, Mª 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, Mª Ángeles Muñoz-Fernández, Louis Chonco, Mª Jesús Serramia
5	Group 5.02 Molecular biology of HIV	Dendrímeros carbosilanos y su uso como antivirales	P 20103 0233 (8 patents)	Universidad de Alcalá de Henares - HGUGM	Francisco Javier de la Mata, Rafael Gómez, Mª Ángeles Muñoz-Fernández, Javier Sánchez-Nieves, Beatriz Rasines, Louis Chonco, Eduardo Arnaiz, Mª Jesús Serramia
5	Group 5.02 Molecular biology of HIV	Compuestos dendríticos carbosilanos homo y hetero-funcionalizados	P 2012 31187 (2 patents)	Universidad de Alcalá de Henares - FIBHGM	Francisco Javier de la Mata, Rafael Gómez, Mª Ángeles Muñoz-Fernández, Javier Sánchez-Nieves, José Luis Jiménez, Silvia Fernández, Marta Galán, Raquel Lorente, Elena Fuentes, Javier Sánchez, Cornelia Peña, Mª Jesús Serramía, Rosa Reguera
5	Group 5.06 Immune regulation and homeostasis in diseases of the immune system	Procedimiento de obtención de células T reguladoras derivadas de tejido tímico y uso de dichas células como inmunoterapia celular en trastornos del sistema inmune	P 2018 30197 (8 patents)	FIBHGM	Rafael Correa, Marjorie Pion, Esther Bernaldo de Quirós

AREA	GROUP	TITLE	REFERENCE*	OWNER	INVENTORS
5	Group 5.06 Immune regulation and homeostasis in diseases of the immune system	Marca Thy-Tech	M 18215381	FIBHGM	Rafael Correa Rocha
6	Group 6.02 Translational medical oncology and personalized cancer therapy	Método para seleccionar, manipular y aislar células tumorales circulantes en líquidos corporales por transferencia asistida por láser	PCT/ES 2018 070064	FIBHGM - UPM	Miguel Martín, María del Monte, Andrés Muñoz, Rocío Ramos, Javier Gayarre, Tatiana Massarrah, Carlos Molpeceres
6	Group 6.03 Genetics and clinical aspects of hematologic malignancies and hematopoietic stem cell transplantation	alloGenomics	M 3600830	FIBHGM	Ismael Buño, Milagros González-Rivera, José Luis Díez-Martín, Carolina Martínez-Laperche, Elena Buces, Jorge Gayoso, Mi Kwon, David Serrano, Pascual Balsalobre
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 (23 patents)	FIBHGM	Alberto Tejedor, Alberto Lázaro, Sonia Camaño, Ana María Torres, José Antonio Lázaro, Manuela Castilla, María del Carmen de Lucas
7	Group 7.01 Inflamación y daño vascular en la enfermedad renal crónica, diálisis y trasplante renal. Fisiopatología renal	Método de diagnóstico de insuficiencia renal	P 2011 31506	FIBHGM - Universidad de Alcalá de Henares - Fundació PUIGVERT	Ricardo Bosch, Arancha Ortega, Jordi Bover, Alberto Lázaro, Alberto Tejedor
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 (9 patents)	FIBHGM	Alberto Tejedor, Alberto Lázaro, Blanca Humanes, Mª 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 - FIBIoHRC-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 (5 patents)	FIBHGM	José María Lasso, Paola Nava
7	Group 7.16 Regenerative medicine and system development: cardiovascular and osteochondral	Use of esmolol for early regresion of left ventricular hypertrophy	EP 10382141.9 (2 patents)	FIBHGM	Emilio Delgado, Begoña Quintana
7	Group 7.16 Regenerative medicine and system development: cardiovascular and osteochondral	Dispositivo protector bucal con depresor lingual	P 2015 31508 (4 patents)	FIBHGM	Guillermo Juan Rodríguez, Javier Casanova
7	Group 7.25 Artificial circulation laboratory	Método y aparato de hemodiafiltración	PCT/ES 2007 070081 (3 patents)	FIBHGM	Juan Francisco del Cañizo
7	Group 7.25 Artificial circulation laboratory	Dispositivo de asistencia ventricular	P 2013 31422	FIBHGM	Juan Francisco del Cañizo, Manuel Ruiz
7	Group 7.25 Artificial circulation laboratory	Dispositivo para bombeo de sangre de forma tubular, con válvulas activas gobernado por vacío y aplicación del mismo	P9501070 (14 patents)	SERMAS - HGUGM	Juan Francisco del Cañizo
7	Group 7.31 Pathophysiology in women, pregnancy, labor, and puerperium	Maqueta didáctica armable	U 2015 30218	FIBHGM	Juan Antonio León

AREA	GROUP	TITLE	REFERENCE*	OWNER	INVENTORS
	Obstetrics and Gynaecology Service	Simulador de sutura uterina	U 2012 30998	FIBHGM	Óscar Martínez, Ignacio Cueto, Blanca González
	Obstetrics and Gynaecology Service	Simulador de útero para emergencias obstétricas	P 2013 30161	FIBHGM	Óscar Martínez, Ignacio Cueto, Blanca González, Mª del Mar García, Ana Isabel Casas
	Obstetrics and Gynaecology Service	Dispositivo de sutura (doble aguja)	U 2013 30693	FIBHGM	Óscar Martínez, Luis Ortiz, Ignacio Cueto, Blanca González
	General Surgery I Service	Mango ergonómico de cubierto	U 2014 30605	FIBHGM	Irene de los Ríos, Mª Victoria Sevilla
	Resumption Service	Apósito	U 2014 31166	FIBHGM	José Mª Isla
	Dermatology Service	Composición para liberación controlada de compuestos	P 2014 31583	FIBHGM – Dr. Enrique Alía	Enrique Alía Fernández, Elena Conde
	Medical Onclogy	In vitro method for predicting mortality in covid-19 patients	EP 20 383 140.9	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
	Animal Facility	Conjunto de retención y anestesia para el acceso venoso de roedores	MU 202031736	FIBHGM	Pedro Rolando Llontop
		Marca FIBHGM	M 2606584(3)	FIBHGM	Thierry Bardinet
		Marca IiSGM	M 2929252(2)	FIBHGM	Ismael Buño
		Marca ITEMAS	M 2961719(7)	FIBHGM	Manuel Desco

	Transferred Industrial Property

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

INTELLECTUAL PROPERTY REGISTRATIONS

AREA	GROUP	Title	Reference	Owner	Authors
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)	Nª 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 estreptoscópica	Sin número registro	FIBHGM	Manuel Desco
1 1	Group 1.01 Advanced technological applications and human health Group 1.03 Computer architecture,communications, and systems:ARCOS	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 1.01 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

AREA	GROUP	Title	Reference	Owner	Authors
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 Guembe, 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 Guembe, 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 Guembe, 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 Guembe, 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 Guembe, 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 Guembe, 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 Rodíguez, Estreya Zvezdanova, Pilar Escribano, Patricia Muñoz
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 7	Group 5.03 Systemic autoimmune diseases Group 7.27 Hospital pharmacy and pharmacogenomics	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
5	Group 5.03 Systemic autoimmune diseases	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	Authors
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 Diez
6	Group 6.03Genetics 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 Diez, Jorge Gayoso, Carolina Martínez, Elena Buces, David Serrano, Pascual Balsalobre, Mi Kwon
7 7	Group 7.04 Diseases of the critically ill child. Group 7.27 Hospital pharmacy and pharmacogenomics	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
7 4	Group 7.27 Hospital pharmacy and pharmacogenomics Group 4.01 Infectious diseases	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
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 7	Group 7.27 Hospital pharmacy and pharmacogenomics Group 7.01 Inflamación y daño vascular en la Enfermedad Renal Crónica, Diálisis y Trasplante Renal. Fisiopatología renal	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	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
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 7	Group 7.27 Hospital pharmacy and pharmacogenomics 7.05B Pathophysiology, outcome, and therapeutic strategies in chronic respiratory insuffi ciency and respiratory disorders of sleep	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 7	Group 7.27 Hospital pharmacy and pharmacogenomics 7.05B Pathophysiology, outcome, and therapeutic strategies in chronic respiratory insuffi ciency and respiratory disorders of sleep	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	7.31 Pathophysiology in women, pregnancy, labor, and puerperium	Parto vaginal en 3d	Nº Asiento Registral: 16 / 2019 / 2823	FIBHGM	Juan Antonio de León

AREA	GROUP	Title	Reference	Owner	Authors
8	Group 8 Research in nursing & Pediatric Emergency Department & Press Departament	Nos vamos de excursión a las Urgencias del Gregorio Marañón	Nº Asiento Registral: 16/2016/3799	FIBHGM	Laura Cervantes, Paula Vázquez, David García
8	Group 8 Research in nursing	App para la gestión eficiente del gasto sanitario	Nª 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	María Concepción Míguez Gloria Margarita Guerrero, María del Carmen Ignacio Cerro

Transferred Intellectual Property

TECHNOLOGY COMPANIES / START UP

The creation, consolidation and proliferation of companies requires a series of prerequisites to be met:

- Investment in R&D that contributes to the creation of new technological opportunities.
- Risk capital to finance the first stages of development of a start up
- A culture favourable to entrepreneurship in the environment;
- Specific programmes to support the creation of start-ups
- A regulatory-institutional framework that favours R&D&I, the protection of intellectual property and bringing researchers closer to the business world.

In this regard, it is worth highlighting the creation of the following companies:

CORIFY CARE, S.L.

Corify Care is a spin-off of funded by main world-wide experts on cardiac arrhythmias which is going to introduce in the market a novel medical device to non-invasively map cardiac arrhythmias in real time. This novel technology will improve the treatment in more than 10 million of atrial fibrillation patients only in Europe. Its non-invasive electroanatomical mapping system allows the possibility to map all atrial fibrillation patients even during a regular visit to the cardiologist s without the need of invasive catheters.

Corify Care was created as a spin-off at IiSGM de Universitat Politécnica de Valencia. Its team includes Andreu Climent (CEO), Francisco Fernández-Avilés and Felipe Atienza of Cardiovascular Diseases Area of the IiSGM.

INTERVENTIONAL AND NON INTERVENTIONAL CLINICAL STUDIES

During the year 2020, a total of **1038** clinical studies (clinical trials and observational studies) were active in our hospital. A total of 208 studies were implemented.

Approximately 92% of the clinical trials with medicines started during **2020** were Phase I, II, and III studies. As for the distribution by research areas, almost **46 %** of the clinical trials, were led by the Translational Oncology Area (Area 6).

ACTIVE CLINICAL STUDIES	
2016	1048
2017	1226
2018	1190
2019	1115
2020	**1038**

NEW CLINICAL STUDIES			
	Clinical Trials	Observational studies	Total
2016	125	57	182
2017	148	83	231
2018	136	74	210
2019	140	68	208
2020	**162**	**81**	**251**

DISTRIBUTION OF CLINICAL TRIALS SIGNED BY PHASE %					
	2016	2017	2018	2019	**2020**
Phase I	7.2	6.8	11.7	7.28	**5.29**
Phase II	30.4	30.8	34.5	37.1	**40.00**
Phase III	56.8	52.5	48	43.7	**45.88**
Phase IV	2.4	6.3	3.6	4.6	**4.11**
Others (Medical device, etc)	6.4	3.6	2.2	7.29	**4.70**

DISTRIBUTION OF CLINICAL STUDIES SIGNED IN 2020 (National/International)		
	Nº	%
National	92	36.5
International	160	63.4

DISTRIBUTION OF CLINICAL STUDIES SIGNED IN 2020 BY RESEARCH AREA OF IiSGM		
	Nº	%
Area 1	0	0
Area 2	10	3.98
Area 3	26	10.34
Area 4	20	7.96
Area 5	27	10.74
Area 6	115	45.77
Area 7	36	14.32
Nursing group	0	0
Associated clinicians	17	7.6

FUNDING OF IiSGM

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

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

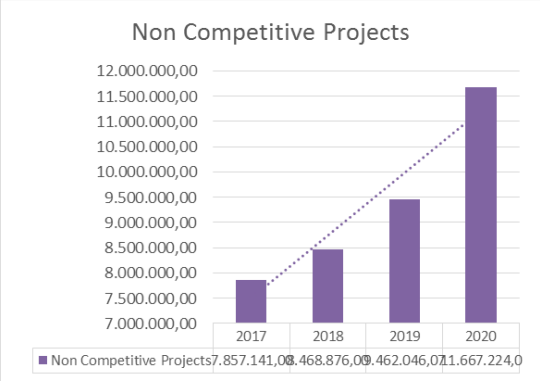
The total income generated by IiSGM researchers 'own activity in 2019 came to **20.033.609€**, that is 21% more than in 2019.

To these revenues must be added the nominative subsidy granted to this foundation by the Consejeria of Health of the Community of Madrid, which would raise total revenues to **20.655.829€**.

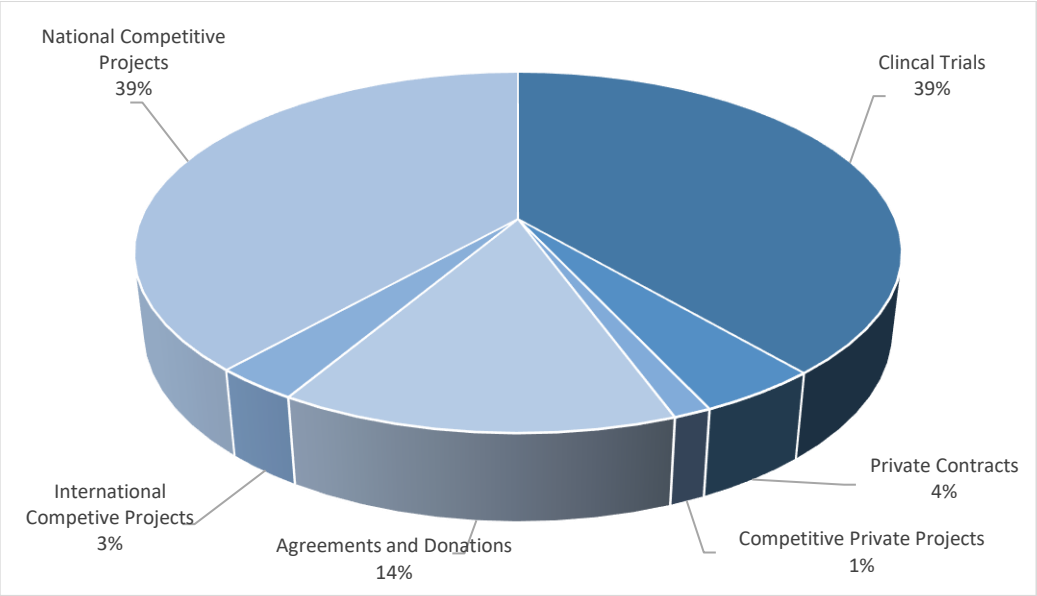
	2016	2017	2018	2019	**2020**
Total income generated by researchers	14,219,400€	14,431,258€	15,503,687€	16,476,182€	**20,033,609€**
Nominative subsidy Madrid Community	-	-	612,220€	622,220€	**622,220€**

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:

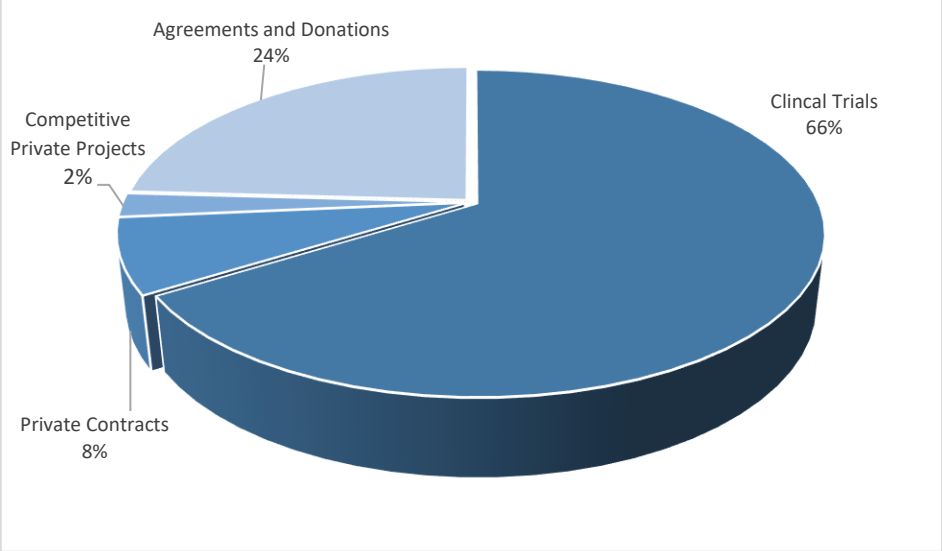


As far as the distribution of income is concerned, in 2020, for the first time, the income from Clinical Studies has equalled the income generated by national competitive projects representing with 39% each category, in spite of all funds made available through competitive calls for COVID-19 related research.



Distribution of total funding 2020

Of all income generated exclusively by researchers, 59% was from the private sector, reaching the figure of 11.944.497,00€ in **2020**, 66% of this amount was from clinical studies activity.



Distribution of Private funding 2020

Despite the reduction in funds available for research projects through competitive call, especially in the public sector, the IiSGM continues to have a considerable ability to generate income from competitive calls.
In fact funds generated through National Competitive calls have increase **17,5%** over the last years.

(ON A SEPARATE PAGE)

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 2020 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 thepostpartum 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 ProgramIng 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: 14/12/2020

TITLE: **Contribución funcional de los microquimerismos maternos a la respuesta al daño cardiaco** PI18/00462
DIRECTOR: GOMEZ GAVIRO, MARIA 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: 31/12/2020

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: 31/12/2020

TITLE**: NUEVO SISTEMA DE DIAGNOSTICO 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

TITLE: **Cannabidiol como estrategia preventiva en la aparición de psicosis** DRO2017/085
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: **Laboratorio de sondas moleculares** . EQC2019-006674-P
DIRECTOR: DESCO MENÉNDEZ, MANUEL
PROJECT TYPE: Research project
FUNDING BODY: MICINN
START DATE: 05/06/2019
END DATE: 31/12/21

TITLE: **Diagnosis and treatment follow-up of severe Staphylococcal Infections with Anthi-Stapgyloccal antibodies and Immune-PET**. FBBVA18/01
DIRECTOR: DESCO MENÉNDEZ, MANUEL
PROJECT TYPE: Research project
FUNDING BODY: FUNDACION BBVA
START DATE: 30/04/2019
END DATE: 31/12/20

TITLE: **Red Madrileña de Nanomedicina en Imagen Molecular**. S2017/BMD-3867
DIRECTOR: DESCO MENÉNDEZ, MANUEL
PROJECT TYPE: Research network
FUNDING BODY: CONSEJERIA EDUCACION DE LA COMUNIDAD DE MADRID
START DATE: 01/01/2018
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.**
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: **Utilización de técnicas de imagen avanzada en pequeño animal de laboratorio para aplicaciones cardiovasculares**
DIRECTOR: DESCO MENÉNDEZ, MANUEL / CUSSÓ, LORENA
PROJECT TYPE: Research project
FUNDING BODY: FUNDACIÓN CNIC
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE**: Imagen óptica 3D ultrarrápida con información de fase en microscopía in-vivo** FIS2016-77892
DIRECTOR: RIPOLL LORENZO, JORGE / MOSCOSO, MA.
PROJECT TYPE: Research project

FUNDING BODY: MINECO
START DATE: 01/01/2016
END DATE: 31/12/2020

TITLE: **Nuevos escenarios de tomografía por rayos X (NEXT)** DPI2016-79075-R
DIRECTOR: ABELLA GARCÍA , MÓNICA
PROJECT TYPE: Research project
FUNDING BODY: MINECO
START DATE: 01/01/2016
END DATE: 31/12/2020

- **Human Resources**

TITLE: **SARA BORREL.** CD19/00136
PAYEE NAME: SANTOS COQUILLAT, ANA MARIA
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
DIRECTOR: CARMONA CAÑAVATE, SUSANA
PAYEE NAME: MARTINEZ GARCIA, MAGDALENA
PROJECT TYPE: Human Resources
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2019
END DATE: 31/12/2021

TITLE: **Técnico de imagen optica (confocal y spim)** PEJ2018-003117-A
DIRECTOR: ARÉVALO GARCÍA, LAURA
PAYEE NAME: CALLE HERNÁNDEZ, DANIEL
PROJECT TYPE: Human Resources
FUNDING BODY: MICINN
START DATE: 01/01/2019
END DATE: 30/09/2021

TITLE: **Gestión y procesamiento de datos de neuroimagen en entorno cloud** PEJ2018-003141-A
DIRECTOR: CARMONA CAÑABATE, SUSANA
PAYEE NAME: NIGUERO SOLER, INÉS
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
PAYEE NAME: GALLARDO AGUACIL, BEGOÑA
PROJECT TYPE: Human Resources
FUNDING BODY: MICINN
START DATE: 01/01/2019
END DATE: 31/09/2021

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 RODRIGUEZ, BEATRIZ
PROJECT TYPE: Human Resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACION. 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-2019-PRE/BMD-16977
DIRECTOR: CARMONA CAÑABATE, SUSANA
PROJECT TYPE: Human Resources

FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACION. COMUNIDAD DE MADRID
START DATE: 01/01/2020
END DATE: 31/02/2022

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
PAYEE NAME: DEL VALLE HIDALGO, ALEJANDRO
PROJECT TYPE: Human Resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACION. COMUNIDAD DE MADRID
START DATE: 01/02/2020
END DATE: 31/01/2022

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-2018-PRE/BMD-7899
DIRECTOR: SOTO MONTENEGRO, MARÍA LUISA
PROJECT TYPE: Human Resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACION. 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 INVESTIGACION. 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
PAYEE NAME: PATERNINA DIE, MARÍA DEL CARMEN
PROJECT TYPE: Human Resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACION. COMUNIDAD DE MADRID
START DATE: 01/01/2019
END DATE: 31/12/2021

* **Not managed by FIBHGM**

TITLE: **Programa Garantía Juvenil** PEJ2018-001759-A
DIRECTOR: PASCAU GONZÁLEZ-GARZÓN, JAVIER
PAYEE NAME: 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
PAYEE NAME: 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 GARCIA, MONICA
PAYEE NAME: 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
PAYEE NAME: 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 GARCIA, MONICA
PAYEE NAME: 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
PAYEE NAME: 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
PAYEE NAME: 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 JOSE
PAYEE NAME: 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 GARCIA, MONICA
PAYEE NAME: 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: International research project
FUNDING BODY: Office of Naval Research
START DATE: 01/03/2019
END DATE: 28/02/2022

TITLE: **LOLITA: Information Theory for Low-Latency Wireless Communications** ERC-2016-StG Nr. 714161

DIRECTOR: ARTÉS RODRÍGUEZ, ANTONIO
PROJECT TYPE: European research project
FUNDING BODY: European Commision
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: **Detección precoz de Crisis de Autismo**
DIRECTOR: MARTÍNEZ OLMOS, PABLO
PROJECT TYPE: Research project
FUNDING BODY: Fundación Universia
START DATE: 29/04/2019
END DATE: 28/12/2020

TITLE: **Domain Alignment and Data Wrangling with Deep Generative Models**
DIRECTOR: ARTÉS RODRÍGUEZ, ANTONIO
PROJECT TYPE: Research project
FUNDING BODY: BBVA Foundation
START DATE: 30/04/2019
END DATE: 06/08/2021

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: 31/06/2022

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: **Micro-fundamentos del comportamiento: Un enfoque basado en las TICs para entender el comportamiento humano y la interacción (aMBITION)** TEC2017-92552-EXP
DIRECTOR: ARTÉS RODRÍGUEZ, ANTONIO
PROJECT TYPE: Research project
FUNDING BODY: MINECO
START DATE: 01/11/2018
END DATE: 31/12/2020

- **Human Resources**

TITLE: **Metodologías de aprendizaje automático en neuroimagen** PEJ2018-001757-A
DIRECTOR: MARTÍNEZ OLMOS, PABLO
PAYEE NAME: Alejandro Guerrero
PROJECT TYPE: Human Resources
FUNDING BODY: MICINN
START DATE: 01/01/2019
END DATE: 31/12/2021

TITLE: **Young employement contract: Research Assistant** PEJ-2018-AI/TIC-11059
DIRECTOR: ARTÉS RODRÍGUEZ, ANTONIO
PAYEE NAME: Angela Moreno
PROJECT TYPE: Human Resources

FUNDING BODY: MICINN
START DATE: 15/01/2019
END DATE: 15/02/2021

TITLE: **Young employement contract: Predoctoral contract** PEJD-2018-PRE/ TIC-8829
DIRECTOR: ARTÉS RODRÍGUEZ, ANTONIO
PAYEE NAME: Alberto Yánez
PROJECT TYPE: Human Resources
FUNDING BODY: CAM. CONSEJERÍA DE EDUCACIÓN E INVESTIGACIÓN
START DATE: 06/02/2019
END DATE: 05/02/2020

TITLE: **Caracterización automática de comportamiento mediante modelos latentes basados en redes profundas** IND2017/TIC-7618
DIRECTOR: MARTÍNEZ OLMOS, PABLO
PAYEE NAME: Juan Jose Campaña
PROJECT TYPE: Human Resources
FUNDING BODY: CAM. CONSEJERÍA DE EDUCACIÓN E INVESTIGACIÓN
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
PAYEE NAME: Patricia Carretero
PROJECT TYPE: Human Resources
FUNDING BODY: CAM. CONSEJERÍA DE EDUCACIÓN E INVESTIGACIÓN
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
PAYEE NAME: Lorena Romero
PROJECT TYPE: Human Resources
FUNDING BODY: CAM. CONSEJERÍA DE EDUCACIÓN E INVESTIGACIÓN
START DATE25/02/2019
END DATE: 24/02/2022

TITLE: **Machine Learning Frontiers in Precision Medicine** H2020-MSCA-ITN-2018 Grant Agreement Nº813533
DIRECTOR: ARTÉS RODRIGUEZ, ANTONIO
PAYEE NAME: Emese Sukei
PROJECT TYPE: Human Resources
FUNDING BODY: EUROPEAN COMMISSION RESEARCH EXECUTIVE AGENCY
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 RODRIGUEZ, ANTONIO
PAYEE NAME: Borja Peleato
PROJECT TYPE: Human Resources
FUNDING BODY: EUROPEAN COMMISSION RESEARCH EXECUTIVE AGENCY
START DATE: 30/09/2020
END DATE: 29/09/2021

AREA 2: CARDIOVASCULAR DISEASE

GROUP 2.01: Natural history of heart disease

- **Competitive projects**

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-AVILES DIAZ, FRANCISCO JESÚS
PROJECT TYPE: European research project
FUNDING BODY: UNION 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-AVILES DIAZ, FRANCISCO JESÚS
PROJECT TYPE: European research project
FUNDING BODY: UNION EUROPEA.DG.SANCO
START DATE: 06/10/2017
END DATE: 06/10/2022

TITLE: **CARDIATEAM-IMI2-821508** H2020-JTI-IMI2-2017.
DIRECTOR: BERMEJO THOMAS, JAVIER
PROJECT TYPE: European research project
FUNDING BODY: UNION EUROPEA. PROGRAMA MARCO
START DATE: 01/03/2019
END DATE: 28/02/2011

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: **Regenerative medicine: from new insights to new applications. 874827.** H2020 BRAV3.
DIRECTOR: FERNÁNDEZ-AVILES DIAZ, FRANCISCO JESÚS
PROJECT TYPE: European research project
FUNDING BODY: UNION EUROPEA. PROGRAMA MARCO
START DATE: 01/01/2020
END DATE: 31/12/2024

TITLE: **Personalized Therapies for Atrial Fibrillation. A Translational Approach.** H2020 PersonalizeAFF Nº 860974.
DIRECTOR: ATIENZA FERNÁNDEZ, FELIPE
PROJECT TYPE: European research project
FUNDING BODY: UNION EUROPEA. PROGRAMA MARCO
START DATE: 01/02/2020
END DATE: 16/11/2020

TITLE: **Safey 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-AVILES DIAZ, FRANCISCO JESÚS
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2019
END DATE: 31/12/2022

TITLE: **The microbiome as a target for precision medicine. A frontier exploration from established to innovative indications** PIE16/00055
DIRECTOR: FERNÁNDEZ-AVILES DIAZ, FRANCISCO JESÚS
PROJECT TYPE: Integrated research project of excellence
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2017
END DATE: 31/12/2020

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: **Estudios translacionales para el desarrollo de terapias génicas con telomerasa para el tratamiento del infarto de miocardio y de la fibrosis pulmonar.** DTS17/00091
DIRECTOR: FERNÁNDEZ-AVILES DIAZ, FRANCISCO JESÚS
PROJECT TYPE: Technological development project in health
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Regeneración Cardíaca de Infarto Crónico Porcino mediante inyecciones Intramiocardiacas de Células Progenitoras Embebidas en Hidrogeles de Matriz Decelularizada** PI16/01123
DIRECTOR: FERNÁNDEZ-AVILES DIAZ, FRANCISCO JESÚS
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE: **Estratificación y tratamiento de la fibrilación auricular basada en los mecanismos de perpetuacion de la arritmia (STRATIFY-AF)** PI17/01059
DIRECTOR: ATIENZA FERNÁNDEZ, FELIPE
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/02/2018
END DATE: 31/12/2020

TITLE: **Validación prospectiva de un índice pronóstico de muerte súbita o arritmias ventriculares malignas en adultos con cardiopatías congénitas** PI17/01327
DIRECTOR: DATINO ROMANIEGA, TOMAS
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Técnicas avanzadas de procesado de resonancia magnética para caracterizar el sustrato arritmogénico y el riesgo arrítmico 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:
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2019
END DATE: 31/12/2021

TITLE: **Técnicas avanzadas de procesado de resonancia magnética para caracterizar el sustrato arritmogénico** PI18/01117
DIRECTOR: RODRIGUEZ GONZALEZ, ELENA

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-AVILES DIAZ, 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 cardiovasular 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: **Inteligencia artificial para la caracterización hemodinámica no invasiva. AI4NHEM.** PI20/00587
DIRECTOR: MARTINEZ-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 de la fisiología cardiovasular con el Ejercicio en pacientes adultos con circulación de Fontan.** C
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: **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-AVILES DIAZ, 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: Proyecto Investigación SEC Investigación Traslacional en Cardiologia 2017 **"Estasis intraventricular y riesgo tromboembólico en la miocardiopatía dilatada no isquémica"** SEC17/01
DIRECTOR: BERMEJO THOMAS, JAVIER
PROJECT TYPE: Research project
FUNDING BODY: CASA DEL CORAZÓN FOUNDATION
START DATE: 01/01/2018
END DATE: 07/09/2020

- **Human Resources**

TITLE: **Río Hortega contract** CM18/00134
DIRECTOR: FERNÁNDEZ-AVILES DIAZ, FRANCISCO JESÚS
PAYEE NAME: CASTRODEZA CALVO, JAVIER
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 31/01/2019
END DATE: 08/06/2020

TITLE: **Río Hortega contract** CM20/00054
DIRECTOR: 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
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** FI19/00167
DIRECTOR: MARTÍNEZ-SELLES D`OLIVEIRA SOARES, MANUEL
PAYEE NAME: GARCIA CARREÑO, JORGE
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 16/01/2020
END DATE: 01/07/2020

TITLE: **Predoctoral contract** BES-2017-079924
DIRECTOR: 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: **FPU. Ayudas del Programa de Formación de Profesorado Universitario** FPU15/03371
DIRECTOR: FERNÁNDEZ-AVILES DIAZ, FRANCISCO JESÚS
PAYEE NAME:GARCÍA DÍAZ, ALEJANDRO JOSÉ
FUNDING BODY: MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES
PROJECT TYPE: Human resources
START DATE: 01/07/2017
END DATE: 30/11/2021

TITLE: **Formación en investigación post-residencia. Proyecto en Electrofisiología y Arritmias integrándose en una unidad asistencial. "Artificial Inteligence in Atrial Fibrilation (AInA) Identification and Ablation of Drivers Related to Electrogram Entanglement" .** SEC20/01
DIRECTOR: ARENAL AMÍZ, ÁNGEL
FUNDING BODY: FUNDACION CASA EL CORAZÓN
PROJECT TYPE: Human resources
START DATE: 01/10/2020
END DATE: 30/09/2021

GROUP 2.02: Cardiovascular pathophysiology

- **Competitive projects**

* **Not managed by the FIBHGM**

TITLE: **Papel del estrés del retículo endoplámico 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

- **Human Resources**

TITLE: **Becas predoctorales UCM**
DIRECTOR: CACHOFEIRO RAMOS, VICTORIA
PAYEE NAME: Francisco ds 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). 2019**
DIRECTOR: MARTINEZ, ERNESTO
PAYEE NAME: Ana Romero Miranda
PROJECT TYPE: Human Resources
FUNDING BODY: COMUNIDAD DE MADRID
START DATE: 01/04/2019
END DATE: 30/03/2021

TITLE: **Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI)**
DIRECTOR: CACHOFEIRO RAMOS, VICTORIA
PAYEE NAME: Beatriz Delgado Valero
PROJECT TYPE: Human Resources
FUNDING BODY: COMUNIDAD DE MADRID
START DATE: 01/01/2020
END DATE: 31/12/2024

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: 31/12/2020

TITLE: **Estudio funcional de mutaciones en los genes HCN4, ZFHX3 y ANK2 identificadas en pacientes con fibrilación auricular familiar**. PI16/00398
DIRECTOR: TAMARGO MENENDEZ, JUAN
FUNDING BODY INSTITUTO DE SALUD CARLOS III

PROJECT TYPE: Research project
START DATE: 01/01/2017
END DATE: 30/09/20

TITLE: **Investigación Traslacional en Arritmias Cardiacas hereditArias. ITACA**-CM B017/BMD3738
DIRECTOR: DELPÓN MOSQUERA, EVA
PROJECT TYPE: Reseach 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: 01/06/219

TITLE: **Ayudas parra contratos predoctorales para la formación de doctores.** PRE2018-086155
DIRECTOR: DELPÓN MOSQUERA, EVA
PAYEE NAME: CAMARA 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
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 prospectivo, abierto y controlado con medicación activa para evaluar la farmacocinética, la farmacodinamia, la seguridad y la eficacia de rivaroxabán para la tromboprofilaxis de niños de 2 a 8 años de edad después del procedimiento de Fontan.** 39039039CHD3001
DIRECTOR: ÁLVAREZ MARTÍN, TERESA
FUNDING BODY: JANSSEN
TYPE OF PROJECT: International project
START DATE:26/12/2017
END DATE: 28/10/2020

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

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
DIRECTOR: 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 transcatéter (VPT) PULSTATM.** TWTPV-E1001
DIRECTOR: ZUNZUNEGUI MARTINEZ, JOSÉ LUIS
FUNDING BODY: TAEWOONG MEDICAL
TYPE OF PROJECT: International project
START DATE:01/01/2020

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: MEDDIMMUNE
TYPE OF PROJECT: International project
START DATE:01/10/2020

TITLE: **Trasplante de células thyTreg autólogas para prevenir el rechazo en niños traplantados 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 Leon
TYPE OF PROJECT: Research project
START DATE: 21/10/2020

GROUP 2.07: Acute cerebral ischemia: Stroke

- **Competitive projects**

TITLE: **"REgenerative Stem cell therapy for STroke in Europe"** H2020-RESSTORE

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: International research project
START DATE: 01/09/2020
END DATE: 30/09/2025

TITLE: **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: **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 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: **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 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: **Envejecimiento celular asociado con exposición temprana a acontecimientos estresantes den el síndrome de deleción 22q11.2.** PI17/00481
DIRECTOR: FRAGUAS HERRÁEZ, DAVID
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
TYPE OF PROJECT:Research project
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Biotipos en Trastornos del Espectro Autista: relación con evolución clínica y respuesta a fármacos** PI17/00819
DIRECTOR: PARELLADA REDONDO, Mª JOSE
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 ARAGON, MARIA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
TYPE OF PROJECT:Research project
START DATE: 01/01/2018
END DATE: 31/12/2020

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: 31/12/2020

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: 31/12/2020

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: 31/12/2020

TITLE: **Estudio de seguimiento a 8 años de la primera evaluación de niños y adolescentes hijos de pacientes con esquizofrenia o trastorno bipolar"** PI15/00810
DIRECTOR: MORENO PARDILLO, MARIA DOLORES
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
TYPE OF PROJECT:Research project
START DATE: 01/01/2016
END DATE: 30/11/2020

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

- **Human Resources**

TITLE: **Convocatoria beca predoctoral en Neurociencias 2016** FTPGB16/01
DIRECTOR: ARANGO LÓPEZ, CELSO
PAYEE NAME: Mª Dolores Molina García
FUNDING BODY: FUNDACIÓN TATIANA PEREZ DE GUZMAN EL BUENO
TYPE OF PROJECT:Research project
START DATE 12/12/2016
END DATE: 01/03/2021

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: 31/08/2024

TITLE: **Formación profesorado universitario** FPU19/06877
DIRECTOR: MARTÍN MARTÍNEZ, NURIA
FUNDING BODY: MICINN
TYPE OF PROJECT:Human resources
START DATE: 29/10/2019
END DATE: 28/10/2023

TITLE: **Formación profesorado universitario** FPU18/06550
DIRECTOR: RUBIO FERNANDEZ, 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: GARCIA ALCON, ALICIA
FUNDING BODY: MICINN/MINECO
TYPE OF PROJECT:Human resources
START DATE: 24/10/2017
END DATE: 23/10/2021

TITLE: **Ayudas Juan de la Cierva / Formación Posdoctoral** FJC2018-035755-I

DIRECTOR: ARANGO LÓPEZ, CELSO
PAYEE NAME: MARTÍN HERNÁNDEZ, DAVID
FUNDING BODY: MICINN
TYPE OF PROJECT:Human resources
START DATE: 01/02/2020
END DATE: 31/01/2022

TITLE: **Beca de doctorado Fundación Bancaria La Caixa-** INPHINIT2018-CS
DIRECTOR: ARANGO LÓPEZ, CELSO
PAYEE NAME: Carol Stella
FUNDING BODY: LA CAIXA
TYPE OF PROJECT:Human resources
START DATE: 29/10/2018
END DATE: 28/10/2021

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: 11/12/2023

TITLE: **JUAN RODÉS Contract** JR16/00013
DIRECTOR: PINA CAMACHO, LAURA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
TYPE OF PROJECT:Human resources
START DATE: 19/01/2017
END DATE: 11/12/2020

TITLE: **Río Hortega Contract** CM20/00114
DIRECTOR: ARANGO LÓPEZ, CELSO
PAYEE NAME: ANDREU BERNABEU, ÁLVARO
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
TYPE OF PROJECT:Human resources
START DATE: 01/12/2020
END DATE: 31/12/2022

TITLE: **Río Hortega Contract** CM17/00119
DIRECTOR: PARELLADA, MARÍA JOSÉ
PAYEE NAME: DURÁN CUTILLA, MANUEL
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
TYPE OF PROJECT:Human resources
START DATE: 29/01/2018
END DATE: 28/01/2020

TITLE: **Río Hortega Contract** CM17/00121
DIRECTOR: ARANGO LÓPEZ, CELSO
PAYEE NAME: AYORA RODRIGUEZ, MIRIAM VALLE
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
TYPE OF PROJECT:Human resources
START DATE: 29/01/2018
END DATE: 28/01/2020

TITLE: **PREDOCTORAL Contract** FI18/00233
DIRECTOR: BURDEUS OLAVARRIETA, MONICA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III (
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
TYPE OF PROJECT:Human resources
START DATE: 02/04/2018

END DATE: 01/04/2022

TITLE: **Young employement contract. Ayudante investigación** PEJ-2019-AI/SAL-15702
DIRECTOR: MORENO, RUIZ, CARMEN
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
TYPE OF PROJECT:Human resources
START DATE: 01/02/2020
END DATE: 31/01/2022

TITLE: **Young employement contract. Ayudante investigación** PEJ-2017-AI/BMD-6274
DIRECTOR: ARANGO LÓPEZ, CELSO
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
TYPE OF PROJECT: Human resources
START DATE: 02/02/2018
END DATE: 01/02/2020

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: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
TYPE OF PROJECT:Human resources
START DATE: 02/02/2019
END DATE: 01/02/2021

GROUP 3.03B: Neurologic diseases

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: 31/12/2020

AREA 4: INFECTIOUS DISEASES AND AIDS

GROUP 4.01: Infectious diseases

- **Competitive projects**

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 GARCIA-PAREDES, PATRICIA
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2020
END DATE: 31/12/2021

TITLE: **Diagnóstico Rápido y herramientas epidemiológicas para controlar la pandemia de COVID19**. COV20/PM-BIS
DIRECTOR: MUÑOZ GARCIA-PAREDES, PATRICIA
PROJECT TYPE: Research project
FUNDING BODY: CONSEJERIA SANIDAD CM
START DATE: 05/10/2020
END DATE: 31/12/2020

TITLE: **A novel transnational strategy to control high-risk tuberculosis transmission events.** AC16/00057
DIRECTOR: GARCÍA DE VIEDMA DEL ALAMO, DARIO
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2017
END DATE: 30/06/2021

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: PEREZ GARCIA, LAURA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2020
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: **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: **Plataforma avanzada para optimizar el diagnóstico y vigilancia epidemiológica de la tuberculosis** PI18/00599
DIRECTOR: GARCÍA DE VIEDMA DEL ALAMO, DARIO
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: RODRIGUEZ SANCHEZ, MARIA BELEN
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2019
END DATE: 31/12/2021

TITLE: **Impacto del uso de 3 apósitos en la prevención de infección de herida quirúrgica en pacientes de Cirugía Cardiaca: /estudio clínico, prospectivo y randomizado** PI18/01741
DIRECTOR: PEREZ GRANDA, MARIA JESUS
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 GARCIA-PAREDES, PATRICIA

FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Desarrollo de un Biobanco de microbiota intestinal humana para programas de intervención precoz en el control de la Infección por Clostridium difficile (Proyecto BIOMICO)**. PI16/00490
DIRECTOR: REIGADAS RAMIREZ, ELENA MANUELA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE: **Caracterización Genotípica de Cándida como herramienta microbiológica para la discriminación entre cepas invasoras o colonizadoras**. PI16/01012
DIRECTOR: ESCRIBANO MARTOS, PILAR
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE: **Diseño, puesta a punto y evaluación de una plataforma de captura de DNA de Mycobacterium tuberculosis para abordar la secuenciación de genoma completo directamente sobre muestra clínica**. PI16/01449
DIRECTOR: PÉREZ GARCÍA, LAURA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE: **Detección temprana de resistencias a antibióticos y antifúngicos usando espectrometría de masas (MALDI-TOF MS)**. PI15/01073
DIRECTOR: RODRIGUEZ SANCHEZ, BELEN
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2016
END DATE: 30/11/2020

TITLE: **Evaluación multicéntrica de una estrategia innovadora de vigilancia y caracterización avanzada de eventos de transmisión activa de Mycobacterium tuberculosis de especial relevancia)**. PI15/01554
DIRECTOR: GARCÍA DE VIEDMA DEL ALAMO, DARIO
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2016
END DATE: 30/11/2020

TITLE: **Caracterización de un brote de Clostridium difficile del ribotipo hipervirulento 027 mediante técnicas de epidemiología molecular** PI15/02046
DIRECTOR: MARÍN ARRIAZA, MARÍA DE LAS MERCEDES
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2016
END DATE: 30/11/2020

- **Human Resources**

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 Contract** CP13/00268
DIRECTOR: GUEMBE RAMÍREZ, MARÍA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III

PROJECT TYPE: Human resources
START DATE: 01/01/2014
END DATE: 31/12/2020

TITLE: **Miguel Servet Contract** CP14/00220
DIRECTOR: RODRÍGUEZ SÁNCHEZ, BELÉN
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 01/01/2015
END DATE: 29/07/2020

TITLE: **Miguel Servet Contract** CP15/00075
DIRECTOR: PEREZ GARCIA, LAURA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 01/01/2016
END DATE: 31/12/2020

TITLE: **Miguel Servet Contract** CP15/00115
DIRECTOR: ESCRIBANO MARTOS, PILAR
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 01/01/2016
END DATE: 31/12/2020

TITLE: **Miguel Servet II Contract** CPII19/00002
DIRECTOR: RODRIGUEZ SANCHEZ, MARIA BELEN
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 30/07/2020
END DATE: 31/12/2022

TITLE: **Miguel Servet II Contract** CPII18/00008
DIRECTOR: GUEMBE RAMÍREZ, MARÍA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 31/12/2020
END DATE: 31/12/2022

TITLE: **Río Hortega Contract** CM18/00089
DIRECTOR ALVAREZ-URIA MIYARES, ANA MARIA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 01/01/2019
END DATE: 31/12/2021

TITLE: **Río Hortega Contract** CM17/00131
DIRECTOR: OLMEDO SAMPERIO, MARIA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Young employement contract** . PEJ-2019-TL/BMD-13146
DIRECTOR: GARCÍA DE VIEDMA DEL ALAMO, DARIO
FUNDING BODY: COMUNIDAD AUTONOMA DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/01/2020
END DATE: 31/12/2021

TITLE: **Young employement contract** . PEJ-2019-TL/BMD-15599
DIRECTOR: MARÍN ARRIAZA, MARÍA DE LAS MERCEDES
FUNDING BODY: COMUNIDAD AUTONOMA DE MADRID

PROJECT TYPE: Human resources
START DATE: 01/01/2020
END DATE: 31/12/2021

TITLE: **Young employement 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: 03/03/2021

TITLE: **Young employement contract**: **Postdoctoral contract**. PEJD-2018-POST/BMD-8664
DIRECTOR: GARCÍA DE VIEDMA DEL ALAMO, DARIO
FUNDING BODY: CONSERJERÍA DE EDUCACIÓN Comunidad de Madrid
PROJECT TYPE: Human resources
START DATE: 01/01/2019
END DATE: 31/12/2021

TITLE: **Young employement contract** PEJ2018-004609-A
DIRECTOR: GUINEA ORTEGA, JESÚS VICENTE
FUNDING BODY: MICINN
PROJECT TYPE: Human resources
START DATE: 01/01/2019
END DATE: 31/12/2020

TITLE: **Young employement contract**. PEJ2018-004613-A
DIRECTOR: ESCRIBANO MARTOS, PILAR
FUNDING BODY: MICINN
PROJECT TYPE: Human resources
START DATE: 01/01/2019
END DATE: 31/12/2020

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: 24/03/2021

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: 31/12/2020

- **Human Resources**

TITLE: **Juan Rodés contract**. JR17/00018
DIRECTOR: ALDAMIZ-ECHEVARRIA LOIS, Mª TERESA
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 oung employement contract**: **Postdoctoral contract**. CM20/00086
DIRECTOR: FANCIULLO, CHIARA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III

PROJECT TYPE: Human resources
START DATE: 27/11/2020
END DATE: 31/12/2022

TITLE: **Río Hortega contract oung employement contract**: **Postdoctoral contract**. CM17/00131
DIRECTOR: OLMEDO SAMPERIO, MARIA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 01/01/2018
END DATE: 31/12/2020

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: **Mechanisms underlying methotrexate-induced trained innate immunity** PI20/00316
DIRECTOR: PUIG KRÖGER, AMAYA ROCIO
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Research project
START DATE: 01/01/2021
END DATE:31/12/202

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 ROCIO
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Research project
START DATE: 01/01/2018
END DATE:31/12/2020

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:31/12/2020

* **Not managed by the FIBHGM**

TITLE: **Nuevo mecanismo inhibidor de la polimerización de actina.** SAF 2017-82967-R
DIRECTOR: MARTINEZ QUILÉS, NARCISA
FUNDING BODY: MICINN
PROJECT TYPE: Research project
START DATE: 01/01/2018
END DATE:31/12/2020

TITLE: **HLA-G: cáncer gástrico y su evolución** PI18/00626
DIRECTOR: MARTÍN VILLA, JOSE 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

- **Human Resources**

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 employement contract: Predoctoral**. PEJD-2019PR-PRE/BMD-20190
DIRECTOR: SAMANIEGO GARCÍA, RAFAEL
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/01/2020
END DATE: 31/12/2021

TITLE: **Young employement contract: Predoctoral**. PEJD-2018-PRE/BMD-8241A
DIRECTOR: SAMANIEGO GARCÍA, RAFAEL
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/01/2019
END DATE: 31/12/2020

TITLE: **Young employement contract: Technical researcher**. PEJ-2017-TL/BMD-6471
DIRECTOR: EGIDO BALZATEGUI, JOSÉ
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/01/2018
END DATE: 28/02/2020

TITLE: **Young employement contract: Technical researcher**. PEJ-2017-TL/BMD-7299
DIRECTOR: SÁNCHEZ-MATEOS RUBIO, PALOMA

FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/01/2018
END DATE: 11/03/2020

GROUP 5.02: Molecular biology of HIV

- **Competitive projects**

TITLE: **EUROPARTNER. Strengthening and spreading international partnership activities of the Faculty of Biology and Environmental Protection for interdisciplinary research and innovation of the University of Lodz**. NAWA IAP.EUROPARTNER
DIRECTOR: Maria Bryszewska
COLABORATOR: MUÑOZ FERNANDEZ, Mª ANGELES
PROJECT TYPE: European research project of excellence
FUNDING BODY: COST (European Cooperation in Science and Technology).
START DATE: 01/01/2019
END DATE: 31/12/2020

TITLE: **Early treated Perinatally HIV infected individuals: Improving Children's Actual Life (EPPICAL).** EPIICAL Project
DIRECTOR: MUÑOZ FERNANDEZ, Mª ANGELES
PROJECT TYPE: International research project
FUNDING BODY: EPIICAL PENTA Foundation Project ViiV
START DATE: 01/01/2016
END DATE: 31/12/2020

TITLE: **Aspectos clínicos e inmunovirológicos 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.** PI19/01638
DIRECTOR: MUÑOZ FERNANDEZ, Mª ANGELES
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: JIMENEZ FUENTES, JOSE LUIS
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
END DATE: 31/12/2020

- **Human Resources**

TITLE: **RIO 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: 31/12/2020

TITLE: **Young employement contract: Research assistant**. PEJD-2019-PRE/IND-16567
DIRECTOR: JIMENEZ FUENTES, JOSE LUIS
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/02/2020
END DATE: 31/01/2021

TITLE: **Young employement contract:Laboratory Technician.** PEJ-2018-TL/BMD-11529
DIRECTOR: JIMENEZ FUENTES, JOSE LUIS
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/03/2019
END DATE: 01/03/2021

TITLE: **Young employement contract: Research assistant**. PEJ-2017-AI/BMD-7446
DIRECTOR: MUÑOZ FERNANDEZ, Mª ANGELES
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/03/2019
END DATE: 31/12/2020

GROUP 5.03: Systemic autoimmune diseases

- **Competitive projects**

TITLE: **Susceptibilidad y agresividad de la infección por SARS-CoV-2 en enfermedades reumáticas inmunomediadas.** COV20/01311-BIS
DIRECTOR: ALVARO-GRACIA ALVARO, JOSE MARIA
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: **Research development agreement- cellular immunological response to SARS-COV2 decisions on the immunization of T-cells and their use in potential therapy**. FIBHGM-CCA023-2020
DIRECTOR: CORREA ROCHA, RAFAEL & PION, MARJORIE
PROJECT TYPE: Research european project
FUNDING BODY: FUNDACIÓ CLINIC PER A LA RECERCA BIOMÉDICA
START DATE: 24/07/2020
END DATE: 24/07/2022

TITLE: **Trasplante de células thy-Treg autólogas para prevenir el rechazo en niños trasplantados de corazón. Un nuevo paradigma en el tratamiento de enfermedades inmunológicas**. FIBHGM-CCA001-2019
DIRECTOR: CORREA ROCHA, RAFAEL
PROJECT TYPE: Research project
FUNDING BODY: FUNDACIÓN FAMILIA ALONSO
START DATE: 01/01/2018
END DATE: 31/12/2022

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: **Implementación de una terapia celular con células Treg obtenidas de tejido tímico (thyTreg) para prevenir el rechazo a trasplantes. Un nuevo arsenal terapéutico frente a alteraciones inmunes.** DTS18/00038
DIRECTOR: CORREA ROCHA, RAFAEL
PROJECT TYPE: Technology research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2019
END DATE: 31/12/2020

TITLE: **Ensayo clinico para evaluar la eficacia de una terapia celular cpon células Treg obtenidas de tejido tímico (thyTreg) en la preveción 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 celulas 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: 31/12/2021

TITLE **Ensayo de inmunoterapia celular para prevenir el rechazo a trasplante en niños mediante el aislamiento y re-infusión de células treg autólogas**. ICI14/00282
DIRECTOR: CORREA ROCHA, RAFAEL
PROJECT TYPE: Clinical Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2019
END DATE: 31/12/2020

TITLE: **Comunicación por exosomas y otras vesículas extracelulares en la fisiologia y fisiopatología hepática(EXOHEP-CM)**. S2017/BMD-3727-1
DIRECTOR: CORREA ROCHA, RAFAEL & PION, MARJORIE
PROJECT TYPE: Research project
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACION. COMUNIDAD DE MADRID
START DATE: 01/10/2018
END DATE: 31/12/2021

- **Human Resources**

TITLE: **Sara Borrell contract** CD18/00105
DIRECTOR: CORREA ROCHA, RAFAEL
PAYEE NAME: MARTINEZ 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: CORREA ROCHA, RAFAEL
PAYEE NAME: FERNANDEZ 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: PION, MARJORIE
PAYEE NAME: 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: **Predoctoral contract (Comunidad de Madrid)** PEJD-2018-PRE/BMD-8524
DIRECTOR: CORREA ROCHA, RAFAEL
PAYEE NAME: KENNEDY, REBECA/ FERNÁNDEZ, MARTA
PROJECT TYPE: Human Resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACON. COMUNIDAD DE MADRID

START DATE: 01/01/2019
END DATE: 01/08/2020

GROUP 5.07: Infections in the pediatric population

- **Competitive projects**

TITLE: **Aspectos clínicos e inmunovirológicos 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: **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 GARCIA, BEGOÑA
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Anticuerpos frente a las proteínas G, PreF y PostF del virus respiratorio sincitial (VRS) en lactantes y respuesta inmune sistémica. Implicaciones para el desarrollo de vacunas**. PI16/00822
DIRECTOR: RODRÍGUEZ FERNÁNDEZ, ROSA MARÍA
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2017
END DATE: 30/06/2021

- **Human Resources**

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: 31/12/2021

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 6.02: 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: MARTIN JIMENEZ, MIGUEL
PROJECT TYPE: Research project

FUNDING BODY: UE
START DATE: 01/01/2020
END DATE: 30/06/2023

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: MARTIN JIMENEZ, MIGUEL
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2019
END DATE: 31/12/2021

TITLE: **Cáncer de mama triple negativo: predicción de respuesta a docetaxel-carboplatino neoadyuvante mediante caracterización de TILS y firmas inmunes basadas en secuenciación masiva de RNA**. PI15/00117
DIRECTOR: MARTIN JIMENEZ, MIGUEL
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2016
END DATE: 30/06/2020

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

- **Competitive projects**

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: 31/12/2020

TITLE: **Infusión post trasplante de células NK del donante, en pacientes con leucemia aguda de mal pronóstico sometidos a trasplante haploidéntico no manipulado**. PI15/00879
DIRECTOR: DÍEZ MARTÍN, JOSE LUIS
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2016
END DATE: 30/11/2020

- **Human Resources**

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: **Beca Investigación FEHH.**FEHHDC-2018
DIRECTOR: CARBONELL MUÑOZ, DIEGO
PROJECT TYPE: Human resources
FUNDING BODY: FUNDACIÓN ESPAÑOLA HEMATOLOGÍA Y HEMOTERAPIA (F.E.H.H.)
START DATE: 01/01/2019
END DATE: 31/12/2021

AREA 7: SYSTEMIC DISEASES AND ORGAN TRANSPLANTATION

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

- **Competitive projects**

TITLE: **Intervenciones sobre las balsas de colesterol epiteliales derivadas a evitar la fase de amplificación del daño orgánico agudo.** PI17/00276
DIRECTOR: LAZARO FERNANDEZ, ALBERTO
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Bloquear las balsas de colesterol del borde en cepillo del túbulo proximal previene el fallo renal inducido por nefropatias pigmentosas.paludismo y rabdomiolisis** SENEFRO18/01
DIRECTOR: LAZARO FERNANDEZ, ALBERTO
PROJECT TYPE: Research project
FUNDING BODY: FUNDACIÓN SENEFRO
START DATE: 01/01/2019
END DATE: 31/12/2020

- **Human Resources**

TITLE: **Predoctoral CM.** PEJD-2019-PRE/BMD-16978
DIRECTOR: MARTÍN SÁNCHEZ, BEATRIZ
PROJECT TYPE: Human resources
FUNDING BODY: Consejería de Educación e Investigación. Comunidad de Madrid.
START DATE: 01/02/2020
END DATE: 31/03/2021

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
DIRECTOR: BAÑARES CAÑIZARES, RAFAEL
PROJECT TYPE: European research project
FUNDING BODY: EUROPEAN UNION
START DATE: 01/01/2017
END DATE: 31/12/2020

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: 31/12/2021

TITLE: **Fusión celular y comunicación celular por exomas en la enfermedad y regeneración hepática.** PI18/01833
DIRECTOR: VAQUERO MARTIN, JAVIER
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 hipotermia terapéutica en el fracaso hepático augdo (FHA) y en la regeneración hepática: Estudio preclínico en cerdos.** PI15/01083
DIRECTOR: VAQUERO MARTIN, JAVIER

PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2016
END DATE: 30/11/2020

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:CONSEJERIA DE EDUCACIÓN. COMUNIDAD DE MADRID
START DATE: 01/01/2018
END DATE: 31/12/2021

* **Not managed by the FIBHGM**

TITLE: **Deconstruyendo el eje intestino-hígado: papel de las c-jun n- terminal quinasas (JNKS) y del estrés del retículo endoplásmico (ER) en el desarrollo de la hepatopatía alcohólica.** SAF2016-78711-R
DIRECTOR: CUBERO, FRANCISCO JAVIER
PROJECT TYPE: Research project
FUNDING BODY: MINISTERIO CIENCIA E INNOVACIÓN
START DATE: 30/12/2016
END DATE: 31/12/2020

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

- **Human Resources**

TITLE: **Río Hortega Contract.** CM19/00247
DIRECTOR: CABALLERO MARCOS, ARANZAZU
PROJECT TYPE: Human Resources
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/12/2019
END DATE: 31/11/2021

TITLE: **Río Hortega Contract.** CM17/00255
DIRECTOR: CLEMENTE SANCHEZ, ANA
PROJECT TYPE: Human Resources
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
END DATE: 31/12/2021

TITLE: **Young employement Contract :Laboratory Technician** PEJ-2018-TL/BMD-12024
DIRECTOR: VAQUERO MARTIN, JAVIER
PROJECT TYPE: Human Resources

FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACON. COMUNIDAD DE MADRID
START DATE: 01/03/2019
END DATE: 31/12/2020

TITLE: **Young employement 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

GROUP 7.04: Diseases of the critically ill child

- **Competitive projects**

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: 31/12/2021

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: 31/12/2020

- **Human Resources**

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: **Río Hortega Contract.** CM17/00210
DIRECTOR: GARCIA SAN PRUDENCIO, MYRIAM
PROJECT TYPE: Human Resources
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
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: 01/10/2020

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 lidocaina intravenosa o paravertebral durante el intraoperatorio de la cirugia 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: 31/12/2021

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 INVESTIGACON. COMUNIDAD DE MADRID
START DATE: 01/01/2018
END DATE: 31/12/2020

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: **Aeroevacuación en un escenario real: nueva herramienta de aprendizaje en las futuras generaciones de estudiantes de medicina.** PIMCD-245
DIRECTOR: QUINTANA VILLAMANDOS, BEGOÑA
PROJECT TYPE: Innovation project
FUNDING BODY: UCM
START DATE: 09/01/2018
END DATE: 31/12/2020

TITLE: **Innovación en la docencia del grado de medicina: aerotransporte de pacientes con alto riesgo de contaminacion 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 aeroevacuación 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 7.20: Anesthesia, toxins, and arrhythmias

- **Competitive projects**

TITLE: **Evaluación de la eficacia de dos antídotos: bicarbonato sódico versus intralipid en un modelo porcino de farmacotoxicidad cardiaca por ropivacaína. Análisis del impacto en los parámetros hemodinámicos, electroctrocardiográficos, electrofisiológicos y de las arritmias**. PI15/00695

DIRECTOR: ZABALLOS GARCÍA, MATILDE
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2016
END DATE: 30/11/2020

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: 31/12/2021

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: SANCHEZ LUNA, MANUEL
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Aspectos clínicos e inmunovirológicos de la infección por SARS-CoV2 en una cohorte de gestantes y recién nacidos. Proyecto prospectivo multicéntrico 12 hospitales.** COV20/00808
DIRECTOR: NAVARRO, MARIA LUISA
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/04/2020
END DATE: 30/04/2021

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

GROUP 7.25: Artificial circulation laboratory

- **Competitive projects**

TITLE: **Efectos del tipo de flujo sanguineo (continuo o pulsatil) 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: 31/12/2020

- **Human Resources**

TITLE: **Nuevas Tecnologías de Fabricación y Optimización de Tejidos : La Piel como sistema Modelo** PEJ2018-004026-A
DIRECTOR: DEL CAÑIZO LÓPEZ, JUAN FRANCISCO
PROJECT TYPE: Human Resources

FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACON. COMUNIDAD DE MADRID
START DATE: 06/03/2019
END DATE: 06/03/2023

TITLE: **Mejora de las prestaciones del area quirurgica del servicio de medicina y cirugia experimental para el apoyo a los investigadores del Instituto de Investigacion Sanitaria del Hospital Gregorio Marañón** S2018/BAA-4480
DIRECTOR: DEL CAÑIZO LÓPEZ, JUAN FRANCISCO
PROJECT TYPE: Human Resources
FUNDING BODY: MICINN
START DATE: 01/01/2019
END DATE: 31/12/2020

GROUP 7.27: Hospital pharmacy and pharmacogenomics

- **Competitive projects**

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

TITLE: **Oncommunities: online cancer support communities**. PR343/18
DIRECTOR: OCHOA, CRISTIAN & ESCUDERO VILAPLANA, VICENTE
PROJECT TYPE: Research project
FUNDING BODY: EIT Health
START DATE: 01/01/2020
END DATE: 31/12/2020

TITLE: **Marcadores genéticos, transcriptómicos y celulares de respuesta a terapia biológica en enfermedad inflamatoria intestinal pediátrica.** PI19/00792
DIRECTOR: LOPEZ FERNANDEZ, LUIS ANDRES
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2020
END DATE: 31/12/2022

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

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: SOCOEDAD ESPAÑOLA DE FARMACIA HOSPITALARIA
START DATE: 01/01/2020

TITLE: **Estandarización y caracterización de la terapia intravenosa en pediatría: un paso más en materia de seguridad**
DIRECTOR: MANRIQUE RODRIGUEZ, SILVIA
PROJECT TYPE: Research project
FUNDING BODY: Fundación Española de Farmacia Hospitalaria
START DATE: 01/01/2020

- **Human Resources**

TITLE: **Young employement contract: Predoctoral.** PEJD-2018-PRE/BMD-8665
DIRECTOR: LOPEZ FERNANDEZ, LUIS ANDRES
PROJECT TYPE: Human resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACION. COMUNIDAD DE MADRID
START DATE: 01/01/2019

END DATE: 28/02/2020

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, Mª 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, ANGEL
PROJECT TYPE: Research project
FUNDING BODY: Cardiovascular Medical Research and Education Fund.
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE: **Vitamina D en la hipertensión pulmonar**. SAF2016-77222-R
DIRECTOR: PÉREZ VIZCAINO, FRANCISCO; COGOLLUDO TORRALBA, ANGEL
PROJECT TYPE: Research project
FUNDING BODY: Plan Nacional de I+D (CICYT)
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE: **Papel de la hipoxia y la inflamación en la disfunción de células endoteliales progenitoras en hipertensión pulmonar pediátrica**. PI19/01616
DIRECTOR: MORENO GUTIERREZ, 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, Mª JESUS
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2020
END DATE: 31/12/2023

- **Human Resources**

TITLE: **Ayudante de Investigación** PEJ-2019-AI/BMD-13475
DIRECTOR: SÁNCHEZ SÁNCHEZ, CRISTINA
PROJECT TYPE: Human resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACON. COMUNIDAD DE MADRID

START DATE: 01/01/2020
END DATE: 31/12/2021

* **Not managed by the FIBHGM**

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

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

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

- **Competitive projects**

TITLE: **Papel de la progesterona como inmunoactivador en la lucha contra las candidiasis vaginales y sistémicas: posible efecto antitumoral y sobre la implantación embrionaria**. PI16/00050
DIRECTOR: RELLOSO CERECEDA, MIGUEL
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE: **Relación del fallo de implantacion 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: 31/12/2020

- **Human Resources**

TITLE: **Young employement contract: Predoctoral** PEJD-2018-PRE/BMD-9513
DIRECTOR: PÉREZ MILÁN, FEDERICO
PROJECT TYPE: Human resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACON. COMUNIDAD DE MADRID
START DATE: 01/01/2019
END DATE: 31/12/2020

SCIENTIFIC PUBLICATIONS

The list presented below shows all the referenced publications in which investigators from the IiSGM participated in during 2020.
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 proceedings papers in the main collection of the Web of Science (WOS) have been taken into account. Other types of publication (eg, letters to the editor and case studies) have not been included.

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
ACTA CHIRURGICA BELGICA	1,09	1	1,09
Acta Oncologica	4,089	1	4,089
ACTA PSYCHIATRICA SCANDINAVICA	6,392	1	6,392
ACTAS ESPANOLAS DE PSIQUIATRIA	1,196	3	3,588
Actas Urologicas Espanolas	0,994	21	20,874
Adicciones	2,979	1	2,979
AGEING RESEARCH REVIEWS	10,895	1	10,895
AGING & MENTAL HEALTH	3,658	1	3,658
AIDS	4,177	2	8,354
ALIMENTARY PHARMACOLOGY & THERAPEUTICS	8,171	1	8,171
ALLERGY	13,146	1	13,146
ALZHEIMERS & DEMENTIA	21,566	1	21,566
AMERICAN HEART JOURNAL	4,749	2	9,498
AMERICAN JOURNAL OF CARDIOLOGY	2,778	3	8,334
AMERICAN JOURNAL OF CARDIOVASCULAR DRUGS	3,571	1	3,571
AMERICAN JOURNAL OF EPIDEMIOLOGY	4,897	1	4,897
AMERICAN JOURNAL OF HEALTH-SYSTEM PHARMACY	2,637	2	5,274
AMERICAN JOURNAL OF HEMATOLOGY	10,047	2	20,094
AMERICAN JOURNAL OF HUMAN GENETICS	11,025	1	11,025
AMERICAN JOURNAL OF PHYSIOLOGY-LUNG CELLULAR AND MOLECULAR PHYSIOLOGY	5,464	1	5,464
AMERICAN JOURNAL OF PSYCHIATRY	18,112	1	18,112
AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE	21,405	1	21,405
AMERICAN JOURNAL OF THERAPEUTICS	2,688	1	2,688
AMERICAN JOURNAL OF TRANSPLANTATION	8,086	3	24,258
ANAEROBE	3,331	3	9,993
ANALES DE PEDIATRIA	1,5	19	28,5
ANESTHESIA AND ANALGESIA	5,108	2	10,216
ANNALS OF ALLERGY ASTHMA & IMMUNOLOGY	6,347	2	12,694
Annals of Clinical Microbiology and Antimicrobials	3,944	1	3,944
ANNALS OF DIAGNOSTIC PATHOLOGY	2,09	1	2,09
ANNALS OF GENERAL PSYCHIATRY	3,455	1	3,455
ANNALS OF HEMATOLOGY	3,673	2	7,346
ANNALS OF NONINVASIVE ELECTROCARDIOLOGY	1,468	1	1,468
ANNALS OF ONCOLOGY	32,976	4	131,904
ANNALS OF PHARMACOTHERAPY	3,154	1	3,154
ANNALS OF THE RHEUMATIC DISEASES	19,103	3	57,309
Antibiotics-Basel	4,639	1	4,639
ANTIMICROBIAL AGENTS AND CHEMOTHERAPY	5,191	3	15,573
Antioxidants	6,312	2	12,624
APMIS	3,205	1	3,205
APPLIED IMMUNOHISTOCHEMISTRY & MOLECULAR MORPHOLOGY	2,085	1	2,085
Applied Sciences-Basel	2,679	2	5,358
Archivos Argentinos de Pediatria	0,635	3	1,905
ARCHIVOS DE BRONCONEUMOLOGIA	4,872	8	38,976
ARCHIVOS ESPANOLES DE UROLOGIA	0,436	3	1,308
ARTERIOSCLEROSIS THROMBOSIS AND VASCULAR BIOLOGY	8,311	1	8,311

Journal	IF	Nº	Amount IF
ARTHRITIS CARE & RESEARCH	4,794	5	23,97
ASSESSMENT	4,667	1	4,667
ATENCION PRIMARIA	1,137	1	1,137
BASIC RESEARCH IN CARDIOLOGY	17,165	1	17,165
B-ENT	0,082	1	0,082
BIOCONJUGATE CHEMISTRY	4,774	1	4,774
BIOLOGICAL PSYCHIATRY	13,382	1	13,382
BIOLOGY OF BLOOD AND MARROW TRANSPLANTATION	5,742	5	28,71
BIOLOGY-BASEL	5,079	1	5,079
Biomedical Optics Express	3,732	1	3,732
BIOMETRICAL JOURNAL	2,207	1	2,207
Blood Cancer Journal	11,037	1	11,037
BMC Anesthesiology	2,217	1	2,217
BMC CANCER	4,43	1	4,43
BMC INFECTIOUS DISEASES	3,09	2	6,18
BMC MEDICAL GENETICS	2,103	1	2,103
BMC MEDICINE	8,775	2	17,55
BMC Pediatrics	2,125	1	2,125
BMC Pregnancy and Childbirth	3,007	2	6,014
BMC Psychiatry	3,63	1	3,63
BMJ Open	2,692	1	2,692
BMJ OPEN DIABETES RESEARCH & CARE	3,388	1	3,388
BONE	4,398	1	4,398
BONE MARROW TRANSPLANTATION	5,483	5	27,415
BRAIN	13,501	1	13,501
Brain Sciences	3,394	2	6,788
BRAZILIAN JOURNAL OF CARDIOVASCULAR SURGERY	1,312	2	2,624
Brazilian Journal of Otorhinolaryngology	1,811	1	1,811
Brazilian Journal of Physical Therapy	3,377	1	3,377
BREAST	4,38	2	8,76
BRITISH JOURNAL OF ANAESTHESIA	9,166	1	9,166
BRITISH JOURNAL OF DERMATOLOGY	9,302	1	9,302
BRITISH JOURNAL OF HAEMATOLOGY	6,998	5	34,99
BRITISH JOURNAL OF ORAL & MAXILLOFACIAL SURGERY	1,651	1	1,651
BRITISH JOURNAL OF SURGERY	6,939	4	27,756
CANADIAN JOURNAL OF CARDIOLOGY	5,223	1	5,223
CANCER BIOLOGY & MEDICINE	4,248	1	4,248
CANCER CHEMOTHERAPY AND PHARMACOLOGY	3,333	1	3,333
CANCER TREATMENT REVIEWS	12,111	1	12,111
Cancers	6,639	4	26,556
CARDIOLOGY	1,869	2	3,738
CARDIOVASCULAR RESEARCH	10,787	2	21,574
CATHETERIZATION AND CARDIOVASCULAR INTERVENTIONS	2,692	1	2,692
CELL	41,582	1	41,582
Cells	6,6	6	39,6
CHEST	9,41	1	9,41
CIRCULATION	29,69	2	59,38
CIRCULATION-ARRHYTHMIA AND ELECTROPHYSIOLOGY	6,568	1	6,568
CIRCULATION-CARDIOVASCULAR IMAGING	7,792	1	7,792
Circulation-Cardiovascular Interventions	6,546	1	6,546
Circulation-Cardiovascular Quality and Outcomes	5,882	1	5,882
CIRUGIA ESPANOLA	1,653	3	4,959
CLINICA CHIMICA ACTA	3,786	1	3,786
CLINICAL & TRANSLATIONAL ONCOLOGY	3,405	20	68,1
CLINICAL AND EXPERIMENTAL RHEUMATOLOGY	4,473	4	17,892
CLINICAL BREAST CANCER	3,225	1	3,225
CLINICAL CANCER RESEARCH	12,531	3	37,593
CLINICAL CARDIOLOGY	2,882	1	2,882
Clinical Child Psychology and Psychiatry	2,544	1	2,544
CLINICAL COLORECTAL CANCER	4,481	2	8,962
CLINICAL DRUG INVESTIGATION	2,859	2	5,718
CLINICAL GASTROENTEROLOGY AND HEPATOLOGY	11,382	1	11,382

Journal	IF	Nº	Amount IF
CLINICAL GENITOURINARY CANCER	2,872	1	2,872
CLINICAL INFECTIOUS DISEASES	9,079	6	54,474
CLINICAL JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY	8,237	1	8,237
CLINICAL KIDNEY JOURNAL	4,452	3	13,356
CLINICAL LUNG CANCER	4,785	1	4,785
CLINICAL MICROBIOLOGY AND INFECTION	8,067	6	48,402
CLINICAL NEUROPHYSIOLOGY	3,708	1	3,708
CLINICAL NURSING RESEARCH	2,075	1	2,075
CLINICAL NUTRITION	7,324	8	58,592
CLINICAL RADIOLOGY	2,35	1	2,35
CLINICAL TRANSPLANTATION	2,863	1	2,863
CNS DRUGS	5,749	1	5,749
COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE	5,428	1	5,428
COMPUTERS IN BIOLOGY AND MEDICINE	4,589	1	4,589
CRITICAL CARE	9,097	5	45,485
CRITICAL CARE MEDICINE	7,598	1	7,598
CURRENT MEDICAL RESEARCH AND OPINION	2,58	1	2,58
Current Urology Reports	3,092	1	3,092
Dermatitis	4,845	1	4,845
DERMATOLOGIC SURGERY	3,398	1	3,398
DERMATOLOGIC THERAPY	2,851	5	14,255
DERMATOLOGY	5,366	1	5,366
DIAGNOSTIC MICROBIOLOGY AND INFECTIOUS DISEASE	2,803	2	5,606
Diagnostics	3,706	1	3,706
DRUGS	9,546	1	9,546
EARLY INTERVENTION IN PSYCHIATRY	2,732	1	2,732
EJSO	4,424	2	8,848
Emergencias	3,881	3	11,643
Endocrine Practice	3,443	1	3,443
Endocrinologia Diabetes Y Nutricion	1,417	3	4,251
ENDOSCOPY	10,093	1	10,093
ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA	1,731	12	20,772
Entropy	2,524	2	5,048
EPIDEMIOLOGY AND PSYCHIATRIC SCIENCES	6,892	1	6,892
EPILEPSY & BEHAVIOR	2,937	1	2,937
ESC heart failure	4,411	2	8,822
Esmo Open	6,54	2	13,08
EuroIntervention	6,534	1	6,534
EUROPACE	5,214	4	20,856
EUROPEAN ARCHIVES OF PSYCHIATRY AND CLINICAL NEUROSCIENCE	5,27	1	5,27
EUROPEAN CHILD & ADOLESCENT PSYCHIATRY	4,785	4	19,14
European Geriatric Medicine	1,71	1	1,71
EUROPEAN HEART JOURNAL	29,983	7	209,881
EUROPEAN HEART JOURNAL SUPPLEMENTS	1,803	1	1,803
EUROPEAN HEART JOURNAL-ACUTE CARDIOVASCULAR CARE	4,696	1	4,696
European Heart Journal-Cardiovascular Imaging	6,875	1	6,875
European Heart Journal-Cardiovascular Pharmacotherapy	6,617	3	19,851
EUROPEAN JOURNAL OF ANAESTHESIOLOGY	4,33	1	4,33
EUROPEAN JOURNAL OF CANCER	9,162	1	9,162
EUROPEAN JOURNAL OF CARDIO-THORACIC SURGERY	4,191	1	4,191
EUROPEAN JOURNAL OF CLINICAL MICROBIOLOGY & INFECTIOUS DISEASES	3,267	1	3,267
EUROPEAN JOURNAL OF DERMATOLOGY	3,328	5	16,64
EUROPEAN JOURNAL OF GASTROENTEROLOGY & HEPATOLOGY	2,566	1	2,566
EUROPEAN JOURNAL OF HAEMATOLOGY	2,997	3	8,991
EUROPEAN JOURNAL OF HOSPITAL PHARMACY	1,652	3	4,956
EUROPEAN JOURNAL OF INTERNAL MEDICINE	4,487	6	26,922
EUROPEAN JOURNAL OF NEUROLOGY	6,089	2	12,178
EUROPEAN JOURNAL OF PAEDIATRIC NEUROLOGY	3,14	1	3,14
EUROPEAN JOURNAL OF PEDIATRICS	3,183	4	12,732
EUROPEAN JOURNAL OF TRAUMA AND EMERGENCY SURGERY	3,693	1	3,693
EUROPEAN NEUROPSYCHOPHARMACOLOGY	4,6	3	13,8

Journal	IF	Nº	Amount IF
EUROPEAN PSYCHIATRY	5,361	1	5,361
EUROPEAN RESPIRATORY JOURNAL	16,671	2	33,342
EUROPEAN UROLOGY	20,096	1	20,096
Eurosurveillance	6,307	1	6,307
EXPERIMENTAL HEMATOLOGY & ONCOLOGY	5,133	2	10,266
EXPERT OPINION ON DRUG SAFETY	4,25	1	4,25
EXPERT OPINION ON PHARMACOTHERAPY	3,889	1	3,889
Expert Review of Hematology	2,929	1	2,929
Extreme Mechanics Letters	4,567	1	4,567
FASEB JOURNAL	5,191	1	5,191
Foot and Ankle Surgery	2,705	1	2,705
Frontiers in Bioengineering and Biotechnology	5,89	1	5,89
Frontiers in Cardiovascular Medicine	6,05	1	6,05
Frontiers in Cellular and Infection Microbiology	5,293	2	10,586
Frontiers in Genetics	4,599	1	4,599
Frontiers in Immunology	7,561	4	30,244
Frontiers in Microbiology	5,64	1	5,64
Frontiers in Neurology	4,003	3	12,009
Frontiers in Neuroscience	4,677	1	4,677
Frontiers in Oncology	6,244	2	12,488
Frontiers In Pediatrics	3,418	2	6,836
Frontiers in Pharmacology	5,81	1	5,81
Frontiers in Physiology	4,566	3	13,698
Frontiers in Psychiatry	4,157	5	20,785
Frontiers in Surgery	2,718	1	2,718
FUTURE GENERATION COMPUTER SYSTEMS-THE INTERNATIONAL JOURNAL OF ESCIENCE	7,187	5	35,935
Future Oncology	3,404	2	6,808
Gastroenterologia y Hepatologia	2,102	16	33,632
GASTROINTESTINAL ENDOSCOPY	9,427	1	9,427
Genes	4,096	1	4,096
Gland Surgery	2,953	1	2,953
Global Heart	3,426	1	3,426
GUT	23,059	2	46,118
HAEMATOLOGICA	9,941	4	39,764
Health Informatics Journal	2,681	1	2,681
HEART	5,994	2	11,988
HEART AND VESSELS	2,037	1	2,037
Heart Failure Clinics	3,179	1	3,179
HEMATOLOGICAL ONCOLOGY	5,271	1	5,271
HEPATOLOGY	17,425	2	34,85
HISTOLOGY AND HISTOPATHOLOGY	2,303	1	2,303
HIV MEDICINE	3,18	1	3,18
HUMAN BRAIN MAPPING	5,038	1	5,038
HUMAN MOLECULAR GENETICS	6,15	1	6,15
Human reproduction	6,918	1	6,918
HYPERTENSION	10,19	1	10,19
IEEE Access	3,367	2	6,734
IEEE TRANSACTIONS ON INFORMATION THEORY	2,501	1	2,501
IEEE TRANSACTIONS ON MEDICAL IMAGING	10,048	2	20,096
IEEE TRANSACTIONS ON SIGNAL PROCESSING	4,931	3	14,793
IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS	7,016	1	7,016
Immunity & Ageing	6,4	1	6,4
Indian Journal of Surgery	0,656	1	0,656
INFECTIOUS DISEASES	3,404	2	6,808
Infectious Diseases and Therapy	5,322	3	15,966
INJURY-INTERNATIONAL JOURNAL OF THE CARE OF THE INJURED	2,586	2	5,172
INTENSIVE CARE MEDICINE	17,44	1	17,44
INTERNAL AND EMERGENCY MEDICINE	3,397	1	3,397
INTERNAL MEDICINE JOURNAL	2,048	1	2,048
INTERNATIONAL EMERGENCY NURSING	2,142	1	2,142
INTERNATIONAL JOURNAL OF ANTIMICROBIAL AGENTS	5,283	3	15,849

Journal	IF	Nº	Amount IF
INTERNATIONAL JOURNAL OF ARTIFICIAL ORGANS	1,595	1	1,595
INTERNATIONAL JOURNAL OF CANCER	7,396	3	22,188
INTERNATIONAL JOURNAL OF CARDIOLOGY	4,164	9	37,476
INTERNATIONAL JOURNAL OF CARDIOVASCULAR IMAGING	2,357	1	2,357
International Journal of Chronic Obstructive Pulmonary Disease	3,355	4	13,42
INTERNATIONAL JOURNAL OF COLORECTAL DISEASE	2,571	1	2,571
INTERNATIONAL JOURNAL OF DERMATOLOGY	2,736	2	5,472
International Journal of Environmental Research and Public Health	3,39	8	27,12
INTERNATIONAL JOURNAL OF INFECTIOUS DISEASES	3,623	1	3,623
INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES	5,923	6	35,538
INTERNATIONAL JOURNAL OF MORPHOLOGY	0,519	1	0,519
INTERNATIONAL JOURNAL OF OSTEOPATHIC MEDICINE	2,149	1	2,149
INTERNATIONAL JOURNAL OF PSYCHOPHYSIOLOGY	2,997	1	2,997
INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY BIOLOGY PHYSICS	7,038	1	7,038
INTERNATIONAL JOURNAL OF STD & AIDS	1,359	1	1,359
INTERNATIONAL JOURNAL OF TUBERCULOSIS AND LUNG DISEASE	2,373	1	2,373
INTERNATIONAL PSYCHOGERIATRICS	3,878	1	3,878
INVESTIGACION CLINICA	0,683	1	0,683
iScience	5,458	1	5,458
JACC-Cardiovascular Imaging	14,805	1	14,805
JACC-Cardiovascular Interventions	11,195	3	33,585
JAIDS-JOURNAL OF ACQUIRED IMMUNE DEFICIENCY SYNDROMES	3,731	2	7,462
JAMA Dermatology	10,282	1	10,282
JAMA Oncology	31,777	2	63,554
JAMA PSYCHIATRY	21,596	2	43,192
JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION	56,272	1	56,272
JMIR mHealth and uHealth	4,773	3	14,319
JOURNAL DER DEUTSCHEN DERMATOLOGISCHEN GESELLSCHAFT	5,584	1	5,584
JOURNAL FRANCAIS D OPHTALMOLOGIE	0,818	1	0,818
Journal of Affective Disorders	4,839	3	14,517
JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY	10,793	1	10,793
Journal of Allergy and Clinical Immunology-In Practice	8,861	5	44,305
JOURNAL OF ALZHEIMERS DISEASE	4,472	2	8,944
JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY	5,79	3	17,37
JOURNAL OF ARTHROPLASTY	4,757	2	9,514
JOURNAL OF ATTENTION DISORDERS	3,256	2	6,512
JOURNAL OF AUTISM AND DEVELOPMENTAL DISORDERS	4,291	1	4,291
JOURNAL OF BONE AND JOINT SURGERY-AMERICAN VOLUME	5,284	1	5,284
JOURNAL OF CARDIAC SURGERY	1,62	1	1,62
JOURNAL OF CARDIOPULMONARY REHABILITATION AND PREVENTION	2,081	1	2,081
JOURNAL OF CARDIOVASCULAR MEDICINE	2,16	1	2,16
JOURNAL OF CARDIOVASCULAR PHARMACOLOGY AND THERAPEUTICS	2,457	1	2,457
Journal of Cardiovascular Translational Research	4,132	1	4,132
JOURNAL OF CELLULAR AND MOLECULAR MEDICINE	5,31	1	5,31
JOURNAL OF CHILD AND ADOLESCENT PSYCHOPHARMACOLOGY	2,576	1	2,576
JOURNAL OF CLINICAL APHERESIS	2,821	1	2,821
JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM	5,958	1	5,958
Journal of Clinical Medicine	4,241	22	93,302
JOURNAL OF CLINICAL MICROBIOLOGY	5,948	1	5,948
JOURNAL OF CLINICAL NEUROSCIENCE	1,961	1	1,961
JOURNAL OF CLINICAL ONCOLOGY	44,544	3	133,632
JOURNAL OF CLINICAL PATHOLOGY	3,411	1	3,411
JOURNAL OF CLINICAL PERIODONTOLOGY	8,728	1	8,728
JOURNAL OF CLINICAL PSYCHIATRY	4,384	1	4,384
JOURNAL OF CRANIOFACIAL SURGERY	1,046	1	1,046
JOURNAL OF DERMATOLOGY	4,005	1	4,005
Journal of Foot & Ankle Surgery	1,286	1	1,286
Journal of Fungi	5,816	2	11,632
JOURNAL OF GASTROINTESTINAL SURGERY	3,452	1	3,452

Journal	IF	Nº	Amount IF
JOURNAL OF HEART AND LUNG TRANSPLANTATION	10,247	3	30,741
JOURNAL OF HEMATOLOGY & ONCOLOGY	17,388	2	34,776
JOURNAL OF HEPATOLOGY	25,083	10	250,83
JOURNAL OF HOSPITAL INFECTION	3,926	1	3,926
JOURNAL OF IMMUNOLOGY RESEARCH	4,818	1	4,818
JOURNAL OF IMMUNOTHERAPY	4,456	1	4,456
JOURNAL OF INFECTION	6,072	2	12,144
Journal of Infection and Public Health	3,718	1	3,718
JOURNAL OF INFECTIOUS DISEASES	5,226	4	20,904
JOURNAL OF INTERNATIONAL MEDICAL RESEARCH	1,671	1	1,671
JOURNAL OF INVESTIGATIONAL ALLERGOLOGY AND CLINICAL IMMUNOLOGY	4,333	5	21,665
JOURNAL OF MATERNAL-FETAL & NEONATAL MEDICINE	2,398	2	4,796
JOURNAL OF MEDICAL GENETICS	6,318	1	6,318
JOURNAL OF MEDICAL INTERNET RESEARCH	5,428	1	5,428
JOURNAL OF MEDICAL VIROLOGY	2,327	1	2,327
JOURNAL OF MICROBIOLOGY IMMUNOLOGY AND INFECTION	4,399	1	4,399
JOURNAL OF MOLECULAR MEDICINE-JMM	4,599	1	4,599
JOURNAL OF NEUROINFLAMMATION	8,322	2	16,644
Journal of NeuroInterventional Surgery	5,836	1	5,836
JOURNAL OF NEUROLOGY	4,849	2	9,698
JOURNAL OF NUTRITION HEALTH & AGING	4,075	1	4,075
JOURNAL OF NUTRITIONAL BIOCHEMISTRY	6,048	1	6,048
JOURNAL OF ONCOLOGY PHARMACY PRACTICE	1,809	1	1,809
JOURNAL OF PAIN AND SYMPTOM MANAGEMENT	3,612	1	3,612
Journal of Pain Research	3,133	1	3,133
JOURNAL OF PEDIATRIC GASTROENTEROLOGY AND NUTRITION	2,839	3	8,517
Journal of Pediatric Urology	1,83	1	1,83
JOURNAL OF PEDIATRICS	4,406	3	13,218
JOURNAL OF PERINATAL MEDICINE	1,901	1	1,901
JOURNAL OF PERINATOLOGY	2,521	1	2,521
Journal Of Personalized Medicine	4,945	1	4,945
JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY	3,011	1	3,011
JOURNAL OF PSYCHOPHARMACOLOGY	4,153	1	4,153
JOURNAL OF PSYCHOSOCIAL NURSING AND MENTAL HEALTH SERVICES	1,098	1	1,098
JOURNAL OF RHEUMATOLOGY	4,666	1	4,666
JOURNAL OF SUPERCOMPUTING	2,474	1	2,474
JOURNAL OF SYSTEMS AND SOFTWARE	2,829	1	2,829
JOURNAL OF THE AMERICAN ACADEMY OF CHILD AND ADOLESCENT PSYCHIATRY	8,829	1	8,829
JOURNAL OF THE AMERICAN ACADEMY OF DERMATOLOGY	11,527	3	34,581
JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY	24,094	3	72,282
JOURNAL OF THE AMERICAN GERIATRICS SOCIETY	5,562	1	5,562
Journal of the American Heart Association	5,501	1	5,501
JOURNAL OF THE AMERICAN MEDICAL DIRECTORS ASSOCIATION	4,669	3	14,007
JOURNAL OF THE AMERICAN PODIATRIC MEDICAL ASSOCIATION	0,675	1	0,675
JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY	5,251	1	5,251
JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY	6,166	4	24,664
JOURNAL OF THE INTERNATIONAL NEUROPSYCHOLOGICAL SOCIETY	2,892	1	2,892
JOURNAL OF THE NEUROLOGICAL SCIENCES	3,181	2	6,362
Journal of the Pediatric Infectious Diseases Society	3,164	1	3,164
JOURNAL OF THORACIC ONCOLOGY	15,609	1	15,609
JOURNAL OF TRANSLATIONAL MEDICINE	5,531	1	5,531
JOURNAL OF VIRAL HEPATITIS	3,728	2	7,456
Jove-Journal of Visualized Experiments	1,355	1	1,355
KARDIOLOGIA POLSKA	3,108	1	3,108
KIDNEY INTERNATIONAL	10,612	1	10,612
KNEE	2,199	2	4,398
LANCET	79,321	2	158,642
LANCET CHILD & ADOLESCENT HEALTH	11,288	2	22,576

Journal	IF	Nº	Amount IF
LANCET NEUROLOGY	44,182	1	44,182
LANCET ONCOLOGY	41,316	2	82,632
Lancet Psychiatry	27,083	4	108,332
LEUKEMIA	11,528	1	11,528
LEUKEMIA RESEARCH	3,156	1	3,156
LIVER INTERNATIONAL	5,828	3	17,484
LIVER TRANSPLANTATION	5,799	1	5,799
LUPUS	2,911	2	5,822
MAGNETIC RESONANCE MATERIALS IN PHYSICS BIOLOGY AND MEDICINE	2,31	1	2,31
MATURITAS	4,342	1	4,342
MEDICAL MICROBIOLOGY AND IMMUNOLOGY	3,402	1	3,402
MEDICAL MYCOLOGY	4,076	5	20,38
MEDICINA CLINICA	1,725	11	18,975
Medicina Intensiva	2,491	4	9,964
MINERVA ANESTESIOLOGICA	3,051	2	6,102
Minerva Pediatrica	1,312	1	1,312
MOLECULAR & CELLULAR PROTEOMICS	5,911	1	5,911
Molecular Autism	7,509	1	7,509
MOLECULAR GENETICS AND METABOLISM	4,797	1	4,797
MOLECULAR IMAGING AND BIOLOGY	3,488	1	3,488
Molecular Metabolism	7,422	1	7,422
MOLECULAR NUTRITION & FOOD RESEARCH	5,914	1	5,914
MOLECULAR PSYCHIATRY	15,992	1	15,992
MOLECULES	4,411	1	4,411
Multiple Sclerosis and Related Disorders	4,339	1	4,339
MUSCLE & NERVE	3,217	1	3,217
Musculoskeletal Science and Practice	2,52	1	2,52
MYCOSES	4,377	2	8,754
Nanomaterials	5,076	1	5,076
NATURE	49,962	1	49,962
NATURE MEDICINE	53,44	2	106,88
NATURE NEUROSCIENCE	24,884	1	24,884
NEFROLOGIA	2,033	3	6,099
NEPHROLOGY DIALYSIS TRANSPLANTATION	5,992	1	5,992
NEUROBIOLOGY OF AGING	4,673	1	4,673
NEUROENDOCRINOLOGY	4,914	1	4,914
NEUROIMAGE	6,556	1	6,556
NeuroImage-Clinical	4,881	1	4,881
NEUROLOGIA	3,109	10	31,09
NEUROLOGICAL SCIENCES	3,307	1	3,307
NEUROLOGY	9,91	1	9,91
NEUROSURGICAL REVIEW	3,042	1	3,042
NEUROUROLOGY AND URODYNAMICS	2,696	1	2,696
NEW ENGLAND JOURNAL OF MEDICINE	91,245	3	273,735
NUTRICION HOSPITALARIA	1,057	4	4,228
Nutrients	5,717	7	40,019
NUTRITION	4,008	1	4,008
Obesity Facts	3,942	1	3,942
Open Forum Infectious Diseases	3,835	2	7,67
OPHTHALMIC RESEARCH	2,892	1	2,892
OPTICS AND LASERS IN ENGINEERING	4,836	1	4,836
OPTICS EXPRESS	3,894	1	3,894
ORGANIC & BIOMOLECULAR CHEMISTRY	3,876	1	3,876
PACE-PACING AND CLINICAL ELECTROPHYSIOLOGY	1,976	1	1,976
PAEDIATRIC RESPIRATORY REVIEWS	2,726	1	2,726
Pathogens	3,492	1	3,492
PATHOLOGY & ONCOLOGY RESEARCH	3,201	1	3,201
Patient Preference and Adherence	2,711	3	8,133
PEDIATRIC BLOOD & CANCER	3,167	3	9,501
PEDIATRIC CRITICAL CARE MEDICINE	3,624	3	10,872
PEDIATRIC DERMATOLOGY	1,588	1	1,588

Journal	IF	Nº	Amount IF
PEDIATRIC INFECTIOUS DISEASE JOURNAL	2,129	3	6,387
PEDIATRIC NEPHROLOGY	3,714	1	3,714
PEDIATRIC PULMONOLOGY	3,039	2	6,078
Pediatric Rheumatology	3,054	1	3,054
PEDIATRIC TRANSPLANTATION	1,502	3	4,506
PEDIATRICS	7,124	1	7,124
Pharmaceutics	6,321	2	12,642
PHARMACOLOGICAL RESEARCH	7,658	1	7,658
PLoS Biology	8,029	2	16,058
PLoS One	3,24	15	48,6
Processes	2,847	1	2,847
Progress in Brain Research	2,453	1	2,453
PROGRESS IN NEURO-PSYCHOPHARMACOLOGY & BIOLOGICAL PSYCHIATRY	5,067	1	5,067
PSYCHIATRY RESEARCH	3,222	2	6,444
PSYCHOLOGICAL MEDICINE	7,723	3	23,169
PSYCHONEUROENDOCRINOLOGY	4,905	1	4,905
PSYCHOPHARMACOLOGY	4,53	1	4,53
Pulmonology	3,575	1	3,575
RADIOTHERAPY AND ONCOLOGY	6,28	1	6,28
RESEARCH IN SOCIAL & ADMINISTRATIVE PHARMACY	3,336	1	3,336
RESPIRATORY RESEARCH	5,631	1	5,631
RESUSCITATION	5,262	1	5,262
REVISTA CLINICA ESPANOLA	1,556	5	7,78
REVISTA DE NEUROLOGIA	0,87	8	6,96
REVISTA DE PSIQUIATRIA Y SALUD MENTAL	3,318	5	16,59
REVISTA ESPANOLA DE CARDIOLOGIA	4,753	14	66,542
REVISTA ESPANOLA DE ENFERMEDADES DIGESTIVAS	2,086	3	6,258
Revista Espanola de Medicina Nuclear e Imagen Molecular	1,359	3	4,077
REVISTA ESPANOLA DE QUIMIOTERAPIA	1,553	10	15,53
REVISTA ESPANOLA DE SALUD PUBLICA	0,756	3	2,268
Revista Internacional de Andrologia	1,063	1	1,063
REVUE FRANCAISE D ALLERGOLOGIE	0,288	1	0,288
RHEUMATOLOGY	7,58	3	22,74
RHEUMATOLOGY INTERNATIONAL	2,631	3	7,893
RSC Advances	3,361	1	3,361
SCANDINAVIAN JOURNAL OF MEDICINE & SCIENCE IN SPORTS	4,221	2	8,442
SCANDINAVIAN JOURNAL OF SURGERY	2,36	1	2,36
SCHIZOPHRENIA BULLETIN	9,306	4	37,224
SCHIZOPHRENIA RESEARCH	4,939	5	24,695
SCIENCE	47,728	1	47,728
Science Translational Medicine	17,956	2	35,912
Scientific Reports	4,379	12	52,548
SEMINARS IN ARTHRITIS AND RHEUMATISM	5,532	1	5,532
SENSORS	3,576	1	3,576
SIMULATION MODELLING PRACTICE AND THEORY	3,272	1	3,272
SLEEP MEDICINE	3,492	2	6,984
SOCIAL PSYCHIATRY AND PSYCHIATRIC EPIDEMIOLOGY	4,328	1	4,328
STATISTICS AND COMPUTING	2,559	2	5,118
STEM CELL RESEARCH	2,02	1	2,02
Stem Cells Translational Medicine	6,94	1	6,94
STRESS-THE INTERNATIONAL JOURNAL ON THE BIOLOGY OF STRESS	3,493	1	3,493
STROKE	7,914	1	7,914
SUBSTANCE USE & MISUSE	2,164	1	2,164
SUPPORTIVE CARE IN CANCER	3,603	1	3,603
TELEMEDICINE AND E-HEALTH	3,536	1	3,536
Theranostics	11,556	1	11,556
THERAPEUTIC ADVANCES IN CHRONIC DISEASE	5,091	1	5,091
THERAPEUTIC APHERESIS AND DIALYSIS	1,762	1	1,762
THORAX	9,139	1	9,139
THROMBOSIS AND HAEMOSTASIS	5,249	2	10,498
THROMBOSIS RESEARCH	3,944	7	27,608

Journal	IF	Nº	Amount IF
TOTAL		956	4750,4

Finally, publications in indexed journals with **no impact factor and nonindexed journals** are included in an appendix detailing the activity of the different groups.

JOURNAL	Nº
Acta Otorrinolaringologica Espanola	2
Actas Dermo-Sifiliograficas	4
Ajp Reports	1
Angiologia	1
Cirugia Cardiovascular	7
Computing in Cardiology Conference	1
European Journal Of Pediatric Surgery Reports	1
International Conference on Acoustics Speech and Signal Processing ICASSP	2
ONCOLOGIST	4
Radiologia	1
Reumatologia Clinica	6
REVISTA CHILENA DE PEDIATRIA-CHILE	1
Strabismus	1
Farmacia Hospitalaria	6
Enfermeria Intensiva	3
Revista Espanola de Anestesiologia y Reanimacion	4
Clinica e Investigacion en Arteriosclerosis	3
EUROPEAN CARDIOLOGY REVIEW	2
Revista de Gastroenterologia de Mexico	1
Hipertension y Riesgo Vascular	2
World Journal of Clinical Oncology	1
Molecular And Clinical Oncology	1
ARCHIVOS LATINOAMERICANOS DE NUTRICION	2
Eclinicalmedicine	1
Acta Microscopica	1
Jnci Cancer Spectrum	1
IJC HEART & VASCULATURE	2
BMJ Open Gastroenterology	1
Heliyon	1
ERJ Open Research	2
NEUROLOGY-CLINICAL PRACTICE	1
JOURNAL OF CARDIOVASCULAR ELECTROPHYSIOLOGY	2
Clinical And Translational Radiation Oncology	3
Revista De Psicologia Clinica Con Ninos Y Adolescentes	1
Hemasphere	1
Journal of Radiology Case Reports	1
Clinical Journal of Gastroenterology	1
Musculoskeletal care	2
Open Heart	2
Orthopedic Research and Reviews	1
GE Portuguese Journal of Gastroenterology	1

JOURNAL	Nº
EUROPEAN JOURNAL OF PLASTIC SURGERY	1
REVISTA ROL DE ENFERMERIA	1
Antibodies	1
BMC Research Notes	1
Joint Commission Journal on Quality and Patient Safety	1
Clinical Sarcoma Research	2
Revista Clinica Contemporanea	2
Indian Journal Of Gynecologic Oncology	1
Intensive Care Medicine Experimental	1
Tropical Medicine And Infectious Disease	1
Chinese Clinical Oncology	1
Biomedical Reports	1
Jco Global Oncology	1
Clinical Management Issues	1
Clinical Nutrition ESPEN	1
International Journal of Mycobacteriology	1
Anales De Pediatria (barcelona, Spain : 2003)	1
IEEE International Workshop on Machine Learning for Signal Processing	2
MEDICINA DE FAMILIA-SEMERGEN	2
CELL REPORTS MEDICINE	1
European Heart Journal-Case Reports	1
Revista De Educacion Inclusiva	1
Total general	**108**

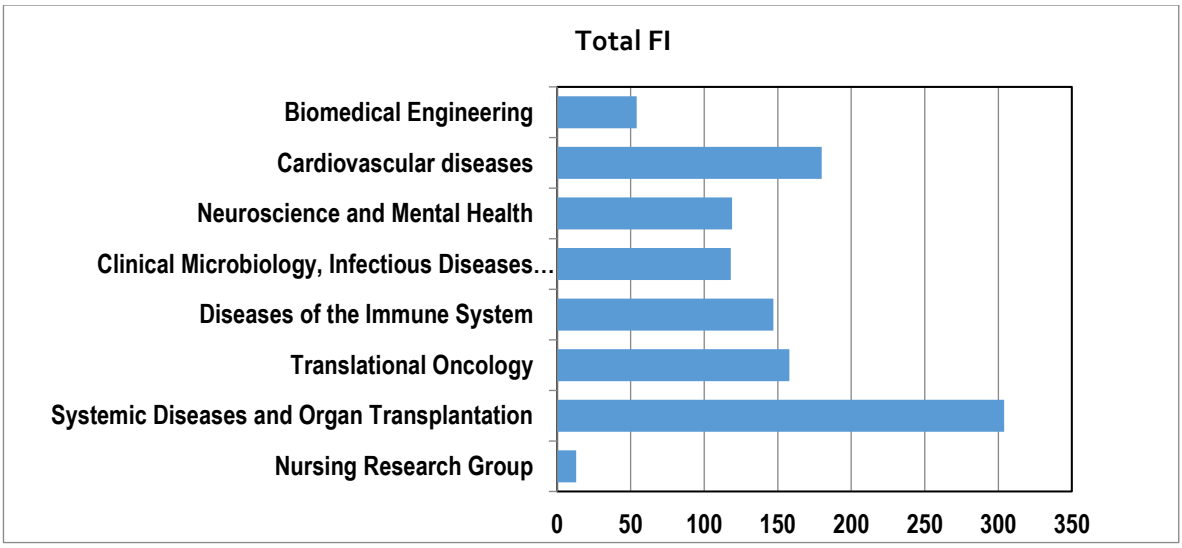
A summary of publications by research group is shown below:

			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	18	15	10	22	8	3	0	0	33
		FI	87,919	171,119	161,769	227,769	24,473	6,796	0		259,038
1.02	Signal processing	Nº	6	5	3	9	2	0	0	5	16
		FI	26,375	20,685	12,134	42,035	5,025	0	0		47,06
1.03	Computer architecture, communications, and systems: ARCOS	Nº	7	3	5	7	2	1	0	0	10
		FI	38,034	12,933	35,935	42,036	5,841	3,09	0		50,967
1.04	Nonparametric statistics and intensive computing	Nº	1	0	0	0	1	0	0	0	1
		FI	2,207	0	-	0	2,207	0	0		2,207
2.01	Natural history of heart disease	Nº	43	52	19	42	38	11	4	25	120
		FI	251,02	451,35	370,002	499,212	169,776	26,466	6,916		702,37
2.02	Cardiovascular pathophysiology	Nº	2	5	1	4	3	0	0	0	7
		FI	12,912	34,074	6,312	27,186	19,8	0	0		46,986

			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)
2.03	Cardiac celular electrophysiology	Nº	4	2	4	5	1	0	0	1	7
		FI	21,502	36,6	49,834	54,213	3,889	0	0		58,102
2.05	Cardiology and heart transplantation in infants	Nº	3	5	1	2	2	0	4	3	11
		FI	16,04	16,371	10,247	16,781	9,506	0	6,124		32,411
2.06	Blood lipids and cardiovascular risk	Nº	20	16	0	7	12	14	3	6	42
		FI	54,995	55,262	-	31,471	45,35	29,29	4,146		110,257
2.07	Acute cerebral ischemia. Stroke	Nº	3	6	3	5	1	3	0	0	9
		FI	13,794	35,382	23,66	34,598	5,251	9,327	0		49,176
3.01	Neurobiological and psychological bases of mental disorders. Disorders of neurodevelopment	Nº	24	45	27	45	19	3	2	3	72
		FI	175,447	345,255	343,26	437,83	71,375	9,105	2,392		520,702
3.03B	Neurological diseases	Nº	17	30	4	12	16	14	5	1	48
		FI	60,256	171,7	88,024	129,319	60,892	37,395	4,35		231,956
4.01	Infectious diseases	Nº	43	46	20	45	14	11	19	6	95
		FI	178,783	227,301	150,121	288,628	54,695	31,553	31,208		406,084
4.02	Clinical and epidemiological aspects of HIV infection and associated conditions	Nº	8	19	3	14	8	2	3	0	27
		FI	43,857	80,774	26,225	81,025	31,783	6,584	5,239		124,631
5.01	Pathophysiology and clinical research into chronic inflammatory and immunological diseases	Nº	18	18	9	16	8	10	2	6	42
		FI	166,298	106,444	160,544	204,989	36,021	28,27	3,462		272,742
5.02	Molecular biology of HIV	Nº	13	12	0	15	10	0	0	0	25
		FI	63,395	59,957	-	84,191	39,161	0	0		123,352
5.03	Systemic autoimmune diseases	Nº	4	21	4	8	11	2	4	8	33
		FI	28,199	195,131	136,63	158,362	49,582	5,822	9,564		223,33
5.05	Pathogenesis of the immunoallergic response	Nº	6	8	3	8	4	0	2	1	15
		FI	28,495	62,828	30,6	72,391	17,332	0	1,6		91,323
5.06	Immune regulation and homeostasis in diseases of the immune system	Nº	1	3	2	3	0	1	0	1	5
		FI	6,166	14,752	12,332	19,33	0	1,588	0		20,918
5.07	Infections in pediatric patients	Nº	11	20	3	11	6	4	10	3	34
		FI	26,663	88,01	32,365	69,935	21,786	8,112	14,84		114,673
6.01	Interdisciplinary oncology and biotechnology	Nº	3	16	3	5	6	3	5	5	24
		FI	8,88	95,789	56,771	67,393	20,749	10,215	6,312		104,669

			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)
6.02	Translational medical oncology and personalized cancer therapy	Nº	22	53	23	36	14	22	3	7	82
		FI	153,734	872,888	808,234	888,193	62,069	73,127	3,233		1026,622
6.03	Genetics and clinical aspects of hematologic malignancies and hematopoietic stem cell transplantation	Nº	13	40	11	32	11	7	3	5	58
		FI	57,17	275,525	139,583	266,882	43,159	18,002	4,652		332,695
6.04	Surgical oncology	Nº	1	2	0	0	1	1	1	1	4
		FI	1,066	6,857	-	0	3,452	3,405	1,066		7,923
7.01	Vascular damage and infl ammation in chronic kidney disease, dialysis, and kidney transplantation . Pathophysiology ofthe kidney	Nº	6	9	5	8	2	4	1	2	17
		FI	28,263	44,819	42,326	55,682	6,718	8,92	1,762		73,082
7.02	Pathophysiology and natural history of liver and digestive diseases	Nº	19	34	18	26	6	0	21	5	58
		FI	89,465	385,31	355,997	407,53	23,723	0	43,522		474,775
7.04	Diseases of the critically ill child	Nº	16	11	3	15	3	1	8	3	30
		FI	64,555	57,907	29,826	97,244	10,718	2,491	12,009		122,462
7.05B	Pathophysiology, outcome, and therapeutic strategies in chronic respiratory insufficiency and respiratory disorders of sleep	Nº	19	26	8	25	13	5	2	2	47
		FI	75,609	177,212	106,857	179,162	56,607	14,428	2,624		252,821
7.07	Experimental kidney transplantation	Nº	19	5	0	1	1	1	21	0	24
		FI	20,426	9,415	-	4,226	3,092	2,696	19,827		29,841
7.08	Pediatric endocrinology	Nº	2	2	0	0	0	1	3	1	5
		FI	1,512	4,609	-	0	0	3,109	3,012		6,121
7.10	Regeneration and biomaterials in musculoskeletal disease	Nº	7	5	0	1	5	3	3	2	14
		FI	16,794	11,125	-	4,757	13,796	5,753	3,613		27,919
7.11	Iron metabolism disorders	Nº	3	0	0	0	3	0	0	0	3
		FI	9,876	0	-	0	9,876	0	0		9,876
7.16	Regenerative medicine and system development: cardiovascular	Nº	2	0	0	2	0	0	0	0	2
		FI	9,657	0	-	9,657	0	0	0		9,657

			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)
	and osteochondral										
7.18	Peritransplant evaluation (liver)	Nº	2	5	2	3	2	0	2	0	7
		FI	10,907	16,428	12,738	17,846	6,144	0	3,345		27,335
7.20	Anesthesia, toxins, and arrhythmias	Nº	1	2	1	1	0	1	1	0	3
		FI	2,217	8,85	5,799	5,799	0	3,051	2,217		11,067
7.21	Biopathology of aging	Nº	4	8	2	5	4	1	2	3	15
		FI	20,067	32,326	16,457	30,534	16,593	2,16	3,106		52,393
7.22	Pathophysiology of the neonate and developing child	Nº	9	4	0	5	3	2	3	0	13
		FI	23,69	11,417	-	16,15	9,568	4,889	4,5		35,107
7.25	Artificial circulation laboratory	Nº	1	3	0	0	3	0	1	4	8
		FI	4,753	10,648	-	0	13,67	0	1,731		15,401
7.26	Evaluation of health services and clinical epidemiology	Nº	0	1	0	0	1	0	0	2	3
		FI	0	3,336	-	0	3,336	0	0		3,336
7.27	Hospital pharmacy and pharmacogenomics	Nº	20	8	4	9	8	5	6	7	35
		FI	68,441	36,589	23,328	47,887	32,593	14,449	10,101		105,03
7.28	Clinical nutrition	Nº	2	11	1	10	0	1	2	1	14
		FI	8,741	81,461	23,059	84,285	0	3,443	2,474		90,202
7.29	Vascular pathophysiology and pharmacology	Nº	6	6	5	11	1	0	0	1	13
		FI	40,425	73,293	81,504	110,707	3,011	0	0		113,718
7.31	Vascular pathophysiology and pharmacology	Nº	6	3	2	2	2	4	1	1	10
		FI	20,686	64,763	63,19	63,19	8,317	12,389	1,553		85,449
7.32	Physical medicine and rehabilitation	Nº	0	6	0	3	2	1	0	3	9
		FI	0	22,533	-	12,862	7,59	2,081	0		22,533
8	Research in nursing	Nº	4	5	1	5	1	1	2	6	15
		FI	8,935	17,943	6,939	20,499	2,075	2,149	2,155		26,878


Total FI
Biomedical Engineering
Cardiovascular diseases
Neuroscience and Mental Health
Clinical Microbiology, Infectious Diseases...
Diseases of the Immune System
Translational Oncology
Systemic Diseases and Organ Transplantation
Nursing Research Group
0
50
100
150
200
250
300
350

TRAINING: COURSES, SEMINARS, AND ONE-DAY TRAINING SESSIONS

Because of the social isolation resulting from the pandemic, it has restricted training activities in 2020.
However, some of them have been resumed, such as weekly seminars, on line

During 2020, 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 2020 (http://www.iisgm.com/actualidad/convocatorias-y-formacion/).

In general terms, 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 2020, the IiSGM intended to offer the following training opportunities, which were ultimately blocked by the pandemic:

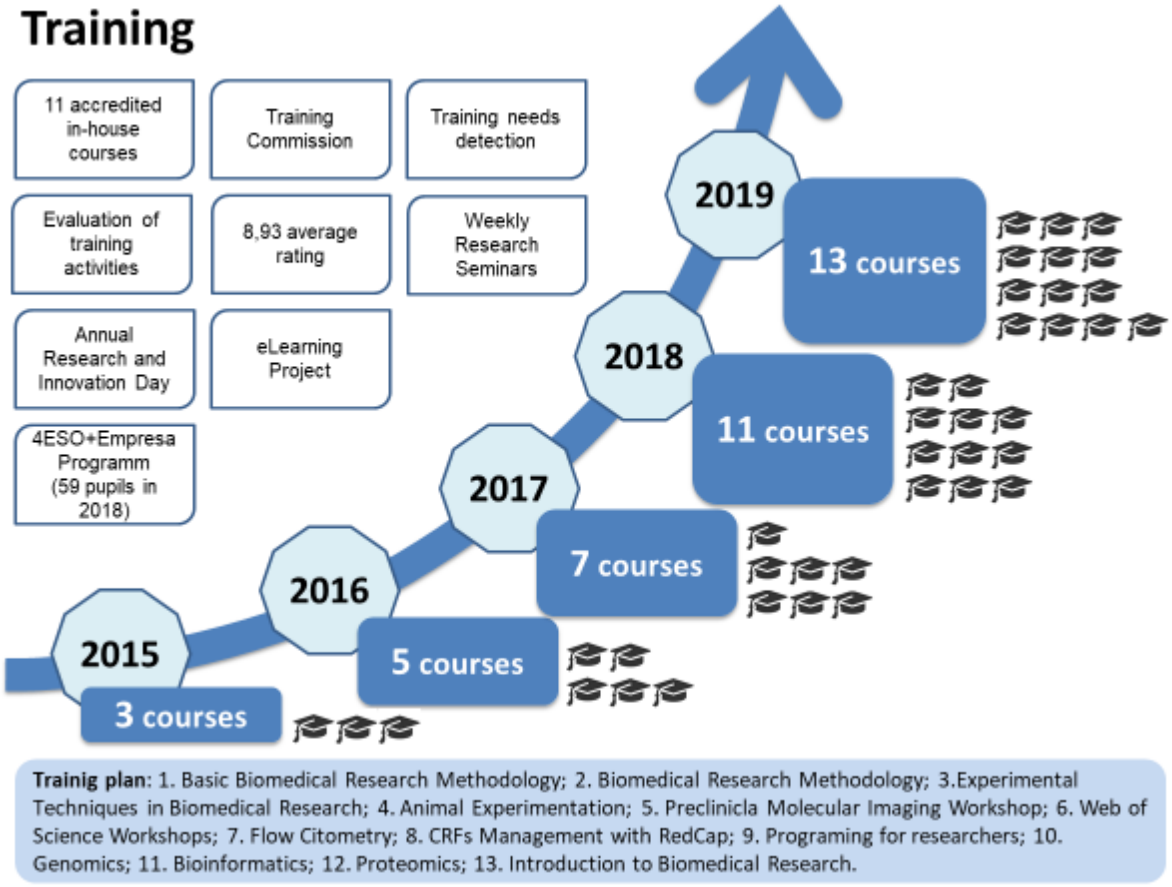
- Third edition of the ***Basic Course in Research Methodology***, which tries to cover the needs detected for training in basic areas of methodology in the needs analysis. This essentially practical course lasts 20 hours and is aimed mainly at medical residents and staff members who are in the early 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.
- Fourth edition of the ***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 the all areas from the initial research hypothesis to publication of results.
- Fifth edition of the ***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.
- Second edition of the ***Advanced Course on Surgery for Research With Rodents***, which aims to train the student in experimental surgery with laboratory animals.
  The couse is practical in nature and addresses various surgical and microsurgical techniques.
- First edition of the *Course on the Basics and Application of Flow Cytometry in Biomedical Research*
- Pilot edition: *Practical Course in Biomedical Research for Veterinarians*. The course lasts 500 hours and is aimed specifically at graduates in veterinary medicine who have completed their studies during the 3 years before the beginning of the course. The main objective is that that the student acquire knowledge and skills that are highly practical and applicable, enabling him/her to acquire a solid grounding for future integration in an experimental research team.

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 (Lab Meetings), 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.



COURSES

TITLE	NO. OF EDITIONS	DURATION (in hours)	STUDENTS' EVALUATION (maximum 10 points)
Basic Course in Biomedical Research Methodology	2	24	8.9
Course in Biomedical Research Methodology	5	80 (in 4 modules)	8.025
Course in Experimental Techniques in Biomedical Research	5	24	8.2
Course on Animal Experimentation	3	24	8.1
Advanced Course on Advanced Surgery in Rodents	2	30	9.5
Workshop: Introduction to Preclinical Molecular Imaging and its Application in Biomedical Research	1	80	8.1
Course on the Basics and Application of Flow Cytometry in Biomedical Research	1	20	9.5

CLINICAL PRACTICE GUIDELINES

Group	Authors	Title	Journal / Reference
2.03	Savarese G. Reiner MF. Uijl A. D'Amario D. Agewall S. Atar D. Baumgartner I. Borghi C. De Carlo M. Drexel H. Kaski JC. Kjeldsen KP. Kucher N. Lund LH. Niessner A. Semb AG. Schmidt TA. Sulzgruber P. Tamargo J. Vitale C. Wassmann S. Aboyans V. Lewis BS	**Antithrombotic therapy and major adverse limb events in patients with chronic lower extremity arterial disease: systematic review and meta-analysis from the European Society of Cardiology Working Group on Cardiovascular Pharmacotherapy in Collaboration with the European Society of Cardiology Working Group on Aorta and Peripheral Vascular Diseases.**	EUR HEART J CARDIOVASC PHARMACOTHER 2020;6(2):86-93.
2.03	Hollan I. Ronda N. Dessein P. Agewall S. Karpouzas G. Tamargo J. Niessner A. Savarese G. Rosano G. Kaski JC. Wassmann S. Meroni PL.	**Lipid management in rheumatoid arthritis: a position paper of the Working Group on Cardiovascular Pharmacotherapy of the European Society of Cardiology.**	EUR HEART J CARDIOVASC PHARMACOTHER. 2020;6(2):104-114.
3.01	Imaz Roncero, C.; González Serrano F.; Martínez de Salazar Arboleas, 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**	https://www.sepypna.com/documentos/2020_InformeCOVID_final.pdf
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-basedlocation data	Transl Psychiatry . 2020 Jul 1;10(1):211. doi: 10.1038/s41398-020-00893-4.
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-treatdepression: An international consensus statement	J Affect Disord. 2020 Apr 15;267:264-282. doi: 10.1016/j.jad.2020.02.023. Epub 2020 Feb 7.
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	Lancet Psychiatry. 2020 Sep;7(9):813-824. doi: 10.1016/S2215-0366(20)30307-2. Epub 2020 Jul 16.
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»	Rev Psiquiatr Salud Ment (Engl Ed) . Apr-Jun 2020;13(2):80-89. doi: 10.1016/j.rpsm.2019.11.002. Epub 2020 Jan 11.
5.01	Cordero, E; Goycochea-Valdivia, W; Mendez-Echevarria, A; Allende, LM; Alsina, L; Garcia-Morato, MB; Gil-Herrera, J; Gudiol, 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**	nferm Infecc Microbiol Clin (Engl Ed) . 2020 Nov;38(9):438-443. doi: 10.1016/j.eimc.2020.07.00

Group	Authors	Title	Journal / Reference
5.01	Cordero, E; Goycochea-Valdivia, W; Mendez-Echevarria, A; Allende, LM; Alsina, L; Garcia-Morato, MB; Gil-Herrera, J; Gudiol, 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**	J Allergy Clin Immunol Pract. Nov-Dec 2020;8(10):3342-3347. doi: 10.1016/j.jaip.2020.05.008.
5.03	Alejandro Balsa Criado. Petra Díaz del Campo Fontecha. Jose María Álvaro-Gracia Álvaro. José Luis Andreu Sánchez. Francisco Javier Blanco García. Laura Cano García. Esmeralda Delgado Frías. José Federico Díaz González. Ana Mª Fernández Ortiz. Blanca García Magallón. Luis Gómez Carrera. Carlos González Juanatey. M. Vanesa Hernández Hernández. Antonio Juan Mas. Francisco Javier Narváez García. Ana Ortiz García. Lucía Silva Fernández. Alejandro Tejedor Varillas	**Guía de Práctica Clínica para el Manejo de Pacientes con Artritis Reumatoide**	Guía en formato electrónico y papel
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 clinico del paciente pediátrico con infeccion 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.mscbs.gob.es/ciudadanos/enfLesiones/enfTransmisibles/sida/documentos/Mujer_y_VIH_DEFI.pdf
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.mscbs.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 pre-TPH**	https://www.comunidad.madrid/hospital/gregoriomaranon/profesionales/enfermedades-infecciosas-pediatricas
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
6.02	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 debiomarcadores en el carcinoma colorrectal. Consenso Nacional de la Sociedad Española de Oncología Médica y de la Sociedad Española de Anatomía Patológica**	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.

Group	Authors	Title	Journal / Reference
		[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].	
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 & M. Salgado Fernández	**SEOM clinical guideline of venous thromboembolism (VTE) and cancer (2019)**	Clinical and Translational Oncology volume 22, pages17 1–186(2020)
6.02	Martin, M; Guerrero-Zotano, A; Montero, A; Jara, C; Filipovich, E; Rojo, F; Moreno, F; Garcia-Saenz, JA; Ales, JE; Chacon, JI; Cruz, J; Gimenez, J; Cruz-Merino, L; Algara, M; Santisteban, M; Tarruella, SL; GEICAM Spanish Breast Canc Grp Ste	**GEICAMGuidelines for the Management of Patients with Breast Cancer During theCOVID-19 Pandemic in Spain**	Oncologist. 2020 Sep;25(9):e1339-e1345. doi: 10.1634/theoncologist.2020-0363. Epub 2020 Jul 23.
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.
6.03	Marina García Morín	**Guía de recomendaciones de la SEHOP para el tratamiendo de la leucemia linfoblástica aguda o bifenotípica del lactante menor de un año**	Sociedad española de hematología y oncología pediátricas
7.01	GOICOECHEA. VERDE. LUÑO	**GUIAS DE PRÁCTICA CLÍNICA EN EL MANEJO TERAPEUTICO DE LAS ENFERMEDADES GLOMERULARES**	LIBRO ISBN 978-84-1317-082-4. EDITORIAL CIRCULO ROJO
7.01	GOICOECHEA. VERDE. LUÑO	**GUIAS DE PRÁCTICA CLÍNICA EN EL MANEJO TERAPEUTICO DE LAS ENFERMEDADES GLOMERULARES**	LIBRO ISBN 978-84-1317-082-4. EDITORIAL CIRCULO ROJO
7.02	Bataller R, Cabezas J, Aller R, Ventura-Cots M, Abad J, Albillos A, Altamirano J, Arias-Loste MT, Bañares R, Caballería J, Caballería L, Carrión JA, Diago M, Fernández Rodríguez C, Gallego R, García-Cortes M, García-Monzón C, Genescà J, Ginés P, Hernandez-	**Alcohol-related liver disease. Clinical practice guidelines. Consensus document sponsored by AEEH**	Gastroenterol Hepatol. . 2019 Dec;42(10):657-676.

Group	Authors	Title	Journal / Reference
	Guerra M, Jorquera F, Lligoña A, Molina E, Pareja MJ, Planas R, Tomé S, Salmerón J, Romero-Gómez M		
7.02	Barreiro-de Acosta M, Marín-Jimenez I, Rodríguez-Lago I, Guarner F, Espín E, Ferrer Bradley I, Gutiérrez A, Beltrán B, Chaparro M, Gisbert JP, Nos P; en representación de GETECCU.	**Recommendations of the Spanish Working Group on Crohn's Disease and Ulcerative Colitis (GETECCU) on pouchitis in ulcerative colitis. Part 2: Treatment.**	10.1016/j.gastrohep.2020.04.004
7.02	Perez-Cuadrado-Robles, E; Pinho, R; Gonzalez, B; de Ferro, SM; Chagas, C; Delgado, PE; Carretero, C; Figueiredo, P; Rosa, B; Lledo, JG; Nogales, O; Ponte, A; Andrade, P; Juanmartinena-Fernandez, JF; San-Juan-Acosta, M; Lopes, S; Prieto-Frias, C; Egea-Valenzuela, J; Caballero, N; Valdivieso-Cortazar, E; Cardoso, H; Galvez, C; Almeida, N; Barrera, PB; Gomez-Rodriguez, BJ; Ceballos, FS; Bernardes, C; Alonso, P; Arguelles-Arias, F; Saraiva, MM; Perez-Cuadrado-Martinez, E; Spanish Soc Gastrointestinal Endos; Portuguese Small-Bowel Study Grp G	**Small bowel enteroscopy - A joint clinical guideline by the Spanish and Portuguese small-bowel study groups**	10.17235/reed.2020.7020/2020
7.07	A. Breda (Chair), K. Budde, A. Figueiredo, E. Lledó García, J. Olsburgh (Vice-chair), H. Regele. Guidelines Associates: R. Boissier, C. Fraser Taylor, V. Hevia, R.H. Zakri.	EAU guidelines on renal transplantation-update	https://uroweb.org/guideline/renal-transplantation/
7.22	Sociedad Española de Neonatología	**Recomendaciones para el manejo del recién nacido en relación con la infección por SARS-CoV-2**	seneo.es
7.27	Carmen Rodríguez González, et al.	Documentos de consenso para mejorar la adherencia a la farmacoterapia en pacientes con infeccion por el virus de la inmunodeficiencia humana en tratamiento antirretroviral	https://gesida-seimc.org/documento-de-consenso-para-mejorar-la-adherencia-a-la-farmacoterapia-en-pacientes-con-infeccion-por-el-virus-de-la-inmunodeficiencia-humana-en-tratamiento-antirretroviral/
7.27	Carmen Rodríguez González, et al.	**Manual para la implementación del programa de Profilaxis Pre-exposición al VIH en España**	https://www.mscbs.gob.es/ciudadanos/enfLesiones/enfTransmisibles/sida/docs/MANUAL_PREP.pdf
7.27	Carmen Rodríguez González, et al.	**Sistema de información de programas de profilaxis preexposicion (PrEP) al VIH en España (SIPrEP)**	https://www.mscbs.gob.es/ciudadanos/enfLesiones/enfTransmisibles/sida/PrEP/ANEXO_FINAL_SiPREp1.pdf
7.27	Antonio Calles, Xandra García	**Next Generation Sequencing (NGS): 10 retos en oncología y farmacia hospitalaria**	ISBN: 978-84-09-21510-2
7.28	Stephan C. Bischoff a, * , Peter Austin b, c , Kurt Boeykens d , Michael Chourdakis e , Cristina Cuerda f , Cora Jonkers-Schuitema g , Marek Lichota h , Ibolya Nyulasi i , Stephane M. Schneider j , Zeno Stanga k , Loris Pironi l	ESPEN guideline on home enteral nutrition.	https://doi.org/10.1016/j.clnu.2019.04.022 0261-5614/

Group	Authors	Title	Journal / Reference
7.28	Ana Cantón Blanco 1, Francisca Margarita Lozano Fuster 2, M ª Dolores Del Olmo García 3, María Nuria Virgili Casas 4, Carmina Wanden-Berghe Lozano 5, Victoria Avilés 6, Rosana Ashbaugh Enguídanos 7, Isabel Ferrero López 8, Juan Bautista Molina Soria 9, Juan Carlos Montejo González 10, Irene Bretón Lesmes 11, Julia Álvarez 12, José Manuel Moreno Villares 13	**Nutritional management of advanced dementia: summary of recommendations of the SENPE Ethic Group**	DOI: 10.20960/nh.02723

DOCTORAL THESES DEFENDED

Group	Type	Candidate	Title	Name/s Director/s	University	Date Defended
3.01	Ph Thesis	**Alejandra Laorden Nieto**	Caracterización del rendimiento neuropsicológico en personas con síndrome de deleción 22q11.2	David Fraguas Herraez Maria Mayoral Aragon Juan José Carballo Belloso	UCM	01/03/2019
4.01	Ph Thesis	**Fermín Acosta**	Desarrollo de nuevas estrategias de epidemiología molecular y genómica dirigidas a la optimización del control de la transmisión de la tuberculosis en Panamá	Dario García De Viedma Del Alamo	UAH	02/01/2020
5.02	Ph Thesis	**Santiago Jiménez de Ory**	Evolución de la epidemia de la infección por el VIH pediátrico en España, a partir de los datos de la cohorte de la red española de VIH en pediatría (corispe)	Mª Ángeles Muñoz Fernández & Mª Luisa Navarro Gómez	UAM	23/01/2020
5.02	Ph Thesis	**Alba Martín Moreno**	Nanotechnology against HIV-1: safety and biodistribution of prophylactic microbicides and use of nanoparticles as transfectants for a dendritic cell-based therapeutic vaccine	Mª Ángeles Muñoz Fernández	UAM	14/02/2020
5.07	Ph Thesis	**Santiago Jiménez de Ory**	Evolución de la epidemia de la infección por el VIH pediátrico en España, a partir de los datos de la cohorte de la red española de VIH en pediatría (corispe)	Mª Ángeles Muñoz Fernández; Mª Luisa Navarro Gómez	Universidad Autónoma de Madrid	23/01/2020
7.16	Ph Thesis	**Mónica Barranco Benito**	Nuevos avances en la monitorización del gasto cardiaco en asistencia mecánica circulatoria. estudio experimental	Maria Begoña Quintana Villamandos Juan Francisco Del Cañizo López	UCM	26/02/2020
7.16	Ph Thesis	**M Sofia Vieira**	Relación entre el sistema renina angiotensina y la neurotransmisión simpática vascular en la programación fetal de la hipertensión: enfocado en la capa adventicia	Silvia M Arribas	UAM-Mención internacional	20/05/2020
7.22	Ph Thesis	**Gonzalo Zeballos Serrato**	Estudio de dinámica respiratoria durante la estabilización y reanimación al nacimiento en menores de 32 semanas de gestación	Manuel Sánchez Luna	UCM	November 3th 2020
7.27	Ph Thesis	**Sara Salvador Martín**	Factores Farmacogenómicos y monitorización terapéutica como predicadores de respuesta a anti-TNFs en pacientes con enfermedad inflamatoria intestinal	Luis Andrés López Fernández	UCM	15/12/2020

7.29	Ph Thesis	**Gema Mondéjar Parreño**	Regulación de canales de potasio en la vasculatura pulmonar: Implicación en hipertensión pulmonar	Cogolludo Torralba, Ángel; Pérez Vizcaino, Francisco	UCM	24/09/2020

COOPERATIVE RESEARCH STRUCTURES

	Type (RETIC, CIBER, others)	*Name of Network*	*Role*
1.01	Plataformas ISCIII	Plataforma de Innovación en Tecnologías Médicas y Sanitarias (ITEMAS)	Coordinating 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	Asociated 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	Asociated 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 Cardiaca (EUIN2017-88719)	Asociated 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
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	Colaborating group
5.07	Others (Scientific Societies Networks)	Red pediátrica para la prevención. diagnóstico precoz y tratamiento del VIH en niños.	Colaborating group
5.07	Others (Scientific Societies Networks)	Pediatric Tuberculosis Network European Trialsgroup	Colaborating group
5.07	Others (Scientific Societies Networks	Red Española de Estudio de la Tuberculosis pediátrica	Colaborating group
5.07	Others (Scientific Societies Networks)	Grupo de Estudio EREMITA (Estudio de Tuberculosis Resistente en Niños de la Comunidad de Madrid)	Colaborating group
5.07	Others (Scientific Societies Networks)	Estudio de la influencia genética en la infección grave en pediatría	Colaborating group

	Type (RETIC, CIBER, others)	Name of Network	Role
5.07	Others (Scientific Societies Networks)	RED de Infección Congénita por CMV	Colaborating group
5.07	Others (Scientific Societies Networks)	Pedatric European Network Treatment on AIDS	Colaborating group
5.07	Others (Scientific Societies Networks)	Estudio de la Infección Meningocócica	Colaborating group
5.07	Others (Scientific Societies Networks)	Pediatric infections Staphylococcus aureus meticilin resistence ESPID	Colaborating group
5.07	Others (Scientific Societies Networks)	Estudio de los aspectos neurocognitivos en la Cohorte de infección VIH Pediátrica	Colaborating group
5.07	Others (Scientific Societies Networks)	Red para el estudio de la enfermedad invasiva por SGA.	Colaborating group
5.07	Others (Scientific Societies Networks)	Red Nacional para el Estudio de la infección osteoarticular	Colaborating group
5.07	Others (Scientific Societies Networks)	Estudio Multicéntrico retrtospectivo 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 .	Colaborating group
5.07	Others (Scientific Societies Networks)	Red europea de ZIKA	Colaborating group
5.07	Others (Scientific Societies Networks)	Red de Giardiasis pediátrica Nacional	Colaborating group
5.07	Others (Scientific Societies Networks)	Grupo de infecciones en drepanocitosis	Colaborating group
5.07	Others (Scientific Societies Networks)	Red de Investigación Traslacional en Infecciones Pediátricas	Colaborating group
5.07	Others (Scientific Societies Networks)	Red Nacional de estudio de Infección congénita por CMV	Colaborating group
5.07	Others (Scientific Societies Networks)	Registro Nacional de casos de infección por ZIKA en el embarazo y recién nacido	Colaborating group
5.07	Others (Scientific Societies Networks)	Sickle cell disease Pediatric Research about INfections Group	Colaborating group
6.01	CIBER	CIBERSAM	Collaborating group
6.02	RETICS	Redes Temáticas de Investigación Cooperativa en Salud en el Area de Cáncer. RD12/0036/0076	Associated group
6.02	CIBER	CIBERONC CB16/12/00471	Associated group
6.02	Other	GEICAM. Grupo Español de Cancer 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 Groupp	Collaborating group
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	CIBER	CIBERER (CIBER de Enfermedades Raras)	Collaborating group

	Type (RETIC, CIBER, others)	Name of Network	Role
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
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 tromboembolíca (RIETE)	Associated group
7.10	Plataformas ISCIII	Plataforma de Innovación en Tecnologías Médicas y Sanitarias (ITEMAS)	Coordinating group
7.10	CIBER	CIBERSAM. CIBER Salud Mental	Collaborating 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
7.25	ISCIII Platform	ITEMAS Innovación en Tecnologías Médicas y Sanitarias PT13/0006/0001	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

4. SCIENTIFIC ACTIVITY BY AREA

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 Medicas 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,respondingeffectively to key issues in the field of biomedicine.

GROUPS IN AREA 1

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

1.01 Advanced technological applications and human health

Group Director: **Manuel Desco Menéndez**
Organisms involved: **HGUGM**
UC3M
Consolidated Group

Description of the research group

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 fi elds (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.

Research lines

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

Group members

Surname		Name	Euraxess Profile	Role
ABELLA	GARCÍA	MÓNICA	R3	Established Researcher
ALBADALEJO	GARCIA	VIRGINIA		
ARÉVALO	GARCÍA	ALICIA	Other	Superior Support technician
CALLE	HERNÁNDEZ	DANIEL	Other	Superior Support technician
CANTÓN	LOBERA	PATRICIA		
CARMONA	CAÑABATE	SUSANA	R3	Established Researcher
CARRAVILLA	EXPÓSITO	EVA	Other	Support technician
CARRETERO	GÓMEZ	LAURA	Other	Other
CASQUERO	VEIGA	MARTA	R1	First Stage Researcher
CHIL	PÉREZ	RIGOBERTO	R1	First Stage Researcher
CÓMITRE	MARIANO	BLANCA	Other	
CUSSÓ	MULA	LORENA	R3	Established Researcher
DE NAVASCUES	LAUZET	HUGO JORGE	Other	
DESCO	MENÉNDEZ	MANUEL	R4	Leading Researcher
DÍEZ	SANTIAGO	ESTHER	Other	Management
FELIPE	MAESTRE	Mª 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
FRANCISCO	LÓPEZ	ALEXANDRA DE	Other	Support technician
GALÁN	GONZÁLEZ	AGUSTÍN	Other	Support technician

Surname		Name	Euraxess Profile	Role
GALLARDO	ALGUACIL	BEGOÑA	Other	
GARCÍA	GÁLVEZ	BÁRBARA	R1	First Stage Researcher
GARCÍA	LÇOPEZ DE HARO	JAVIER		
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	GAVIRO	MARÍA VICTORIA	R3	Established Researcher
GÓMEZ	RANGEL	VANESSA		
GONZÁLEZ	ARJONA	MARIO	Other	Research ssistant
GONZÁLEZ	GUTIERREZ	MARÍA ISABEL	R1	First Stage Researcher
HERREROS	PÉREZ	DESIRÉ	R1	First Stage Researcher
LAMANNA	RAMA	NICOLÁS	R1	First Stage Researcher
LÓPEZ	MONTOYA	GONZALO	Other	Support technician
MACÍAS	GORDALIZA	PEDRO	R1	First Stage Researcher
MARCOS	VIDAL	ASIER		
MARCOS	VIDAL	LUIS	R1	First Stage Researcher
MARTIN	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
MUÑOZ	BARRUTIA	ARRATE	R3	Established Researcher
NAVAS	SÁNCHEZ	FRANCISCO JAVIER	Other	Other
NOGUERO	SOLER	INÉS	Other	
PASCAU	GONZÁLEZ-GARZÓN	JAVIER	R3	Senior researcher
PATERNINA	DIE	Mª DEL CARMEN	R1	Training
PENA	GIL	AIDA DE LA FE	R1	First Stage Researcher
PÉREZ	BENITO	DAVID	R1	First Stage Researcher
PÉREZ	URBINA	BEATRIZ	Other	
PIOL		ALESSANDRO	R1	Other
RIPOLL	LORENZO	JORGE	R3	Established Researcher
RODRÍGUEZ	CASAÚ	ELENA	Other	Data management
ROMERO	MIGUEL	LUIS DIEGO	R1	Training
SAKALTRAS		NOKOLAOS	R1	Other
SALINAS	RODRÍGUEZ	BEATRIZ	R3	Established Researcher
SANTOS	COQUILLAT	ANA MARIA	R2	Recognised Researcher
SIERRA	PALOMARES	YOLANDA	Other	Support technician
SOTO	MONTENEGRO	MARÍA LUISA	R3	Established Researcher
VAQUERO	LÓPEZ	JUAN JOSÉ	R3	Established Researcher

Research Projects – Competitive Calls

- **Competitive projects**

TITLE: **Becoming a mother: An integrative model of adaptations for motherhood during pregnancy and thepostpartum 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 ProgramIng 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: 14/12/2020

TITLE: **Contribución funcional de los microquimerismos maternos a la respuesta al daño cardiaco** PI18/00462
DIRECTOR: GOMEZ GAVIRO, MARIA 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: 31/12/2020

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: 31/12/2020

TITLE**: NUEVO SISTEMA DE DIAGNOSTICO 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

TITLE: **Cannabidiol como estrategia preventiva en la aparición de psicosis** DRO2017/085
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: **Laboratorio de sondas moleculares** . EQC2019-006674-P
DIRECTOR: DESCO MENÉNDEZ, MANUEL
PROJECT TYPE: Research project
FUNDING BODY: MICINN

START DATE: 05/06/2019
END DATE: 31/12/21

TITLE: **Diagnosis and treatment follow-up of severe Staphylococcal Infections with Anthi-Stapgyloccal antibodies and Immune-PET**. FBBVA18/01
DIRECTOR: DESCO MENÉNDEZ, MANUEL
PROJECT TYPE: Research project
FUNDING BODY: FUNDACION BBVA
START DATE: 30/04/2019
END DATE: 31/12/20

TITLE: **Red Madrileña de Nanomedicina en Imagen Molecular**. S2017/BMD-3867
DIRECTOR: DESCO MENÉNDEZ, MANUEL
PROJECT TYPE: Research network
FUNDING BODY: CONSEJERIA EDUCACION DE LA COMUNIDAD DE MADRID
START DATE: 01/01/2018
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.**
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: **Utilización de técnicas de imagen avanzada en pequeño animal de laboratorio para aplicaciones cardiovasculares**
DIRECTOR: DESCO MENÉNDEZ, MANUEL / CUSSÓ, LORENA
PROJECT TYPE: Research project
FUNDING BODY: FUNDACIÓN CNIC
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE**: Imagen óptica 3D ultrarrápida con información de fase en microscopía in-vivo** FIS2016-77892
DIRECTOR: RIPOLL LORENZO, JORGE / MOSCOSO, MA.
PROJECT TYPE: Research project
FUNDING BODY: MINECO
START DATE: 01/01/2016
END DATE: 31/12/2020

TITLE: **Nuevos escenarios de tomografía por rayos X (NEXT)** DPI2016-79075-R
DIRECTOR: ABELLA GARCÍA , MÓNICA
PROJECT TYPE: Research project
FUNDING BODY: MINECO
START DATE: 01/01/2016
END DATE: 31/12/2020

- **Human Resources**

TITLE: **SARA BORREL.** CD19/00136
PAYEE NAME: SANTOS COQUILLAT, ANA MARIA
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
DIRECTOR: CARMONA CAÑAVATE, SUSANA
PAYEE NAME: MARTINEZ GARCIA, MAGDALENA
PROJECT TYPE: Human Resources
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2019
END DATE: 31/12/2021

TITLE: **Técnico de imagen optica (confocal y spim)** PEJ2018-003117-A
DIRECTOR: ARÉVALO GARCÍA, LAURA
PAYEE NAME: CALLE HERNÁNDEZ, DANIEL
PROJECT TYPE: Human Resources
FUNDING BODY: MICINN
START DATE: 01/01/2019
END DATE: 30/09/2021

TITLE: **Gestión y procesamiento de datos de neuroimagen en entorno cloud** PEJ2018-003141-A
DIRECTOR: CARMONA CAÑABATE, SUSANA
PAYEE NAME: NIGUERO SOLER, INÉS
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
PAYEE NAME: GALLARDO AGUACIL, BEGOÑA
PROJECT TYPE: Human Resources
FUNDING BODY: MICINN
START DATE: 01/01/2019
END DATE: 31/09/2021

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 RODRIGUEZ, BEATRIZ
PROJECT TYPE: Human Resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACION. 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-2019-PRE/BMD-16977
DIRECTOR: CARMONA CAÑABATE, SUSANA
PROJECT TYPE: Human Resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACION. COMUNIDAD DE MADRID
START DATE: 01/01/2020
END DATE: 31/02/2022

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
PAYEE NAME: DEL VALLE HIDALGO, ALEJANDRO
PROJECT TYPE: Human Resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACION. COMUNIDAD DE MADRID
START DATE: 01/02/2020
END DATE: 31/01/2022

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-2018-PRE/BMD-7899
DIRECTOR: SOTO MONTENEGRO, MARÍA LUISA
PROJECT TYPE: Human Resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACION. 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 INVESTIGACION. 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
PAYEE NAME: PATERNINA DIE, MARÍA DEL CARMEN
PROJECT TYPE: Human Resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACION. COMUNIDAD DE MADRID
START DATE: 01/01/2019
END DATE: 31/12/2021

* **Not managed by FIBHGM**

TITLE: **Programa Garantía Juvenil** PEJ2018-001759-A
DIRECTOR: PASCAU GONZÁLEZ-GARZÓN, JAVIER
PAYEE NAME: 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
PAYEE NAME: 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 GARCIA, MONICA
PAYEE NAME: 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
PAYEE NAME: 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 GARCIA, MONICA
PAYEE NAME: 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
PAYEE NAME: 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
PAYEE NAME: 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 JOSE
PAYEE NAME: 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 GARCIA, MONICA
PAYEE NAME: 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)	Coordinating group
CIBER	CIBERSAM. CIBER Salud Mental	Collaborating group

Industrial and intellectual property registrations

Industrial property

Title	*Reference**	*Owner*	*Inventors*
Aparato de tomografía multimodal	P200502612 (10 patents)	FIBHGM - Sociedad Española de Electromedicina y Calidad, S.A.	Juan José Vaquero, Manuel Desco
Incubadora para imagen con radiación no ionizante	PCT/ES2007/070 214 (3 patents)	FIBHGM	Juan José Vaquero, Manuel Desco, Manuel Sánchez-Luna
Aparato de adquisición de datos para tomografía computerizada por emisión de radiación gamma y su funcionamiento	P200702836	FIBHGM – Universidad Politécnica de Madrid	Juan José Vaquero, Manuel Desco, Pedro Guerra, Andrés de Santos, Giancarlo Sportelli

Title	Reference*	Owner	Inventors
Procedimiento y dispositivo para la detección y discriminación de eventos válidos en detectores de radiación gamma	PCT/ES2009/070 456 (2 patents)	FIBHGM	Eduardo Lage, Gustavo Tapias, José Antonio Sánchez, Javier del Pino, Juan José Vaquero, Manuel Desco
Método para visualizar la información contenida en imágenes tridimensionales del corazón	P201000363 (4 patents)	FIBHGM - Universidad Politécnica de Madrid	Esther Pérez, Ángel Arenal, Javier Bermejo, Francisco Fernández-Avilés, Manuel Desco, Mª Jesús Ledesma, Andrés de Santos, José Luis Rubio
Ciclotrón clásico superconductor compacto	P 201330626 (2 patentes)	UC3M - CIEMAT	Manuel Desco, Luis García-Tabarés, Concepción Oliver, Fernando Toral, Daniel Gavela, Diego Obradors, Cristina Vázquez, Iván Podadera, Javier Munilla, Jesús Calero, Jose M. Pérez, Friederich Haug
Equipo y método de generación de tomografías	P201730341 (2 patentes)	FIBHGM - UC3M	Manuel Desco, Mónica Abella
Light Sheet Microscope and procedure for extended samples	P201830912	UC3M	Jorge Ripoll Lorenzo
Mobile 3D imaging system based on light sheet microscopy	P201830913	UC3M	Jorge Ripoll Lorenzo
Celda centelleadora	PCT/ES2017/070 623	UC3M	Georgios Konstantinou, Juan José Vaquero, Rigoberto Chil, Manuel Desco
Equipo y simulación para control de hemorragias	P201730568	FIBHGM – Medical Simulator	Manuel Desco, Juan Francisco del Cañizo
Compuestos radiactivos basados en proteínas selectivas de bacteriemias para la detección no invasive de focos infecciosos	P 202030838	FIBHGM - UC3M	Beatriz Salinas, Manuel Desco, Patricia Muñoz, Emilio Bouza

Transferred patents

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

Intellectual property

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 Asiente 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)	Nª 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 estreptoscópica	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

Title	Reference	Owner	Inventors
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:* ***259.0***

	Nº	IF
Own publications	18	87.9
Joint publications	15	171.1
First decile publications	10	161.8
First quartile publications	22	227.8
Second quartile publications	8	24.5
Third quartile publications	3	6.8
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	**33**	**259.0**

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

- Lopez-Montes, A; Galve, P; Udias, JM; Cal-Gonzalez, J; Vaquero, JJ; Desco, M; Herraiz, JL. *Real-Time 3D PET Image with Pseudoinverse Reconstruction*. APPLIED SCIENCES-BASEL. 2020; 10(8). FI: 2.679. Cuartil: 2. (Article).
- Moreta-Martinez, R; Calvo-Haro, JA; Perez-Mananes, R; Garcia-Sevilla, M; Mediavilla-Santos, L; Pascau, J. *Desktop 3D Printing: Key for Surgical Navigation in Acral Tumors?*. APPLIED SCIENCES-BASEL. 2020; 10(24). FI: 2.679. Cuartil: 2. (Article).
- Martinez-Milla, J; Galan-Arriola, C; Carnero, M; Cobiella, J; Perez-Camargo, D; Bautista-Hernandez, V; Rigol, M; Solanes, N; Villena-Gutierrez, R; Lobo, M; Mateo, J; Vilchez-Tschischke, JP; Salinas, B; Cusso, L; Lopez, GJ; Fuster, V; Desco, M; Sanchez-Gonzalez, J; Ibanez, B. *Translational large animal model of hibernating myocardium: characterization by serial multimodal imaging*. BASIC RESEARCH IN CARDIOLOGY. 2020; 115(3). FI: 17.165. Cuartil: 1. (Article).
- Fernandez, R; Marcos-Vidal, A; Gallego, S; Belendez, A; Desco, M; Ripoll, J. *Qualitative disorder measurements from backscattering spectra through an optical fiber*. BIOMEDICAL OPTICS EXPRESS. 2020; 11(10) 6038-6048. FI: 3.732. Cuartil: 1. (Article).
- Nicolas-Avila, JA; Lechuga-Vieco, AV; Esteban-Martinez, L; Sanchez-Diaz, M; Diaz-Garcia, E; Santiago, DJ; Rubio-Ponce, A; Li, JL; Balachander, A; Quintana, JA; Martinez-de-Mena, R; Castejon-Vega, B; Pun-Garcia, A; Traves, PG; Bonzon-Kulichenko, E; Garcia-Marques, F; Cusso, L; A-Gonzalez, N; Gonzalez-Guerra, A; Roche-Molina, M; Martin-Salamanca, S; Crainiciuc, G; Guzman, G; Larrazabal, J; Herrero-Galan, E; Alegre-Cebollada, J; Lemke, G; Rothlin, CV; Jimenez-Borreguero, LJ; Reyes, G; Castrillo, A; Desco, M; Munoz-Canoves, P; Ibanez, B; Torres, M; Ng, LG; Priori, SG; Bueno, H; Vazquez, J; Cordero, MD; Bernal, JA; Enriquez, JA; Hidalgo, A. *A Network of Macrophages Supports Mitochondrial Homeostasis in the Heart*. CELL. 2020; 183(1) 94. FI: 41.582. Cuartil: 1. (Article).
- Nicolas-Saenz, L; Guerrero-Aspizua, S; Pascau, J; Munoz-Barrutia, A. *Nonlinear Image Registration and Pixel Classification Pipeline for the Study of Tumor Heterogeneity Maps*. ENTROPY. 2020; 22(9). FI: 2.524. Cuartil: 2. (Article).
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1.02 Signal processing

Group Director: **Antonio Artés Rodríguez**
Organisms involved: **UC3M**
Consolidated (in the process of integration) Group

Description of the research group

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

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

Group members

Surname		Name	Euraxess Profile	Role
ARMARIO	ROMERO	ARTURO	R1	First Stage Researcher
ARTÉS	RODRÍGUEZ	ANTONIO	R4	Leading Researcher
BARREJON	MORENO	DANIEL	R1	First Stage Researcher
BONILLA	ESCRIBANO	PABLO	R1	First Stage Researcher
BRAVO	AGUADO	JORGE	R1	First Stage 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
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		TOBIAS	R3	Established Researcher
LANCHO	SERRANO	ALEJANDRO	R3	Established Researcher
LÓPEZ	ELVIRA	IGOR	Other	Scientific Manager
LÓPEZ	SANTIAGO	JAVIER	R3	Established Researcher
LÓPEZ	YELA	ALBERTO	R2	Recognised Researcher
MARTÍNEZ	CASARES	ALICIA	R1	First Stage Researcher
MARTÍNEZ	GARCÍA	MARÍA	R1	First Stage Researcher
MARTÍNEZ	OLMOS	PABLO	R3	Established Researcher
MARTÍNEZ	ORDÓNEZ	JOSE ALBERTO	R1	First Stage Researcher
MÍGUEZ	ARENAS	JOAQUÍN	R3	Established Researcher
MORENO	MARTÍNEZ	ÁNGELA	R1	First Stage Researcher
MORENO	MUÑOZ	PABLO	R2	Recognised Researcher

Surname	Name	Euraxess Profile	Role
MORENO PINO	FERNANDO	R1	First Stage Researcher
PEIS AZNARTE	IGNACIO	R1	First Stage Researcher
PELEATO IÑARREA	BORJA M.	R3	Established Researcher
PÉREZ CRUZ	FERNANDO	R3	Established Researcher
PÉREZ VIEITES	SARA	R1	First Stage Researcher
RAMÍREZ GARCÍA	DAVID	R3	Established Researcher
RAVIKUMARAN NAIR	JITHIN	R2	Recognised Researcher
RODRÍGUEZ DE DIAGO	MARTA	R1	First Stage Researcher
ROMERO MEDRANO	LORENA	R1	First Stage Researcher
SERRANO LLABRÉS	IGNACIO	R1	First Stage Researcher
SUKEI	EMESE	R1	First Stage Researcher
VÁZQUEZ LÓPEZ	MANUEL ALBERTO	R3	Established Researcher
VÁZQUEZ VILAR	GONZALO	R3	Established Researcher
VILLACRÉS ESTRADA	GRACE	R2	Recognised Researcher
YANEZ MONTESDEOCA	ALBERTO	Other	Research Support Technician

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
DIRECTOR: MÍGUEZ ARENAS, JOAQUÍN
PROJECT TYPE: International research project
FUNDING BODY: Office of Naval Research
START DATE: 01/03/2019
END DATE: 28/02/2022

TITLE: **LOLITA: Information Theory for Low-Latency Wireless Communications** ERC-2016-StG Nr. 714161
DIRECTOR: ARTÉS RODRÍGUEZ, ANTONIO
PROJECT TYPE: European research project
FUNDING BODY: European Commision
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: **Detección precoz de Crisis de Autismo**
DIRECTOR: MARTÍNEZ OLMOS, PABLO
PROJECT TYPE: Research project
FUNDING BODY: Fundación Universia
START DATE: 29/04/2019
END DATE: 28/12/2020

TITLE: **Domain Alignment and Data Wrangling with Deep Generative Models**
DIRECTOR: ARTÉS RODRÍGUEZ, ANTONIO
PROJECT TYPE: Research project
FUNDING BODY: BBVA Foundation

START DATE: 30/04/2019
END DATE: 06/08/2021

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: 31/06/2022

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: **Micro-fundamentos del comportamiento: Un enfoque basado en las TICs para entender el comportamiento humano y la interacción (aMBITION)** TEC2017-92552-EXP
DIRECTOR: ARTÉS RODRÍGUEZ, ANTONIO
PROJECT TYPE: Research project
FUNDING BODY: MINECO
START DATE: 01/11/2018
END DATE: 31/12/2020

- **Human Resources**

TITLE: **Metodologías de aprendizaje automático en neuroimagen** PEJ2018-001757-A
DIRECTOR: MARTÍNEZ OLMOS, PABLO
PAYEE NAME: Alejandro Guerrero
PROJECT TYPE: Human Resources
FUNDING BODY: MICINN
START DATE: 01/01/2019
END DATE: 31/12/2021

TITLE: **Young employement contract: Research Assistant** PEJ-2018-AI/TIC-11059
DIRECTOR: ARTÉS RODRÍGUEZ, ANTONIO
PAYEE NAME: Angela Moreno
PROJECT TYPE: Human Resources
FUNDING BODY: MICINN
START DATE: 15/01/2019
END DATE: 15/02/2021

TITLE: **Young employement contract: Predoctoral contract** PEJD-2018-PRE/ TIC-8829
DIRECTOR: ARTÉS RODRÍGUEZ, ANTONIO
PAYEE NAME: Alberto Yánez
PROJECT TYPE: Human Resources
FUNDING BODY: CAM. CONSEJERÍA DE EDUCACIÓN E INVESTIGACIÓN
START DATE: 06/02/2019
END DATE: 05/02/2020

TITLE: **Caracterización automática de comportamiento mediante modelos latentes basados en redes profundas** IND2017/TIC-7618
DIRECTOR: MARTÍNEZ OLMOS, PABLO
PAYEE NAME: Juan Jose Campaña
PROJECT TYPE: Human Resources
FUNDING BODY: CAM. CONSEJERÍA DE EDUCACIÓN E INVESTIGACIÓN
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
PAYEE NAME: Patricia Carretero
PROJECT TYPE: Human Resources

FUNDING BODY: CAM. CONSEJERÍA DE EDUCACIÓN E INVESTIGACIÓN
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
PAYEE NAME: Lorena Romero
PROJECT TYPE: Human Resources
FUNDING BODY: CAM. CONSEJERÍA DE EDUCACIÓN E INVESTIGACIÓN
START DATE25/02/2019
END DATE: 24/02/2022

TITLE: **Machine Learning Frontiers in Precision Medicine** H2020-MSCA-ITN-2018 Grant Agreement Nº813533
DIRECTOR: ARTÉS RODRIGUEZ, ANTONIO
PAYEE NAME: Emese Sukei
PROJECT TYPE: Human Resources
FUNDING BODY: EUROPEAN COMMISSION RESEARCH EXECUTIVE AGENCY
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 RODRIGUEZ, ANTONIO
PAYEE NAME: Borja Peleato
PROJECT TYPE: Human Resources
FUNDING BODY: EUROPEAN COMMISSION RESEARCH EXECUTIVE AGENCY
START DATE: 30/09/2020
END DATE: 29/09/2021

Cooperative Research Structures

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

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 (2 patents)	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 (Trade mark)

Publications *Total Impact Factor:* ***47.1***

	Nº	FI
Own publications	6	26.4
Joint publications	5	20.7
First decile publications	3	12.1
First quartile publications	9	42.9

Second quartile publications	2	5.0
Third quartile publications	0	0.0
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	5	-
Total publications (including those without IF)	**16**	**47.1**

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

- Asyhari, AT; Koch, T; Fabregas, AGI. *Nearest Neighbor Decoding and Pilot-Aided Channel Estimation for Fading Channels*. ENTROPY. 2020; 22(9). FI: 2.524. Cuartil: 2. (Article).
- Rios-Munoz, GR; Artes-Rodriguez, A; Fernandez-Aviles, F; Arenal, A. *Real-Time Ventricular Cancellation in Unipolar Atrial Fibrillation Electrograms*. FRONTIERS IN BIOENGINEERING AND BIOTECHNOLOGY. 2020; 8. FI: 5.89. Cuartil: 1. (Article).
- Lancho, A; Koch, T; Durisi, G. *On Single-Antenna Rayleigh Block-Fading Channels at Finite Blocklength*. IEEE TRANSACTIONS ON INFORMATION THEORY. 2020; 66(1) 496-519. FI: 2.501. Cuartil: 2. (Article).
- Horstmann, S; Ramirez, D; Schreier, PJ. *Two-Channel Passive Detection of Cyclostationary Signals*. IEEE TRANSACTIONS ON SIGNAL PROCESSING. 2020; 68 2340-2355. FI: 4.931. Cuartil: 1. (Article).
- Ramirez, D; Santamaria, I; Scharf, LL; Van Vaerenbergh, S. *Multi-Channel Factor Analysis With Common and Unique Factors*. IEEE TRANSACTIONS ON SIGNAL PROCESSING. 2020; 68 113-126. FI: 4.931. Cuartil: 1. (Article).
- Santamaria, I; Scharf, LL; Ramirez, D. *Scale-Invariant Subspace Detectors Based on First- and Second-Order Statistical Models*. IEEE TRANSACTIONS ON SIGNAL PROCESSING. 2020; 68 6432-6443. FI: 4.931. Cuartil: 1. (Article).
- Lancho, A; Ostman, J; Durisi, G; Koch, T; Vazquez-Vilar, G. *Saddlepoint Approximations for Short-Packet Wireless Communications*. IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS. 2020; 19(7) 4831-4846. FI: 7.016. Cuartil: 1. (Article).
- Porras-Segovia, A; Molina-Madueno, RM; Berrouiguet, S; Lopez-Castroman, J; Barrigon, ML; Perez-Rodriguez, MS; Marco, JH; Diaz-Olivan, I; de Leon, S; Courtet, P; Artes-Rodriguez, A; Baca-Garcia, E. *Smartphone-based ecological momentary assessment (EMA) in psychiatric patients and student controls: A real-world feasibility study*. JOURNAL OF AFFECTIVE DISORDERS. 2020; 274 733-741. FI: 4.839. Cuartil: 1. (Article).
- Peis, I; Lopez-Morinigo, JD; Perez-Rodriguez, MM; Barrigon, ML; Ruiz-Gomez, M; Artes-Rodriguez, A; Baca-Garcia, E. *Actigraphic recording of motor activity in depressed inpatients: a novel computational approach to prediction of clinical course and hospital discharge*. SCIENTIFIC REPORTS. 2020; 10(1). FI: 4.379. Cuartil: 1. (Article).
- Akyildiz, OD; Miguez, J. *Nudging the particle filter*. STATISTICS AND COMPUTING. 2020; 30(2) 305-330. FI: 2.559. Cuartil: 1. (Article).
- Akyildiz, OD; Crisan, D; Miguez, J. *Parallel sequential Monte Carlo for stochastic gradient-free nonconvex optimization*. STATISTICS AND COMPUTING. 2020; 30(6) 1645-1663. FI: 2.559. Cuartil: 1. (Article).

Publications of the main WOS collection in journals without impact factor:

- Rios-Munoz, GR; Moreno-Pino, F; Soto, N; Olmos, PM; Artes-Rodriguez, A; Ferandez-Aviles, F; Arenal, A. *Hidden Markov Models for Activity Detection in Atrial Fibrillation Electrograms*. COMPUTING IN CARDIOLOGY CONFERENCE. 2020. (Proceedings Paper).
- Romero-Medrano, L; Moreno-Munoz, P; Artes-Rodriguez, A. *MULTINOMIAL SAMPLING FOR HIERARCHICAL CHANGE-POINT DETECTION*. IEEE INTERNATIONAL WORKSHOP ON MACHINE LEARNING FOR SIGNAL PROCESSING. 2020. (Proceedings Paper).
- Bonilla-Escribano, P; Ramirez, D; Artes-Rodriguez, A. *MODELING PHONE CALL DURATIONS VIA SWITCHING POISSON PROCESSES WITH APPLICATIONS IN MENTAL HEALTH*. IEEE INTERNATIONAL WORKSHOP ON MACHINE LEARNING FOR SIGNAL PROCESSING. 2020. (Proceedings Paper).
- Moreno-Munoz, P; Ramirez, D; Artes-Rodriguez, A. *CONTINUAL LEARNING FOR INFINITE HIERARCHICAL CHANGE-POINT DETECTION*. INTERNATIONAL CONFERENCE ON ACOUSTICS SPEECH AND SIGNAL PROCESSING ICASSP. 2020; 3582-3586. (Proceedings Paper).

- Xiao, YH; Ramirez, D; Schreier, PJ. *A GENERAL TEST FOR THE LINEAR STRUCTURE OF COVARIANCE MATRICES OF GAUSSIAN POPULATIONS*. INTERNATIONAL CONFERENCE ON ACOUSTICS SPEECH AND SIGNAL PROCESSING ICASSP. 2020; 5365-5369. (Proceedings Paper).

1.03 Computer architecture, communications, and systems: ARCOS

Group Director: **Jesús Carretero Pérez**
Organisms involved: **UC3M**
Consolidated (in the process of integration) Group

Description of the research group

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).

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.

Group members

Surname		Name	Euraxess Profile	Role
CAINO	LORES	SILVINA	R1	First Stage Researcher
CALDERON	MATEOS	ALEJANDRO	R2	Recognised Researcher
CARRETERO	PEREZ	JESUS	R4	Leadingr researcher
EXPOSITO	SINGH	DAVID	R2	Recognised Researcher
FERNANDEZ	MUÑOZ	JAVIER	R2	Recognised Researcher
GARCIA	BLAS	FRANCISCO JAVIER	R2	Recognised Researcher
GARCIA	CARBALLEIRA	FELIX	R3	Established Researcher
GARCIA	FERNÁNDEZ	ALBERTO		
GARCIA	SANCHEZ	JOSE DANIEL	R2	Recognised Researcher
GOMEZ	CARRASCO	CARLOS		

Surname		Name	Euraxess Profile	Role
ISAILA		FLORIN	R2	Recognised Researcher
LI		XIN		
LLOPIS	SANMILLAN	PABLO		
ORTIZ	NIETO	DANIEL		
RODRIGO	DURO	FRANCISCO JOSÉ		
SÁNCHEZ	GARCIA	LUIS MIGUEL		
SERRANO	LÓPEZ	ESTEFANÍA	R1	First Stage Researcher
SOTOMAYO	FERNANDEZ	RAFAEL		

Publications *Total Impact Factor:* ***51.0***

	Nº	FI
Own publications	7	38.0
Joint publications	3	12.9
First decile publications	5	35.9
First quartile publications	7	42.0
Second quartile publications	2	5.8
Third quartile publications	1	3.1
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	10	**51.0**

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

- Singh. DE; Marinescu. MC; Carretero. J; Delgado-Sanz. C; Gomez-Barroso. D; Larrauri. A. *Evaluating the impact of the weather conditions on the influenza propagation*. BMC INFECTIOUS DISEASES. 2020; 20(1). FI: 3.09. Cuartil: 3. (Article).
- Carretero. J; Krefting. D. *New Parallel and Distributed Tools and Algorithms for Life Sciences*. FUTURE GENERATION COMPUTER SYSTEMS-THE INTERNATIONAL JOURNAL OF ESCIENCE. 2020; 112 1174-1176. FI: 7.187. Cuartil: 1. (Editorial Material).
- Garcia-Blas. J; Astorga. DD; Carretero. J; Garcia. JD. *Towards enhanced MRI by using a multiple back end programming framework*. FUTURE GENERATION COMPUTER SYSTEMS-THE INTERNATIONAL JOURNAL OF ESCIENCE. 2020; 112 467-477. FI: 7.187. Cuartil: 1. (Article).
- Serrano. E; Garcia-Blas. J; Carretero. J; Desco. M; Abella. M. *Accelerated iterative image reconstruction for cone-beam computed tomography through Big Data frameworks*. FUTURE GENERATION COMPUTER SYSTEMS-THE INTERNATIONAL JOURNAL OF ESCIENCE. 2020; 106 534-544. FI: 7.187. Cuartil: 1. (Article).
- Santiago-Duran. M; Gonzalez-Compean. JL; Brinkmann. A; Reyes-Anastacio. HG; Carretero. J; Montella. R; Pulido. GT. *A gearbox model for processing large volumes of data by using pipeline systems encapsulated into virtual containers*. FUTURE GENERATION COMPUTER SYSTEMS-THE INTERNATIONAL JOURNAL OF ESCIENCE. 2020; 106 304-319. FI: 7.187. Cuartil: 1. (Article).
- Caino-Lores. S; Lapin. A; Carretero. J; Kropf. P. *Applying big data paradigms to a large scale scientific workflow: Lessons learned and future directions*. FUTURE GENERATION COMPUTER SYSTEMS-THE INTERNATIONAL JOURNAL OF ESCIENCE. 2020; 110 440-452. FI: 7.187. Cuartil: 1. (Article).
- Sanchez-Gallegos. DD; Galaviz-Mosqueda. A; Gonzalez-Compean. JL; Villarreal-Reyes. S; Perez-Ramos. AE; Carrizales-Espinoza. D; Carretero. J. *On the Continuous Processing of Health Data in Edge-Fog-Cloud Computing by Using Micro/Nanoservice Composition*. IEEE ACCESS. 2020; 8 120255-120281. FI: 3.367. Cuartil: 2. (Article).
- Gomez-Rodriguez. MA; Sosa-Sosa. VJ; Carretero. J; Gonzalez. JL. *CloudBench: an integrated evaluation of VM placement algorithms in clouds*. JOURNAL OF SUPERCOMPUTING. 2020; 76(9) 7047-7080. FI: 2.474. Cuartil: 2. (Article).

- Reyes-Anastacio. HG; Gonzalez-Compean. JL; Sosa-Sosa. VJ; Carretero. J; Garcia-Blas. J. *Kulla. a container-centric construction model for building infrastructure-agnostic distributed and parallel applications*. JOURNAL OF SYSTEMS AND SOFTWARE. 2020; 168. FI: 2.829. Cuartil: 1. (Article).
- Sanchez-Gallegos. DD; Carrizales-Espinoza. D; Reyes-Anastacio. HG; Gonzalez-Compean. JL; Carretero. J; Morales-Sandoval. M; Galaviz-Mosqueda. A. *From the edge to the cloud: A continuous delivery and preparation model for processing big IoT data*. SIMULATION MODELLING PRACTICE AND THEORY. 2020; 105. FI: 3.272. Cuartil: 1. (Article).

1.04 Nonparametric statistical and intensive computing techniques

Group Director: **Juan Romo Urroz**
Organisms involved: **UC3M**
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

Surname		Name	Euraxess Profile	Role
AGUILERA	MORILLO	CARMEN	R2	Recognised Researcher
ARRIBAS	GIL	ANA	R2	Recognised Researcher
CABANA	GARCERAN DEL VALL	ELISA	R1	First Stage Researcher
LILLO	RODRIGUEZ	ROSA ELVIRA	R3	Established Researcher
MINGOTTI		NICOLA	Other	Others
RODRÍGUEZ	CÉSAR	JOANNA	R1	First Stage Researcher
ROMO	URROZ	JUAN	R4	Leading Researcher
SGUERA		CARLO	R2	Recognised Researcher
STRZALKOVSKA	KOMINIAK	EWA	Other	Other

Publications

Total Impact Factor: ***2.2***

	Nº	FI
Own publications	1	2.2
Joint publications	0	-
First decile publications	0	-
First quartile publications	0	-
Second quartile publications	1	2.2
Third quartile publications	0	-
Fourth quartile publications	0	-
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	**1**	**2.2**

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

- Aguilera-Morillo, MC; Buno, I; Lillo, RE; Romo, J. *Variable selection with P-splines in functional linear regression: Application in graft-versus-host disease*. BIOMETRICAL JOURNAL. 2020; 62(7) 1670-1686. FI: 2.207. Cuartil: 2. (Article).

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.

A particularly interesting characteristic of this Area is its cooperative spirit. Its main group coordinates the national Red de 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

2.01. Natural history of heart disease
2.02 Cardiovascular pathophysiology
2.03. Cardiac celular 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 Director: **Francisco Fernández Avilés Díaz**
Organisms involved: **HGUGM**
Consolidated Group

Description of the research group

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

Research lines

Axis 1: Consolidation of research lines in cardiovascular diseases
L 1: Consolidation of the basic research area
L 2: Leading national and European research projects
L 3: Consolidation of the translational research area of the cardiac cellular electrophysiology area
L 4: Maintenance and consolidation of scientific output
L 5: Diversification of funding sources by consolidating several PIs
Axis 2: Consolidation of training
L 1: Increase in the offer for postgraduate training
L 2: Encourage temporary stays for researchers at prestigious laboratories.
Axis 3: Consolidation of infrastructures
L 1: Final distribution and equipping of the Bioartificial Organ Laboratory.
Axis 4: R&D&i
L 1: Development of a model for evaluating and identifying intellectual property products
L2: Development of spin-off models with hospitals and universities

Group members

Surname		*Name*	*Euraxess Profile*	*Role*
ACOSTA	OCAMPO	ALEJANDRA	Other	Laboratory technician
ALCON	DURAN	BLANCA	R1	First Stage Researcher
ALONSO	GARCIA	ANDRES	R1	First Stage Researcher
ALVAREZ	ZABALLOS	SARA	R1	First Stage Researcher
ARENAL	MAÍZ	ÁNGEL	R3	Established Researcher
ATIENZA	FERNÁNDEZ	FELIPE	R3	Established Researcher
AVILA	ALONSO	PABLO	R2	Recognised Researcher
BEJARANO	AROSEMENA	ROBERTO ANDRES	R1	First Stage Researcher
BENITO	VICENTE	YOLANDA	R1	First Stage Researcher
BERMEJO	THOMAS	JAVIER	R3	Established Researcher
BLÁZQUEZ	BERMEJO	ZORBA		
BRUÑA	FERNANDEZ	VANESA	R1	First Stage Researcher
CARTA	BERGAZ	ALEJANDRO	R1	First Stage Researcher
CASTRODEZA	CALVO	JAVIER	R2	Recognised Researcher
CHACON	TOME	CARMEN	Other	Project manager CAM
CHAZO	PAZ	CHRISTIAN	R1	First Stage Researcher
CORISCO	BELTRÁN	RAFAEL	R1	First Stage Researcher
CUENCA	PARRA	SOFIA	R2	Recognised Researcher
DATINO	ROMANIEGA	TOMÁS	R3	Established Researcher
DELGADO	MONTERO	ANTONIA	R2	Recognised Researcher
DEVESA	CORDERO	CAROLINA	R1	First Stage Researcher
DIEZ	DEL HOYO	FELIPE	R1	First Stage Researcher

Surname		Name	Euraxess Profile	Role
ELIZAGA	CORRALES	JAIME	R3	Established Researcher
ESPINOSA	CASTRO	MARIA ÁNGELES	R2	Recognised Researcher
FERNANDEZ	AVILA	ANA ISABEL	R2	Recognised Researcher
FERNANDEZ	BAZA	ANA MARIA	Other	Research project manager
FERNANDEZ	CORDON	CLARA	R1	First Stage Researcher
FERNANDEZ	SANTOS	Mª EUGENIA	R3	Established Researcher
FERNÁNDEZ-AVILES	DIAZ	FRANCISCO JESÚS	R4	Leading Researcher
FERNÁNDEZ-YAÑEZ	GARCÍA-MONGE	JUAN	R2	Recognised Researcher
GABALDON	BADIOLA	ALVARO	R1	First Stage Researcher
GARCIA	CARREÑO	JORGE	R1	First Stage Researcher
GARCIA	DEL REY	Mª DEL CARMEN	R1	First Stage Researcher
GARCIA	DIAZ	ALEJANDRO JOSE	R1	First Stage Researcher
GARCIA	MONTERO	MARTA	R1	First Stage Researcher
GARNACHO	GOMEZ	LUIS JORGE	R1	First Stage Researcher
GÓMEZ	CID	LIDIA	R1	First Stage Researcher
GOMEZ	GONZALEZ	CRISTINA	R1	First Stage Researcher
GÓMEZ	SÁNCHEZ	ROBERTO	R1	First Stage Researcher
GONZALEZ	CASAL	DAVID	R1	First Stage Researcher
GONZALEZ	MANSILLA	ANA	R2	Recognised Researcher
GONZALEZ	PINTO	ÁNGEL	R3	Established Researcher
GONZÁLEZ	TORRECILLA	ESTEBAN	R3	Established Researcher
GRIGORIAN	SHAMAGIAN	LILIAN	R2	Recognised Researcher
GUTIÉRREZ	IBAÑES	ENRIQUE	R3	Established Researcher
HERRERA	FLORES	CRISTIAN	R1	First Stage Researcher
JUÁREZ	FERNÁNDEZ	MIRIAM	R2	Recognised Researcher
JURADO	ÁLVAREZ	ELENA	R1	First Stage Researcher
LOPEZ	GARCIA	JUAN CARLOS	R1	First Stage Researcher
LUNA	LOPEZ	RAQUEL	R1	First Stage Researcher
MARTIN	DE MIGUEL	IRENE	R1	First Stage Researcher
MARTIN	MANZANO	VIRGINIA MILAGROS	R1	First Stage Researcher
MARTINEZ	SOLANO	JORGE	R1	First Stage Researcher
MARTÍNEZ-SELLES	D'OLIVEIRA SOARES	MANUEL	R3	Established Researcher
MARTINEZ-LEGAZPI	AGUILO	PABLO	R3	Established Researcher
MATARIN	UCLES	FRANCISCO	Other	Research project manager
MATEOS	GAITAN	ROBERTO	R1	First Stage Researcher
MENDEZ	FERNANDEZ	IRENE	R2	Recognised Researcher
MOMBIELA	RAMIREZ DE GANUZA	TERESA	R2	Recognised Researcher
MUÑOZ	LOPEZ	IRENE	R1	First Stage Researcher
NAVAS	TEJEDOR	PAULA	R2	Recognised Researcher
OLIVER	RUIZ	JOSE MARIA	R2	Recognised Researcher
ORTIZ	BAUTISTA	CARLOS	R2	Recognised Researcher
PAREJA	MALAGON	ANA MIRIAM	Other	Laboratory technician
PÉREZ	DAVID	ESTHER	R3	Established Researcher
PEREZ DEL VILLAR	MORO	MARIA CANDELAS	R3	Established Researcher
PIÑA	LANCHO	MARIA JESUS	R2	Recognised Researcher
PLASENCIA	MARTIN	VIRGINIA	Other	Laboratory technician

Surname		Name	Euraxess Profile	Role
POSTIGO	ESTEBAN	ANDREA	R1	First Stage Researcher
PRIETO	AREVALO	RAQUEL	R1	First Stage Researcher
RIVERA	JUAREZ	ALLAN ROBERTO	R2	Recognised Researcher
RÍOS	MUÑOZ	GONZALO RICARDO	R2	Recognised Researcher
RODRIGUEZ	GONZALEZ	ELENA	R2	Recognised Researcher
SANCHEZ	DE LA NAVA	ANA MARIA	R1	First Stage Researcher
SANZ	RUIZ	RICARDO	R3	Established Researcher
SOBRINO	GONZALEZ	OLGA	R1	First Stage Researcher
SORIANO	TRIGUERO	JAVIER	R2	Recognised Researcher
SOUSA	CASANOVAS	IAGO	R2	Recognised Researcher
SUAREZ	SANCHO	SUSANA	R1	First Stage Researcher
TAMARGO	DELPÓN	MARIA AMALIA	R1	First Stage Researcher
VALERO	MASA	MARIA JESUS	R2	Recognised Researcher
VAZQUEZ	ALVAREZ	MARIA EUGENIA	R3	Established Researcher
VAZQUEZ	CASTAÑO	ALEXANDRA	R1	First Stage Researcher
VILLA	ARRANZ	ADOLFO	R3	Established Researcher
ZATARAIN	NICOLAS	EDUARDO	R2	Recognised Researcher

Research Projects – Competitive Calls

- **Competitive projects**

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-AVILES DIAZ, FRANCISCO JESÚS
PROJECT TYPE: European research project
FUNDING BODY: UNION 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-AVILES DIAZ, FRANCISCO JESÚS
PROJECT TYPE: European research project
FUNDING BODY: UNION EUROPEA.DG.SANCO
START DATE: 06/10/2017
END DATE: 06/10/2022

TITLE: **CARDIATEAM-IMI2-821508** H2020-JTI-IMI2-2017.
DIRECTOR: BERMEJO THOMAS, JAVIER
PROJECT TYPE: European research project
FUNDING BODY: UNION EUROPEA. PROGRAMA MARCO
START DATE: 01/03/2019
END DATE: 28/02/2011

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: **Regenerative medicine: from new insights to new applications. 874827.** H2020 BRAV3.

DIRECTOR: FERNÁNDEZ-AVILES DIAZ, FRANCISCO JESÚS
PROJECT TYPE: European research project
FUNDING BODY: UNION EUROPEA. PROGRAMA MARCO
START DATE: 01/01/2020
END DATE: 31/12/2024

TITLE: **Personalized Therapies for Atrial Fibrillation. A Translational Approach.** H2020 PersonalizeAFF Nº 860974.
DIRECTOR: ATIENZA FERNÁNDEZ, FELIPE
PROJECT TYPE: European research project
FUNDING BODY: UNION EUROPEA. PROGRAMA MARCO
START DATE: 01/02/2020
END DATE: 16/11/2020

TITLE: **Safey 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-AVILES DIAZ, FRANCISCO JESÚS
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2019
END DATE: 31/12/2022

TITLE: **The microbiome as a target for precision medicine. A frontier exploration from established to innovative indications** PIE16/00055
DIRECTOR: FERNÁNDEZ-AVILES DIAZ, FRANCISCO JESÚS
PROJECT TYPE: Integrated research project of excellence
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2017
END DATE: 31/12/2020

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: **Estudios translacionales para el desarrollo de terapias génicas con telomerasa para el tratamiento del infarto de miocardio y de la fibrosis pulmonar.** DTS17/00091
DIRECTOR: FERNÁNDEZ-AVILES DIAZ, FRANCISCO JESÚS
PROJECT TYPE: Technological development project in health
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Regeneración Cardíaca de Infarto Crónico Porcino mediante inyecciones Intramiocardiacas de Células Progenitoras Embebidas en Hidrogeles de Matriz Decelularizada** PI16/01123
DIRECTOR: FERNÁNDEZ-AVILES DIAZ, FRANCISCO JESÚS
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE: **Estratificación y tratamiento de la fibrilación auricular basada en los mecanismos de perpetuacion de la arritmia (STRATIFY-AF)** PI17/01059
DIRECTOR: ATIENZA FERNÁNDEZ, FELIPE
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/02/2018
END DATE: 31/12/2020

TITLE: **Validación prospectiva de un índice pronóstico de muerte súbita o arritmias ventriculares malignas en adultos con cardiopatías congénitas** PI17/01327
DIRECTOR: DATINO ROMANIEGA, TOMAS
PROJECT TYPE: Research project

FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Técnicas avanzadas de procesado de resonancia magnética para caracterizar el sustrato arritmogénico y el riesgo arrítmico 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:
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2019
END DATE: 31/12/2021

TITLE: **Técnicas avanzadas de procesado de resonancia magnética para caracterizar el sustrato arritmogénico** PI18/01117
DIRECTOR: RODRIGUEZ GONZALEZ, ELENA
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-AVILES DIAZ, 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 cardiovasular 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: **Inteligencia artificial para la caracterización hemodinámica no invasiva. AI4NHEM.** PI20/00587
DIRECTOR: MARTINEZ-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 de la fisiología cardiovasular con el Ejercicio en pacientes adultos con circulación de Fontan.** C
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: **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-AVILES DIAZ, 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: Proyecto Investigación SEC Investigación Traslacional en Cardiologia 2017 **"Estasis intraventricular y riesgo tromboembólico en la miocardiopatía dilatada no isquémica"** SEC17/01
DIRECTOR: BERMEJO THOMAS, JAVIER
PROJECT TYPE: Research project
FUNDING BODY: CASA DEL CORAZÓN FOUNDATION
START DATE: 01/01/2018
END DATE: 07/09/2020

- **Human Resources**

TITLE**: Río Hortega contract** CM18/00134
DIRECTOR: FERNÁNDEZ-AVILES DIAZ, FRANCISCO JESÚS
PAYEE NAME: CASTRODEZA CALVO, JAVIER
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 31/01/2019
END DATE: 08/06/2020

TITLE**: Río Hortega contract** CM20/00054
DIRECTOR: 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
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** FI19/00167
DIRECTOR: MARTÍNEZ-SELLES D`OLIVEIRA SOARES, MANUEL
PAYEE NAME: GARCIA CARREÑO, JORGE
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 16/01/2020
END DATE: 01/07/2020

TITLE: **Predoctoral contract** BES-2017-079924
DIRECTOR: 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: **FPU. Ayudas del Programa de Formación de Profesorado Universitario** FPU15/03371
DIRECTOR: FERNÁNDEZ-AVILES DIAZ, FRANCISCO JESÚS
PAYEE NAME:GARCÍA DÍAZ, ALEJANDRO JOSÉ
FUNDING BODY: MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES
PROJECT TYPE: Human resources
START DATE: 01/07/2017
END DATE: 30/11/2021

TITLE: **Formación en investigación post-residencia. Proyecto en Electrofisiología y Arritmias integrándose en una unidad asistencial. "Artificial Inteligence in Atrial Fibrilation (AInA) Identification and Ablation of Drivers Related to Electrogram Entanglement" .** SEC20/01
DIRECTOR: ARENAL AMÍZ, ÁNGEL
FUNDING BODY: FUNDACION 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*
Método para visualizar la información contenida en imágenes tridimensionales del corazón	P201000363 (4 patentS)	FIBHGM - Universidad Politécnica de Madrid	Esther Pérez. Ángel Arenal. Javier Bermejo. Francisco Fernández-Avilés. Manuel Desco. Mª Jesús Ledesma. Andrés de Santos. José Luis Rubio
Catéter y método para la detección de actividad eléctrica en un órgano	P201431315 (5 patent)	FIBHGM – Universidad Politécnica de Valencia – Universidad de Michigan	Andreu Martínez. Felipe Atienza. Miguel Rodrigo. Mª Salud Guillem. Omer Berenfeld
Dispositivo de localización de arritmias cardiacas	P201431597 (4 patents)	FIBHGM - Universidad Politécnica de Valencia	Andreu Martínez. Felipe Atienza. Ángel Arenal. Francisco Fernández-Avilés. Mª Salud Guillem
Mapping and quantifying blood statis 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
Sistema y método para la detección automática de patrones electrofisiológicos anómalos	P201731161 (2 patents)	FIBHGM - UC3M	Ángel Arenal. Francisco Fernández Avilés. Gonzalo Ricardo Ríos. Antonio Artés

Transferred patents

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

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	Asociated group
Others	PROGRAMA AVANCELL-CM - Terapias	Coordinating group

	avanzadas de precisión en regeneración y reparación celular y tisular. S2017/BMD-3692	
Others	Programa ITACA - CM Investigación Traslacional en Arritmias Cardíacas hereditarias. B2017/BMD3738	Asociated 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 Cardiaca (EUIN2017-88719)	Asociated group

Publications *Total Impact Factor: **702.4***

	Nº	FI
Own publications	43	251.0
Joint publications	52	451.4
First decile publications	19	370.0
First quartile publications	42	499.2
Second quartile publications	38	169.8
Third quartile publications	11	26.5
Fourth quartile publications	4	6.9
Nonindexed publications / No IF	25	-
Total publications (including those without IF)	**120**	**702.4**

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

- Mas, S; Gasso, P; Rodriguez, N; Cabrera, B; Mezquida, G; Lobo, A; Gonzalez-Pinto, A; Parellada, M; Corripio, I; Vieta, E; Castro-Fornieles, J; Bobes, J; Usall, J; Saiz-Ruiz, J; Contreras, F; Parellada, E; Bernardo, M; Lafuente, A; Bioque, M; Diaz-Caneja, CM; Gonzalez-Penas, J; Solis, AA; Rebella, M; Gonzalez-Ortega, I; Besga, A; SanJuan, J; Nacher, J; Morro, L; Montserrat, C; Jimenez, E; Da Costa, SG; Baeza, I; de la Serna, E; Rivas, S; Diaz, C; Saiz, PA; Garcia-Alvarez, L; Fraile, MG; Rabadan, AZ; Torio, I; Rodriguez-Jimenez, R; Butjosa, A; Pardo, M; Sarro, S; Pomarol-Clotet, E; Cuadrado, AI; Cuesta, MJ; PEPs Grp. *Personalized medicine begins with the phenotype: identifying antipsychotic response phenotypes in a first-episode psychosis cohort*. ACTA PSYCHIATRICA SCANDINAVICA. 2020; 141(6) 541-552. FI: 6.392. Cuartil: 1. (Article).

- Herkert, JC; Verhagen, JMA; Yotti, R; Haghighi, A; Phelan, DG; James, PA; Brown, NJ; Stutterd, C; Macciocca, I; Leong, K; Bulthuis, MLC; van Bever, Y; van Slegtenhorst, MA; Boven, LG; Roberts, AE; Agarwal, R; Seidman, J; Lakdawala, NK; Fernandez-Aviles, F; Burke, MA; Pierpont, ME; Braunlin, E; Caglayan, AO; Barge-Schaapveld, DQCM; Birnie, E; Van Osch-Gevers, L; van Langen, IM; Jongbloed, JDH; Lockhart, PJ; Amor, DJ; Seidman, CE; van de Laar, IMBH. *Expanding the clinical and genetic spectrum of ALPK3 variants: Phenotypes identified in pediatric cardiomyopathy patients and adults with heterozygous variants*. AMERICAN HEART JOURNAL. 2020; 225 108-119. FI: 4.749. Cuartil: 2. (Article).

- Biscaglia, S; Guiducci, V; Santarelli, A; Santos, IA; Fernandez-Aviles, F; Lanzilotti, V; Varbella, F; Fileti, L; Moreno, R; Giannini, F; Colaiori, I; Menozzi, M; Redondo, A; Ruozzi, M; Ibanes, EG; Gil, JLD; Maietti, E; Zoccai, GB; Escaned, J; Tebaldi, M; Barbato, E; Dudek, D; Colombo, A; Campo, G. *Physiology-guided revascularization versus optimal medical therapy of nonculprit lesions in elderly patients with myocardial infarction: Rationale and design of the FIRE trial*. AMERICAN HEART JOURNAL. 2020; 229 100-109. FI: 4.749. Cuartil: 2. (Article).

- Bayes-de-Luna, A; Martinez-Selles, M; Elosua, R; Bayes-Genis, A; Mendieta, G; Baranchuk, A; Breithardt, G. *Relation of Advanced Interatrial Block to Risk of Atrial Fibrillation and Stroke*. AMERICAN JOURNAL OF CARDIOLOGY. 2020; 125(11) 1745-1748. FI: 2.778. Cuartil: 3. (Review).

- Faroux, L; Muntane-Carol, G; Urena, M; Nombela-Franco, L; Amat-Santos, I; Kleiman, N; Munoz-Garcia, A; Atienza, F; Serra, V; Deyell, MW; Veiga-Fernandez, G; Masson, JB; Canadas-Godoy, V; Himbert, D; Fischer, Q; Castrodeza, J; Elizaga, J; Pascual, JF; Webb, JG; de la Torre, JM; Asmarats, L; Pelletier-Beaumont, E; Almendarez, M; Couture, T; Philippon, F; Rodes-Cabau, J. *Late Electrocardiographic Changes in Patients With New-Onset Left Bundle Branch Block Following Transcatheter Aortic Valve Implantation*. AMERICAN JOURNAL OF CARDIOLOGY. 2020; 125(5) 795-802. FI: 2.778. Cuartil: 3. (Article).

- Herrera, C; Bruna, V; Abizanda, P; Diez-Villanueva, P; Formiga, F; Torres, R; Carreras, J; Ayala, R; Martin-Sanchez, FJ; Bayes-Genis, A; Elosua, R; Bayes-de-Luna, A; Martinez-Selles, M; CAMBIAD Investigators. *Relation of Interatrial*

Block to Cognitive Impairment in Patients >= 70 Years of Age (From the CAMBIAD Case-control Study). AMERICAN JOURNAL OF CARDIOLOGY. 2020; 136 94-99. FI: 2.778. Cuartil: 3. (Article).

- Lacalzada-Almeida, J; Izquierdo-Gomez, MM; Laynez-Cerdena, I; Garcia-Niebla, J; Bruna, V; de Luna, AB; Martinez-Selles, M. *Electrocardiogram and left atrial abnormality: Design of an observational study to clarify diagnostic criteria*. ANNALS OF NONINVASIVE ELECTROCARDIOLOGY. 2020; 25(6). FI: 1.468. Cuartil: 4. (Article).

- Sampedro-Gomez, J; Dorado-Diaz, PI; Vicente-Palacios, V; Sanchez-Puente, A; Jimenez-Navarro, M; San Roman, JA; Galindo-Villardon, P; Sanchez, PL; Fernandez-Aviles, F. *Machine Learning to Predict Stent Restenosis Based on Daily Demographic, Clinical, and Angiographic Characteristics*. CANADIAN JOURNAL OF CARDIOLOGY. 2020; 36(10) 1624-1632. FI: 5.223. Cuartil: 2. (Article).

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infarction during the COVID-19 outbreak.. REVISTA ESPANOLA DE CARDIOLOGIA (ENGLISH ED.). 2020; 73(12) 985-993. (Article).

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- Rodríguez-Leor O; Cid-Álvarez B; Pérez de Prado A; Rossello X; Serrador A; López-Palop R; Martín-Moreiras J; Rumoroso JR; Cequier Á; Ibáñez B; Cruz-González I; Romaguera R; Moreno R; Villa M; Ruíz-Salmerón R; Molano F; Sánchez C; Muñoz-García E; Íñigo L; Herrador J; Gómez-Menchero A; Caballero J; Ojeda S; Cárdenas M; Gheorghe L; Oneto J; Morales F; Valencia F; Ruíz JR; Diarte JA; Avanzas P; Rondán J; Peral V; Pernasetti LV; Hernández J; Bosa F; Lorenzo PLM; Jiménez F; Hernández JMT; Jiménez-Mazuecos J; Lozano F; Moreu J; Novo E; Robles J; Moreiras JM; Fernández-Vázquez F; Amat-Santos IJ; Gómez-Hospital JA; García-Picart J; Blanco BGD; Regueiro A; Carrillo-Suárez X; Tizón H; Mohandes M; Casanova J; Agudelo-Montañez V; Muñoz JF; Franco J; Del Castillo R; Salinas P; Elizaga J; Sarnago F; Jiménez-Valero S; Rivero F; Oteo JF; Alegría-Barrero E; Sánchez-Recalde Á; Ruíz V; Pinar E; Planas A; Ledesma BL; Berenguer A; Fernández-Cisnal A; Aguar P; Pomar F; Jerez M; Torres F; García R; Frutos A; Nodar JMR; García K; Sáez R; Torres A; Tellería M; Sadaba M; Mínguez JRL; Merchán JCR; Portales J; Trillo R; Aldama G; Fernández S; Santás M; Pérez MPP; en representación de los investigadores del Grupo de Trabajo sobre Código Infart. *Impact of COVID-19 on ST-segment elevation myocardial infarction care. The Spanish experience.*. REVISTA ESPANOLA DE CARDIOLOGIA (ENGLISH ED.). 2020; 73(12) 994-1002. (Article).

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- Bonanad Lozano C; Díez-Villanueva P; Blas SG; Ayesta A; Ibars S; Ariza-Solé A; Ferreiro JL; Moreno R; Roldán I; Marín F; Carol Ruiz A; García Pardo H; Sanchís J; Cruz-González I; Anguita M; Cequier Á; Ruiz García J; Martínez-Sellés M. *Impacto del tratamiento antitrombótico y los síndromes geriátricos en octogenarios con fibrilación auricular y cardiopatía isquémica. Fibrilación Auricular y Cardiopatía Isquémica en Longevos (FACIL).*. REVISTA ESPANOLA DE GERIATRIA Y GERONTOLOGIA. 2020; 55(6) 338-342. (Article).

- Díez-Villanueva P; Salamanca J; Ariza-Solé A; Formiga F; Martín-Sánchez FJ; Bonanad Lozano C; Vidán MT; Martínez-Sellés M; Terres B; Jiménez Méndez C; Bueno H; Alfonso F. *Impacto de la FRAgilidad y otros síndromes Geriátricos en el manejo clínico y pronóstico del paciente anciano ambulatorio con Insuficiencia Cardiaca (FRAGIC). Estudio prospectivo y multicéntrico.*. REVISTA ESPANOLA DE GERIATRIA Y GERONTOLOGIA. 2020; 55(1) 29-33. (Article).

2.02 Cardiovascular pathophysiology

Group Director: **Victoria Cachofeiro Ramos**
Organisms involved: **UCM**
Consolidated Group

Description of the research group

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.

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 cadiac 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.

Group members

Surname		Name	Euraxess Profile	Role
BARTOLOMÉ	PASCUAL	MARIA VISITACIÓN	R3	Established Researcher
CACHOFEIRO	RAMOS	VICTORIA	R4	Leading Researcher
DELGADO	VALERO	BEATRIZ	R1	First Stage Researcher
JIMÉNEZ	GONZÁLEZ	SARA	R1	First Stage Researcher
JURADO	LÓPEZ	RAQUEL	Other	Research Support Technician
MARTINEZ	MARTINEZ	ERNESTO	R3	Established Researcher
VASCONCELOS	DE SOUSA NETO	FRANCISCO DAS CHAGAS	R1	First Stage Researcher

Research Projects – Competitive Calls

- **Competitive projects**

* **Not managed by the FIBHGM**

TITLE: **Papel del estrés del retículo endoplámico 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

- **Human Resources**

TITLE: **Becas predoctorales UCM**
DIRECTOR: CACHOFEIRO RAMOS, VICTORIA
PAYEE NAME: Francisco ds 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). 2019**
DIRECTOR: MARTINEZ, ERNESTO
PAYEE NAME: Ana Romero Miranda
PROJECT TYPE: Human Resources
FUNDING BODY: COMUNIDAD DE MADRID
START DATE: 01/04/2019
END DATE: 30/03/2021

TITLE: **Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI)**
DIRECTOR: CACHOFEIRO RAMOS, VICTORIA
PAYEE NAME: Beatriz Delgado Valero
PROJECT TYPE: Human Resources
FUNDING BODY: COMUNIDAD DE MADRID
START DATE: 01/01/2020
END DATE: 31/12/2024

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:* ***47.0***

	Nº	FI
Own publications	2	12.9
Joint publications	5	34.1
First decile publications	1	6.3
First quartile publications	4	27.2
Second quartile publications	3	19.8
Third quartile publications	0	0.0
Fourth quartile publications	0	0.0

Nonindexed publications / No IF	0	-
Total publications (including those without IF)	**7**	**47.0**

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

- Ortega-Hernandez, A; Martinez-Martinez, E; Gomez-Gordo, R; Lopez-Andres, N; Fernandez-Celis, A; Gutierrrez-Miranda, B; Nieto, ML; Alarcon, T; Alba, C; Gomez-Garre, D; Cachofeiro, V. *The Interaction between Mitochondrial Oxidative Stress and Gut Microbiota in the Cardiometabolic Consequences in Diet-Induced Obese Rats*. ANTIOXIDANTS. 2020; 9(7). FI: 6.312. Cuartil: 1. (Article).

- Matilla, L; Roncal, C; Ibarrola, J; Arrieta, V; Garcia-Pena, A; Fernandez-Celis, A; Navarro, A; Alvarez, V; Gainza, A; Orbe, J; Cachofeiro, V; Zalba, G; Sadaba, R; Rodriguez, JA; Lopez-Andres, N. *A Role for MMP-10 (Matrix Metalloproteinase-10) in Calcific Aortic Valve Stenosis*. ARTERIOSCLEROSIS THROMBOSIS AND VASCULAR BIOLOGY. 2020; 40(5) 1370-1382. FI: 8.311. Cuartil: 1. (Article).

- Jimenez-Gonzalez, S; Marin-Royo, G; Jurado-Lopez, R; Bartolome, MV; Romero-Miranda, A; Luaces, M; Islas, F; Nieto, ML; Martinez-Martinez, E; Cachofeiro, V. *The Crosstalk between Cardiac Lipotoxicity and Mitochondrial Oxidative Stress in the Cardiac Alterations in Diet-Induced Obesity in Rats*. CELLS. 2020; 9(2). FI: 6.6. Cuartil: 2. (Article).

- Martin, R; Gutierrez, B; Cordova, C; San Roman, A; Alvarez, Y; Hernandez, M; Cachofeiro, V; Nieto, ML. *Secreted Phospholipase A(2)-IIA Modulates Transdifferentiation of Cardiac Fibroblast through EGFR Transactivation: An Inflammation-Fibrosis Link*. CELLS. 2020; 9(2). FI: 6.6. Cuartil: 2. (Article).

- Matilla, L; Arrieta, V; Jover, E; Garcia-Pena, A; Martinez-Martinez, E; Sadaba, R; Alvarez, V; Navarro, A; Fernandez-Celis, A; Gainza, A; Santamaria, E; Fernandez-Irigoyen, J; Rossignol, P; Zannad, F; Lopez-Andres, N. *Soluble St2 Induces Cardiac Fibroblast Activation and Collagen Synthesis via Neuropilin-1*. CELLS. 2020; 9(7). FI: 6.6. Cuartil: 2. (Article).

- Torres-Do Rego, A; Barrientos, M; Ortega-Hernandez, A; Modrego, J; Gomez-Gordo, R; Alvarez-Sala, LA; Cachofeiro, V; Gomez-Garre, D. *Identification of a Plasma Microrna Signature as Biomarker of Subaneurysmal Aortic Dilation in Patients with High Cardiovascular Risk*. JOURNAL OF CLINICAL MEDICINE. 2020; 9(9). FI: 4.241. Cuartil: 1. (Article).

- Gutierrez, B; Gallardo, I; Ruiz, L; Alvarez, Y; Cachofeiro, V; Margolles, A; Hernandez, M; Nieto, ML. *Oleanolic acid ameliorates intestinal alterations associated with EAE*. JOURNAL OF NEUROINFLAMMATION. 2020; 17(1). FI: 8.322. Cuartil: 1. (Article).

2.03 Cardiac celular electrophysiology

Group Director**: Eva Delpón Mosquera**
Organisms involved: **UCM**
Consolidated Group

Description of the research group

The group is composed of three professors (Drs. Delpón, Tamargo and Caballero) from the Department of Pharmacology and Toxicology of the School of Medicine of UCM and has formed part of the IiSGM since its inception date.
The team also includes fellows and pre-doctoral fellows under contract with MINECO, a project of the Community of Madrid and CIBER on cardiovascular diseases.
The group maintains its uninterrupted activity for more than 30 years and have two research areas dedicated to cardiac cell electrophysiology and cardiovascular pharmacology, respectively.
The lines of research funded by national and regional competitive projects are:
1) Modulation of human cardiac ion channels.
2) Functional study of new genes involved in the genesis of hereditary primary arrhythmogenic syndromes.
3) Cellular electrical remodeling in atrial fibrillation: search for new targets for the treatment of atrial fibrillation.
Thanks to our collaboration with the Cardiology and Cardiac Surgery Services of the HGUGM, our group is one of the few in Europe that has access to obtain human cardiac samples from patients undergoing cardiac surgery

Research lines

Axis 1: Cardiac cellular electrophysiology
L 1: Description of the composition of cardiac channelosomes.
L 2: Identification of the genetic bases of primary arrhythmogenic syndromes (PAS).
L 3: Identification of the cellular mechanisms responsible for the genesis and maintenance of atrial fibrillation (AF).
Axis 2: Cardiovascular clinical pharmacology
Lí 1: Cardiovascular clinical pharmacology

Group members

Surname		Name	Euraxess Profile	Role
CABALLERO	COLLADO	RICARDO	R4	Leading Researcher
CAMARA	CHECA	ANABEL		
CEBRIÁN	CASTILLO	JORGE		
CRESPO	GARCÍA	TERESA		
DAGO	REQUENA	MARÍA		
DELPON	MOSQUERA	EVA	R4	Leading Researcher
MARÍN	GARCÍA	MARÍA		
NIETO	MARIN	PALOMA		
RUBIO	ALARCÓN	MARCOS		
TAMARGO	MENENDEZ	JUAN	R4	Leading Researcher
VAQUERO	LOPEZ	PALOMA SAN JUAN		

Research Projects – Competitive Calls

- 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: 31/12/2020

TITLE: **Estudio funcional de mutaciones en los genes HCN4, ZFHX3 y ANK2 identificadas en pacientes con fibrilación auricular familiar**. PI16/00398
DIRECTOR: TAMARGO MENENDEZ, JUAN
FUNDING BODY INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Research project
START DATE: 01/01/2017
END DATE: 30/09/20

TITLE: **Investigación Traslacional en Arritmias Cardiacas hereditArias. ITACA**-CM B017/BMD3738
DIRECTOR: DELPÓN, EVA
PROJECT TYPE: Reseach 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: 01/06/219

TITLE: **Ayudas parra contratos predoctorales para la formación de doctores.** PRE2018-086155
DIRECTOR: DELPÓN MOSQUERA, EVA
PAYEE NAME: CAMARA 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
DIRECTOR: 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

Clinical Practice Guidelines

Authors	Title	Journal / Reference
Savarese G. Reiner MF. Uijl A. D'Amario D. Agewall S. Atar D. Baumgartner I. Borghi C. De Carlo M. Drexel H. Kaski JC. Kjeldsen KP. Kucher N. Lund LH. Niessner A. Semb AG. Schmidt TA. Sulzgruber P. Tamargo J. Vitale C. Wassmann S. Aboyans V. Lewis BS	**Antithrombotic therapy and major adverse limb events in patients with chronic lower extremity arterial disease: systematic review and meta-analysis from the European Society of Cardiology Working Group on Cardiovascular Pharmacotherapy in Collaboration with the European Society of Cardiology Working Group on Aorta and Peripheral Vascular Diseases.**	EUR HEART J CARDIOVASC PHARMACOTHER 2020;6(2):86-93.
Hollan I. Ronda N. Dessein P. Agewall S. Karpouzas G. Tamargo J. Niessner A. Savarese G. Rosano G. Kaski JC. Wassmann S. Meroni PL.	**Lipid management in rheumatoid arthritis: a position paper of the Working Group on Cardiovascular Pharmacotherapy of the European Society of Cardiology.**	EUR HEART J CARDIOVASC PHARMACOTHER. 2020;6(2):104-114.

Publications

Total Impact Factor: ***58.1***

	Nº	FI
Own publications	4	21.5
Joint publications	2	36.6
First decile publications	4	49.8
First quartile publications	5	54.2
Second quartile publications	1	3.9
Third quartile publications	0	0.0
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	1	-
Total publications (including those without IF)	**7**	**58.1**

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

- Ruilope, LM; Tamargo, J; Ruiz-Hurtado, G. *Renin-angiotensin system inhibitors in the COVID-19 pandemic: consequences of antihypertensive drugs*. EUROPEAN HEART JOURNAL. 2020; 41(22) 2067-2069. FI: 29.983. Cuartil: 1. (Editorial Material).
- Savarese, G; Reiner, MF; Uijl, A; D'Amario, D; Agewall, S; Atar, D; Baumgartner, I; Borghi, C; De Carlo, M; Drexel, H; Kaski, JC; Kjeldsen, KP; Kucher, N; Lund, LH; Niessner, A; Semb, AG; Schmidt, TA; Sulzgruber, P; Tamargo, J; Vitale, C; Wassmann, S; Aboyans, V; Lewis, BS. *Antithrombotic therapy and major adverse limb events in patients with chronic lower extremity arterial disease: systematic review and meta-analysis from the European Society of*

Cardiology Working Group on Cardiovascular Pharmacotherapy in Collaboration wi. EUROPEAN HEART JOURNAL-CARDIOVASCULAR PHARMACOTHERAPY. 2020; 6(2) 86-93. FI: 6.617. Cuartil: 1. (Review).

- Tamargo, J. *After a long time, the new ESC Guidelines for the management of patients with supraventricular tachycardia are here*. EUROPEAN HEART JOURNAL-CARDIOVASCULAR PHARMACOTHERAPY. 2020; 6(1) 3-5. FI: 6.617. Cuartil: 1. (Editorial Material).
- Tamargo, J; Rosano, G. *Low quality of some generic cardiovascular medicinal products represents a matter for growing concern*. EUROPEAN HEART JOURNAL-CARDIOVASCULAR PHARMACOTHERAPY. 2020; 6(3) 176-187. FI: 6.617. Cuartil: 1. (Article).
- Tamargo, J. *Selecting emergency therapy for patients with pre-eclampsia*. EXPERT OPINION ON PHARMACOTHERAPY. 2020; 21(10) 1119-1122. FI: 3.889. Cuartil: 2. (Editorial Material).
- Tinaquero, D; Crespo-Garcia, T; Utrilla, RG; Nieto-Marin, P; Gonzalez-Guerra, A; Rubio-Alarcon, M; Camara-Checa, A; Dago, M; Matamoros, M; Perez-Hernandez, M; Tamargo, M; Cebrian, J; Jalife, J; Tamargo, J; Bernal, JA; Caballero, R; Delpon, E; ITACA Investigators. *The p.P888L SAP97 polymorphism increases the transient outward current (I-to,I-f) and abbreviates the action potential duration and the QT interval*. SCIENTIFIC REPORTS. 2020; 10(1). FI: 4.379. Cuartil: 1. (Article).

Publications of the main WOS collection in journals without impact factor:

- Tamargo, J. *Treatment of Coronavirus Disease 2019: Shooting in the Dark*. EUROPEAN CARDIOLOGY REVIEW. 2020; 15. (Article).

2.05 Cardiology and heart transplantation in children

Group Director: **Constancio Medrano López**
Organisms involved: **HGUGM**
Emerging group

Description of the research group

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.

Research lines

Axis 1: Heart transplant in children
L 1: Optimize and reduce antirejection therapy.
Axis 2: Cardiomyopathy in children
L 1: Correlation between genotype and phenotype.
L 2: Development of advanced imaging techniques (speckle trackingechocardiography**).**
Axis 3: Respiratory infections and congenital heart disease
L 1: Impact on patients with heart disease**.**
Axis 4: Drugs used in infant and pediatric cardiology
L 1: Utility and safety of cardiovascular drugs in infancy**.**
Axis 5: Infant cardiac rehabilitation (cooperation with Infant Rehabilitationreserch group: Dr.Supervia and Dr. Arroyo)
L 1: Improving quality of life**.**
Axis 6: Cell therapy in pediatric cardiology
L 1: New therapies in advanced heart failure**.**
Axis 7: Innovation in interventional approaches in congenital heart disease and in infants
Line 1: New devices adapted to congenital heart disease**.**
Axis 8: Innovation in surgical approaches in congenital heart disease and in infants
Line 1: New mini-invasive techniques are safe and reduce morbidity.
Axis 9: Telemedicine
L 1: 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)
L 1: Improving knowledge about health**.**
Axis 11: International cooperation
L 1: Training as a development tool**.**
Axis 12: Innovation in infant electrophysiology
L 1: Optimizing infant electrophysiology devices and techniques.

Axis 13: Innovation: Patient experience

L 1: Development of applications for the adolescent heart patient experience.

Group members

Surname		Name	Euraxess Profile	Role
ALCAIDE	BAZÁN	PAOLA	Other	
ALONSO	RIVERO	PATRICIA	R1	First Stage Researcher
ALVAREZ	GARCIA-ROVES	REYES	R1	First Stage Researcher
ALVAREZ	MARTIN	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 Mananger
CENTENO	JIMÉNEZ	MIRIAN	R1	First Stage Researcher
COBOS	HINOJAL	SUSANA	Other	
CUENCA	YUNTA	ALEJANDRA	Other	
EZQUIETA	ZUBICARAY	BEGOÑA	R3	Established Researcher
GARCIA	GONZALEZ	Mª DOLORES	Other	Support Technician
GIL	JAURENA	JUAN MIGUEL	R1	First Stage Researcher
GIL	VILLANUEVA	NURIA	R1	First Stage Researcher
LOPEZ	BLAZQUEZ	MARIA	R1	First Stage Researcher
MEDRANO	LOPEZ	CONSTANCIO	R4	Leading Researcher
PANADERO	CARLAVILLA	MARIA ESTHER	R1	First Stage Researcher
PARDO	PARDO	CARLOS ANDRES	R2	Recognised Researcher
PINERO	DIAZ	GLORIA ISABEL	Other	
PITA	FERNANDEZ	ANA	R1	First Stage Researcher
RELAÑO	GARCÍA	CRISTINA	Other	
RODRIGUEZ	OGANDO	ALEJANDRO	R2	Recognised Researcher
SOBRINO	BALADRON	ADOLFO	R1	First Stage Researcher
SOLANA	GRACIA	RUTH	R3	Established Researcher
VERA	RODRÍGUEZ	ANA	Other	
ZUNZUNEGUI	MARTINEZ	JOSÉ LUIS	R1	First Stage Researcher

Research Projects – Competitive Calls

- **Competitive projects**

TITLE: **Estudio prospectivo, abierto y controlado con medicación activa para evaluar la farmacocinética, la farmacodinamia, la seguridad y la eficacia de rivaroxabán para la tromboprofilaxis de niños de 2 a 8 años de edad después del procedimiento de Fontan.** 39039039CHD3001
DIRECTOR: ÁLVAREZ MARTÍN, TERESA
FUNDING BODY: JANSSEN
TYPE OF PROJECT: International project
START DATE:26/12/2017
END DATE: 28/10/2020

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

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
DIRECTOR: 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 transcatéter (VPT) PULSTATM.** TWTPV-E1001
DIRECTOR: ZUNZUNEGUI MARTINEZ, JOSÉ LUIS
FUNDING BODY: TAEWOONG MEDICAL
TYPE OF PROJECT: International project
START DATE:01/01/2020

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: MEDDIMMUNE
TYPE OF PROJECT: International project
START DATE:01/10/2020

TITLE: **Trasplante de células thyTreg autólogas para prevenir el rechazo en niños traplantados 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 Leon
TYPE OF PROJECT: Research project
START DATE: 21/10/2020

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: 32.4*

	Nº	FI
Own publications	3	16.0
Joint publications	5	16.4
First decile publications	1	10.2

First quartile publications	2	16.8
Second quartile publications	2	9.5
Third quartile publications	0	-
Fourth quartile publications	4	6.1
Nonindexed publications / No IF	3	-
Total publications (including those without IF)	**11**	**32.4**

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

- Carcavilla, A; Suarez-Ortega, L; Sanchez, AR; Gonzalez-Casado, I; Ramon-Krauel, M; Labarta, JI; Gonzalez, SQ; Galan, IR; Zubicaray, BE; Lopez-Siguero, JP. *Noonan syndrome: genetic and clinical update and treatment options*. ANALES DE PEDIATRIA. 2020; 93(1). FI: 1.5. Cuartil: 4. (Article).

- Valderrama, P; Ballesteros, F; Rodriguez, A; Zunzunegui, JL. *Melody valve implantation in tetralogy of Fallot with acquired double right ventricular outflow tract*. EUROINTERVENTION. 2020; 16(7) 558-559. FI: 6.534. Cuartil: 1. (Editorial Material).

- Vida, VL; Triglia, LT; Zanotto, L; Zanotto, L; Bertelli, F; Padalino, M; Sarris, G; Protopapas, E; Prospero, C; Pizarro, C; Cleuziou, J; Myers, PO; Pr?tre, R; Poncelet, AJ; Meyns, B; Van den Bossche, K; Accord, RE; Gil-Jaurena, JM; Sakurai, T; Stellin, G. *Late management of the aortic root after repair of tetralogy of Fallot: A European multicentre study*. JOURNAL OF CARDIAC SURGERY. 2020; 35(1) 40-47. FI: 1.62. Cuartil: 4. (Article).

- Kirk, R; Dipchand, AI; Davies, RR; Miera, O; Chapman, G; Conway, J; Denfield, S; Gossett, JG; Johnson, J; McCulloch, M; Schweiger, M; Zimpfer, D; Ablonczy, L; Adachi, I; Albert, D; Alexander, P; Amdani, S; Amodeo, A; Azeka, E; Ballweg, J; Beasley, G; Bohmer, J; Butler, A; Camino, M; Castro, J; Chen, S; Chrisant, M; Christen, U; Danziger-Isakov, L; Das, B; Everitt, M; Feingold, B; Fenton, M; Garcia-Guereta, L; Godown, J; Gupta, D; Irving, C; Joong, A; Kemna, M; Khulbey, SK; Kindel, S; Knecht, K; Lal, AK; Lin, K; Lord, K; Moller, T; Nandi, D; Niesse, O; Peng, DM; Perez-Blanco, A; Punnoose, A; Reinhardt, Z; Rosenthal, D; Scales, A; Scheel, J; Shih, R; Smith, J; Smits, J; Thul, J; Weintraub, R; Zangwill, S; Zuckerman, WA. *ISHLT consensus statement on donor organ acceptability and management in pediatric heart transplantation*. JOURNAL OF HEART AND LUNG TRANSPLANTATION. 2020; 39(4) 331-341. FI: 10.247. Cuartil: 1. (Article).

- Butler, A; Chapman, G; Johnson, JN; Amodeo, A; Bohmer, J; Camino, M; Davies, RR; Dipchand, AI; Godown, J; Miera, O; Perez-Blanco, A; Rosenthal, DN; Zangwill, S; Kirk, R. *Part VII: Behavioral economics-A framework for donor organ decision-making in pediatric heart transplantation*. PEDIATRIC TRANSPLANTATION. 2020; 24(3). FI: 1.502. Cuartil: 4. (Article).

- Marcos-Alonso, S; Gil, N; Garcia-Guereta, L; Albert, D; Tejero, MA; Perez-Villa, F; Bueno, MG; Peiro, TB; Cano, A; Molina, BD; Sousa, DR. *Impact of mechanical circulatory support on survival in pediatric heart transplantation*. PEDIATRIC TRANSPLANTATION. 2020; 24(4). FI: 1.502. Cuartil: 4. (Article).

- Gil-Jaurena, JM; Pardo, C; Pita, A; Monzon, D; Bellido, A; Perez-Caballero, R. *Aortic root surgery after arterial switch operation*. REVISTA ESPANOLA DE CARDIOLOGIA. 2020; 73(11) 956-958. FI: 4.753. Cuartil: 2. (Letter).

- Gil-Jaurena, JM; Perez-Caballero, R; Pita, A; Pardo, C; Zunzunegui, JL; Ballesteros, F. *Surgery in patients with stents. New challenges in congenital heart disease*. REVISTA ESPANOLA DE CARDIOLOGIA. 2020; 73(10) 857-859. FI: 4.753. Cuartil: 2. (Letter).

Publications of the main WOS collection in journals without impact factor:

- Lopez, LP; Hernandez, TC; Calle, AG; Hernandez, VB; Jaurena, JMG; Doblas, JF; Gallardo, JIA; Rodriguez, LR; Alonso, ER; Boni, L; Cejas, CM; Jimenez, JMA; Martinez, FS; Calvar, JMC; Soc Espanola Cirugia Cardiovasc En. *Congenital heart surgery in Spain during the state of alarm related to COVID-19*. CIRUGIA CARDIOVASCULAR. 2020; 27(4) 137-141. (Article).

- Gil-Jaurena, JM. *Editorial comment to: On the role of balloon angioplasty in infantile and childhood coarctation of aorta*. CIRUGIA CARDIOVASCULAR. 2020; 27(1) 1-2. (Editorial Material).

Other publications

- Cambra Conejero A; Martínez Figueras L; Ortiz Temprado A; Blanco Soto P; Martín Rivada Á; Palomino Pérez L; Cañedo Villarroya E; Pedrón Giner C; Quijada Fraile P; Martín-Hernández E; García Silva MT; Chumillas Calzada S; Bellusci M; Belanger-Quintana A; Stanescu S; Martínez-Pardo Casanova M; Moráis López A; Bergua Martínez A; Ruiz-Salas P; Pérez González B; Ugarte M; Ruano MLF. *Análisis de casos positivos de cribado neonatal de errores*

congénitos del metabolismo en la Comunidad de Madrid.. REVISTA ESPANOLA DE SALUD PUBLICA. 2020; 94. (Article).

2.06 Blood lipids and cardiovascular risk

Group Director: **Luis Antonio Álvarez-Sala Walther**
Organisms involved: **HGUGM**
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

Surname		Name	Euraxess Profile	Role
ALVAREZ-SALA	WALTHER	LUIS ANTONIO	R4	Leading Researcher
BELLO	MARTINEZ	ELENA	R2	Recognised Researcher
CABRERA	AGUILAR	FRANCISCO JAVIER		
CONTHE	GUTIERREZ	PEDRO	R2	Recognised Researcher
DE MIGUEL	YANES	JOSE Mª		
DEL TORO	CERVERA	JORGE	R1	First Stage Researcher
DEMELO	RODRÍGUEZ	PABLO	R1	First Stage Researcher
GALEANO	VALLE	FRANCISCO		
MILLAN	NUÑEZ-CORTES	JESUS	R4	Leading Researcher
PÉREZ	DE OTEYZA	CARLOS		
PÉREZ	RUS	GLORIA	R1	First Stage Researcher
RECARTE	GARCIA-ANDRADE	CARLOS	R1	First Stage Researcher
TORRES	DO REGO	ANA		
VALDES	GROSS	INES		

Publications

Total Impact Factor: ***110.3***

	Nº	FI
Own publications	20	55.5
.Joint publications	16	55.3
First decile publications	0	-
First quartile publications	7	31.5
Second quartile publications	12	45.4
Third quartile publications	14	29.3
Fourth quartile publications	3	4.1
Nonindexed publications / No IF	6	-
Total publications (including those without IF)	**42**	**110.3**

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

- Pedro-Botet, J; Lopez-Miranda, J; Badimon, L; Civeira, F; Guijarro, C; Millan, J; Mostaza, JM; Pinto, X; Valdivielso, P; Masana, L; Expert Grp Spanish. *Overall Mortality and LDL Cholesterol Reduction in Secondary Prevention Trials of Cardiovascular Disease*. AMERICAN JOURNAL OF CARDIOVASCULAR DRUGS. 2020; 20(4) 325-332. FI: 3.571. Cuartil: 2. (Review).
- de Miguel-Diez, J; Jimenez-Garcia, R; Hernandez-Barrera, V; Puente-Maestu, L; Ji, ZC; de Miguel-Yanes, JM; Mendez-Bailon, M; Lopez-de-Andres, A. *Ventilatory Support Use in Hospitalized Patients With Community-Acquired*

Pneumonia. Fifteen-year Trends in Spain (2001-2015). ARCHIVOS DE BRONCONEUMOLOGIA. 2020; 56(12) 792-800. FI: 4.872. Cuartil: 2. (Article).

- Ordieres-Ortega, L; Galeano-Valle, F; Mallen-Perez, M; Munoz-Delgado, C; Apaza-Chavez, JE; Menarguez-Palanca, FJ; Walther, LAAS; Demelo-Rodriguez, P. *Niemann-Pick disease type-B: a unique case report with compound heterozygosity and complicated lipid management*. BMC MEDICAL GENETICS. 2020; 21(1). FI: 2.103. Cuartil: 3. (Article).

- Jimenez-Garcia, R; Perez-Farinos, N; de Miguel-Diez, J; Hernandez-Barrera, V; Mendez-Bailon, M; Jimenez-Trujillo, I; de Miguel-Yanes, JM; Lopez-de-Andres, A. *National Trends in Utilization and In-Hospital Outcomes of Surgical Aortic Valve Replacements in Spain, 2001-2015*. BRAZILIAN JOURNAL OF CARDIOVASCULAR SURGERY. 2020; 35(1) 65-74. FI: 1.312. Cuartil: 4. (Article).

- de Miguel-Diez, J; L?pez-de-Andr?s, A; Hern?ndez-Barrera, V; M?ndez-Bail?n, M; de Miguel-Yanes, JM; Jim?nez-Garc?a, R. *Impact of COPD on outcomes in hospitalized patients treated with transcatheter aortic valve implantation or surgical aortic valve replacement in Spain*. CATHETERIZATION AND CARDIOVASCULAR INTERVENTIONS. 2020; 95(2) 339-347. FI: 2.692. Cuartil: 3. (Article).

- Ariza, MJ; Perez-Lopez, C; Almagro, F; Sanchez-Tevar, AM; Muniz-Grijalvo, O; Walter, LAAS; Rioja, J; Sanchez-Chaparro, MA; Valdivielso, P. *Genetic variants in the LPL and GPIHBP1 genes, in patients with severe hypertriglyceridaemia, detected with high resolution melting analysis*. CLINICA CHIMICA ACTA. 2020; 500 163-171. FI: 3.786. Cuartil: 1. (Article).

- Ordieres-Ortega, L; Toledo-Samaniego, N; Parra-Virto, A; Fernandez-Carracedo, E; Lavilla-Olleros, C; Demelo-Rodriguez, P. *Atypical erythema nodosum in a patient withCOVID-19 pneumonia*. DERMATOLOGIC THERAPY. 2020; 33(4). FI: 2.851. Cuartil: 3. (Letter).

- Garcia-Garcia, A; Galeano-Valle, F; Nuevo-Gonzalez, JA; Demelo-Rodriguez, Y. *Fournier's gangrene and SGLT2 inhibitors: A case study*. ENDOCRINOLOGIA DIABETES Y NUTRICION. 2020; 67(6) 423-425. FI: 1.417. Cuartil: 4. (Letter).

- Aguirre-Romero, AB; Galeano-Valle, F; Conde-Montero, E; Velazquez-Tarjuelo, D; de-la-Cueva-Dobao, P. *Efficacy and safety of a rosehip seed oil extract in the prevention and treatment of skin lesions in the hands of patients with type 1 diabetes mellitus caused by finger prick blood glucose monitoring; a randomized, open-label, controlled clinical trial*. ENDOCRINOLOGIA DIABETES Y NUTRICION. 2020; 67(3) 186-193. FI: 1.417. Cuartil: 4. (Article).

- Martin-Rojas, RM; Perez-Rus, G; Delgado-Pinos, VE; Domingo-Gonzalez, A; Regalado-Artamendi, I; Alba-Urdiales, N; Demelo-Rodriguez, P; Monsalvo, S; Rodriguez-Macias, G; Ballesteros, M; Osorio-Prendes, S; Diez-Martin, JL; Izquierdo, CP. *COVID-19 coagulopathy: An in-depth analysis of the coagulation system*. EUROPEAN JOURNAL OF HAEMATOLOGY. 2020; 105(6) 741-750. FI: 2.997. Cuartil: 3. (Article).

- Gonzalez-Lopez, TJ; Sanchez-Gonzalez, B; Jarque, I; Bernat, S; Fernandez-Fuertes, F; Caparros, I; Soto, I; Fernandez-Rodriguez, A; Bolanos, E; Perez-Rus, G; Pascual, C; Hernandez-Rivas, JA; Lopez-Ansoar, E; Gomez-Nunez, M; Martinez-Robles, V; Olivera, P; Cobo, MY; Penarrubia, MJ; Fernandez-Minano, C; de Cabo, E; Badas, MPM; Perdomo, G; Garcia-Frade, LJ. *Use of eltrombopag for patients 65 years old or older with immune thrombocytopenia*. EUROPEAN JOURNAL OF HAEMATOLOGY. 2020; 104(3) 259-270. FI: 2.997. Cuartil: 3. (Article).

- de Miguel-Diez, J; Jimenez-Garcia, R; Mendez-Bailon, M; Munoz-Rivas, N; Hernandez-Barrera, V; Puente-Maestu, L; de Miguel-Yanes, JM; Perez-Farinos, N; Lopez-de-Andres, A. *National trends in mechanical ventilation among patients hospitalized with heart failure: a population-based study in Spain (2001-2017)*. EUROPEAN JOURNAL OF INTERNAL MEDICINE. 2020; 78 76-81. FI: 4.487. Cuartil: 1. (Article).

- Demelo-Rodriguez, P; Galeano-Valle, F; Salzano, A; Biskup, E; Vriz, O; Cittadini, A; Falsetti, L; Ranieri, B; Russo, V; Stanziola, AA; Bossone, E; Marra, AM. *Pulmonary Embolism A Practical Guide for the Busy Clinician*. HEART FAILURE CLINICS. 2020; 16(3) 317-330. FI: 3.179. Cuartil: 2. (Review).

- Toledo-Samaniego, N; Galeano-Valle, F; Pinilla-Llorente, B; Del-Toro-Cervera, J; Marra, A; Proietti, M; Demelo-Rodriguez, P. *Clinical features and management of venous thromboembolism in patients with Behcet's syndrome: a single-center case-control study*. INTERNAL AND EMERGENCY MEDICINE. 2020; 15(4) 635-644. FI: 3.397. Cuartil: 2. (Article).

- Garcia-Escobar, A; Martin-Martinez, A; Del-Toro-Cervera, J; Demelo-Rodriguez, P. *Letter by Garcia A, et al. regarding article: Coronary artery disease risk reclassification by a new acoustic-based score*. INTERNATIONAL JOURNAL OF CARDIOVASCULAR IMAGING. 2020; 36(4) 653-655. FI: 2.357. Cuartil: 3. (Editorial Material).

- Morag?n-Ledesma, S; Galeano-Valle, F; Calleja-Carton, E; Del-Toro-Cervera, J; Demelo-Rodriguez, P. *Bilateral Deep Vein Thrombosis, Vena Cava Agenesis, and Renal Abnormalities: KILT Syndrome-A Case Report and Literature*

Review. JOURNAL OF CARDIOVASCULAR TRANSLATIONAL RESEARCH. 2020; 13(4) 629-631. FI: 4.132. Cuartil: 2. (Review).

- Mendez-Bailon, M; Jimenez-Garcia, R; Hernandez-Barrera, V; de Miguel-Diez, J; de Miguel-Yanes, JM; Munoz-Rivas, N; Lorenzo-Villalba, N; Carabantes-Alarcon, D; Zamorano-Leon, JJ; Astasio-Arbiza, P; Ortega-Molina, P; Lopez-de-Andres, A. *Heart Failure Is a Risk Factor for Suffering and Dying of Clostridium difficile Infection. Results of a 15-Year Nationwide Study in Spain*. JOURNAL OF CLINICAL MEDICINE. 2020; 9(3). FI: 4.241. Cuartil: 1. (Article).
- Munoz-Rivas, N; Lopez-de-Andres, A; Mendez-Bailon, M; Andres, E; Hernandez-Barrera, V; de Miguel-Yanes, JM; de Miguel-Diez, J; Lorenzo-Villalba, N; Jimenez-Garcia, R. *The Influence of Sex on Clinical Outcomes after Surgical Mitral Valve Replacement in Spain (2001-2015)*. JOURNAL OF CLINICAL MEDICINE. 2020; 9(12). FI: 4.241. Cuartil: 1. (Article).
- Torres-Do Rego, A; Barrientos, M; Ortega-Hernandez, A; Modrego, J; Gomez-Gordo, R; Alvarez-Sala, LA; Cachofeiro, V; Gomez-Garre, D. *Identification of a Plasma Microrna Signature as Biomarker of Subaneurysmal Aortic Dilation in Patients with High Cardiovascular Risk*. JOURNAL OF CLINICAL MEDICINE. 2020; 9(9). FI: 4.241. Cuartil: 1. (Article).
- Schiaffino, MT; Di Natale, M; Garcia-Martinez, E; Navarro, J; Munoz-Blanco, JL; Demelo-Rodriguez, P; Sanchez-Mateos, P. *Immunoserologic Detection and Diagnostic Relevance of Cross-Reactive Autoantibodies in Coronavirus Disease 2019 Patients*. JOURNAL OF INFECTIOUS DISEASES. 2020; 222(9) 1439-1443. FI: 5.226. Cuartil: 1. (Article).
- Demelo-Rodriguez, P; Galeano-Valle, F; Marcelo-Ayala, A; Fernandez-Carracedo, E; Cuenca-Zarzuela, A; Gomez-Morales, M; Alvarez-Sala-Walther, LA; Bellon-Cano, JM; del-Toro-Cervera, J. *C-reactive protein level predicts 30-day mortality and bleeding in patients with venous thromboembolism: A prospective single-center study*. MEDICINA CLINICA. 2020; 155(2) 51-56. FI: 1.725. Cuartil: 3. (Article).
- Toledo-Samaniego, N; Galeano-Valle, F; Ascanio-Palomares, P; Gonzalez-Martinez, B; Valencia-Kruszyna, A; Demelo-Rodriguez, P. *Neurological manifestations of Behcet's disease: Study of 57 patients*. MEDICINA CLINICA. 2020; 154(12) 488-492. FI: 1.725. Cuartil: 3. (Article).
- Cervilla-Munoz, E; Bringas-Beranek, M; Demelo-Rodriguez, P. *Iatrogenic hyperthyroidism can be a triggering factor for takotsubo cardiomyopathy*. MEDICINA CLINICA. 2020; 155(1) 42-43. FI: 1.725. Cuartil: 3. (Letter).
- Demelo-Rodriguez, P; Galeano-Valle, F; del Toro-Cervera, J. *Comparison between characteristics of patients with venous thromboembolism treated with direct oral anticoagulants versus vitamin K antagonists: A single-center prospective study*. MEDICINA CLINICA. 2020; 155(3) 131-132. FI: 1.725. Cuartil: 3. (Letter).
- Garcia, AG; Valle, FG; Demelo-Rodriguez, P. *Oxygenation by extracorporeal veno-arterial membrane in a patient with high-risk pulmonary embolism*. MEDICINA CLINICA. 2020; 155(1) 47-48. FI: 1.725. Cuartil: 3. (Letter).
- Perez-Granda, MJ; Bouza, E; Pinilla, B; Cruces, R; Gonzalez, A; Millan, J; Guembe, M. *Randomized clinical trial analyzing maintenance of peripheral venous catheters in an internal medicine unit: Heparin vs. saline*. PLOS ONE. 2020; 15(1). FI: 3.24. Cuartil: 2. (Article).
- Ditano-Vazquez, P; Galeano-Valle, F; del-Toro-Cervera, J; Demelo-Rodriguez, P. *Comparison between upper and lower extremity deep vein thrombosis: a single-center prospective study*. REVISTA CLINICA ESPANOLA. 2020; 220(3) 210-212. FI: 1.556. Cuartil: 3. (Letter).
- Casas-Rojo, JM; Anton-Santos, JM; Millan-Nunez-Cortes, J; Lumbreras-Bermejo, C; Ramos-Rincon, JM; Roy-Vallejo, E; Artero-Mora, A; Arnalich-Fernandez, F; Garcia-Brunen, JM; Vargas-Nunez, JA; Freire-Castro, S; Manzano-Espinosa, L; Perales-Fraile, I; Crestelo-Vieitez, A; Puchades-Gimeno, F; Rodilla-Sala, E; Solis-Marquinez, MN; Bonet-Tur, D; Fidalgo-Moreno, MP; Fonseca-Aizpuru, EM; Carrasco-Sanchez, FJ; Rabadan-Pejenaute, E; Rubio-Rivas, M; Torres-Pena, JD; Gomez-Huelgas, R; Grp SEMI-COVID-19 Network. *Clinical characteristics of patients hospitalized with COVID-19 in Spain: Results from the SEMI-COVID-19 Registry*. REVISTA CLINICA ESPANOLA. 2020; 220(8) 480-494. FI: 1.556. Cuartil: 3. (Article).
- Guerra, LC; Fernandez, CS; Mostaza, JM; Felices, PV; do Rego, AT; Cerezo, JFG; Grp Trabajo Riesgo Vasc SEMI. *Consensus document for the training of residents in cardiovascular risk*. REVISTA CLINICA ESPANOLA. 2020; 220(9) 587-591. FI: 1.556. Cuartil: 3. (Article).
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- Galeano-Valle, F; Oblitas, CM; Ferreiro-Mazon, MM; Alonso-Munoz, J; del Toro-Cervera, J; di Natale, M; Demelo-Rodriguez, P. *Antiphospholipid antibodies are not elevated in patients with severe COVID-19 pneumonia and venous thromboembolism*. THROMBOSIS RESEARCH. 2020; 192 113-115. FI: 3.944. Cuartil: 2. (Letter).
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- Ruiz, SP; Virto, AP; do Rego, AT; Rodriguez, PD; Walther, LAS. *Transient ischaemic attack after spacing the dose of alirocumab: Is it advisable to reduce the doses of PCSK9 inhibitors with very low LDL-cholesterols?*. CLINICA E INVESTIGACION EN ARTERIOSCLEROSIS. 2020; 32(1) 30-32. (Article).
- Pedro-Botet, J; Ascaso, JF; Blasco, M; Brea, A; Diaz, A; Hernandez-Mijares, A; Pinto, X; Millan, J; Grp Trabajo Dislipidemia Aterogeni; Soc Espanola Arteriosclerosis. *Triglycerides, HDL cholesterol and atherogenic dyslipidaemia in the 2019 European guidelines for the management of dyslipidaemias*. CLINICA E INVESTIGACION EN ARTERIOSCLEROSIS. 2020; 32(5) 209-218. (Article).
- Oblitas, CM; Toledo-Samaniego, N; Fernandez-Yunquera, A; Diaz-Fontenla, F; Galeano-Valle, F; Del-Toro-Cervera, J; Banares-Canizares, R; Demelo-Rodriguez, P. *Chronic Budd-Chiari syndrome in Behcet's disease successfully managed with transjugular intrahepatic portosystemic shunt: a case report and literature review*. CLINICAL JOURNAL OF GASTROENTEROLOGY. 2020; 13(4) 572-578. (Review).
- Cervilla-Munoz, E; Galeano-Valle, F; Del-Toro-Cervera, J; Calleja-Carton, E; Demelo-Rodriguez, P. *Differential diagnosis and treatment approach to pulmonary artery sarcoma: a case report and literature review*. ERJ OPEN RESEARCH. 2020; 6(3). (Letter).
- Galeano-Valle, F; Del-Toro-Cervera, J; Demelo-Rodriguez, P. *Venous thromboembolism and gastrointestinal stromal tumour: A rare association*. MOLECULAR AND CLINICAL ONCOLOGY. 2020; 12(1) 57-59. (Article).
- Alonso-Beato, R; Gonzalez-Perez, JA; Demelo-Rodriguez, P. *Severe olmesartan-induced sprue-like enteropathy with good corticosteroid treatment response*. REVISTA DE GASTROENTEROLOGIA DE MEXICO. 2020; 85(2) 220-222. (Editorial Material).

2.07 Acute cerebral ischemia. Stroke

Group Director: **Antonio Gil Núñez**
Organisms involved: **HGUGM**
Emerging group

Description of the research group

Research group of the Vascular Neurology Section - Stroke Center on all aspects of cerebrovascular disease with participation in multidisciplinary and multicenter studies.

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: Validation of etiologic scales.
L7: Teleictus for the area
L8: Study on stroke code for delay times
L9: ESUS GM study
L10: Hidden FA detection in ESOS
L11: Stroke in cancer
L12: Prospective registration of unstable carotid plates in ESUS. PLACA-IN-Esus registration

Group members

Surname		Name	Euraxess Profile	Role
DÍAZ	OTERO	FERNANDO	R1	First Stage Researcher
FERNÁNDEZ	BULLIDO	YOLANDA	R1	First Stage Researcher
GARCIA	PASTOR	ANDRES	R2	Recognised Researcher
GIL	NUÑEZ	ANTONIO	R4	Leading Researcher
IGLESIAS	MOHEDANO	ANA MARIA	R2	Recognised Researcher
VALES	MONTERO	MARTA	R1	First Stage Researcher
VAZQUEZ	ALEN	PILAR	R1	First Stage Researcher

Research Projects – Competitive Calls

- **Competitive projects**

TITLE: **"REgenerative Stem cell therapy for STroke in Europe**" H2020-RESSTORE
DIRECTOR: GIL NUÑEZ. ANTONIO
FUNDING BODY: EUROPEAN COMMISSION
PROJECT TYPE: European project
START DATE:01/10/2015
END DATE: 01/10/2020

Publications

Total Impact Factor: **49.2**

	Nº	FI
Own publications	3	13.8
Joint publications	6	65.4
First decile publications	3	23.7

First quartile publications	5	34.6
Second quartile publications	1	5.3
Third quartile publications	3	9.3
Fourth quartile publications	0	-
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	**9**	**49.2**

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

- *Rodriguez-Pardo, J; Secades-Garcia, S; Riera-Lopez, N; de Lecinana, MA; Real-Martinez, V; Carneado-Ruiz, J; Diaz-Guzman, J; Diez-Tejedor, E; Egido-Herrero, J; Gil-Nunez, A; Matute-Lozano, MC; Trillo, S; Vera-Lechuga, R; Vivancos-Mora, J; Ximenez-Carrillo, A; Fuentes, B. Contraindications to intravenous thrombolysis in prehospital triage of thrombectomy candidates. EUROPEAN JOURNAL OF NEUROLOGY. 2020; 27(12) 2439-2445. FI: 6.089. Cuartil: 1. (Article).*
- *Garcia-Pastor, A; Gil-Nunez, A; Ramirez-Moreno, JM; Gonzalez-Nafria, N; Tejada, J; Moniche, F; Portilla-Cuenca, JC; Martinez-Sanchez, P; Fuentes, B; Gamero-Garcia, MA; de Lecinana, MA; Masjuan, J; Canovas, D; Aladro, Y; Parkhutik, V; Lago, A; De Arce, AM; Usero-Ruiz, M; Delgado-Mederos, R; Pampliega, A; Ximenez-Carrillo, A; Bartulos-Iglesias, M; Castro-Reyes, E. Progression of carotid near-occlusion to complete occlusion: related factors and clinical implications. JOURNAL OF NEUROINTERVENTIONAL SURGERY. 2020; 12(12) 1180-1185. FI: 5.836. Cuartil: 1. (Article).*
- *Garc?a-Pastor, A; Gil-Nunez, A; Ram?rez-Moreno, JM; Gonz?lez-Nafr?a, N; Tejada, J; Moniche, F; Portilla-Cuenca, JC; Mart?nez-S?nchez, P; Fuentes, B; Gamero-Garcia, MA; de Leci?ana, MA; C?novas-Verge, D; Aladro, Y; Lago-Martin, A; de Arce-Borda, AM; Usero-Ruiz, M; Arenillas, JF; Delgado-Mederos, R; Pampliega, A; Ximenez-Carrillo, A; B?rtulos-Iglesias, M; Castro-Reyes, E; Spanish Cerebrovasc Dis Study Grp. Comment on the article "Symptomatic carotid near-occlusion causes a high risk of recurrent ipsilateral ischemic stroke" by Gu et al.. JOURNAL OF NEUROLOGY. 2020; 267(3) 849-851. FI: 4.849. Cuartil: 1. (Letter).*
- *Delgado-Montero, A; Martinez-Legazpi, P; Desco, MM; Rodriguez-Perez, D; Diaz-Otero, F; Rossini, L; del Villar, CP; Rodriguez-Gonzalez, E; Chazo, C; Benito, Y; Flores, O; Antoranz, JC; Fernandez-Aviles, F; del Alamo, JC; Bermejo, J. Blood Stasis Imaging Predicts Cerebral Microembolism during Acute Myocardial Infarction. JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY. 2020; 33(3) 389-398. FI: 5.251. Cuartil: 2. (Article).*
- *Grandas, F; Dominguez, JMG; Otero, FD. A neurology department at a tertiary-level hospital during the COVID-19 pandemic. NEUROLOGIA. 2020; 35(4) 267-268. FI: 3.109. Cuartil: 3. (Letter).*
- *Rodriguez-Pardo, J; Fuentes, B; de Lecinana, MA; Campollo, J; Castano, PC; Ruiz, JC; Herrero, JE; Leal, RG; Nunez, AG; Cerezo, JFG; Martinez, AM; Vallejo, JM; Aguado, BP; Lopez, NR; de las Heras, RS; Mora, JV; Tejedor, ED; Nombre Grp Multidisciplinar Plan. Acute stroke care during the COVID-19 pandemic. Ictus Madrid Program recommendations. NEUROLOGIA. 2020; 35(4) 258-263. FI: 3.109. Cuartil: 3. (Review).*
- *Fuentes, B; de Lecinana, MA; Calleja-Castano, P; Carneado-Ruiz, J; Egido-Herrero, J; Gil-Nunez, A; Masjuan-Vallejo, J; Vivancos-Mora, J; Rodriguez-Pardo, J; Riera-Lopez, N; Ximenez-Carrillo, A; Cruz-Culebras, A; Gomez-Escalonilla, C; Diez-Tejedor, E; Hosp Plan Ictus Madrid. Impact of the COVID-19 pandemic on the organisation of stroke care. Madrid Stroke Care Plan. NEUROLOGIA. 2020; 35(6) 363-371. FI: 3.109. Cuartil: 3. (Article).*
- *Rodriguez-Pardo, J; Riera-Lopez, N; Fuentes, B; Alonso de Lecinana, M; Secades-Garcia, S; Alvarez-Fraga, J; Busca-Ostolaza, P; Carneado-Ruiz, J; Diaz-Guzman, J; Egido-Herrero, J; Gil-Nunez, A; Masjuan-Vallejo, J; Real-Martinez, V; Vivancos-Mora, J; Diez-Tejedor, E; Madrid Stroke Network Study Grp. Prehospital selection of thrombectomy candidates beyond large vessel occlusion: M-DIRECT scale. NEUROLOGY. 2020; 94(8) 851-860. FI: 9.91. Cuartil: 1. (Article).*
- *Ntaios, G; Michel, P; Georgiopoulos, G; Guo, YT; Li, WC; Xiong, J; Calleja, P; Ostos, F; Gonzalez-Ortega, G; Fuentes, B; de Lecinana, MA; Diez-Tejedor, E; Garcia-Madrona, S; Masjuan, J; DeFelipe, A; Turc, G; Goncalves, B; Domigo, V; Dan, GA; Vezeteu, R; Christensen, H; Christensen, LM; Meden, P; Hajdarevic, L; Rodriguez-Lopez, A; Diaz-Otero, F; Garcia-Pastor, A; Gil-Nunez, A; Maslias, E; Strambo, D; Werring, DJ; Chandratheva, A; Benjamin, L; Simister, R; Perry, R; Beyrouti, R; Jabbour, P; Sweid, A; Tjoumakaris, S; Cuadrado-Godia, E; Campello, AR; Roquer, J; Moreira, T; Mazya, MV; Bandini, F; Matz, K; Iversen, HK; Gonzalez-Duarte, A; Tiu, C; Ferrari, J; Vosko, MR; Salzer, HJF; Lamprecht, B; Dunser, MW; Cereda, CW; Quintero, ABC; Korompoki, E; Soriano-Navarro, E; Soto-Ramirez, LE; Castaneda-Mendez, PF; Bay-Sansores, D; Arauz, A; Cano-Nigenda, V; Kristoffersen, ES; Tiainen, M; Strbian, D; Putaala, J; Lip, GYH. Characteristics and Outcomes in Patients With COVID-19 and Acute Ischemic Stroke The Global COVID-19 Stroke Registry. STROKE. 2020; 51(9) 254-258. FI: 7.914. Cuartil: 1. (Article).*

AREA 3 NEUROSCIENCE AND MENTAL HEALTH

Coordinador de Area: **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

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 Director: **Celso Arango López**
Organisms involved: **HGUGM**
UCM
Consolidated Group

Description of the research group

The group "Neurobiological and psychologicall 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 recent years.

This group is one of the few to gain international recognition in the field of chilhood 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 thad have been funded by competitive calls of public and private institutions (e.g., Instituto de Salud Carlos III, Ministerio de Educación, 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 Department of Child and Adolescent Psychiatry, 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, including one project funded "Network of European Funding for Neuroscience Research (ERANET-NEURON)", 3 projects funded by the Innovative Medicines Call of Horizon 2020 and a project 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, JAMA, 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.

Their scientific activity 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 such as psychosis, bipolar disorder, and autism spectrum disorder..

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

L 2 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.

L 3: 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

L 1: 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.

L 2: Extension of additional sources of funding; autonomous communities, national, international. Leaders: Celso Arango. Covadonga Martínez. Mara Parellada. Carmen Moreno

L 3: Increase scientific output in the Neurodevelopmental Disorders program. Leaders: Celso Arango. Covadonga Martínez.

L 4: Increase in scientific production in basic research. Leader: Celso Arango.

L 5: 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

L 1: 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

L 1: Extension of laboratory structures and equipment; consolidation of the Psychiatry Laboratory. Leaders: Celso Arango

Group members

Surname		Name	Euraxess Profile	Role
ABREGU	CRESPO	RENZO	R1	First Stage Researcher
ALLOZA	ROMERO	CLARA	R2	Recognised Researcher
ANDREU	BERNABEU	ÁLVARO	R1	First Stage Researcher
ARANGO	LÓPEZ	CELSO	R4	Leading Researcher
ARANGO	VICTORIA	MANUEL JOVINO	Otros	Data manager
AYORA	RODRIGUEZ	MIRIAM	R1	First Stage Researcher
BAEZA	MUÑOZ	CRISTINA	Other	
BALTASAR	TELLO	ITZIAR	R2	Recognised Researcher
BARCENILLA	GONZALEZ	MIGUEL ANGEL	Other	Poject manager
BOADA	MUÑOZ	LETICIA	Other	
BRAVO	SANCHEZ	MARTA	R2	Recognised Researcher
BURDEUS	OLAVARRIETA	MONICA	R1	First Stage Researcher
CALVO	CALVO	ANA BELEN	R2	Recognised Researcher
CARBALLO	BELLOSO	JUAN JOSE	R3	Established Researcher
CARNICER	CASTAÑO	MARÍA	R2	Recognised Researcher
CEREZO	ROMÁN	LOURDES	R1	First Stage Researcher
COLOMAR	MOLLA	LAURA	R1	First Stage Researcher
CONEJO	GALINDO	JAVIER	R1	First Stage Researcher
CORRAL	ZARAPUZ	AZUCENA	Other	
CUADRADO	CALLEJA	PEDRO	R1	First Stage Researcher
CUESTA	SANTAMARÍA	MARÍA LUISA	Other	Nurse
DEL FRESNO	CEREZO	RAFAEL	R1	First Stage Researcher
DE MATTEIS		MARIO	R1	First Stage Researcher
DE PORTUGAL	FERNÁNDEZ DEL RIVERO	ENRIQUE	R2	Recognised Researcher
DELGADO	LACOSTA	CARLOS	R2	Recognised Researcher
DORADO	MARTÍNEZ	MARÍA LUISA	R2	Recognised Researcher
DURAN	CUTILLA	MANUEL	R1	First Stage Researcher
ESGUEVILLAS	CUESTA	ÁLVARO	R2	Recognised Researcher
ESPLIEGO	FELIPE	ANA	R1	First Stage Researcher
FADÓN	MARTÍN	PATRICIA AURORA	R2	Recognised Researcher
FERRE	NAVARRETE	FRANCISCO	R2	Recognised Researcher
FRAGUAS	HERRÁEZ	DAVID	R2	Recognised Researcher
GARCIA	ALCON	ALICIA	R1	First Stage Researcher
GARCÍA	BERNARDO	ENRIQUE	R2	Recognised Researcher
GARCÍA	CABEZA	IGNACIO	R2	Recognised Researcher
GARCIA	MARTINEZ	ELISA	R1	First Stage Researcher
GARCÍA	TRASVERSO	MARÍA	R1	First Stage Researcher
GARIBI	PÉREZ	AINHOA	R2	Recognised Researcher
GARRIZ	LUIS	ALEXANDRA	Other	Project manager
GIL	MOLINA	SANTIAGO	R2	Recognised Researcher
GONZALEZ	PEÑAS	JAVIER	R2	Recognised Researcher
GURRIARÁN	BAS	XAQUÍN	R2	Recognised Researcher

Surname		Name	Euraxess Profile	Role
HERNANDEZ	ALVAREZ	FABIAN	R1	First Stage Researcher
HERNANDEZ	JUSDADO	PATRICIA	R2	Recognised Researcher
HUERTAS	PATÓN	ABIGAIL	R2	Recognised Researcher
JANSSEN	JEUCKEN	JOOST	R2	Recognised Researcher
LAORDEN	NIETO	ALEJANDRA TERESA	R2	Recognised Researcher
LLORENTE	SARABIA	CLOE	R2	Recognised Researcher
LOPEZ	MONTOYA	GONZALO	R2	Recognised Researcher
LOPEZ	MORENO	LAURA	R1	First Stage Researcher
LUCAS	SÁNCHEZ	MARÍA	Other	Nurse
MAGAZ	MUÑOZ	ANA MARIA	R2	Recognised Researcher
MARTÍN	MARTÍNEZ	NURIA	R1	First Stage Researcher
MARTÍNEZ	DÍAZ-CANEJA	MARÍA COVADONGA	R2	Recognised Researcher
MARTINEZ	RODRIGUEZ	KENIA	R3	Established Researcher
MAYORAL	ARAGON	MARIA	R3	Established Researcher
MENDEZ	HERNÁNDEZ	MARÍA ANDREINA	Other	Project manager
MERCHAN	NARANJO	JESSICA	Other	
MERCHAN	RIBERA	SUSANA	Other	Data manager
MIGUELEZ	FERNÁNDEZ	CAROLINA	R2	Recognised Researcher
MOLINA	GARCIA	MARIA DOLORES	R1	First Stage Researcher
MORENO	PARDILLO	Mª DOLORES	R2	Recognised Researcher
MORENO	RUIZ	CARMEN	R2	Recognised Researcher
MUNILLA	SUAREZ	ESTRELLA	R2	Recognised Researcher
OLMEDA	GARCÍA	MARIA SOLEDAD	R1	First Stage Researcher
PARELLADA	REDONDO	Mª JOSE	R3	Established Researcher
PARRO	TORRES	CARLOS	R2	Recognised Researcher
PENZOL	ALONSO	MARIA JOSE	R2	Recognised Researcher
PÉREZ	SANTONJA	JAVIER	R1	First Stage Researcher
PÉREZ	SEGURA	PILAR	R2	Recognised Researcher
PICOUTO	GONZALEZ	MARIA DOLORES	R2	Recognised Researcher
PINA	CAMACHO	LAURA	R2	Recognised Researcher
RAMOS	RODRÍGUEZ	MARÍA JOSÉ	R2	Recognised Researcher
RAPADO	CASTRO	MARTA	R3	Established Researcher
RECIO	LAMPARERO	SANDRA	Other	Laboratory Support Technician
RIVAS	CAMBRONERO	EVA	R2	Recognised Researcher
RODRÍGUEZ	LATORRE	PAMELA	Other	
RODRÍGUEZ	SOLANO	JOSÉ JUAN	R2	Recognised Researcher
RODRÍGUEZ	TOSCANO	ELISA	R2	Recognised Researcher
ROLDAN	DIAZ	LAURA	R2	Recognised Researcher
ROMO	VILLA	JOSÉ	R1	First Stage Researcher
RONCERO	RODRÍGUEZ	MARISOL	R1	First Stage Researcher
RUBIO	FERNANDEZ	PATRICIA	R1	First Stage Researcher
SALAZAR	DE PABLO	GONZALO	R2	Recognised Researcher
SANCHEZ	DIAZ	EMILIO IGNACIO	R2	Recognised Researcher
SANCHEZ	GUTIERREZ	TERESA	R2	Recognised Researcher
SAN JOSÉ	CÁCERES	ANTONIA	Other	Project manager
SANZ	FERNÁNDEZ	MARÍA	R2	Recognised Researcher

Surname		Name	Euraxess Profile	Role
SCHIPPERS	SCHIPPERS	ANOUK	R1	First Stage Researcher
SEVILLA	CERMEÑO	LAURA	R1	First Stage Researcher
SIPOS	GALVEZ	LOURDES	R2	Recognised Researcher
STELLA		CAROL	R1	First Stage Researcher
SZERMA	BOLOTNER	NESTOR	R2	Recognised Researcher
TAPIA	CASELLAS	CECILIA	R1	First Stage Researcher
TORRERO	ALÍA	MARÍA	Other	Laboratory Support Technician
ULLOA	SOLÍS	ÁNGELA MÁRÍA	R1	First Stage Researcher
URBIOLA	MERINA	ELENA	R1	First Stage Researcher
VALENCIA	AGUDO	FATIMA	R2	Recognised Researcher
VERDURA	VIZCAÍNO	JOSÉ ERNESTO	R2	Recognised Researcher
VICENTE	MORENO	RAQUEL PILAR	R1	First Stage Researcher
VICENTE	SANCHEZ	ISABEL	R1	First Stage Researcher
VIDAL	DE LA FUENTE	JORGE	R2	Recognised Researcher

Research Projects – Competitive Calls

- **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: International research project
START DATE: 01/09/2020
END DATE: 30/09/2025

TITLE: **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: **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 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: **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 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: **Envejecimiento celular asociado con exposición temprana a acontecimientos estresantes den el síndrome de deleción 22q11.2.** PI17/00481
DIRECTOR: FRAGUAS HERRÁEZ, DAVID
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
TYPE OF PROJECT:Research project
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Biotipos en Trastornos del Espectro Autista: relación con evolución clínica y respuesta a fármacos** PI17/00819
DIRECTOR: PARELLADA REDONDO, Mª JOSE
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 ARAGON, MARIA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
TYPE OF PROJECT:Research project
START DATE: 01/01/2018
END DATE: 31/12/2020

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: 31/12/2020

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: 31/12/2020

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: 31/12/2020

TITLE: **Estudio de seguimiento a 8 años de la primera evaluación de niños y adolescentes hijos de pacientes con esquizofrenia o trastorno bipolar"** PI15/00810
DIRECTOR: MORENO PARDILLO, MARIA DOLORES
FUNDING BODY: INSTITUTO DE SALUD CARLOS III

TYPE OF PROJECT:Research project
START DATE: 01/01/2016
END DATE: 30/11/2020

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

- **Human Resources**

TITLE: **Convocatoria beca predoctoral en Neurociencias 2016** FTPGB16/01
DIRECTOR: ARANGO LÓPEZ, CELSO
PAYEE NAME: Mª Dolores Molina García
FUNDING BODY: FUNDACIÓN TATIANA PEREZ DE GUZMAN EL BUENO
TYPE OF PROJECT:Research project
START DATE 12/12/2016
END DATE: 01/03/2021

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: 31/08/2024

TITLE: **Formación profesorado universitario** FPU19/06877
DIRECTOR: MARTÍN MARTÍNEZ, NURIA
FUNDING BODY: MICINN
TYPE OF PROJECT:Human resources
START DATE: 29/10/2019
END DATE: 28/10/2023

TITLE: **Formación profesorado universitario** FPU18/06550
DIRECTOR: RUBIO FERNANDEZ, 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: GARCIA ALCON, ALICIA
FUNDING BODY: MICINN/MINECO
TYPE OF PROJECT:Human resources
START DATE: 24/10/2017
END DATE: 23/10/2021

TITLE: **Ayudas Juan de la Cierva / Formación Posdoctoral** FJC2018-035755-I
DIRECTOR: ARANGO LÓPEZ, CELSO
PAYEE NAME: MARTÍN HERNÁNDEZ, DAVID
FUNDING BODY: MICINN
TYPE OF PROJECT:Human resources
START DATE: 01/02/2020
END DATE: 31/01/2022

TITLE: **Beca de doctorado Fundación Bancaria La Caixa-** INPHINIT2018-CS
DIRECTOR: ARANGO LÓPEZ, CELSO
PAYEE NAME: Carol Stella
FUNDING BODY: LA CAIXA
TYPE OF PROJECT:Human resources
START DATE: 29/10/2018
END DATE: 28/10/2021

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: 11/12/2023

TITLE: **JUAN RODÉS Contract** JR16/00013
DIRECTOR: PINA CAMACHO, LAURA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
TYPE OF PROJECT:Human resources
START DATE: 19/01/2017
END DATE: 11/12/2020

TITLE: **Río Hortega Contract** CM20/00114
DIRECTOR: ARANGO LÓPEZ, CELSO
PAYEE NAME: ANDREU BERNABEU, ÁLVARO
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
TYPE OF PROJECT:Human resources
START DATE: 01/12/2020
END DATE: 31/12/2022

TITLE: **Río Hortega Contract** CM17/00119
DIRECTOR: PARELLADA, MARÍA JOSÉ
PAYEE NAME: DURÁN CUTILLA, MANUEL
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
TYPE OF PROJECT:Human resources
START DATE: 29/01/2018
END DATE: 28/01/2020

TITLE: **Río Hortega Contract** CM17/00121
DIRECTOR: ARANGO LÓPEZ, CELSO
PAYEE NAME: AYORA RODRIGUEZ, MIRIAM VALLE
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
TYPE OF PROJECT:Human resources
START DATE: 29/01/2018
END DATE: 28/01/2020

TITLE: **PREDOCTORAL Contract** FI18/00233
DIRECTOR: BURDEUS OLAVARRIETA, MONICA

FUNDING BODY: INSTITUTO DE SALUD CARLOS III (
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
TYPE OF PROJECT:Human resources
START DATE: 02/04/2018
END DATE: 01/04/2022

TITLE: **Young employement contract. Ayudante investigación** PEJ-2019-AI/SAL-15702
DIRECTOR: MORENO, RUIZ, CARMEN
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
TYPE OF PROJECT:Human resources
START DATE: 01/02/2020
END DATE: 31/01/2022

TITLE: **Young employement contract. Ayudante investigación** PEJ-2017-AI/BMD-6274
DIRECTOR: ARANGO LÓPEZ, CELSO
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
TYPE OF PROJECT: Human resources
START DATE: 02/02/2018
END DATE: 01/02/2020

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: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
TYPE OF PROJECT:Human resources
START DATE: 02/02/2019
END DATE: 01/02/2021

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 theses and Master theses

Type	*Candidate*	*Title*	*Name/s Director/s*	*University*	*Date Defended*
Ph Thesis	**Alejandra Laorden Nieto**	Caracterización del rendimiento neuropsicológico en personas con síndrome de deleción 22q11.2	David Fraguas Herraez Maria Mayoral Aragon Juan José Carballo Belloso	UCM	01/03/2019

Clinical Practice Guidelines

Authors	*Title*	*Journal / Reference*
Imaz Roncero, C.; González Serrano F.; Martínez de Salazar Arboleas, 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**	https://www.sepypna.com/documentos/2020_InformeCOVID_final.pdf

Authors	Title	Journal / Reference
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-basedlocation data	Transl Psychiatry . 2020 Jul 1;10(1):211. doi: 10.1038/s41398-020-00893-4.
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-treatdepression: An international consensus statement	J Affect Disord. 2020 Apr 15;267:264-282. doi: 10.1016/j.jad.2020.02.023. Epub 2020 Feb 7.
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	Lancet Psychiatry. 2020 Sep;7(9):813-824. doi: 10.1016/S2215-0366(20)30307-2. Epub 2020 Jul 16.
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»	Rev Psiquiatr Salud Ment (Engl Ed) . Apr-Jun 2020;13(2):80-89. doi: 10.1016/j.rpsm.2019.11.002. Epub 2020 Jan 11.

Publications *Total Impact Factor:* ***520.7***

	Nº	FI
Own publications	24	175.4
Joint publications	45	345.3
First decile publications	27	343.3
First quartile publications	45	437.8
Second quartile publications	19	71.4
Third quartile publications	3	9.1
Fourth quartile publications	2	2.4
Nonindexed publications / No IF	3	-
Total publications (including those without IF)	**72**	**520.7**

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

- Mas, S; Gasso, P; Rodriguez, N; Cabrera, B; Mezquida, G; Lobo, A; Gonzalez-Pinto, A; Parellada, M; Corripio, I; Vieta, E; Castro-Fornieles, J; Bobes, J; Usall, J; Saiz-Ruiz, J; Contreras, F; Parellada, E; Bernardo, M; Lafuente, A; Bioque, M; Diaz-Caneja, CM; Gonzalez-Penas, J; Solis, AA; Rebella, M; Gonzalez-Ortega, I; Besga, A; SanJuan, J; Nacher, J; Morro, L; Montserrat, C; Jimenez, E; Da Costa, SG; Baeza, I; de la Serna, E; Rivas, S; Diaz, C; Saiz, PA; Garcia-Alvarez, L; Fraile, MG; Rabadan, AZ; Torio, I; Rodriguez-Jimenez, R; Butjosa, A; Pardo, M; Sarro, S; Pomarol-Clotet, E; Cuadrado, AI; Cuesta, MJ; PEPs Grp. *Personalized medicine begins with the phenotype: identifying antipsychotic response phenotypes in a first-episode psychosis cohort*. ACTA PSYCHIATRICA SCANDINAVICA. 2020; 141(6) 541-552. FI: 6.392. Cuartil: 1. (Article).

- Grau-Lopez, L; Szerman, N; Torrens, M; Basurte, I; Vega, P; Martinez-Raga, J; Casas, M; Roncero, C. *Professional perception of clozapine use in patients with dual psychosis*. ACTAS ESPANOLAS DE PSIQUIATRIA. 2020; 48(3) 99-105. FI: 1.196. Cuartil: 4. (Article).

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Correlation with Phenotype. AMERICAN JOURNAL OF HUMAN GENETICS. 2020; 107(3) 555-563. FI: 11.025. Cuartil: 1. (Article).

- Holleran, L; Kelly, S; Alloza, C; Agartz, I; Andreasssen, OA; Arango, C; Banaj, N; Calhoun, V; Cannon, D; Carr, V; Corvin, A; Glahn, DC; Gur, R; Hong, E; Hoschl, C; Howells, FM; James, A; Janssen, J; Kochunov, P; Lawrie, S; Liu, JY; Martinez, C; Mcdonald, C; Morris, D; Mothersill, D; Pantelis, C; Piras, F; Potkin, S; Rasser, PE; Roalf, D; Rowland, L; Satterthwaite, T; Schall, U; Spalletta, G; Spaniel, F; Stein, DJ; Uhlmann, A; Voineskos, A; Zalesky, A; van Erp, TGM; Turner, JA; Deary, IJ; Thompson, PM; Jahanshad, N; Donohoe, G. *The Relationship Between White Matter Microstructure and General Cognitive Ability in Patients With Schizophrenia and Healthy Participants in the ENIGMA Consortium*. AMERICAN JOURNAL OF PSYCHIATRY. 2020; 177(6) 537-547. FI: 18.112. Cuartil: 1. (Article).

- Tandon, R; Lenderking, WR; Weiss, C; Shalhoub, H; Barbosa, CD; Chen, J; Greene, M; Meehan, SR; Duvold, LB; Arango, C; Agid, O; Castle, D. *The impact on functioning of second-generation antipsychotic medication side effects for patients with schizophrenia: a worldwide, cross-sectional, web-based survey*. ANNALS OF GENERAL PSYCHIATRY. 2020; 19(1). FI: 3.455. Cuartil: 2. (Article).

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- Pries, LK; Dal Ferro, GA; van Os, J; Delespaul, P; Kenis, G; Lin, BD; Luykx, JJ; 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; Petrovic, SA; Mirjanic, T; Bernardo, M; Mezquida, G; Amoretti, S; Bobes, J; Saiz, PA; Garcia-Portilla, MP; Sanjuan, J; Aguilar, EJ; Santos, JL; Jimenez-Lopez, E; Arrojo, M; Carracedo, A; Lopez, G; Gonzalez-Penas, J; Parellada, M; Maric, NP; Atbasoglu, C; Ucok, A; Alptekin, K; Saka, MC; Arango, C; O'Donovan, M; Tosato, S; Rutten, BPF; Guloksuz, S; Genetic Risk Outcome Psychosis GRP. *Examining the independent and joint effects of genomic and exposomic liabilities for schizophrenia across the psychosis spectrum*. EPIDEMIOLOGY AND PSYCHIATRIC SCIENCES. 2020; 29. FI: 6.892. Cuartil: 1. (Article).

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- Tandon, R; Lenderking, WR; Weiss, C; Shalhoub, H; Barbosa, CD; Chen, J; Greene, M; Meehan, SR; Duvold, LB; Arango, C; Agid, O; Castle, D. *The impact on functioning of second-generation antipsychotic medication side effects for patients with schizophrenia: a worldwide, cross-sectional, web-based survey (vol 19, 42, 2020)*. ANNALS OF GENERAL PSYCHIATRY. 2020; 19(1). (Correction).

- Lim, ET; Uddin, M; De Rubeis, S; Chan, YL; Kamumbu, AS; Zhang, XC; D'Gama, AM; Kim, SN; Hill, RS; Goldberg, AP; Poultney, C; Minshew, NJ; Kushima, I; Aleksic, B; Ozaki, N; Parellada, M; Arango, C; Penzol, MJ; Carracedo, A; Kolevzon, A; Hultman, CM; Weiss, LA; Fromer, M; Chiocchetti, AG; Freitag, CM; Church, GM; Scherer, SW; Buxbaum, JD; Walsh, CA. *Rates, distribution and implications of postzygotic mosaic mutations in autism spectrum disorder (vol 53, pg 891, 2017)*. NATURE NEUROSCIENCE. 2020; 23(9) 1176-1176. (Correction).

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3.03B Neurological diseases

Group Director: **Francisco Grandas Pérez**
Organisms involved: **HGUGM**
Emerging group

Description of the research group

The "Neurological diseases" consists mostly of the medical assistants of the Neurology. Neurosurgery. Neuroradiology. Neurophysiology and Neuropediatria service.

Research lines

Axis 1: Parkinson's disease and movement disorders
- L 1: Pathophysiology and treatment of Parkinson's disease. Leader: Francisco Grandas
- L 2: Pathophysiology and treatment of dysphonia. Leader: Francisco Grandas.
- L 3: Balance and gait disorders. Leader: Francisco Grandas

Axis 2: Dementia
- L 1: Alzheimer's disease. Leader: Javier Olazarán.

Axis 3: Neuroinflammation
- L 1: Neuroinflammation in neurodegenerative diseases. Leader: Mª Concepción Guisasola.
- L 2: Multiple sclerosis. Leader: José Manuel García Domínguez

Axis 4: Neuromuscular diseases
- L 1: Amyotrophic lateral sclerosis. Leader: José Luis Muñoz Blanco

Group members

Surname		Name	Euraxess Profile	Role
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		
FERNANDEZ	CARBALLAL	CARLOS	R1	First Stage Researcher
FERNÁNDEZ	GARCÍA	MARÍA PILAR		
GARCIA	DOMINGUEZ	JOSE MANUEL	R1	First Stage Researcher
GOICOCHEA	BRICEÑO	HAYDEE	Other	Support technician
GRANDAS	PÉREZ	FRANCISCO JAVIER	R4	Leading Researcher
GUISASOLA	ZULUETA	MARIA CONCEPCIÓN	R3	Established Researcher
GUZMÁN DE VILLORIA	LEBIEDZIEJEWSKI	JUAN ADÁN	Other	Laboratory Technician
HIGUERAS	HERNANDEZ	YOLANDA	R2	Recognised Researcher
LOZANO	ROS	ALBERTO	R1	First Stage Researcher
MARI	HUALDE	AMAIA	R1	First Stage Researcher
MARTINEZ	GINES	MARIA LUISA	R1	First Stage Researcher
MASSOT	TARRUS	ANDREU	R2	Recognised Researcher
MATEO	SIERRA	OLGA		
MELDAÑA	RIVERA	ARIANA		
MIRANDA	HERRERO	Mª CONCEPCION	R2	Recognised Researcher
MUÑOZ	BLANCO	JOSÉ LUÍS	R1	First Stage Researcher
MUÑOZ	GONZÁLEZ	ADRIANA		
MUÑOZ	RUBIO	NICOLASA		

Surname		Name	Euraxess Profile	Role
OLAZARÁN	RODRÍGUEZ	FRANCISCO JAVIER	R2	Recognised Researcher
PÉREZ	GONZÁLEZ DE APODACA	PILAR		
PÉREZ	RIVAS	MARIA DE LOS ANGELES		
PÉREZ	SANCHEZ	JAVIER RICARDO	R1	First Stage Researcher
PÉREZ	VIVAS	MARÍA DEL MAR		
PRIETO	MONTALVO	JULIO IGNACIO	R2	Recognised Researcher
ROMERO	MARTINEZ	JULIA	R1	First Stage Researcher
SÁNCHEZ	FERNANDEZ	MARÍA JESÚS		
TRABA	LOPEZ	ALFREDO	R1	First Stage Researcher
VALES	MONTERO	MARTA		

Research Projects – Competitive Calls

- **Competitive projects**

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: 31/12/2020

Industrial and intellectual property registrations

Industrial property

Title	Reference	Owner	Inventors
Procedimiento mejorado para evaluar el riesgo cardiovascular	P 2009 01923 (2 patents)	FIBHGM	María Concepción Guisasola, Elena Dulín
Control method for a neuroprosthetic device for the reduction of pathological tremors	EP20382416.4	**FIBHGM - CSIC - ICL**	Francisco Grandas, José Luis Pons, Filipe André Oliveira, Alejandro Pascual Valdunciel, Darío Farina

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

Publications *Total Impact Factor:* ***232.0***

	Nº	FI
Own publications	17	60.3
Joint publications	30	171.7
First decile publications	4	88.0
First quartile publications	12	129.3
Second quartile publications	16	60.9

Third quartile publications	14	37.4
Fourth quartile publications	5	4.4
Nonindexed publications / No IF	1	-
Total publications (including those without IF)	**48**	**232.0**

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

- Contador, I; Fernandez-Calvo, B; Rueda-Reve, L; Olazaran, J; Bermejo-Pareja, F. *Characterizing functional alterations in instrumental activities of daily living using latent class analysis: a population-based study (NEDICES)*. AGING & MENTAL HEALTH. 2020; 24(1) 41-48. FI: 3.658. Cuartil: 1. (Article).

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- Martinez-Maldonado, A; Jurado-Barba, R; Sion, A; Dominguez-Centeno, I; Castillo-Parra, G; Prieto-Montalvo, J; Rubio, G. *Brain functional connectivity after cognitive-bias modification and behavioral changes in abstinent alcohol-use disorder patients*. INTERNATIONAL JOURNAL OF PSYCHOPHYSIOLOGY. 2020; 154 46-58. FI: 2.997. Cuartil: 2. (Article).

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AREA 4 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 analysishave 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. T
his 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

4.01. Infectious diseases
4.02. Clinical and epidemiological aspects of HIV and associated conditions

4.01 Infectious diseases and AIDS

Group Director: **Patricia Muñoz García de Paredes**
Organisms involved: **HGUGM**
Consolidated Group

Description of the research group

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 Marañon, 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

Research lines

Axis 1: Cardiovascular infection
- L 1.1. Endocarditis
- L 1.2 Endovascular catheters.

Axis 2: Pneumonia
- L 2.1. Ventilator-associated pneumonia (VAP).
- L 2.2. Severe non–ventilator-associated pneumonia

Axis 3. Infections in immunodepressed patients
- L 3.1. Influenza and its clinical impact.
- L 3.2. BK Virus
- L 3.3. Infections in transplant recipients

Axis 4. Mycobacterial infection
- L 4.1. Clonal complexity of tuberculosis
- L 4.2 Molecular epidemiology of tuberculosis
- L 4.3. Development of new molecular diagnosis techniques
- L 4.4. Characterization of infectivity
- L 4.5. QuantiFERON line.

Axis 5. Bone and joint infection
- L 5.1 Infection of joint prostheses

Axis 6. Invasive nosocomial mycosis
- L 6.1 Optimization of the diagnosis of invasive aspergillosis
- L 6.2 Prevention of nosocomial aspergillosis through control of the quality of room air.
- L 6.3. Treatment of invasive aspergillosis.
- L 6.4 Technological development in the diagnosis of invasive candidiasis.
- L 6.5. Treatment of invasive candidiasis.
- L 6.6. Less common fungal pathogens.
- L 6.7. Antifungal stewardship
- L 6.8. Fungal infection: animal models
- L 6.9. Studies of virulence and biofilm production
- L 6.10 Molecular characterization study.

Axis 7. Patógenos y antimicrobianos e impacto clínico del laboratorio de Microbiología cinica
- L 7.1 Intestinal microbiota in severely ill patients.
- L 7.2. *Clostridium difficile*
- L 7.3 *Staphylococcus aureus*
- L 7.4 Multiresistant gram-negative rods
- L 7.5 Rapid diagnostic techniques in sepsis

Group members

Surname		Name	Euraxess Profile	Role
ABASCAL	SAIZ	ESTEFANIA	R1	First Stage Researcher
ACOSTA	GARCIA	FERMIN	R1	First Stage Researcher

Surname		Name	Euraxess Profile	Role
ADAN	RODRIGUEZ	IVAN		
ADRADOS	RUIZ	DANIEL	R3	Established Researcher
AGNELLI	BENTO	CAROLINE	R1	First Stage Researcher
ALCALÁ	HERNÁNDEZ	LUÍS	R3	Established Researcher
ALONSO	FERNANDEZ	BEATRIZ	R1	First Stage Researcher
ALONSO	FERNANDEZ	ROBERTO	R3	Established Researcher
ALVAREZ	ROMASANTA	BEATRIZ	R2	Recognised Researcher
ÁLVAREZ	VALDIVIESO	JOSÉ MIGUEL		
ALVAREZ-URIA	MIYARES	ANA MARIA	R2	Recognised Researcher
ARROYO	PEDRERO	LUIS ANTONIO	R2	Recognised Researcher
BARRANCO	BENITO	MÓNICA		
BORDALLO	CARDONA	MARIA ANGELES	R1	First Stage Researcher
BOUZA	SANTIAGO	EMILIO	R4	Leading Researcher
BURILLO	ALBIZUA	ALMUDENA	R3	Established Researcher
CABRERO	BALLESTEROS	INMACULADA		
CANDELA	GONZALEZ	ANA	R2	Recognised Researcher
CERCENADO	MANSILLA	EMILIA	R2	Recognised Researcher
COBOS	FERNANDEZ	ALEJANDRO		
DE EGEA	GARABANO	VIVIANA		
DIAZ	PEREZ	NADIRE MARIA	Other	Lab Technician
ESCRIBANO	MARTOS	PILAR	R3	Established Researcher
ESTEVEZ	PRIETO	AGUSTIN	R2	Recognised Researcher
FERNÁNDEZ	REY	ROCIO	Other	Management
GALAR	RECALDE	ALICIA		
GARCIA	MORALES	PAULA	Other	Support Tchnician
GARCÍA DE VIEDMA	DEL ALAMO	DARIO	R3	Established Researcher
GIJON	VIDAURRETA	PALOMA	R3	Established Researcher
GOMEZ	NUÑEZ	ANA	Other	Support Tchnician
GONZALEZ	SAEZ	ADOLFO		
GOYANES	GALAN	MARIA JOSE	R1	First Stage Researcher
GUEMBE	RAMIREZ	MARÍA	R3	Established Researcher
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
JIMENEZ	NAVARRO	LAURA	Other	Lab Technician
KESTLER	HERNANDEZ	MARTHA JEANNETTE	R2	Recognised Researcher
LOSADA	MACHUCA	CARMEN NARCISA	R2	Recognised Researcher
LOZANO	GARCIA	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
MUÑOZ	GARCIA-PAREDES	PATRICIA	R4	Leading Researcher
NAVARRO	GARCIA	YURENA DE LOS ANGELES		
OLMEDO	SAMPERIO	MARIA	R2	Recognised Researcher

Surname		Name	Euraxess Profile	Role
PADILLA	ORTEGA	BELEN	R2	Recognised Researcher
PALOMO	LASTRAS	MARIA	R2	Recognised Researcher
PEREZ	GARCIA	LAURA	R2	Recognised Researcher
PEREZ	GRANDA	MARIA JESUS	Other	Nursing
QUIROGA	MAROTO	LIDIA	Other	Lab Technician
REIGADAS	RAMIREZ	ELENA MANUELA	R2	Recognised Researcher
RINCÓN	SANZ	CRISTINA		
RODRIGUEZ	FERNANDEZ	SARA	Other	Nursing
RODRIGUEZ	MAUS	SANDRA	Other	Support technician
RODRIGUEZ	SANCHEZ	BELEN	R3	Established Researcher
ROJAS	WETTIG	LORETO		
RUIZ	SERRANO	MARÍA JESUS	R2	Recognised Researcher
SANCHEZ	SOMOLINOS	MAR	R2	Recognised Researcher
SERRANO	LOBO	JULIA		
VALERIO	MINERO	MARICELA	R2	Recognised Researcher
VAZQUEZ	CUESTA	SILVIA NOEMI	Other	Lab Technician
VEINTIMILLA	YAÑEZ	MARIA CRISTINA	R2	Recognised Researcher
VILLA	MARTINEZ	SOFIA	R2	Recognised Researcher
VILLAR	GOMARA	LAURA	R1	First Stage Researcher
ZAMORA	CINTAS	MARIA ISABEL	R2	Recognised Researcher

Research Projects – Competitive Calls

- **Competitive projects**

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 GARCIA-PAREDES, PATRICIA
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2020
END DATE: 31/12/2021

TITLE: **Diagnóstico Rápido y herramientas epidemiológicas para controlar la pandemia de COVID19**. COV20/PM-BIS
DIRECTOR: MUÑOZ GARCIA-PAREDES, PATRICIA
PROJECT TYPE: Research project
FUNDING BODY: CONSEJERIA SANIDAD CM
START DATE: 05/10/2020
END DATE: 31/12/2020

TITLE: **A novel transnational strategy to control high-risk tuberculosis transmission events.** AC16/00057
DIRECTOR: GARCÍA DE VIEDMA DEL ALAMO, DARIO
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2017
END DATE: 30/06/2021

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: PEREZ GARCIA, LAURA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2020
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: **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: **Plataforma avanzada para optimizar el diagnóstico y vigilancia epidemiológica de la tuberculosis** PI18/00599
DIRECTOR: GARCÍA DE VIEDMA DEL ALAMO, DARIO
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: RODRIGUEZ SANCHEZ, MARIA BELEN
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2019
END DATE: 31/12/2021

TITLE: **Impacto del uso de 3 apósitos en la prevención de infección de herida quirúrgica en pacientes de Cirugía Cardiaca: /estudio clínico, prospectivo y randomizado** PI18/01741
DIRECTOR: PEREZ GRANDA, MARIA JESUS
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 GARCIA-PAREDES, PATRICIA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Desarrollo de un Biobanco de microbiota intestinal humana para programas de intervención precoz en el control de la Infección por Clostridium difficile (Proyecto BIOMICO)**. PI16/00490
DIRECTOR: REIGADAS RAMIREZ, ELENA MANUELA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE: **Caracterización Genotípica de Cándida como herramienta microbiológica para la discriminación entre cepas invasoras o colonizadoras**. PI16/01012

DIRECTOR: ESCRIBANO MARTOS, PILAR
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE: **Diseño, puesta a punto y evaluación de una plataforma de captura de DNA de Mycobacterium tuberculosis para abordar la secuenciación de genoma completo directamente sobre muestra clínica**. PI16/01449
DIRECTOR: PÉREZ GARCÍA, LAURA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE: **Detección temprana de resistencias a antibióticos y antifúngicos usando espectrometría de masas (MALDI-TOF MS)**. PI15/01073
DIRECTOR: RODRIGUEZ SANCHEZ, BELEN
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2016
END DATE: 30/11/2020

TITLE: **Evaluación multicéntrica de una estrategia innovadora de vigilancia y caracterización avanzada de eventos de transmisión activa de Mycobacterium tuberculosis de especial relevancia)**. PI15/01554
DIRECTOR: GARCÍA DE VIEDMA DEL ALAMO, DARIO
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2016
END DATE: 30/11/2020

TITLE: **Caracterización de un brote de Clostridium difficile del ribotipo hipervirulento 027 mediante técnicas de epidemiología molecular** PI15/02046
DIRECTOR: MARÍN ARRIAZA, MARÍA DE LAS MERCEDES
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE:Research project
START DATE: 01/01/2016
END DATE: 30/11/2020

- **Human Resources**

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 Contract** CP13/00268
DIRECTOR: GUEMBE RAMÍREZ, MARÍA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 01/01/2014
END DATE: 31/12/2020

TITLE: **Miguel Servet Contract** CP14/00220
DIRECTOR: RODRÍGUEZ SÁNCHEZ, BELÉN
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 01/01/2015
END DATE: 29/07/2020

TITLE: **Miguel Servet Contract** CP15/00075
DIRECTOR: PEREZ GARCIA, LAURA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources

START DATE: 01/01/2016
END DATE: 31/12/2020

TITLE: **Miguel Servet Contract** CP15/00115
DIRECTOR: ESCRIBANO MARTOS, PILAR
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 01/01/2016
END DATE: 31/12/2020

TITLE: **Miguel Servet II Contract** CPII19/00002
DIRECTOR: RODRIGUEZ SANCHEZ, MARIA BELEN
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 30/07/2020
END DATE: 31/12/2022

TITLE: **Miguel Servet II Contract** CPII18/00008
DIRECTOR: GUEMBE RAMÍREZ, MARÍA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 31/12/2020
END DATE: 31/12/2022

TITLE: **Río Hortega Contract** CM18/00089
DIRECTOR ALVAREZ-URIA MIYARES, ANA MARIA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 01/01/2019
END DATE: 31/12/2021

TITLE: **Río Hortega Contract** CM17/00131
DIRECTOR: OLMEDO SAMPERIO, MARIA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Young employement contract** . PEJ-2019-TL/BMD-13146
DIRECTOR: GARCÍA DE VIEDMA DEL ALAMO, DARIO
FUNDING BODY: COMUNIDAD AUTONOMA DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/01/2020
END DATE: 31/12/2021

TITLE: **Young employement contract** . PEJ-2019-TL/BMD-15599
DIRECTOR: MARÍN ARRIAZA, MARÍA DE LAS MERCEDES
FUNDING BODY: COMUNIDAD AUTONOMA DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/01/2020
END DATE: 31/12/2021

TITLE: **Young employement 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: 03/03/2021

TITLE: **Young employement contract**: **Postdoctoral contract**. PEJD-2018-POST/BMD-8664
DIRECTOR: GARCÍA DE VIEDMA DEL ALAMO, DARIO
FUNDING BODY: CONSERJERÍA DE EDUCACIÓN Comunidad de Madrid
PROJECT TYPE: Human resources

START DATE: 01/01/2019
END DATE: 31/12/2021

TITLE: **Young employement contract** PEJ2018-004609-A
DIRECTOR: GUINEA ORTEGA, JESÚS VICENTE
FUNDING BODY: MICINN
PROJECT TYPE: Human resources
START DATE: 01/01/2019
END DATE: 31/12/2020

TITLE: **Young employement contract**. PEJ2018-004613-A
DIRECTOR: ESCRIBANO MARTOS, PILAR
FUNDING BODY: MICINN
PROJECT TYPE: Human resources
START DATE: 01/01/2019
END DATE: 31/12/2020

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

Industrial and intellectual property registrations

Industrial property

Title	*Reference**	*Owner*	*Inventors*
Dispositivo para prevenir la neumonía asociada a ventilación mecánica	U201430814	FIBHGM	Juan Francisco del Cañizo. Emilio Bouza. Mª Jesús Pérez
Compuestos radiactivos basados en proteínas selectivas de bacteriemias para la detección no invasiva de focos infecciosos	P 202030838	FIBHGM - UC3M	Beatriz Salinas, Manuel Desco, Patricia Muñoz, Emilio Bouza
Dispositivo aplicador de antifúngico coloreado	P201430751	FIBHGM	Pablo Martín-Rabadán
Portaobjetos	U201430943	FIBHGM	Pablo Martín-Rabadán Caballero

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

Intellectual propierty

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 (IIFs)	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
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
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
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 Rodíguez. Margarita Zvezdanova. Pilar Escribano. Patricia Muñoz
	Transferred Intellectual Property		

Doctoral theses. Bachelor theses and Master theses

Type	*Candidate*	*Title*	*Name/s Director/s*	*University*	*Date Defended*
Ph Thesis	**Fermín Acosta**	Desarrollo de nuevas estrategias de epidemiología molecular y genómica dirigidas a la optimización del control de la transmisión de la tuberculosis en Panamá	Dario García De Viedma Del Alamo	UAH	02/01/2020

Publications *Total Impact Factor: 406.1*

	Nº	FI
Own publications	43	178.8
Joint publications	46	227.3

First decile publications	20	150.1
First quartile publications	45	288.6
Second quartile publications	14	54.7
Third quartile publications	11	31.6
Fourth quartile publications	19	31.2
Nonindexed publications / No IF	6	-
Total publications (including those without IF)	**95**	**406.1**

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

- Acosta, F; Fernandez-Cruz, A; Maus, SR; Sola-Campoy, PJ; Marin, M; Cercenado, E; Sierra, O; Munoz, P; de Viedma, DG; Perez-Lago, L. *In-Depth Study of a Nosocomial Outbreak Caused by Extensively Drug-Resistant Pseudomonas aeruginosa Using Whole Genome Sequencing Coupled With a Polymerase Chain Reaction Targeting Strain-Specific Single Nucleotide Polymorphisms*. AMERICAN JOURNAL OF EPIDEMIOLOGY. 2020; 189(8) 841-849. FI: 4.897. Cuartil: 1. (Article).

- Melgarejo-Ortuno, A; Rodriguez-Gonzalez, CG; Chamorro-de Vega, E; Valerio-Minero, M; Pernia-Lopez, MS; Garcia-Gonzalez, X; Herranz-Alonso, A; Sanjurjo-Saez, M. *Topical Administration of Amphotericin B as an Effective Adjuvant Treatment for a Deep Fungal Infection of Diabetic Foot Injury*. AMERICAN JOURNAL OF THERAPEUTICS. 2020; 27(6) 670-671. FI: 2.688. Cuartil: 3. (Letter).

- Perez-Nadales, E; Gutierrez-Gutierrez, B; Natera, AM; Abdala, E; Magalhaes, MR; Mularoni, A; Monaco, F; Pierrotti, LC; Freire, MP; Iyer, RN; Steinke, SM; Calvi, EG; Tumbarello, M; Falcone, M; Fernandez-Ruiz, M; Costa-Mateo, JM; Rana, MM; Strabelli, TMV; Paul, M; Farinas, MC; Clemente, WT; Roilides, E; Munoz, P; Dewispelaere, L; Loeches, B; Lowman, W; Tan, BH; Escudero-Sanchez, R; Bodro, M; Grossi, PA; Soldani, F; Gunseren, F; Nestorova, N; Pascual, A; Martinez-Martinez, L; Aguado, JM; Rodriguez-Bano, J; Torre-Cisneros, J; Song, ATW; Andraus, W; D'Albuquerque, LAC; David-Neto, E; de Paula, FJ; Rossi, F; Ostrander, D; Avery, R; Rizzi, M; Losito, AR; Raffaelli, F; Del Giacomo, P; Tiseo, G; Lora-Tamayo, J; San-Juan, R; Gracia-Ahufinger, I; Caston, J; Ruiz, YA; Altman, DR; Campos, SV; Bar-Sinai, N; Koppel, F; Almajano, FAD; Rico, CG; Martinez, MF; Mourao, PHO; Neves, FA; Ferreira, J; Pyrpasopoulou, A; Iosifidis, E; Romiopoulos, I; Minero, MV; Sanchez-Carrillo, C; Lardo, S; Coussement, J; Dodemont, M; Jiayun, K; Martin-Davila, P; Fortun, J; Almela, M; Moreno, A; Linares, L; Gasperina, DD; Balsamo, ML; Rovelli, C; Concia, E; Chiesi, S; Salerno, DN; Ogunc, D; Pilmis, B; Seminari, EM; Carratala, J; Dominguez, A; Cordero, E; Lepe, JA; Montejo, M; de Lucas, EM; Eriksson, BM; van Delden, C; Manuel, O; Arslan, H; Tufan, ZK; Kazak, E; David, M; Lease, E; Cornaglia, G; Akova, M; REIPI INCREMENT-SOT Investigators; Swiss Transplant Cohort Study; ESGARS-ESCMID Study Grp Antimicrob. *Predictors of mortality in solid organ transplant recipients with bloodstream infections due to carbapenemase-producing Enterobacterales: The impact of cytomegalovirus disease and lymphopenia*. AMERICAN JOURNAL OF TRANSPLANTATION. 2020; 20(6) 1629-1641. FI: 8.086. Cuartil: 1. (Article).

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- Vinuela, MC; De Leon-Luis, JA; Alonso, R; Catalan, P; Lizarraga, S; Munoz, P; Bouza, E; Gregorio Maranon Obstet Gynecology. *SARS-CoV-2 screening of asymptomatic women admitted for delivery must be performed with a combination of microbiological techniques: an observational study*. REVISTA ESPANOLA DE QUIMIOTERAPIA. 2020; 33(6) 415-421. FI: 1.553. Cuartil: 4. (Article).

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- Aydillo, T; Escalera, A; Strohmeier, S; Aslam, S; Sanchez-Cespedes, J; Ayllon, J; Roca-Oporto, C; Perez-Romero, P; Montejo, M; Gavalda, J; Munoz, P; Lopez-Medrano, F; Carratala, J; Krammer, F; Garcia-Sastre, A; Cordero, E. *Pre-existing Hemagglutinin Stalk Antibodies Correlate with Protection of Lower Respiratory Symptoms in Flu-Infected Transplant Patients*. CELL REPORTS MEDICINE. 2020; 1(8) 100130-100130. (Article).

- Hortal, J. *Consensus document of the Spanish Society of Anaesthesiology and Resuscitation (SEDAR) and the Spanish Society of Cardiovascular and Endovascular Surgery (SECCE) on the use of intraoperative trans-oesophageal echocardiography*. CIRUGIA CARDIOVASCULAR. 2020; 27(5) 173-174. (Editorial Material).

- Garcia, PC; Fuster, RG; Mateo, E; Gamarra, SB; Cantero, ML; Carretero, EG; Maestre, ML; Legname, V; Fita, G; Vives, M; Bernhard, TK; Perez, ES; Bagan, JM; Italiano, S; Darias-Delbey, B; Barrio, JM; Hortal, J; de Ibarra, JIS; Hernandez, A. *Intraoperative transesophageal echocardiography in cardiovascular surgery. Consensus document from the Spanish Society of Anesthesia and Critical Care (SEDAR) and the Spanish Society of Endovascular and Cardiovascular Surgery (SECCE)*. CIRUGIA CARDIOVASCULAR. 2020; 27(5) 190-218. (Review).

- Fernandez-Cruz, A; Ortega, L; Garcia, G; Gallego, I; Alarez-Uria, A; Chamorro-de-Vega, E; Garcia-Lopez, JJ; Gonzalez-del-Val, R; Martin-Rabadan, P; Rodriguez, C; Pedro-Botet, ML; Martin, M; Bouza, E. *Etiology and Prognosis of Pneumonia in Patients with Solid Tumors: A Prospective Cohort of Hospitalized Cases*. ONCOLOGIST. 2020; 25(5) 861-869. (Article).

- Garcia, PC; Fuster, RG; Mateo, E; Gamarra, SB; Cantero, ML; Carretero, EG; Maestre, ML; Legname, V; Fita, G; Vives, M; Bernhard, TK; Perez, ES; Bagan, JM; Italiano, S; Darias-Delbey, B; Barrio, JM; Hortal, J; de Ibarra, JIS; Hernandez, A. *Intraoperative transesophageal echocardiography in cardiovascular surgery. Consensus document from the Spanish Society of Anesthesia and Critical Care (SEDAR) and the Spanish Society of Endovascular and Cardiovascular Surgery (SECCE)*. REVISTA ESPANOLA DE ANESTESIOLOGIA Y REANIMACION. 2020; 67(8) 446-480. (Article).

Other publications

- 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; Pazos C; López-Soria L; Alastruey-Izquierdo A; Muñoz P; Guinea J; ASPEIN study group. *Azole resistance survey on clinical Aspergillus fumigatus isolates in Spain.*. CLINICAL MICROBIOLOGY AND INFECTION. 2020. (Article).

4.02 Clinical and epidemiological aspect of HIV and associated conditions

Group Director: **Juan Berenguer Berenguer**
Organisms involved: **HGUGM**
Consolidated Group

Research lines

Axis 1: VIH

- L 1: Epidemiology and natural history
- L 2: Immunopathogenesis
- L 3: Prevention
- L 4: Antiretroviral treatment
- L 5: Functional cure/eradication
- L 6: Cancer

Axis 2: Viral hepatitis

- L 1: Epidemiology.
- L 2: Treatment.
- L 3: Effects of eradication
- L 4: HBV.
- L 5: Noninvasive markers of liver fibrosis

Group members

Surname		Name	Euraxess Profile	Role
ALDAMIZ-ECHEVARRIA	LOIS	Mª TERESA	R2	Recognised Researcher
BERENGUER	BERENGUER	JUAN	R4	Leading Researcher
DIEZ	ROMERO	CRISTINA	R2	Recognised Researcher
FANCIULLI		CHIARA	R1	First Stage Researcher
GUTIERREZ	CUELLAR	ISABEL	Other	Research Nurse
LÓPEZ	BERNALDO DE QUIROS	JUAN CARLOS	R3	Established Researcher
PARRAS	VAZQUEZ	FRANCISCO	R2	Recognised Researcher
PEREZ	LATORRE	LEIRE	R2	Recognised Researcher
RAMIREZ	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: 24/03/2021

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: 31/12/2020

- **Human Resources**

TITLE: **Juan Rodés contract**. JR17/00018
DIRECTOR: ALDAMIZ-ECHEVARRIA LOIS, Mª TERESA
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 oung employement contract**: **Postdoctoral contract**. CM20/00086
DIRECTOR: FANCIULLO, CHIARA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 27/11/2020
END DATE: 31/12/2022

TITLE: **Río Hortega contract oung employement contract**: **Postdoctoral contract**. CM17/00131
DIRECTOR: OLMEDO SAMPERIO, MARIA
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Human resources
START DATE: 01/01/2018
END DATE: 31/12/2020

Cooperative Research Structures

Type (RETIC. CIBER. others.)	*Name of Network*	*Role*
RETICS	Red Española de Investigación en SIDA (RIS). RD16/0025/0017	Collaborating group

Publications *Total Impact Factor:* ***124.6***

	Nº	FI
Own publications	8	43.9
Joint publications	19	80.8
First decile publications	3	26.2
First quartile publications	14	81.0
Second quartile publications	8	31.8
Third quartile publications	2	6.6
Fourth quartile publications	3	5.2
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	**27**	**124.6**

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

- Brochado-Kith, O; Martinez, I; Berenguer, J; Medrano, LM; Gonzalez-Garcia, J; Garcia-Broncano, P; Jimenez-Sousa, MA; Carrero, A; Hontanon, V; Munoz-Fernandez, MA; Fernandez-Rodriguez, A; Resino, S. *Near normalization of peripheral blood markers in HIV-infected patients on long-term suppressive antiretroviral therapy: a case-control study*. AIDS. 2020; 34(13) 1891-1897. FI: 4.177. Cuartil: 2. (Article).

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- Diez, C; Berenguer, J; Ibanez-Samaniego, L; Llop, E; Perez-Latorre, L; Catalina, MV; Hontanon, V; Jimenez-Sousa, MA; Aldamiz-Echevarria, T; Martinez, J; Calleja, JL; Albillos, A; Bellon, JM; Resino, S; Gonzalez-Garcia, J; Banares, R. *Persistence of Clinically Significant Portal Hypertension After Eradication of Hepatitis C Virus in Patients With Advanced Cirrhosis*. CLINICAL INFECTIOUS DISEASES. 2020; 71(10) 2726-2729. FI: 9.079. Cuartil: 1. (Article).

- Lopez-Centeno, B; Badenes-Olmedo, C; Mataix-Sanjuan, A; McAllister, K; Bellon, JM; Gibbons, S; Balsalobre, P; Perez-Latorre, L; Benedi, J; Marzolini, C; Aranguren-Oyarzabal, A; Khoo, S; Calvo-Alcantara, MJ; Berenguer, J. *Polypharmacy and Drug-Drug Interactions in People Living With Human Immunodeficiency Virus in the Region of Madrid, Spain: A Population-Based Study*. CLINICAL INFECTIOUS DISEASES. 2020; 71(2) 353-362. FI: 9.079. Cuartil: 1. (Article).

- Berenguer, J; Ryan, P; Rodriguez-Bano, J; Jarrin, I; Carratala, J; Pachon, J; Yllescas, M; Arriba, JR; COVID-Spain Study Grp. *Characteristics and predictors of death among 4035 consecutively hospitalized patients with COVID-19 in Spain*. CLINICAL MICROBIOLOGY AND INFECTION. 2020; 26(11) 1525-1536. FI: 8.067. Cuartil: 1. (Article).

- Mate-Cano, I; Alvaro-Meca, A; Ryan, P; Resino, S; Briz, V. *Epidemiological trend of hepatitis C-related liver events in Spain (2000-2015): A nationwide population-based study*. EUROPEAN JOURNAL OF INTERNAL MEDICINE. 2020; 75 84-92. FI: 4.487. Cuartil: 1. (Article).

- Rivero-Juarez, A; Frias, M; Lopez-Lopez, P; Berenguer, J; Garcia, F; Macias, J; Alcaraz, B; Castro-Iglesias, A; Caballero-Gomez, J; Rivero, A; CoRIS Cohort. *Hepatitis E 3ra Genotype Infection in People Living With HIV in Spain*. FRONTIERS IN MICROBIOLOGY. 2020; 11. FI: 5.64. Cuartil: 1. (Article).

- Lopez-Centeno, B; Badenes-Olmedo, C; Mataix-Sanjuan, A; Bellon, JM; Perez-Latorre, L; Lopez, JC; Benedi, J; Khoo, S; Marzolini, C; Calvo-Alcantara, MJ; Berenguer, J. *Potentially inappropriate medications in older adults living with HIV*. HIV MEDICINE. 2020; 21(8) 541-546. FI: 3.18. Cuartil: 3. (Article).

- Vizcarra, P; Blanco, JL; Montejano, R; Negredo, E; Espinosa, N; Casado, JL; Monsalvo, M; Blanco, JL; Bernardino, JI; Puig, J; Montero, M; Castro, I; Mena, A; Castro, A; Palacios, R; de Quiros, JCLB; Tejerina, F; Latorre, LP; Ramirez, M; Vergas, J; Tellez, MJ; Galindo, P; Vilalta, RF; Cabello, A; Deltoro, MG; Cuevas, PR; de Santiago, AD; Moral, SD; BIRDi Study Grp. *Lack of impact of protease inhibitor resistance-associated mutations on the outcome of HIV-1-infected patients switching to darunavir-based dual therapy*. INFECTIOUS DISEASES. 2020; 52(3) 202-206. FI: 3.404. Cuartil: 3. (Article).

- Trickey, A; May, MT; Gill, MJ; Grabar, S; Vehreschild, J; Wit, FWNM; Bonnet, F; Cavassini, M; Abgrall, S; Berenguer, J; Wyen, C; Reiss, P; Grabmeier-Pfistershammer, K; Guest, JL; Shepherd, L; Teira, R; Monforte, AD; del Amo, J; Justice, A; Costagliola, D; Sterne, JAC. *Cause-specific mortality after diagnosis of cancer among HIV-positive patients: A collaborative analysis of cohort studies*. INTERNATIONAL JOURNAL OF CANCER. 2020; 146(11) 3134-3146. FI: 7.396. Cuartil: 1. (Article).

- Casado, JL; Vizcarra, P; Blanco, JL; Montejano, R; Negredo, E; Espinosa, N; Montero, M; Mena, A; Palacios, R; Lopez, JC; Vergas, J; Galindo, MJ; Cabello, A; Deltoro, MG; De Santiago, AD; BIRDi Study Grp. *Maintenance of virologic suppression and improvement in comorbidities after simplification to raltegravir plus boosted darunavir among treatment-experienced HIV-infected patients*. INTERNATIONAL JOURNAL OF STD & AIDS. 2020; 31(5) 467-473. FI: 1.359. Cuartil: 4. (Article).

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- Alvaro-Meca, A; Mate-Cano, I; Ryan, P; Briz, V; Resino, S. *Epidemiological Trend of Sepsis in Patients with Hospital Admissions Related to Hepatitis C in Spain (2000-2015): A Nationwide Study*. JOURNAL OF CLINICAL MEDICINE. 2020; 9(6). FI: 4.241. Cuartil: 1. (Article).

- Hernandez-Walias, FJ; Vazquez, E; Pacheco, Y; Rodriguez-Fernandez, JM; Perez-Elias, MJ; Dronda, F; Casado, JL; Moreno, A; Hermida, JM; Quereda, C; Hernando, A; Tejerina-Picado, F; Asensi, V; Galindo, MJ; Leal, M; Moreno, S; Vallejo, A. *Risk, Diagnostic and Predictor Factors for Classical Hodgkin Lymphoma in HIV-1-Infected Individuals: Role of Plasma Exosome-Derived miR-20a and miR-21*. JOURNAL OF CLINICAL MEDICINE. 2020; 9(3). FI: 4.241. Cuartil: 1. (Article).

- Molina-Carrion, S; Brochado-Kith, S; Gonzalez-Garcia, J; Berenguer, J; Diez, C; Llop, E; Hontanon, V; Ibanez-Samaniego, L; Montes, ML; Resino, S; Fernandez-Rodriguez, A; Jimenez-Sousa, MA. *Telomere Length Increase in HIV/HCV-Coinfected Patients with Cirrhosis after HCV Eradication with Direct-Acting Antivirals*. JOURNAL OF CLINICAL MEDICINE. 2020; 9(8). FI: 4.241. Cuartil: 1. (Article).

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- Garcia-Broncano, P; Medrano, LM; Berenguer, J; Brochado-Kith, O; Gonzalez-Garcia, J; Jimenez-Sousa, A; Quereda, C; Sanz, J; Tellez, MJ; Diaz, L; JImenez, JL; Resino, S; Carrero, A; Miralles, P; Lopez, JC; Parras, F; Padilla, B; Aldamiz-Echevarria, T; Tejerina, F; Diez, C; Perez-Latorre, L; Fanciulli, C; Gutierrez, I; Ramirez, M; Carretero, S; Bellon, JM; Bermejo, J; Berenguer, J; Hontanon, V; Arribas, JR; Montes, ML; Bernardino, I; Pascual, JF; Zamora, F; Pena, JM; Arnalich, F; Diaz, M; Gonzalez-Garcia, J; Domingo, P; Guardiola, JM; Van den Eynde, E; Perez, M; Ribera, E; Crespo, M; Casado, JL; Dronda, F; Moreno, A; Perez-Elias, MJ; Sanfrutos, MA; Moreno, S; Quereda, C; Arranz, A; Casas, E; de Miguel, J; Schroeder, S; Sanz, J; Santos, I; Bustinduy, MJ; Iribarren, JA; Rodriguez-Arrondo, F; Von-Wichmann, MA; Vergas, J; Tellez, MJ; Vinuesa, D; Munoz, L; Hernandez-Quero, J; Ferrer, A; Galindo, MJ; Ortiz, L; Ortega, E; Montero, M; Blanes, M; Cuellar, S; Lacniz, J; Salavert, M; Lopez-Aldeguer, J; Perez, G; Gaspar, G; Yllescas, M; Crespo, P; Aznar, E; Esteban, H; GESIDA 3603b Study Grp. *Mild profile improvement of immune biomarkers in HIV/HCV-coinfected patients who removed hepatitis C after HCV treatment: A prospective study*. JOURNAL OF INFECTION. 2020; 80(1) 99-110. FI: 6.072. Cuartil: 1. (Article).

- Avellon, A; Ala, A; Diaz, A; Domingo, D; Gonzalez, R; Hidalgo, L; Kooner, P; Loganathan, S; Martin, D; McPherson, S; Munoz-Chimeno, M; Ryder, S; Slapak, G; Ryan, P; Valbuena, M; Kennedy, PT. *Clinical performance of Determine HBsAg 2 rapid test for Hepatitis B detection*. JOURNAL OF MEDICAL VIROLOGY. 2020; 92(12) 3403-3411. FI: 2.327. Cuartil: 4. (Article).

- Garcia, M; Lopez-Fernandez, L; Minguez, P; Moron-Lopez, S; Restrepo, C; Navarrete-Munoz, MA; Lopez-Bernaldo, JC; Benguria, A; Garcia, MI; Cabello, A; Fernandez-Guerrero, M; De la Hera, FJ; Estrada, V; Barros, C; Martinez-Picado, J; Gorgolas, M; Benito, JM; Rallon, N. *Transcriptional signature of resting-memory CD4 T cells differentiates spontaneous from treatment-induced HIV control*. JOURNAL OF MOLECULAR MEDICINE-JMM. 2020; 98(8) 1093-1105. FI: 4.599. Cuartil: 2. (Article).

- Carrasco, I; Sainz, T; Frick, MA; de Ory, SJ; Fortuny, C; Burgos, J; Montero, M; Gavilan, C; Falcon, MD; Couceiro, JA; Bernardino, JI; Bisbal, O; Guerrero, C; Aldamiz-Echevarria, MT; Berenguer, J; Navarro, ML; Pediat Natl AIDS Res Network Spain. *Response to direct-acting antivirals for hepatitis C treatment in vertically HIV/HCV co-infected patients*. JOURNAL OF VIRAL HEPATITIS. 2020; 27(9) 955-958. FI: 3.728. Cuartil: 2. (Article).

- Salguero, S; Rojo, D; Berenguer, J; Gonzalez-Garcia, J; Fernandez-Rodriguez, A; Brochado-Kith, O; Diez, C; Hontanon, V; Virseda-Berdices, A; Martinez, J; Ibanez-Samaniego, L; Llop-Herrera, E; Barbas, C; Resino, S; Jimenez-Sousa, MA; Escorial Study Grp. *Plasma metabolomic fingerprint of advanced cirrhosis stages among HIV/HCV-coinfected and HCV-monoinfected patients*. LIVER INTERNATIONAL. 2020; 40(9) 2215-2227. FI: 5.828. Cuartil: 2. (Article).

- Alvarez, S; Branas, F; Sanchez-Conde, M; Moreno, S; de Quiros, JCLB; Munoz-Fernandez, MA. *Frailty, markers of immune activation and oxidative stress in HIV infected elderly*. PLOS ONE. 2020; 15(3). FI: 3.24. Cuartil: 2. (Article).

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AREA 5 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

5.01. Pathophysiology and clinical investigation of chronic infl ammatory 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 Director: **Eduardo Fernández-Cruz Pérez**
Organisms involved: **HGUGM**
Consolidated Group

Description of the research group

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 21 axis related above.

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 polyvalent bacterial immunogens in the prevention of infection. Leader: Eduardo Fernández-Cruz.

L2: Immunotherapy with vaccines and specific hyper-immune immunoglobulins in chronic inflammatory pathologies mediated by immune deregulation and infections. COPD (clinical trial research). Leader: Eduardo Fernández-Cruz.

Axis 2: Immunotherapy

L 1: Immunotherapy with vaccines and specific hyper-immune immunoglobulins in chronic inflammatory diseases mediated by immune dysregulation and influenza A and B virus infections (clinical trial research). Leader: Eduardo Fernández-Cruz.

L 2: Prospective multicenter study with nonblinding of safety, clinical efficacy and the pharmacokinetic properties of normal human immunoglobulin for intravenous administration of BT595 as replacement therapy in patients with primary immunodeficiency (PI). Leader: Eduardo Fernández-Cruz.

L 3 Innovation in treatments with immunotherapy (autovaccines and/or IVIG) in severe hydrodenitis. Leaders: Eduardo Fernández-Cruz Pérez. Cristina Ciudad y Ricardo Suárez Fernández

Axis 3: Transplant immunology

L 1: Immunology of infections and rejection in solid organ transplant: biomarkers of risk. Leader: Javier Carbone Campoverde.

L 2: Study of immunomodulation and reconstitution of the immune response in post-transplant immunodeficiency. Leader: Javier Carbone Campoverde.

L 3: Study of cellular immunity in transplant patients treated with specific immunoglobulins. Leader: Javier Carbone Campoverde.

Axis 4: Reproductive immunology

L 1: HLA-G immunogenetic studies in reproductive failure. Leader: Carmen Rodríguez Sainz

L 2: Study of immunophenotypic markers and immunogenotyping in diseases of the reproductive system. Leader: Juana Gil Herrera

L 3: Cellular and humoral alterations in women with recurrent reproductive failure. Leader: Javier Carbone Campoverde

L 4: Study of the efficacy and safety of low-dose Prednsiona use in reproductive failure. Leader: Javier Carbone Campoverde.

Axis 5: Primary immunodeficiency: pathogenesis. Classification and treatment

L 1: Diagnosis and classification of primary immunodeficiency due to immunological dysregulation. Leader: Juana Gil Herrera.

L 2: Neonatal screening for severe combined immunodeficiency. Leader: Juana Gil Herrera.

L 3: National and international registry of patients with all types of primary immunodeficiency. Leader: Juana Gil Herrera.

L 4: Study of prognostic biomarkers in primary immunodeficiencies. Immunophenotyping studies. Leader: Javier Carbone Campoverde.

Axis 6: Biomarkers

L 1: Study of prognostic biomarkers in patients with recurrent pneumonia. bronchiectasis and tuberculosis. Leader: Javier Carbone Campoverde.

L 2: Immunophenotypic study in the diseases of the reproductive system. Leader: Javier Carbone Campoverde.

Axis 7: Immunology of chronic inflammatory diseases

L 1: Immunophenotyping study of patients with antiphospholipid syndrome. Leader: Javier Carbone Campoverde.

Axis 8: Cell migration in cancer

L 1: Cell migration in cancer. Leaders: Javier Redondo-Muñoz. Paloma Sánchez-Mateos.

Axis 9: Role of macrophages in inflammatory diseases

L 1: Polarization of macrophage transcriptome and phenotype in inflammatory diseases. Leader: Paloma Sánchez-Mateos.

L 2: Molecular bases of the anti-inflammatory effect of methotrexate in macrophages. Biomarkers of response of therapy to methotrexate. Leader: Amaya Puig Kröger

Axis 10: Tumor macrophages in melanoma

L 1: Tumor macrophages in melanoma. Leaders: Dr. Paloma Sánchez-Mateos. Rafael Samaniego García.

Axis 11: Autoimmune bullous diseases

L 1: Treatment of pemphigus vulgaris (PV). Leader: Ricardo Suárez Fernández.

L 2: Bullous pemphigoid: clinical and epidemiological studies. Leader: Ricardo Suárez Fernández.

Axis 12: Atopic dermatitis

Le 1: Adult atopic dermatitis. Innovations in treatment. Leader: Ricardo Suárez Fernández.

Axis 13: Dermatologic surgery

L 1: Mohs surgery in skin cancer. Leaders: Dr. Ciudad. Dr. Barchino.

L 2: Surgical treatment of suppurative hidradenitis. Leaders: Dr. Ciudad. Dr. Barchino.

L 3: Platelet-rich plasma for chronic skin ulcers. Leaders: Dr. Ciudad. Dr. Barchino.

Axis 14: Skin ulcers

L 1: Evaluation of the clinical safety and efficacy of the combination of negative pressure and nanocrystalline silver dressings for the treatment of chronic ulcers. Leader: Luis Carlos Sáez Martín.

Axis 15: Psoriasis

L 1: Modification of the dose of biologics in moderate-severe psoriasis. Leader: Ofelia Baniandrés.

L 2: Innovative treatments. Leader: Ofelia Baniandrés.

Le 3: Study of deficiency of the IL-1 receptor antagonist (DIRA) and deficiency of the IL-36 receptor antagonist (DITRA) in patients with generalized pustular psoriasis. Leader: Ofelia Baniandrés.

L 4: Spanish Registry of Systemic Treatments in Psoriasis (BIOBADADERM). Leader: Ofelia Baniandrés.

Axis 16: Cutaneous oncology

L 1: Intralesional methotrexate for the neoadjuvant treatment of cutaneous squamous cell cancer. Leader: Dr. Bergón.

L 2: Epidemiological and therapeutic control of basal cell carcinoma. Leader: Dr. Bergón.

Axis 17: Immunology. HLA

L 1: Immunology. Leaders: Antonio Arnáiz Villena. José Manuel Martín Villa.

L 2: HLA genetics and pharmacogenetics in humans. Leaders: Antonio Arnáiz Villena. José Manuel Martín Villa.

L 3: Evolution of MHC-G. Immunosuppression. Leaders: Antonio Arnáiz Villena. José Manuel Martín Villa.

L 4: Evolution of MHC in primates and wild birds. Leaders: Antonio Arnáiz Villena. José Manuel Martín Villa.

L 5: Tumor Immunology. Leaders: Antonio Arnáiz Villena. José Manuel Martín Villa

Axis 18: Population genetics

L 1: Population genetics and obesity: Globesity. Leaders: Antonio Arnáiz Villena. José Manuel Martín Villa.

Axis 19: Mucosal immunology

L 1: Mucosal immunology. Leaders: Antonio Arnáiz Villena. José Manuel Martín Villa.

Axis 20: Molecular genetics and tumors

L 1: Molecular genetics and tumors. Leaders: Antonio Arnáiz Villena. José Manuel Martín Villa

Axis 21: Signal transduction.

L 1: Cytoskeletal signal transduction and immune system. Leader: Narcisa Martínez Quiles.

Group members

Surname		*Name*	*Euraxess Profile*	*Role*
ALARCON	ESCUDERO	ALBA	R1	First Stage Researcher
ARNAIZ	VILLENA	ANTONIO	R3	Established Researcher
AVILÉS	IZQUIERDO	JOSE ANTONIO	R1	First Stage Researcher
BANIANDRES	RODRIGUEZ	OFELIA	R1	First Stage Researcher
BARCHINO	ORTIZ	LUCIA	R1	First Stage Researcher
BARRIO	ALONSO	CELIA	R1	First Stage Researcher
BERGON	SENDIN	MARTA	R1	First Stage Researcher
CARBONE	CAMPOVERDE	JAVIER ALBERTO	R3	Established Researcher
CIUDAD	BLANCO	CRISTINA	R1	First Stage Researcher
EGIDO	BALZATEGUI	JOSE	Other	Lab Technician
ESTECHA	PALOMERO	ANA	R2	Recognised Researcher

Surname		Name	Euraxess Profile	Role
EZZAHOURI		IKRAM	R1	First Stage Researcher
FERNÁNDEZ-CRUZ	PÉREZ	EDUARDO	R4	Leading Researcher
FUENTELSAZ	ROMERO	SARA	R1	First Stage Researcher
GARCIA	JIMENEZ	SANDRA	Other	Lab Technician
GIL	HERRERA	JUANA	R3	Established Researcher
GORROÑO	ECHEVARRÍA	MARINA BEGOÑA	R2	Recognised Researcher
GUTIERREZ	SEIJO	ALBA	R1	First Stage Researcher
GUTIÉRREZ	CALVO	ALBERTO	R2	Recognised Researcher
JIMENEZ	MORA	NATALIA	Other	Lab Technician
JUÁREZ	MARTÍN-DELGADO	IGNACIO	R1	First Stage Researcher
LIMAY	CARRE	KRISTOFER	Other	Lab Technician
LOPEZ	NARES	ADRIAN	R1	First Stage Researcher
LORENTE-SOROLLA	MARTINEZ-ACITORES	CLARA	R2	Recognised Researcher
MARTÍN	VILLA	JOSÉ MANUEL	R3	Established Researcher
MARTINEZ	QUILES	NARCISA	R3	Established Researcher
MOLINA	ALEJANDRE	MARTA	R1	First Stage Researcher
MONTANCHEZ	MATEO	JUDITH	Other	Lab Technician
MUÑIZ	SANCHEZ	ESTHER	R2	Recognised Researcher
NAVARRO	CASPISTEGUI	JOAQUÍN	R2	Recognised Researcher
PALACIO	GRUBER	JOSE	R2	Recognised Researcher
PEREZ	GARCIA	YAIZA	R1	First Stage Researcher
PUIG	KRÖGER	AMAYA ROCIO	R3	Established Researcher
PULIDO	PEREZ	ANA	R1	First Stage Researcher
RAMOS	RUIZ	RICARDO	R1	First Stage Researcher
RODRÍGUEZ	MOLINA	JUAN JOSÉ	Other	Management
RODRÍGUEZ	SAINZ	CARMEN	R2	Recognised Researcher
SAMANIEGO	GARCÍA	RAFAEL	R2	Recognised Researcher
SÁNCHEZ-MATEOS	RUBIO	PALOMA	R3	Established Researcher
SARMIENTO	MARCHESE	ELIZABETH ANGÉLICA	R2	Recognised Researcher
SOLER	PALACIOS	BLANCA	R2	Recognised Researcher
SUAREZ	FERNÁNDEZ	RICARDO	R3	First Stage Researcher
SUAREZ	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	GOMEZ	JULIA	Other	Nursing

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: **Mechanisms underlying methotrexate-induced trained innate immunity** PI20/00316
DIRECTOR: PUIG KRÖGER, AMAYA ROCIO
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Research project
START DATE: 01/01/2021
END DATE:31/12/202

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 ROCIO
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
PROJECT TYPE: Research project
START DATE: 01/01/2018
END DATE:31/12/2020

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:31/12/2020

* **Not managed by the FIBHGM**

TITLE: **Nuevo mecanismo inhibidor de la polimerización de actina.** SAF 2017-82967-R
DIRECTOR: MARTINEZ QUILÉS, NARCISA
FUNDING BODY: MICINN
PROJECT TYPE: Research project
START DATE: 01/01/2018
END DATE:31/12/2020

TITLE: **HLA-G: cáncer gástrico y su evolución** PI18/00626
DIRECTOR: MARTÍN VILLA, JOSE 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

- **Human Resources**

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 employement contract: Predoctoral**. PEJD-2019PR-PRE/BMD-20190
DIRECTOR: SAMANIEGO GARCÍA, RAFAEL
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/01/2020
END DATE: 31/12/2021

TITLE: **Young employement contract: Predoctoral**. PEJD-2018-PRE/BMD-8241A
DIRECTOR: SAMANIEGO GARCÍA, RAFAEL
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/01/2019
END DATE: 31/12/2020

TITLE: **Young employement contract: Technical researcher**. PEJ-2017-TL/BMD-6471
DIRECTOR: EGIDO BALZATEGUI, JOSÉ
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/01/2018
END DATE: 28/02/2020

TITLE: **Young employement contract: Technical researcher**. PEJ-2017-TL/BMD-7299
DIRECTOR: SÁNCHEZ-MATEOS RUBIO, PALOMA
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/01/2018
END DATE: 11/03/2020

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; Gudiol, C; Len-Abad, O; Lopez-Medrano, F; Moreno-Perez, D; Munoz, P; Olbrich, P; Sanchez-Ramon, S; Soler-Palacin, P; Cros, CA;	**Executive Summary of the Consensus Document on the Diagnosis and Management of Patients with Primary Immunodeficiencies**	nferm Infecc Microbiol Clin (Engl Ed) . 2020 Nov;38(9):438-443. doi: 10.1016/j.eimc.2020.07.00

Authors	Title	Journal / Reference
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		
Cordero, E; Goycochea-Valdivia, W; Mendez-Echevarria, A; Allende, LM; Alsina, L; Garcia-Morato, MB; Gil-Herrera, J; Gudiol, 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**	J Allergy Clin Immunol Pract. Nov-Dec 2020;8(10):3342-3347. doi: 10.1016/j.jaip.2020.05.008.

Publications *Total Impact Factor: 272.7*

	Nº	FI
Own publications	18	166.3
Joint publications	18	106.4
First decile publications	9	160.5
First quartile publications	16	205.0
Second quartile publications	8	36.0
Third quartile publications	10	28.3
Fourth quartile publications	2	3.5
Nonindexed publications / No IF	6	-
Total publications (including those without IF)	**42**	**272.7**

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

- Perez-Granda, MJ; Alonso, B; Zavala, R; Latorre, MC; Hortal, J; Samaniego, R; Bouza, E; Munoz, P; Guembe, M. *Selective digestive decontamination solution used as "lock therapy" prevents and eradicates bacterial biofilm in an in vitro bench-top model*. ANNALS OF CLINICAL MICROBIOLOGY AND ANTIMICROBIALS. 2020; 19(1). FI: 3.944. Cuartil: 2. (Article).
- Casas, CG; Catala, A; Hernandez, GC; Rodriguez-Jimenez, P; Fernandez-Nieto, D; Lario, ARV; Fernandez, IN; Ruiz-Villaverde, R; Falkenhain-Lopez, D; Velasco, ML; Garcia-Gavin, J; Baniandres, O; Gonzalez-Cruz, C; Morillas-Lahuerta, V; Cubiro, X; Nart, IF; Selda-Enriquez, G; Romani, J; Fusta-Novell, X; Melian-Olivera, A; Riesco, MR; Burgos-Blasco, P; Ortigosa, JS; Rodriguez, MF; Garcia-Doval, I. *Classification of the cutaneous manifestations of COVID-19: a rapid prospective nationwide consensus study in Spain with 375 cases*. BRITISH JOURNAL OF DERMATOLOGY. 2020; 183(1) 71-77. FI: 9.302. Cuartil: 1. (Article).
- Samaniego, R; Dominguez-Soto, A; Ratnam, M; Matsuyama, T; Sanchez-Mateos, P; Corbi, AL; Puig-Kroger, A. *Folate Receptor beta (FR beta) Expression in Tissue-Resident and Tumor-Associated Macrophages Associates with and Depends on the Expression of PU.1*. CELLS. 2020; 9(6). FI: 6.6. Cuartil: 2. (Article).
- Caparros, E; Juanola, O; Gomez-Hurtado, I; Puig-Kroger, A; Pinero, P; Zapater, P; Linares, R; Tarin, F; Martinez-Lopez, S; Gracia-Sancho, J; Gonzalez-Navajas, JM; Frances, R. *Liver Sinusoidal Endothelial Cells Contribute to Hepatic Antigen-Presenting Cell Function and Th17 Expansion in Cirrhosis*. CELLS. 2020; 9(5). FI: 6.6. Cuartil: 2. (Article).
- Izquierdo, JAA; Lopez, IM; Morillo, PS; Rodas, IM; Cidoncha, EM. *Utility of PET/CT in patients with stage I-III melanoma*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2020; 22(8) 1414-1417. FI: 3.405. Cuartil: 3. (Article).
- Aviles-Izquierdo, JA; Nieto-Benito, LM; Lazaro-Ochaita, P; Escat-Cortes, JL; Marquez-Rodas, I; Mercader-Cidoncha, E. *Prognostic significance of sentinel node biopsy status in cutaneous melanoma: a 21-years prospective study from a single institution*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2020; 22(9) 1611-1618. FI: 3.405. Cuartil: 3. (Article).

- Nieto-Benito, LM; Baniandres-Rodriguez, O. *New-Onset Vitiligo During Treatment with Secukinumab: Report of Two Cases and Review of the Literature*. CLINICAL DRUG INVESTIGATION. 2020; 40(11) 1089-1091. FI: 2.859. Cuartil: 3. (Letter).

- Birkenfeld, JS; Tucker-Schwartz, JM; Soenksen, LR; Aviles-Izquierdo, JA; Marti-Fuster, B. *Computer-aided classification of suspicious pigmented lesions using wide-field images*. COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE. 2020; 195. FI: 5.428. Cuartil: 1. (Article).

- Bergon-Sendin, M; Pulido-Perez, A; Carretero López F; Diez-Sebastian, J; Suarez-Fernandez, R. *Cutaneous Ultrasound for Tumor Thickness Measurement in Squamous Cell Carcinoma: The Effect of Neoadjuvant Intralesional Methotrexate in 40 Patients*. DERMATOLOGIC SURGERY. 2020; 46(4) 530-536. FI: 3.398. Cuartil: 2. (Article).

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- Ruiz-Genao, DP; Carretero, G; Rivera, R; Ferrandiz, C; Dauden, E; de la Cueva, P; Belinchon, I; Gomez-Garcia, FJ; Herrera-Acosta, E; Lopez-Estebaranz, JL; Ferran-Farres, M; Alsina, M; Baniandres-Rodriguez, O; Sanchez-Carazo, JL; Sahuquillo-Torralba, A; Rodriguez, L; Vilar-Alejo, J; Garcia-Donoso, C; Carrascosa, JM; Llamas-Velasco, M; Herrera-Ceballos, E; Botella-Estrada, R; Descalzo, MA; Garcia-Doval, I; Grp BIOBADADERM. *Changing Trends in Drug Prescription and Causes of Treatment Discontinuation of First Biologic Over Ten Years in Psoriasis in the Spanish Biobadaderm Registry*. ACTAS DERMO-SIFILIOGRAFICAS. 2020; 111(9) 752-760. (Article).
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5.02 Molecular biology of HIV

Group Director: **Mª Ángeles Muñoz Fernández**
Organisms involved: **HGUGM**
Consolidated group

Description of the research group

Dr. Mª 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 Rodriguez 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.

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
L4: Role of *env* genes in 'elite controllers' and their implications for vaccine design.
L5: HIV-1 and aging

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.

Group members

Surname		*Name*	*Euraxess Profile*	*Role*
AGUILERA	ALONSO	DAVID	R1	First Stage Researcher
ALMALÉ	ASO	Mª ÁNGELES	Other	Lab Technician
CONSUEGRA	FERNANDEZ	IRENE	Other	Biobank manager
ESPINAR	BUITRAGO	MARÍA DE LA SIERRA	R1	First Stage Researcher
GALLEGO	DE LA FUENTE	JORGE LUIS	Other	Lab Technician
GARCIA	ALONSO	DOLORES	Other	Lab Technician
GASCO	CAVERO	SAMANTA	R2	Recognised Researcher
GOMEZ	RICO	CORAL	Other	Lab Technician
JIMENEZ	FUENTES	JOSE LUIS	R3	Established Researcher
LÓPEZ-FRANCOS	SANZ	LUCÍA	Other	Lab Technician
MARTIN	MORENO	ALBA	R2	Recognised Researcher
MAULEON	AZPILICUETA	ELBA	R2	Recognised Researcher
MUÑOZ	FERNANDEZ	Mª ANGELES	R4	Leading Researcher
RODRÍGUEZ	IZQUIERDO	IGNACIO	R1	First Stage Researcher
RODRÍGUEZ	RELAÑO	IGNACIO	R1	First Stage Researcher
ROYO	RUBIO	ELENA	R1	First Stage Researcher
SERRAMÍA	LOBERA	Mª JESÚS	Other	Lab Technician
TARANCON	DIEZ	LAURA	R2	Recognised Researcher
VÁZQUEZ	ALEJO	ELENA	R1	First Stage Researcher

Research Projects – Competitive Calls

- **Competitive projects**

TITLE: **EUROPARTNER. Strengthening and spreading international partnership activities of the Faculty of Biology and Environmental Protection for interdisciplinary research and innovation of the University of Lodz**. NAWA IAP.EUROPARTNER
DIRECTOR: Maria Bryszewska
COLABORATOR: MUÑOZ FERNANDEZ, Mª ANGELES
PROJECT TYPE: European research project of excellence
FUNDING BODY: COST (European Cooperation in Science and Technology).
START DATE: 01/01/2019
END DATE: 31/12/2020

TITLE: **Early treated Perinatally HIV infected individuals: Improving Children's Actual Life (EPPICAL).** EPIICAL Project
DIRECTOR: MUÑOZ FERNANDEZ, Mª ANGELES
PROJECT TYPE: International research project
FUNDING BODY: EPIICAL PENTA Foundation Project ViiV
START DATE: 01/01/2016

END DATE: 31/12/2020

TITLE: **Aspectos clínicos e inmunovirológicos 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.** PI19/01638
DIRECTOR: MUÑOZ FERNANDEZ, Mª ANGELES
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: JIMENEZ FUENTES, JOSE LUIS
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
END DATE: 31/12/2020

- **Human Resources**

TITLE: **RIO 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: 31/12/2020

TITLE: **Young employement contract: Research assistant**. PEJD-2019-PRE/IND-16567
DIRECTOR: JIMENEZ FUENTES, JOSE LUIS
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/02/2020
END DATE: 31/01/2021

TITLE: **Young employement contract:Laboratory Technician.** PEJ-2018-TL/BMD-11529
DIRECTOR: JIMENEZ FUENTES, JOSE LUIS
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/03/2019
END DATE: 01/03/2021

TITLE: **Young employement contract: Research assistant**. PEJ-2017-AI/BMD-7446
DIRECTOR: MUÑOZ FERNANDEZ, Mª ANGELES
FUNDING BODY: CONSEJERIA EDUCACION CULTURA Y DEPORTE DE LA COMUNIDAD DE MADRID
PROJECT TYPE: Human resources
START DATE: 01/03/2019
END DATE: 31/12/2020

Cooperative Research Structures

Type (RETIC. CIBER. others.))	*Name of Network*	*Role*
RETICS	RETIC-RIS - Red de Investigación en SIDA	Coordinating 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

Industrial and intellectual property registrations

Industrial property

Title	Reference*	Owner	Inventors
Nanopartículas metálicas estabilizadas con dendrones carbosilano y sus usos	P 2015 00669 (2 patents)	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 . Mª Ángeles Muñoz. José Luis Jiménez. Pilar García
Dendrones carbosilano funcionalizados con ácidos grasos: formación de micelas y usos	P 2016 00726	Universidad de Alcalá de Henares - FIBHGM	Mª 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
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. Mª Ángeles Muñoz-Fernández. Verónica Briz. Mª Jesús Serramia. Conchita Tros
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. Mª Ángeles Muñoz-Fernández. Louis Chonco. Mª Jesús Serramia
Dendrímeros carbosilanos y su uso como antivirales	P 20103 0233 (8 patents family)	Universidad de Alcalá de Henares - HGUGM	Francisco Javier de la Mata. Rafael Gómez. Mª Ángeles Muñoz-Fernández. Javier Sánchez-Nieves. Beatriz Rasines. Louis Chonco. Eduardo Arnaiz. Mª Jesús Serramia
Compuestos dendríticos carbosilanos homo y hetero-funcionalizados	P 2012 31187 (2 patents)	Universidad de Alcalá de Henares - FIBHGM	Francisco Javier de la Mata. Rafael Gómez. Mª Ángeles Muñoz-Fernández. Javier Sánchez-Nieves. José Luis Jiménez. Silvia Fernández. Marta Galán. Raquel Lorente. Elena Fuentes. Javier Sánchez. Cornelia Peña. Mª Jesús Serramía. Rosa Reguera

Transferred patents

*** *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	**Santiago Jiménez de Ory**	Evolución de la epidemia de la infección por el VIH pediátrico en España, a partir de los datos de la cohorte de la red española de VIH en pediatría (corispe)	Mª Ángeles Muñoz Fernández & Mª Luisa Navarro Gómez	UAM	23/01/2020
Ph Thesis	**Alba Martín Moreno**	Nanotechnology against HIV-1: safety and biodistribution of prophylactic microbicides and use of nanoparticles as transfectants for a dendritic cell-based therapeutic vaccine	Mª Ángeles Muñoz Fernández	UAM	14/02/2020

Publications *Total Impact Factor:* ***123.4***

	Nº	FI
Own publications	13	63.4
Joint publications	12	60.0
First decile publications	0	-
First quartile publications	15	84.2
Second quartile publications	10	39.2
Third quartile publications	0	0.0
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	**25**	**123.4**

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

- Vitalle, J; Tarancon-Diez, L; Jimenez-Leon, MR; Terren, I; Orrantia, A; Roca-Oporto, C; Lopez-Cortes, L; Ruiz-Mateos, E; Zenarruzabeitia, O; Borrego, F. *CD300a identifies a CD4(+)memory T cell subset with a higher susceptibility to HIV-1 infection*. AIDS. 2020; 34(8) 1249-1252. FI: 4.177. Cuartil: 2. (Letter).
- Brochado-Kith, O; Martinez, I; Berenguer, J; Medrano, LM; Gonzalez-Garcia, J; Garcia-Broncano, P; Jimenez-Sousa, MA; Carrero, A; Hontanon, V; Munoz-Fernandez, MA; Fernandez-Rodriguez, A; Resino, S. *Near normalization of peripheral blood markers in HIV-infected patients on long-term suppressive antiretroviral therapy: a case-control study*. AIDS. 2020; 34(13) 1891-1897. FI: 4.177. Cuartil: 2. (Article).
- Aguilera-Alonso, D; Escosa-Garcia, L; Saavedra-Lozano, J; Cercenado, E; Baquero-Artigao, F. *Carbapenem-Resistant Gram-Negative Bacterial Infections in Children*. ANTIMICROBIAL AGENTS AND CHEMOTHERAPY. 2020; 64(3). FI: 5.191. Cuartil: 1. (Review).
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- Mignani, S; Shi, XY; Rodrigues, J; Roy, R; Munoz-Fernandez, A; Cena, V; Majoral, JP. *Dendrimers toward Translational Nanotherapeutics: Concise Key Step Analysis*. BIOCONJUGATE CHEMISTRY. 2020; 31(9) 2060-2071. FI: 4.774. Cuartil: 1. (Review).
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- Garcia-Broncano, P; Medrano, LM; Berenguer, J; Brochado-Kith, O; Gonzalez-Garcia, J; Jimenez-Sousa, A; Quereda, C; Sanz, J; Tellez, MJ; Diaz, L; JImenez, JL; Resino, S; Carrero, A; Miralles, P; Lopez, JC; Parras, F; Padilla, B; Aldamiz-Echevarria, T; Tejerina, F; Diez, C; Perez-Latorre, L; Fanciulli, C; Gutierrez, I; Ramirez, M; Carretero, S; Bellon, JM; Bermejo, J; Berenguer, J; Hontanon, V; Arribas, JR; Montes, ML; Bernardino, I; Pascual, JF; Zamora, F; Pena, JM; Arnalich, F; Diaz, M; Gonzalez-Garcia, J; Domingo, P; Guardiola, JM; Van den Eynde, E; Perez, M; Ribera, E; Crespo, M; Casado, JL; Dronda, F; Moreno, A; Perez-Elias, MJ; Sanfrutos, MA; Moreno, S; Quereda, C; Arranz, A; Casas, E; de Miguel, J; Schroeder, S; Sanz, J; Santos, I; Bustinduy, MJ; Iribarren, JA; Rodriguez-Arrondo, F; Von-Wichmann, MA; Vergas, J; Tellez, MJ; Vinuesa, D; Munoz, L; Hernandez-Quero, J; Ferrer, A; Galindo, MJ; Ortiz, L; Ortega, E; Montero, M; Blanes, M; Cuellar, S; Lacniz, J; Salavert, M; Lopez-Aldeguer, J; Perez, G; Gaspar, G; Yllescas, M; Crespo, P; Aznar, E; Esteban, H; GESIDA 3603b Study Grp. *Mild profile improvement of immune biomarkers in HIV/HCV-coinfected patients who removed hepatitis C after HCV treatment: A prospective study*. JOURNAL OF INFECTION. 2020; 80(1) 99-110. FI: 6.072. Cuartil: 1. (Article).

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5.03 Autoinmune systemic diseases

Group Director: **José María Álvaro Gracia Álvaro**
Organisms involved: **HGUGM**
Consolidated Group

Description of the research group

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

Research lines

Axis1. **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

Group members

Surname		Name	Euraxess Profile	Role
ÁLVARO-GRACIA	ÁLVARO	JOSÉ MARÍA	R4	Leading Researcher
CASTREJON	FERNANDEZ	ISABEL	R3	Established Researcher
DEL RIO	BLASCO	TAMARA	R1	First Stage Researcher
GONZÁLEZ	FERNÁNDEZ	CARLOS MANUEL	R3	Established Researcher
GONZALEZ	HERNANDEZ	TERESA	R1	First Stage Researcher
LÓPEZ	LONGO	FRANCISCO JAVIER		
MOLINA	COLLADA	JUAN	R1	First Stage Researcher
MARTINEZ	BARRIO	JULIA	R2	Recognised Researcher
MONTEAGUDO	SAEZ	INDALECIO	R4	Leading Researcher
NIETO	GONZALEZ	JUAN CARLOS	R2	

Surname		Name	Euraxess Profile	Role
RIVERA	REDONDO	FRANCISCO JAVIER	R2	Recognised Researcher
SERRANO	BENAVENTE	BELEN	R1	First Stage Researcher

Research Projects – Competitive Calls

- **Competitive projects**

TITLE: **Susceptibilidad y agresividad de la infección por SARS-CoV-2 en enfermedades reumáticas inmunomediadas.**
COV20/01311-BIS
DIRECTOR: ALVARO-GRACIA ALVARO, JOSE MARIA
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

Intellectual propierty

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 (IIF "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

Clinical Practice Guidelines

Authors	Title	Journal / Reference
Alejandro Balsa Criado. Petra Díaz del Campo Fontecha. Jose María Álvaro-Gracia Álvaro. José Luis Andreu Sánchez. Francisco Javier Blanco García. Laura Cano García. Esmeralda Delgado Frías. José Federico Díaz González. Ana Mª Fernández Ortiz. Blanca García Magallón. Luis Gómez Carrera. Carlos González Juanatey. M. Vanesa Hernández Hernández. Antonio Juan Mas. Francisco Javier Narváez García. Ana Ortiz García. Lucía Silva Fernández. Alejandro Tejedor Varillas	**Guía de Práctica Clínica para el Manejo de Pacientes con Artritis Reumatoide**	Guía en formato electrónico y papel

Publications

Total Impact Factor: ***223.3***

	Nº	FI
Own publications	4	28.2
Joint publications	21	195.1
First decile publications	4	136.6

First quartile publications	8	158.4
Second quartile publications	11	49.6
Third quartile publications	2	5.8
Fourth quartile publications	4	9.6
Nonindexed publications / No IF	8	-
Total publications (including those without IF)	**33**	**223.3**

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

- Sanchez-Piedra, C; Diaz-Torne, C; Manero, J; Pego-Reigosa, JM; Rua-Figueroa, I; Gonzalez-Gay, MA; Gomez-Reino, J; Alvaro-Gracia, JM; BIOBADASER Study Grp. *Clinical features and outcomes of COVID-19 in patients with rheumatic diseases treated with biological and synthetic targeted therapies*. ANNALS OF THE RHEUMATIC DISEASES. 2020; 79(7) 988-990. FI: 19.103. Cuartil: 1. (Letter).

- Pablos, JL; Abasolo, L; Alvaro-Gracia, JM; Blanco, FJ; Blanco, R; Castrejon, I; Fernandez-Fernandez, D; Fernandez-Gutierrez, B; Galindo-Izquierdo, M; Gonzalez-Gay, MA; Manrique-Arija, S; Vazquez, NM; Varela, AM; Retuerto, M; Seijas-Lopez, A; RIER Investigators Grp. *Prevalence of hospital PCR-confirmed COVID-19 cases in patients with chronic inflammatory and autoimmune rheumatic diseases*. ANNALS OF THE RHEUMATIC DISEASES. 2020; 79(9) 1170-1173. FI: 19.103. Cuartil: 1. (Article).

- Pablos, JL; Galindo, M; Carmona, L; Lled, A; Retuerto, M; Blanco, R; Gonzalez-Gay, MA; Martinez-Lopez, D; Castrejon, I; Alvaro-Gracia, JM; Fernandez, DF; Mera-Varela, A; Manrique-Arija, S; Vazquez, NM; Fernandez-Nebro, A; RIER Investigators Grp. *Clinical outcomes of hospitalised patients with COVID-19 and chronic inflammatory and autoimmune rheumatic diseases: a multicentric matched cohort study*. ANNALS OF THE RHEUMATIC DISEASES. 2020; 79(12) 1544-1549. FI: 19.103. Cuartil: 1. (Article).

- Windschall, D; Collado, P; Vojinovic, J; Magni-Manzoni, S; Balint, P; Bruyn, GAW; Hernandez-Diaz, C; Nieto, JC; Ravagnani, V; Tzaribachev, N; Iagnocco, A; D'Agostino, MA; Naredo, E; Outcome Measures Rheumatology. *Age-Related Vascularization and Ossification of Joints in Children: An International Pilot Study to Test Multiobserver Ultrasound Reliability*. ARTHRITIS CARE & RESEARCH. 2020; 72(4) 498-506. FI: 4.794. Cuartil: 2. (Article).

- Cobo-Ibanez, T; Urruticoechea-Arana, A; R?a-Figueroa, I; Mart?n-Mart?nez, MA; Ovalles-Bonilla, JG; Galindo, M; Calvo-Alen, J; Olive, A; Fern?ndez-Nebro, A; Menor-Almagro, R; Tomero, E; Horcada, L; Uriarte-Itzazelaia, E; Mart?nez-Taboada, VM; Andreu, JL; Boteanu, A; Narv?ez, J; Bohorquez, C; Montilla, C; Santos, G; Hern?ndez-Cruz, B; Vela, P; Salgado, E; Freire, M; Hern?ndez-Beriain, JA; D?ez-Alvarez, E; Exp?sito, L; Fern?ndez-Berrizbeitia, O; Velloso-Feijoo, ML; Ib??ez-Barcel?, M; Lozano-Rivas, N; Bonilla, G; Moreno, M; Raya, E; Quevedo-Vila, VE; V?zquez-Rodr?guez, TR; Ib??ez-Ruan, J; Mu?oz-Fern?ndez, S; S?nchez-Alonso, F; Pego-Reigosa, JM. *Hormonal Dependence and Cancer in Systemic Lupus Erythematosus*. ARTHRITIS CARE & RESEARCH. 2020; 72(2) 216-224. FI: 4.794. Cuartil: 2. (Article).

- Fernández-Carballido C; Martín-Martínez MA; García-Gómez C; Castañeda S; González-Juanatey C; Sánchez-Alonso F; de Vicuña RG; Erausquin-Arruabarrena C; López-Longo J; Sánchez MD; Corrales A; Quesada-Masachs E; Chamizo E; Barbadillo C; Bachiller-Corral J; Cobo-Ibañez T; Turrión A; Giner E; Llorca J; González-Gay MA; CARMA Project Collaborative Group. *Impact of Comorbidity on Physical Function in Patients with Ankylosing Spondylitis and Psoriatic Arthritis Attending Rheumatology Clinics. Results from the CARdiovascular in rheuMAtology (CARMA) study.*. ARTHRITIS CARE & RESEARCH. 2020; 72(6) 822-828. FI: 4.794. Cuartil: 2. (Article).

- Hammenfors, DS; Valim, V; Bica, BER; Pasoto, SG; Lilleby, V; Nieto-Gonzalez, JC; Silva, CA; Mossel, E; Pereira, RMR; Coelho, A; Bootsma, H; Thatayatikom, A; Brun, JG; Jonsson, MV. *Juvenile Sjogren's Syndrome: Clinical Characteristics With Focus on Salivary Gland Ultrasonography*. ARTHRITIS CARE & RESEARCH. 2020; 72(1) 78-87. FI: 4.794. Cuartil: 2. (Article).

- Arora, S; Isenberg, DA; Castrejon, I. *Measures of Adult Systemic Lupus Erythematosus: Disease Activity and Damage*. ARTHRITIS CARE & RESEARCH. 2020; 72 27-46. FI: 4.794. Cuartil: 2. (Article).

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5.05 Pathogenesis of the immunoallergic response

Group Director: **José Manuel Zubeldia Ortuño**
Organisms involved: **HGUGM**
Emerging group

Research lines

Axis 1: Basic and experimental allergology
- Line 1: Mechanisms of the allergic response and their regulation.
- Line 2: Transgenesis and phenotyping.
- Line 3: Hyperoxia-induced disease.
- Line 4: Allergenic characterization of noncommercial allergens.

Axis 2: Uncommon allergic diseases
- Line 1: Difficult-to-control asthma.
- Line 2: Hereditary angioedema.
- Line 3: Eosinophilic esophagitis.
- Line 4: Activation of mastocytes.

Axis 3: Pediatric allergy
- Line 1: Oral immunotherapy with foods.
- Line 2: Gastrointestinal allergy.
- Line 3: Anaphylaxis in children.
- Line 4: Use of social networks in food-allergic children.

Group members

Surname		Name	Euraxess Profile	Role
ALVAREZ	PEREA	ALBERTO	R3	Established Researcher
BAEZA	OCHOA DE OCÁRIZ	MARÍA LUÍSA	R3	Established Researcher
CABRERA	FREITAG	PAULA	R3	Established Researcher
FUENTES	APARICIO	VICTORIA	R1	First Stage Researcher
INFANTE	HERRERO	SONSOLES	R1	First Stage Researcher
JAQUETI	MORENO	Mª PALOMA		
MORALES	CABEZA	CRISTINA	R1	First Stage Researcher
PRIETO	GARCÍA	ALICIA	R3	Established Researcher
ROJAS	PEREZ EZQUERRA	PATRICIA EUGENIA	R1	First Stage Researcher
TORNERO	MOLINA	PILAR	R1	First Stage Researcher
ZAPATERO	REMÓN	LIDIA	R4	Leading Researcher
ZUBELDIA	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: **91.3**

	Nº	FI
Own publications	6	28.5
Joint publications	8	62.8

First decile publications	3	30.6
First quartile publications	8	72.4
Second quartile publications	4	17.3
Third quartile publications	0	0.0
Fourth quartile publications	2	1.6
Nonindexed publications / No IF	1	-
Total publications (including those without IF)	**15**	**91.3**

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

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- Cabrera-Freitag, P; Becerro, AB; Ramiprimerez, MGA; Alvarez-Perea, A; Herrero, SI; Fuentes-Aparicio, V; Remon, LZ. *Allergy to Strawberry in Children From the Mediterranean Area: Is It Really Allergy?*. JOURNAL OF INVESTIGATIONAL ALLERGOLOGY AND CLINICAL IMMUNOLOGY. 2020; 30(4) 283. FI: 4.333. Cuartil: 2. (Editorial Material).

- Rosell-Diaz, AM; Mateos-Mayo, A; Nieto-Benito, LM; Balaguer-Franch, I; de la Torre-Ruiz, EH; Lainez-Nuez, A; Suarez-Fernandez, R; Bergon-Sendin, M. *Exanthema and eosinophilia in COVID-19 patients: has viral infection a*

role in drug induced exanthemas?. JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY. 2020; 34(10) 561-563. FI: 6.166. Cuartil: 1. (Letter).

- Hourihane, JO; Beyer, K; Abbas, A; Fernandez-Rivas, M; Turner, PJ; Blumchen, K; Nilsson, C; Ibanez, MD; Deschildre, A; Muraro, A; Sharma, V; Erlewyn-Lajeunesse, M; Zubeldia, JM; De Blay, F; Sauvage, CD; Byrne, A; Chapman, J; Boralevi, F; DunnGalvin, A; O'Neill, C; Norval, D; Vereda, A; Skeel, B; Adelman, DC; du Toit, G. *Efficacy and safety of oral immunotherapy with AR101 in European children with a peanut allergy (ARTEMIS): a multicentre, double-blind, randomised, placebo-controlled phase 3 trial*. LANCET CHILD & ADOLESCENT HEALTH. 2020; 4(10) 728-739. FI: 11.288. Cuartil: 1. (Article).

- Pecoraro, L; Tenero, L; Pietrobelli, A; Carbonare, LD; Czernin, S; Widhalm, K; Alvarez-Perea, A; Piacentini, G. *Canned tuna tolerance in children with IgE-mediated fish allergy: an allergological and nutritional view*. MINERVA PEDIATRICA. 2020; 72(5) 408-415. FI: 1.312. Cuartil: 4. (Review).

- Alvarez-Perea, A. *"eHealth" in allergy*. REVUE FRANCAISE D ALLERGOLOGIE. 2020; 60(4) 206-207. FI: 0.288. Cuartil: 4. (Article).

Publications of the main WOS collection in journals without impact factor:

- Marco-Martin, G; Tornero, P; Prieto, A; La Rotta, A; Herrero, T; Baeza, ML. *Immediate reactions with glatiramer acetate Diagnosis of allergy and desensitization protocols*. NEUROLOGY-CLINICAL PRACTICE. 2020; 10(2) 170-177. (Review).

5.06 Immune regulation and homeostasis in diseases of the immune system

Group Director**: Rafael Correa Rocha**
Organisms involved: **HGUGM**
Emerging group

Description of the research group

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 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

Surname		Name	Euraxess Profile	Role
BERNALDO DE QUIROS	PLAZA	ESTHER	R1	First Stage Researcher
CAMPOS	DOMINGUEZ	MINIA	R3	Established Researcher
CORREA	ROCHA	RAFAEL	R4	Leading Researcher
FERNANDEZ	CASTILLO	MARTA	R1	First Stage Researcher
GALLEGO	VALLE	JORGE	R1	First Stage Researcher
HERNANDEZ	FLOREZ	DIANA CAROLINA	R2	Recognised Researcher
KENNEDY	BATALLA	REBECA	R1	First Stage Researcher
LOPEZ	ESTEBAN	ROCIO	Other	Lab Technician
MANSO	GIL	SERGIO	R1	First Stage Researcher
MARTINEZ	BONET	MARTA	R2	Recognised Researcher
PION	-	MARJORIE	R3	Established Researcher
RODRÍGUEZ	CASTEJÓN	BEATRIZ	Other	Project Manager
SEOANE	REULA	MARÍA ELENA	R3	Established Researcher

Research Projects – Competitive Calls

- **Competitive projects**

TITLE: **Research development agreement- cellular immunological response to SARS-COV2 decisions on the immunization of T-cells and their use in potential therapy**. FIBHGM-CCA023-2020
DIRECTOR: CORREA ROCHA, RAFAEL & PION, MARJORIE
PROJECT TYPE: Research european project
FUNDING BODY: FUNDACIÓ CLINIC PER A LA RECERCA BIOMÉDICA
START DATE: 24/07/2020
END DATE: 24/07/2022

TITLE: **Trasplante de células thy-Treg autólogas para prevenir el rechazo en niños trasplantados de corazón. Un nuevo paradigma en el tratamiento de enfermedades inmunológicas**. FIBHGM-CCA001-2019
DIRECTOR: CORREA ROCHA, RAFAEL
PROJECT TYPE: Research project
FUNDING BODY: FUNDACIÓN FAMILIA ALONSO
START DATE: 01/01/2018
END DATE: 31/12/2022

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: **Implementación de una terapia celular con células Treg obtenidas de tejido tímico (thyTreg) para prevenir el rechazo a trasplantes. Un nuevo arsenal terapéutico frente a alteraciones inmunes.** DTS18/00038
DIRECTOR: CORREA ROCHA, RAFAEL
PROJECT TYPE: Technology research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2019
END DATE: 31/12/2020

TITLE: **Ensayo clinico para evaluar la eficacia de una terapia celular cpon células Treg obtenidas de tejido tímico (thyTreg) en la preveción 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 celulas 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: 31/12/2021

TITLE **Ensayo de inmunoterapia celular para prevenir el rechazo a trasplante en niños mediante el aislamiento y re-infusión de células treg autólogas**. ICI14/00282
DIRECTOR: CORREA ROCHA, RAFAEL
PROJECT TYPE: Clinical Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2019
END DATE: 31/12/2020

TITLE: **Comunicación por exosomas y otras vesículas extracelulares en la fisiologia y fisiopatología hepática(EXOHEP-CM)**. S2017/BMD-3727-1
DIRECTOR: CORREA ROCHA, RAFAEL & PION, MARJORIE
PROJECT TYPE: Research project
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACION. COMUNIDAD DE MADRID
START DATE: 01/10/2018

END DATE: 31/12/2021

- **Human Resources**

TITLE: **Sara Borrell contract** CD18/00105
DIRECTOR: CORREA ROCHA, RAFAEL
PAYEE NAME: MARTINEZ 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: CORREA ROCHA, RAFAEL
PAYEE NAME: FERNANDEZ 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: PION, MARJORIE
PAYEE NAME: 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: **Predoctoral contract (Comunidad de Madrid)** PEJD-2018-PRE/BMD-8524
DIRECTOR: CORREA ROCHA, RAFAEL
PAYEE NAME: KENNEDY, REBECA/ FERNÁNDEZ, MARTA
PROJECT TYPE: Human Resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACON. COMUNIDAD DE MADRID
START DATE: 01/01/2019
END DATE: 01/08/2020

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

Industrial and intellectual property registrations

Industrial property

Title	*Reference**	*Owner*	*Inventors*
Procedimiento de obtención de células T reguladoras derivadas de tejido tímico y uso de dichas células como inmunoterapia celular en trastornos del sistema inmune	P 201830197	FIBHGM	Rafael Correa. Marjorie Pion. Esther Bernaldo de Quirós
Marca Thy-Tech	M 18215381	FIBHGM	Rafael Correa Rocha

Publications *Total Impact Factor:* ***20.9***

	Nº	FI
Own publications	1	6.2
Joint publications	3	14.8
First decile publications	2	12.3
First quartile publications	3	19.3
Second quartile publications	0	0.0
Third quartile publications	1	1.6
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	1	-
Total publications (including those without IF)	**5**	**20.9**

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

- Manzano, EM; Roman, MTA; Sanz, RJ; Bello, IF; Hernandez, D; Salces, MM; Valor, L; Pollmar, IR; Butta, NV; Yuste, VJ. Platelet and immune characteristics of immune thrombocytopaenia patients non-responsive to therapy reveal severe immune dysregulation. BRITISH JOURNAL OF HAEMATOLOGY. 2020; 189(5) 943-953. FI: 6.998. Cuartil: 1. (Article).
- Valdivielso-Ramos, M; Torrelo, A; Martin-Santiago, A; Hernandez-Nunez, A; Azana, JM; Campos, M; Berenguer, B; Garnacho, G; Moreno, R; Colmenero, I. Histopathological hallmarks of cutaneous lesions of capillary malformation-arteriovenous malformation syndrome. JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY. 2020; 34(10) 2428-2435. FI: 6.166. Cuartil: 1. (Article).
- Nieto-Benito, LM; Baniandres-Rodriguez, O; Moreno-Torres, A; Hernandez-Martin, A; Torrelo-Fernandez, A; Campos-Dominguez, M. Clinical response to ustekinumab in CARD14-associated papulosquamous eruption (CAPE) with a new missense mutation in CARD14: a case report and systematic review. JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY. 2020; 34(11) 728-730. FI: 6.166. Cuartil: 1. (Letter).
- Noguera-Morel, L; Ortiz-Cabrera, NV; Campos, M; Hernandez-Martin, A; Torrelo, A. A case of mid-face toddler excoriation syndrome (MiTES). PEDIATRIC DERMATOLOGY. 2020; 37(2) 345-346. FI: 1.588. Cuartil: 3. (Article).

Publications of the main WOS collection in journals without impact factor:

- Nieto-Benito, LM; Berenguer-Frohner, B; Parra-Blanco, V; Campos-Dominguez, M. Pigmented Dermatofibrosarcoma Protuberans: description of a pediatric case. REVISTA CHILENA DE PEDIATRIA-CHILE. 2020; 91(1) 99-104. (Article).

Other publications

- Maria Angeles Gonzalez-Nicolas; GONZALEZ, C.; Pérez-Fernández VA. *Cilastatin: a potential treatment strategy against COVID-19 that may decrease viral replication and protect from the cytokine storm*. CKJ: CLINICAL KIDNEY JOURNAL. 2020; sfaa193 1-3. (Letter).

5.07 Infections in pediatric patients

Group Director: **Mª Luisa Navarro Gómez**
Organisms involved: **HGUGM**
Consolidated Group

Description of the research group

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.

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 lipodystrophia, 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 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). Leader: Begoña Santiago.

Axis 4: Bone and joint infection in children

L1: Clinical and epidemiological characterisitcs, 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.
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 paediatric 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 incidenceand 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 Mª 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 Mª 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

Axis 8: Immunoprophylaxis in special populations

L1: Vaccination in the patient undergoing immunosuppressive treatment. Leader: Mª Luisa Navarro
L2: Vaccination in patients undergoing TPH (hematopoietic progenitor transplantation). Leader: Mª Luisa Navarro
L 3: Vaccination in patients undergoing TOS (solid organ transplantation**).** Leader: Mª 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 antibiotherapy in Pediatrics. RANNIN-KIDS**.** Leaders: Jesús Saavedra and David Aguilera
L8: Non-tuberculous mycobacterial infections (NTM) in Spain: clinical-epidemiological**,** microbiological and pathogenicity study. Leaders: Teresa Hernández-Sampelayo and Elena Rincón
L 9: Infections after cardiac surgery. Leader: Jesús Saavedra

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:

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:

L1: Intoxications in pediatric age. Leader: Mª Concepción Míguez Navarro y Paula Vázquez López
L2: Analgesia and sedation. Leader: Mª Concepción Míguez Navarro y Paula Vázquez López
L3: Unintentional injuries. Leader: Mª Concepción Míguez Navarro y Paula Vázquez López
L4: Quality and safety in pediatric emergencies. Leader: Mª Concepción Míguez Navarro y Paula Vázquez López
L5: Hyperfrequency in Pediatric Emergency Care. Leader: Mª Concepción Míguez Navarro y Paula Vázquez López
L6: Knowledge of parents and caregivers about the reasons for consultation in the emergency department. Leader: Mª Concepción Míguez Navarro y Paula Vázquez López
L7: Critical patient. Leader: Mª Concepción Míguez Navarro y Paula Vázquez López

Group members

Surname		*Name*	*Euraxess Profile*	*Role*
AGUILERA	ALONSO	DAVID	R1	First Stage Researcher
CARRASCO	GARCÍA	ITZIAR	R1	First Stage Researcher
DUEÑAS	MORENO	EVA	Other	Manager
GONZALEZ	MARTINEZ	FELIPE	R2	Recognised Researcher
GONZALEZ	SANCHEZ	MARIA ISABEL	R1	First Stage Researcher
HERNANDEZ	BARTOLOME	ANGEL	R2	Recognised Researcher
HERNÁNDEZ-SAMPELAYO	MATOS	TERESA	R3	Established Researcher
HERNANZ	LOBO	ALICIA	R1	First Stage Researcher
JIMENEZ	DE ORY	SANTIAGO	R2	Recognised Researcher
NAVARRO	GÓMEZ	MARÍA LUISA	R4	Leading Researcher
PEREZ	MORENO	JIMENA	R2	Recognised Researcher
RINCON	LOPEZ	ELENA	R1	First Stage Researcher
RODRIGUEZ	FERNANDEZ	ROSA MARIA	R3	Established Researcher
SAAVEDRA	LOZANO	JESÚS	R3	Established Researcher
SANTIAGO	GARCÍA	BEGOÑA	R3	Established Researcher
SANTOS	SEBASTIAN	MAR	R1	First Stage Researcher
TOLEDO	DEL CASTILLO	BLANCA	R1	First Stage Researcher

Research Projects – Competitive Calls

- **Competitive projects**

TITLE: **Aspectos clínicos e inmunovirológicos 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: **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 GARCIA, BEGOÑA
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Anticuerpos frente a las proteínas G, PreF y PostF del virus respiratorio sincitial (VRS) en lactantes y respuesta inmune sistémica. Implicaciones para el desarrollo de vacunas**. PI16/00822
DIRECTOR: RODRÍGUEZ FERNÁNDEZ, ROSA MARÍA
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2017
END DATE: 30/06/2021

- **Human Resources**

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: 31/12/2021

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

Cooperative Research Structures

Type (RETIC. CIBER. others.)	*Name of Network*	*Role*
RETICS	Red de Investigación en SIDA	Colaborating group
Others (Scientific Societies Networks)	Red pediátrica para la prevención. diagnóstico precoz y tratamiento del VIH en niños.	Colaborating group
Others (Scientific Societies Networks)	Pediatric Tuberculosis Network European Trialsgroup	Colaborating group
Others (Scientific Societies Networks	Red Española de Estudio de la Tuberculosis pediátrica	Colaborating group
Others (Scientific Societies Networks)	Grupo de Estudio EREMITA (Estudio de Tuberculosis Resistente en Niños de la Comunidad de Madrid)	Colaborating group
Others (Scientific Societies Networks)	Estudio de la influencia genética en la infección grave en pediatría	Colaborating group
Others (Scientific Societies Networks)	RED de Infección Congénita por CMV	Colaborating group

Others (Scientific Societies Networks)	Pedatric European Network Treatment on AIDS	Colaborating group
Others (Scientific Societies Networks)	Estudio de la Infección Meningocócica	Colaborating group
Others (Scientific Societies Networks)	Pediatric infections Staphylococcus aureus meticilin resistence ESPID	Colaborating group
Others (Scientific Societies Networks)	Estudio de los aspectos neurocognitivos en la Cohorte de infección VIH Pediátrica	Colaborating group
Others (Scientific Societies Networks)	Red para el estudio de la enfermedad invasiva por SGA.	Colaborating group
Others (Scientific Societies Networks)	Red Nacional para el Estudio de la infección osteoarticular	Colaborating group
Others (Scientific Societies Networks)	Estudio Multicéntrico retrtospectivo 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 .	Colaborating group
Others (Scientific Societies Networks)	Red europea de ZIKA	Colaborating group
Others (Scientific Societies Networks)	Red de Giardiasis pediátrica Nacional	Colaborating group
Others (Scientific Societies Networks)	Grupo de infecciones en drepanocitosis	Colaborating group
Others (Scientific Societies Networks)	Red de Investigación Traslacional en Infecciones Pediátricas	Colaborating group
Others (Scientific Societies Networks)	Red Nacional de estudio de Infección congénita por CMV	Colaborating group
Others (Scientific Societies Networks)	Registro Nacional de casos de infección por ZIKA en el embarazo y recién nacido	Colaborating group
Others (Scientific Societies Networks)	Sickle cell disease Pediatric Research about INfections Group	Colaborating group

Doctoral theses. Bachelor theses and Master theses

Type	*Candidate*	*Title*	*Name/s Director/s*	*University*	*Date Defended*
Ph Thesis	Santiago Jiménez de Ory	Evolución de la epidemia de la infección por el VIH pediátrico en España, a partir de los datos de la cohorte de la red española de VIH en pediatría (corispe)	Mª Ángeles Muñoz Fernández; Mª Luisa Navarro Gómez	Universidad Autónoma de Madrid	23/01/2020

Clinical Practice Guidelines

Authors	*Title*	*Journal / Reference*
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 clinico del paciente pediátrico con infeccion 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
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.mscbs.gob.es/ciudadanos/enfLesiones/enfTransmisibles/sida/documentos/Mujer_y_VIH_DEFI.pdf

Authors	Title	Journal / Reference
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.mscbs.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 pre-TPH**	https://www.comunidad.madrid/hospital/gregoriomaranon/profesionales/enfermedades-infecciosas-pediatricas
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

Publications — *Total Impact Factor:* ***114.7***

	Nº	FI
Own publications	11	26.7
Joint publications	20	88.0
First decile publications	3	32.4
First quartile publications	11	69.9
Second quartile publications	6	21.8
Third quartile publications	4	8.1
Fourth quartile publications	10	14.8
Nonindexed publications / No IF	3	-
Total publications (including those without IF)	**34**	**114.7**

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

- Calvo C; García López-Hortelano M; de Carlos Vicente JC; Vázquez Martínez JL; Grupo de trabajo de la Asociación Española de Pediatría para el brote de infecci; Miembros del Grupo de Expertos de la AEP. *Recomendaciones sobre el manejo clínico de la infección por el «nuevo coronavirus» SARS-CoV2. Grupo de trabajo de la Asociación Española de Pediatría (AEP).*. ANALES DE PEDIATRIA. 2020; 92(4). FI: 1.5. Cuartil: 4. (Article).
- Martinez, FG; Sanchez, MIG; Morenoy, JP. *High-flow oxygen therapy does have a role in the treatment of bronchiolitis on the paediatric wards*. ANALES DE PEDIATRIA. 2020; 92(1) 61-62. FI: 1.5. Cuartil: 4. (Letter).
- Garcia, FJA; Ortega, MJC; Aldean, JA; Garces-Sanchez, M; Sanchez, NG; Llanos, EG; Merino, AH; de Arce, AI; Moina, MM; Melian, AM; Gomez, MLN; Ruiz-Contreras, J; CAV-AEP. *Immunisation schedule of the Spanish Association of Paediatrics: 2020 recommendations*. ANALES DE PEDIATRIA. 2020; 92(1). FI: 1.5. Cuartil: 4. (Article).
- Minagorre, PJA; Pinto, EV; Fernandez, JMR; Rodriguez-Fernandez, R; Ronco, MV; Escosa-Garcia, L; Jorge, JIM; Garcia, JJG; Soc Espanola Pediat Hosp SEPHO. *Changes from COVID-19. A perspective from internal pediatric medicine*. ANALES DE PEDIATRIA. 2020; 93(5). FI: 1.5. Cuartil: 4. (Article).
- Cuadros, EN; Rey, CC; Saavedra-Lozano, J; Red RIOPed. *Evaluation of the impact of the Spanish consensus document on the approach to osteoarticular infections in Spain through the Paediatrics Osteoarticular Infections Network (RIOPED)*. ANALES DE PEDIATRIA. 2020; 93(5) 289-296. FI: 1.5. Cuartil: 4. (Article).
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- Aguilera-Alonso, D; Escosa-Garcia, L; Saavedra-Lozano, J; Cercenado, E; Baquero-Artigao, F. *Carbapenem-Resistant Gram-Negative Bacterial Infections in Children*. ANTIMICROBIAL AGENTS AND CHEMOTHERAPY. 2020; 64(3). FI: 5.191. Cuartil: 1. (Review).

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- Sanjuan-Benita, L; Saavedra-Lozano, J; Aguilera-Alonso, D. *Short-course Antibiotic Regimens in Community-Acquired Pneumonia in Children*. ARCHIVOS DE BRONCONEUMOLOGIA. 2020; 56(12) 835-836. FI: 4.872. Cuartil: 2. (Letter).

- Soblechero, LT; Garcia, BS; Garcia, MN. *Massive hepatomegaly and skin rash as manifestations of congenital infection*. ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA. 2020; 38(4) 188-190. FI: 1.731. Cuartil: 4. (Editorial Material).

- Garcia-Navarro, C; Martin-Bejarano, M; Jimenez de Ory S; Zamora, B; Ruiz-Saez, B; Velo, C; Cuellar-Flores, I; Garcia Lopez-Hortelano M; Guillen-Martin, S; Navarro-Gomez, ML; Ramos, JT; Gonzalez-Tome, MI; Pediatric National AIDS Research Network of Spain (CORISPE). *Neurocognitive and quality of life study in perinatally HIV-infected young people and their peers. NeuroCoRISpeS study*. ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA. 2020; 38(9) 417-424. FI: 1.731. Cuartil: 4. (Article).

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- Santiago-Garcia, B; Rincon-Lopez, EM; Salas, BP; de la Red, YA; Colino, CG; Fernandez-Llamazares, CM; Saavedra-Lozano, J; Matos, THS; Gomez, MLN; Sebastian, MDS; de Julian, EC; Bieler, CB; Fernandez, CM; Aragones, JH; Morin, MG; Gomez, MIY; Vazquez, SV; POPA Study Grp. *Effect of an intervention to improve the prescription of antifungals in pediatric hematology-oncology*. PEDIATRIC BLOOD & CANCER. 2020; 67(4). FI: 3.167. Cuartil: 1. (Article).

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- Solis-Garcia, G; Chacon-Pascual, A; Martinez, FG; Herrero, MCM; Hernandez-Sampelayo, T; Alonso, PC; Rodriguez-Fernandez, R. *Neurologic Complications in Children Hospitalized With Influenza Infections Prevalence, Risk Factors and Impact on Disease Severity*. PEDIATRIC INFECTIOUS DISEASE JOURNAL. 2020; 39(9) 789-793. FI: 2.129. Cuartil: 3. (Article).

- Gijon, M; Bellusci, M; Petraitiene, B; Noguera-Julian, A; Glikman, D; Saavedra-Lozano, J; Neth, O; Daskalaki, M; Zilinskaite, V; Kaiser-Labusch, P; Prieto, L; Rojo, P. *Pediatric Community-Acquired Bone and Joint Staphylococcus Aureus Infections In Europe Severe Infections are Associated to Panton-Valentine Leucocidin Presence*. PEDIATRIC INFECTIOUS DISEASE JOURNAL. 2020; 39(6) 73-76. FI: 2.129. Cuartil: 3. (Article).

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- Manrique, G; Gonzalez, A; Iguiniz, M; Grau, A; Toledo, B; Garcia, M; Lopez-Herce, J. *Quality of chest compressions during pediatric resuscitation with 15:2 and 30:2 compressions-to-ventilation ratio in a simulated scenario*. SCIENTIFIC REPORTS. 2020; 10(1). FI: 4.379. Cuartil: 1. (Article).

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Publications of the main WOS collection in journals without impact factor:

- Garcia-Navarro, C; de Ory, SJ; Higueras, CV; Zamora, B; Prieto, L; Ramos, JT; Navarro, ML; Escosa-Garcia, L; Jurado-Barba, R; Falcon, D; Moreno, D; Gonzalez-Tome, MI; NeuroCoRISpeS Project Integrated C. *Significant differences between verbal and non-verbal intellectual scales on a perinatally HIV-infected cohort: from pediatrics to young adults*. HELIYON. 2020; 6(4). (Article).

Other publications

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Hospitalaria (SEPHO). *Changes from COVID-19. A perspective from internal pediatric medicine.*. ANALES DE PEDIATRIA. 2020; 93(5). (Article).

- Gutiérrez Velez, Ana; Solís García, Gonzalo; Saavedra Lozano, Jesús; HERNANZ, A.. *Linfadenopatía transmitida por garrapatas, una enfermedad emergente en Europa*. ANALES DE PEDIATRIA. 2020. (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

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 Director: **Felipe Calvo Manuel**
Organisms involved: **HGUGM**
Consolidated Group

Rerearch 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

Surname		Name	Euraxess Profile	Role
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
CUERVO	DEHESA	MIGUEL ANGEL	R1	First Stage Researcher
DE INGUNZA	BARON	LOURDES		
DE MIGUEL	CAMPOS	ENRIQUE		
DEL VALLE	HERNÁNDEZ	EMILIO	R1	First Stage Researcher
GARCÍA	HERNÁNDEZ	MARÍA 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 ANGEL	R1	First Stage Researcher
MEDIAVILLA	SANTOS	LYDIA		
MORENO	DOMENE	MERCEDES	R1	First Stage Researcher
MUÑOZ	FERNANDEZ	MERCEDES		
OCHANDIANO	CAICOYA	SANTIAGO		
ORCAJO	RINCÓN	JAVIER		
PELIGROS	GÓMEZ	MARÍA ISABEL	R2	Recognised Researcher
PRIETO	RODRIGUEZ	MARIA JESUS		
RAMON	BOTELLA	ENRIQUE		
RODRÍGUEZ	MARTÍN	MARCOS	R1	First Stage Researcher

Surname		Name	Euraxess Profile	Role
ROTGER	REGÍ	AMANDA		
RUIZ	GALAN	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		

Cooperative Research Structures

Type (RETIC. CIBER. others.)	Name of Network	Role
CIBER	CIBERSAM	Collaborating group

Publications

Total Impact Factor: ***104.7***

	Nº	FI
Own publications	3	8.9
Joint publications	16	95.8
First decile publications	3	56.8
First quartile publications	5	67.4
Second quartile publications	6	20.7
Third quartile publications	3	10.2
Fourth quartile publications	5	6.3
Nonindexed publications / No IF	5	-
Total publications (including those without IF)	**24**	**104.7**

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

- Bernardos, GB; Amo, FH; San Segundo, CG; Velasco, JC; Rios, DS; Garate, MM; de Castro, JM; Chamizo, JA; Fernandez, CH. *Survival analysis of patients with prostate cancer and unfavorable risk factors treated with radical prostatectomy and salvage radiotherapy after biochemical recurrence and persistence*. ACTAS UROLOGICAS ESPANOLAS. 2020; 44(10) 701-707. FI: 0.994. Cuartil: 4. (Article).
- Moreta-Martinez, R; Calvo-Haro, JA; Perez-Mananes, R; Garcia-Sevilla, M; Mediavilla-Santos, L; Pascau, J. *Desktop 3D Printing: Key for Surgical Navigation in Acral Tumors?*. APPLIED SCIENCES-BASEL. 2020; 10(24). FI: 2.679. Cuartil: 2. (Article).
- Garrido, C; Bardon-Cancho, EJ; Fajardo-Sanchez, VD; Cascon-Perez-Teijon, ME; Garcia-Morin, M; Cela, E; Belendez, C; Mata-Fernandez, C; Huerta-Aragones, J; Escobar-Fernandez, L; Beliz-Mendiola, C; VIT-SICKLE Study Grp. *Evaluation of the effectiveness of prophylactic oral vitamin D (cholecalciferol) in children with sickle cell disease*. BONE. 2020; 133. FI: 4.398. Cuartil: 2. (Article).
- Aviles-Izquierdo, JA; Nieto-Benito, LM; Lazaro-Ochaita, P; Escat-Cortes, JL; Marquez-Rodas, I; Mercader-Cidoncha, E. *Prognostic significance of sentinel node biopsy status in cutaneous melanoma: a 21-years prospective study from a single institution*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2020; 22(9) 1611-1618. FI: 3.405. Cuartil: 3. (Article).
- Ca?edo, G; Solis, I; Gonz?lez-San Segundo, C; Madero, L; Lassaletta, A. *Treatment of radiation-induced myelopathy with bevacizumab*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2020; 22(6) 957-960. FI: 3.405. Cuartil: 3. (Letter).
- Vera, R; Gonzalez-Flores, E; Rubio, C; Urbano, J; Valero Camps M; Ciampi-Dopazo, JJ; Orcajo Rincón J; Morillo Macías V; Gomez Braco MA; Suarez-Artacho, G. *Multidisciplinary management of liver metastases in patients with colorectal cancer: a consensus of SEOM, AEC, SEOR, SERVEI, and SEMNIM*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2020; 22(5) 647-662. FI: 3.405. Cuartil: 3. (Article).

- Sastre, J; de la Orden, V; Martinez, A; Bando, I; Balbin, M; Bellosillo, B; Palanca, S; Gomez, MIP; Mediero, B; Llovet, P; Moral, VM; Vieitez, JM; Garcia-Alfonso, P; Calle, SG; Ortiz-Morales, MJ; Salud, A; Quintero, G; Lopez, C; Diaz-Rubio, E; Aranda, E; Spanish Cooperative Grp Treatment. *Association Between Baseline Circulating Tumor Cells, Molecular Tumor Profiling, and Clinical Characteristics in a Large Cohort of Chemo-naive Metastatic Colorectal Cancer Patients Prospectively Collected*. CLINICAL COLORECTAL CANCER. 2020; 19(3) 110-116. FI: 4.481. Cuartil: 2. (Article).

- Terlizzi, M; Le Pechoux, C; Salas, S; Rapeaud, E; Lerouge, D; Sunyach, MP; Vogin, G; Sole, CV; Zilli, T; Lutsyk, M; Mampuya, A; Calvo, FA; Attal, J; Karahissarlian, V; De Bari, B; Ozsahin, M; Baumard, F; Krengli, M; Gomez-Brouchet, A; Sargos, P; Rochcongar, G; Bazille, C; Roth, V; Salleron, J; Thariat, J. *Postoperative Radiation Therapy in Patients with Extracranial Chondrosarcoma: A Joint Study of the French Sarcoma Group and Rare Cancer Network*. INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY BIOLOGY PHYSICS. 2020; 107(4) 726-735. FI: 7.038. Cuartil: 1. (Article).

- Martin-Broto, J; Hindi, N; Lopez-Pousa, A; Peinado-Serrano, J; Alvarez, R; Alvarez-Gonzalez, A; Italiano, A; Sargos, P; Cruz-Jurado, J; Isern-Verdum, J; Dolado, MC; Rincon-Perez, I; Sanchez-Bustos, P; Gutierrez, A; Romagosa, C; Morosi, C; Grignani, G; Gatti, M; Luna, P; Alastuey, I; Redondo, A; Belinchon, B; Martinez-Serra, J; Sunyach, MP; Coindre, JM; Dei Tos, AP; Romero, J; Gronchi, A; Blay, JY; Moura, DS. *Assessment of Safety and Efficacy of Combined Trabectedin and Low-Dose Radiotherapy for Patients With Metastatic Soft-Tissue Sarcomas A Nonrandomized Phase 1/2 Clinical Trial*. JAMA ONCOLOGY. 2020; 6(4) 535-541. FI: 31.777. Cuartil: 1. (Article).

- Zamorano-Leon, JJ; Lopez-de-Andres, A; Alvarez-Gonzalez, A; Astasio-Arbiza, P; Lopez-Farre, AJ; De-Miguel-Diez, J; Jimenez-Garcia, R. *Reduction from 2011 to 2017 in adherence to breast cancer screening and non-improvement in the uptake of cervical cancer screening among women living in Spain*. MATURITAS. 2020; 135 27-33. FI: 4.342. Cuartil: 1. (Article).

- Gobbo, M; Saldana, R; Rodriguez, M; Jimenez, J; Garcia-Vega, MI; de Pedro, JM; Cea-Calvo, L. *Patients' Experience and Needs During Perioperative Care: A Focus Group Study*. PATIENT PREFERENCE AND ADHERENCE. 2020; 14 891-902. FI: 2.711. Cuartil: 2. (Article).

- Garcia-Vazquez, V; Calvo, FA; Ledesma-Carbayo, MJ; Sole, CV; Calvo-Haro, J; Desco, M; Pascau, J. *Intraoperative computed tomography imaging for dose calculation in intraoperative electron radiation therapy: Initial clinical observations*. PLOS ONE. 2020; 15(1). FI: 3.24. Cuartil: 2. (Article).

- Martin-Gonzalez, P; de Mariscal, EG; Martino, ME; Gordaliza, PM; Peligros, I; Carreras, JL; Calvo, FA; Pascau, J; Desco, M; Munoz-Barrutia, A. *Association of visual and quantitative heterogeneity of 18F-FDG PET images with treatment response in locally advanced rectal cancer: A feasibility study*. PLOS ONE. 2020; 15(11). FI: 3.24. Cuartil: 2. (Article).

- Calvo, FA; Krengli, M; Asencio, JM; Serrano, J; Poortmans, P; Roeder, F; Krempien, R; Hensley, FW. *ESTRO IORT Task Force/ACROP recommendations for intraoperative radiation therapy in unresected pancreatic cancer*. RADIOTHERAPY AND ONCOLOGY. 2020; 148 57-64. FI: 6.28. Cuartil: 1. (Article).

- Rodriguez-Alfonso, B; Simo-Perdigo, M; Rincon, JO. *Functional image in soft tissue sarcomas: An update of the indications of F-18-FDG-PET/CT*. REVISTA ESPANOLA DE MEDICINA NUCLEAR E IMAGEN MOLECULAR. 2020; 39(4) 233-243. FI: 1.359. Cuartil: 4. (Article).

- Rodriguez-Fraile, M; Cozar-Santiago, MP; Sabate-Llobera, A; Caresia-Aroztegui, AP; Boltone, RCD; Orcajo-Rincon, J; De Arcocha-Torres, M; Garcia-Velloso, MJ; Garcia-Talavera, P. *FDG PET/CT in colorectal cancer*. REVISTA ESPANOLA DE MEDICINA NUCLEAR E IMAGEN MOLECULAR. 2020; 39(1) 57-66. FI: 1.359. Cuartil: 4. (Article).

- Bergesio, F; De Maggi, A; Coronado, M; Pardal, E; Plaza, R; Hernandez, AC; Sarandeses, MD; Cortes, M; Setoain, X; Simo, M; Rotger, A; Grande, C; Caballero, MD; Chauvie, S. *The F-18 phantom clinical trials qualification for F-18-FDG-PET scanning adoptedby GELTAMO (Grupo Espa nol de Linfomas/Trasplante Autologo de Medula Osea)*. REVISTA ESPANOLA DE MEDICINA NUCLEAR E IMAGEN MOLECULAR. 2020; 40(3) 149-154. FI: 1.359. Cuartil: 4. (Article).

- Marquez-Rodas, I; Longo, F; Rodriguez-Ruiz, ME; Calles, A; Ponce, S; Jove, M; Rubio-Viqueira, B; Perez-Gracia, JL; Gomez-Rueda, A; Lopez-Tarruella, S; Ponz-Sarvise, M; Alvarez, R; Soria-Rivas, A; de Miguel, E; Ramos-Medina, R; Castanon, E; Gajate, P; Sempere-Ortega, C; Jimenez-Aguilar, E; Aznar, MA; Calvo, A; Lopez-Casas, PP; Martin-Algarra, S; Martin, M; Tersago, D; Quintero, M; Melero, I. *Intratumoral nanoplexed poly I:C BO-112 in combination with systemic anti-PD-1 for patients with anti-PD-1-refractory tumors*. SCIENCE TRANSLATIONAL MEDICINE. 2020; 12(565). FI: 17.956. Cuartil: 1. (Article).

- Fuentes-Sanchez, C; Garcia-Morales, ME; Gonzalez-San Segundo, C. *Can elderly patients with low-risk breast cancer benefit from radiotherapy?*. TRANSLATIONAL CANCER RESEARCH. 2020; 9 154-160. FI: 1.241. Cuartil: 4. (Review).

Publications of the main WOS collection in journals without impact factor:

- Calvo, FA; Asencio, JM; Roeder, F; Krempien, R; Poortmans, P; Hensley, FW; Krengli, M. *ESTRO IORT Task Force/ACROP recommendations for intraoperative radiation therapy in borderline-resected pancreatic cancer*. CLINICAL AND TRANSLATIONAL RADIATION ONCOLOGY. 2020; 23 91-99. (Article).

- Calvo, FA; Sole, CV; Rutten, HJ; Dries, WJ; Lozano, MA; Cambeiro, M; Poortmans, P; Gonzalez-Bayon, L. *ESTRO/ACROP IORT recommendations for intraoperative radiation therapy in locally recurrent rectal cancer*. CLINICAL AND TRANSLATIONAL RADIATION ONCOLOGY. 2020; 24 41-48. (Article).

- Calvo, FA; Sole, CV; Rutten, HJ; Poortmans, P; Asencio, JM; Serrano, J; Aristu, J; Roeder, F; Dries, WJ. *ESTRO/ACROP IORT recommendations for intraoperative radiation therapy in primary locally advanced rectal cancer*. CLINICAL AND TRANSLATIONAL RADIATION ONCOLOGY. 2020; 25 29-36. (Article).

- Paniagua, M; Parra, V; De Miguel, E. *Urinary bladder lipoma: an illustrative case*. JOURNAL OF RADIOLOGY CASE REPORTS. 2020; 14(6) 15-21. (Article).

- Gonzalez-San Segundo, C; Gomez-Iturriaga, A; Counago, F. *Are all prostate cancer patients "fit" for salvage radiotherapy?*. WORLD JOURNAL OF CLINICAL ONCOLOGY. 2020; 11(1). (Editorial Material).

6.02 Traslational medical oncology and personalized cancer therapy

Group Director: **Miguel Martín Jiménez**
Organisms involved: **HGUGM**
Consolidated Group

Description of the research group

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

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. Marquez
- **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

Axis 3: Consolidation of innovation.
- **Line 1:** Genetic counseling. Leader: Dr. Martín

Axis 4: Competitiveness (sustainability) and resources available for research.
- **Line 1:** Development of murine breast cancer tumorgrafts**.** 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. Martín.
- **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

Surname		*Name*	*Euraxess Profile*	*Role*
AGUILAR	CABALLERO	IKER	R1	First Stage Researcher
ALVAREZ	ALVAREZ	ROSA MARIA	R3	Established Researcher
ÁLVAREZ	CASTILLO	ENRIQUE LUIS	R1	First Stage Researcher
APARICIO	SALCEDO	INMACULADA	R1	First Stage Researcher
ARIAS	GARCIA	AINHOA	Other	Research Unit
ARRANZ	ARIJA	JOSE ÁNGEL	R3	Established Researcher
ARREGUI	VALLES	MARTA	R1	First Stage Researcher
AYLLON	GARCIA	CAROLINA	Other	Nursing Research Unit
BERNAT	GOMEZ	REBECA	R1	Research Unit

Surname		Name	Euraxess Profile	Role
BLANCO	VELILLA	ALBA	Other	Research Unit
BLANCO	CODESIDO	MONSERRAT	R2	Recognised Researcher
BRINGAS	BERANEK	MARIANELA	R1	First Stage Researcher
BUENO	ZAMORA	OSCAR	R1	First Stage Researcher
CALLES	BLANCO	ANTONIO	R1	First Stage Researcher
CALVO	FERRÁNDIZ	PILAR AITANA	R2	Recognised Researcher
CANTERO	MARTIN	MARTA	Other	Nursing care
CAÑETE	GAMEZ	MARIA ISABEL	Other	Research Unit
CARPEÑO	MARTIN-CARO	LAURA	Other	Research Unit.
CEBOLLERO	PRESMANES	MARÍA	R2	Recognised Researcher
CIUDAD	BABIANO	FRANCISCO	Other	Nursing care
DE TOMÁS	PALACIOS	JORGE	R2	Recognised Researcher
DEL MONTE	MILLAN	MARIA	Other	Research Unit
DELGADO	SALAS	GUADALUPE	Other	Nursing care
ECHAVARRIA	DIAZ-GUARDAMINO	ISABEL	R2	Recognised Researcher
ESCOBAR	ALVAREZ	YOLANDA	R1	First Stage Researcher
ESTEBAN	ARRANZ	MAGDALENA	Other	Nursing Research Unit
FERNANDEZ	GONZALEZ	SARA	Other	Research Unit
FLORES	SANCHEZ	CARMEN	Other	Nursing care
FLOREZ	PEÑASCO	SANDRA	Other	Research Unit
GALERA	LOPEZ	MARIA DEL MAR	R1	First Stage Researcher
GALINDO	BARREALES	FERNANDO	Other	Research Unit
GARCIA	LABORDA	ELSA	R1	First Stage Researcher
GARCIA	PARDO DE SANTAYANA	MIGUEL ANGEL	R1	First Stage Researcher
GARCIA	HIDALGO	MARIA ELENA	Other	Nursing care
GARCIA	MALDONADO	ANA	Other	Research Unit
GARCÍA	ALFONSO	Mª PILAR	R3	Established Researcher
GONZALEZ	BLAZQUEZ	Mª VICTORIA	Other	Nursing care Research Unit
GONZÁLEZ	CARBALLO	IRENE	R1	First Stage Researcher
GONZALEZ DEL VAL	SUBIRATS	RICARDO	R2	Recognised Researcher
GRAS	PERAL	INMACULADA CONCEPCION	Other	Nursing Research Unit
GUTIERREZ	ALONSO	NATALIA	R1	First Stage Researcher
GUTIERREZ	ORTIZ DE LA TABLA	ANA	R1	First Stage Researcher
HERRERO	LOPEZ	BLANCA	R1	First Stage Researcher
IRUELA	DE PEDRO	MARIA ENCARNACION	Other	Nursing care
JEREZ	GILARRANZ	YOLANDA	R2	Recognised Researcher
JIMENEZ	VICENTE	MERCEDES	Other	Nursing care
JIMÉNEZ	RODRÍGUEZ	ROBERTO	R1	First Stage Researcher
JULIAO	CAAMAÑO	DAVID SALOMÓN	R1	First Stage Researcher
KHOSRAVI	SHAHI	PARHAM	R2	Recognised Researcher
LOBATO	VIDAL	NEREA	Other	Research Unit
LOPEZ	JUAREZ	ESTELA	Other	Research Unit
LOPEZ	LOPEZ	CRISTINA	R1	First Stage Researcher
LOPEZ	JIMENEZ	CARLOS	R1	First Stage Researcher
LÓPEZ-TARRUELLA	COBO	SARA	R2	Recognised Researcher
LUQUE	MOLINA	MARIA SOLEDAD	R2	Recognised Researcher

Surname		Name	Euraxess Profile	Role
MARQUEZ	LOZANO	GLORIA	Other	Research Unit.
MARQUEZ	RODAS	IVAN	R2	Recognised Researcher
MARTIN	ALONSO	ALHELIES	Other	Nursing care
MARTIN	JIMENEZ	MIGUEL	R4	Leading Researcher
MARTÍN	LOZANO	ROCÍO	R1	First Stage Researcher
MARTINEZ	PEREZ	MONICA	Other	Nursing care
MARTINEZ	DELFRADE	IÑIGO	R1	First Stage Researcher
MASSARRAH	SANCHEZ	TATIANA	Other	Nursing Research Unit
MORON	GARCIA	BLANCA ISABEL	R1	First Stage Researcher
MUÑANA	VILLAR	ALBERTO	Other	Nursing care
MUÑOZ	MARTÍN	ANDRES	R2	Recognised Researcher
OCAÑA	TORRES	INMACULADA	Other	Research Unit
OLCOZ	MONREAL	FRANCISCO JAVIER	R1	First Stage Researcher
ORTEGA	MORAN	LAURA	R1	First Stage Researcher
PALOMERO	PLAZA	MARIA ISABEL	R1	First Stage Researcher
PARRA	HERNANDEZ	IRENE	Other	Research Unit
PEREZ	RAMIREZ	SARA	R2	Recognised Researcher
PEREZ	DE LA FUENTE	INES	Other	Research Unit
PEREZ	MONTIJANO	MARTA	Other	Research Unit
PICORNELL	COMPANY	ANTONIO CLEMENTE	R2	Recognised Researcher
PUENTE	VAZQUEZ	BEATRIZ	Other	Research Unit
RANZ	HERRANZ	MARIA ISABEL	Other	Nursing Research Unit
RINCÓN	OLBÉS	PATRICIA	R1	First Stage Researcher
RODRIGUEZ	VILLAR	CRISTINA	Other	Research Unit
ROMERO	PICAZO	PAULA	Other	Research Unit
RUIZ	BOLAÑOS	ANA BELEN	Other	Research Unit
SABIN	DOMINGUEZ	MARÍA PILAR	R2	Recognised Researcher
SANCHEZ	HERRERO	ROSA MARIA	Other	Research Unit
SOTO	ALSAR	JAVIER	R1	First Stage Researcher
TIRADO	ANULA	VICTORIA CLARA	R1	First Stage Researcher
TORO	CARMENA	MARIA DE	R1	First Stage Researcher
TORRES	PEREZ-SOLERO	GABRIELA	R1	First Stage Researcher
VARGAS	SANCHEZ	AROA	Other	Nursing care
VILLAREJO	LOPEZ	LUCIA	Other	Research Unit.
ZAZO	LEON	MARIA TERESA	Other	Nursing care

Research Projects – Competitive Calls

- **Competitive projects**

TITLE: **FAITH: Federated Artificial Intelligence solution for moniToring mental Health status after cancer treatment**.
H2020 FAITH 875358
DIRECTOR: MARTIN JIMENEZ, MIGUEL
PROJECT TYPE: Research project
FUNDING BODY: UE
START DATE: 01/01/2020
END DATE: 30/06/2023

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: MARTIN JIMENEZ, MIGUEL
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2019
END DATE: 31/12/2021

TITLE: **Cáncer de mama triple negativo: predicción de respuesta a docetaxel-carboplatino neoadyuvante mediante caracterización de TILS y firmas inmunes basadas en secuenciación masiva de RNA**. PI15/00117
DIRECTOR: MARTIN JIMENEZ, MIGUEL
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2016
END DATE: 30/06/2020

Cooperative Research Structures

Type (RETIC. CIBER. others.)	*Name of Network*	*Role*
RETICS	Redes Temáticas de Investigación Cooperativa en Salud en el Area de Cáncer. RD12/0036/0076	Associated group
CIBER	CIBERONC CB16/12/00471	Associated group
Other	GEICAM. Grupo Español de Cancer 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 Groupp	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

Industrial and intellectual property registrations

Industrial property

Title	*Reference**	*Owner*	*Inventors*
Método para seleccionar. manipular y aislar células tumorales circulantes en líquidos corporales por transferencia asistida por láser	PCT/ES2018/070064	FIBHGM - UPM	Miguel Martín. María del Monte. Andrés Muñoz. Rocío Ramos. Javier Gayarre. Tatiana Massarrah. Carlos Molpeceres

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

Intellectual property

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

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 debiomarcadores 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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Publications *Total Impact Factor:* ***1026.6***

	Nº	FI
Own publications	22	153.7
Joint publications	53	872.9
First decile publications	23	808.2
First quartile publications	36	888.2
Second quartile publications	14	62.1

Third quartile publications	22	73.1
Fourth quartile publications	3	3.2
Nonindexed publications / No IF	7	-
Total publications (including those without IF)	**82**	**1026.6**

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

- Friedlaender, A; Metro, G; Signorelli, D; Gili, A; Economopoulou, P; Roila, F; Banna, G; De Toma, A; Camerini, A; Christopoulou, A; Lo Russo, G; Banini, M; Galetta, D; Jimenez, B; Collazo-Lorduy, A; Calles, A; Baxevanos, P; Linardou, H; Kosmidis, P; Mountzios, G; Garassino, MC; Addeo, A. *Impact of performance status on non-small-cell lung cancer patients with a PD-L1 tumour proportion score >= 50% treated with front-line pembrolizumab*. ACTA ONCOLOGICA. 2020; 59(9) 1058-1063. FI: 4.089. Cuartil: 3. (Article).

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6.03 Genetics and clinical aspects of hematologic malignancies and hematopoietic stem cell trasplantation

Group Directors: **José Luis Díez Martín & Ismael Buño Borde**
Organisms involved: **HGUGM**
UCM
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 polymorphism, 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 hemato-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 Eritropatología Hereditaria)
- L1.1 Transplantation of hematopoietic progenitors in hemoglobinopathies
- L1.2 Clinical monitoring of sickle cell disease from neonatal screening
- L1.3 Erythrocytapheresis in the Pediatric Sickle Cell Patient

Line 2. **Adjuvant therapy in pediatric hematology-oncology**.

Line 3. **Fanconi anemia**.
- L3.1 Multidisciplinary follow-up in Fanconi's Anemia

Line 4. **Solid tumors in children**.

Line 5. **Leukemia in children.**

Group members

Surname		*Name*	*Euraxess Profile*	*Role*
ANDRES	ZAYAS	CRISTINA	R1	First Stage Researcher
ANGUITA	VELASCO	JAVIER	R3	Established Researcher
BAILEN	ALMOROX	REBECA	R1	First Stage Researcher
BASTOS	OREIRO	MARIANA BEATRIZ	R3	Established Researcher
BARDON	CANCHO	EDUARDO	R1	First Stage Researcher
BELENDEZ	BIELER	CRISTINA	R3	Established Researcher
BELIZ	MENDIOLA	CRISTINA	R1	First Stage Researcher

Surname		Name	Euraxess Profile	Role
BORREGO	VILLEGAS	LAURA	Other	
BUÑO	BORDE	ISMAEL	R4	Leading Researcher
CARBONELL	MUÑOZ	DIEGO	R1	First Stage Researcher
CASTRO	LABRADOR	LAURA	R1	First Stage Researcher
CELA	DE JULIÁN	ELENA	R3	Established Researcher
CHICANO	LAVILLA	MARIA	R2	Recognised Researcher
DÍEZ	MARTÍN	JOSÉ LUÍS	R4	Leading Researcher
DORADO	HERRERO	NIEVES	R1	First Stage Researcher
ENCINAS	RODRÍGUEZ	CRISTINA	R1	First Stage Researcher
FONT	LÓPEZ	PATRICIA	R1	First Stage Researcher
GARCIA	GARCIA	ANA MARIA	Other	
GARCÍA	MORÍN	MARINA	R1	First Stage Researcher
GARRIDO	COLINO	CARMEN	R3	Established Researcher
GÓMEZ	CENTURIÓN	IGNACIO		
HERNANDEZ	MARTIN	MARTA MARIA	Other	Clinical Trial Manager
HUERTA	ARAGONÉS	JORGE	R1	First Stage Researcher
KWON	KIM	MI	R3	Established Researcher
MARTINEZ	LAPERCHE	CAROLINA	R3	Established Researcher
MATA	FERNÁNDEZ	CRISTINA	R3	Established Researcher
MEDIN	DE BLOCK	HILDA GABRIELA	R1	First Stage Researcher
MENARGUEZ	PALANCA	FRANCISCO JAVIER	R3	Established Researcher
MONSALVO	SAORNIL	SILVIA	R1	First Stage Researcher
MUÑIZ	SEVILLA	PAULA	R1	First Stage Researcher
MUÑOZ	MARTINEZ	CRISTINA	Other	Clinical Trial Manager
OARBEASCOA	ROYUELA	GILLEN	R1	First Stage Researcher
OSORIO	PRENDES	SANTIAGO	R2	Recognised Researcher
PASCUAL	IZQUIERDO	CRISTINA	R2	Recognised Researcher
PEREZ	BALSERA	GONZALO	R1	First Stage Researcher
PÉREZ	CORRAL	ANA MARÍA	R2	Recognised Researcher
PRIETO	MEDINA	MARIA DEL MAR	R1	First Stage Researcher
RUBIO	AZPEITIA	EVA	R2	Recognised Researcher
SUÁREZ	GONZÁLEZ	JULIA	R2	Recognised Researcher
ZAMARRO	ARRANZ	ROSARIO	R1	First Stage Researcher

Research Projects – Competitive Calls

- **Competitive projects**

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: 31/12/2020

TITLE: **Infusión post trasplante de células NK del donante, en pacientes con leucemia aguda de mal pronóstico sometidos a trasplante haploidéntico no manipulado**. PI15/00879
DIRECTOR: DÍEZ MARTÍN, JOSE LUIS
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III

START DATE: 01/01/2016
END DATE: 30/11/2020

- **Human Resources**

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: **Beca Investigación FEHH.**FEHHDC-2018
DIRECTOR: CARBONELL MUÑOZ, DIEGO
PROJECT TYPE: Human resources
FUNDING BODY: FUNDACIÓN ESPAÑOLA HEMATOLOGÍA Y HEMOTERAPIA (F.E.H.H.)
START DATE: 01/01/2019
END DATE: 31/12/2021

Cooperative Research Structures

Type (RETIC. CIBER. others.)	*Name of Network*	*Role*
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

Industrial and intellectual property registrations

Industrial property

Title	*Reference*	*Owner*	*Inventors*
alloGenomics	M 3600830	FIBHGM	Ismael Buño, Milagros González-Rivera, José Luis Díez-Martín, Carolina Martínez-Laperche Elena Buces, Jorge Gayoso, Mi Kwon, David Serrano, Pascual Balsalobre

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

Intellectual property

Title	*Reference*	*Owner*	*Inventors*
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 Diez
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 Diez. Jorge Gayoso. Carolina Martínez. Elena Buces. David Serrano. Pascual Balsalobre. Mi Kwon

Clinical Practice Guidelines

Authors	Title	Journal / Reference
Marina García Morín	**Guía de recomendaciones de la SEHOP para el tratamiendo de la leucemia linfoblástica aguda o bifenotípica del lactante menor de un año**	Sociedad española de hematología y oncología pediátricas

Publications

Total Impact Factor: **332.7**

	Nº	FI
Own publications	13	57.2
Joint publications	40	275.5
First decile publications	11	139.6
First quartile publications	32	266.9
Second quartile publications	11	43.2
Third quartile publications	7	18.0
Fourth quartile publications	3	4.7
Nonindexed publications / No IF	5	-
Total publications (including those without IF)	**58**	**332.7**

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

- Perez-Martinez, A; Ferreras, C; Pascual, A; Gonzalez-Vicent, M; Alonso, L; Badell, I; Navarro, JMF; Regueiro, A; Plaza, M; Hurtado, JMP; Benito, A; Belendez, C; Couselo, JM; Fuster, JL; Diaz-Almiron, M; Bueno, D; Mozo, Y; Marsal, J; Lopez, AG; Sisinni, L; de Heredia, CD; Diaz, MA. *Haploidentical transplantation in high-risk pediatric leukemia: A retrospective comparative analysis on behalf of the Spanish working Group for bone marrow transplantation in children (GETMON) and the Spanish Grupo for hematopoietic transplantation (GETH)*. AMERICAN JOURNAL OF HEMATOLOGY. 2020; 95(1) 28-37. FI: 10.047. Cuartil: 1. (Article).

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Other publications

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6.04 Surgical oncology

Group Director: **Luis González- Bayón**
Organisms involved: **HGUGM**
Emerging group

Research lines

Axis 1: 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

Surname		Name	Euraxess Profile	Role
GONZALEZ	BAYON	LUIS	R4	Leading Researcher
LOZANO	LOMINCHAR	PABLO		
PALENCIA	GARCIA	NATIVIDAD		
VASQUEZ	JIMENEZ	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: **7.9**

	Nº	FI
Own publications	1	1.1
Joint publications	2	6.9
First decile publications	0	-
First quartile publications	0	0.0
Second quartile publications	1	3.5
Third quartile publications	1	3.4
Fourth quartile publications	1	1.1
Nonindexed publications / No IF	1	-
Total publications (including those without IF)	**4**	**7.9**

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

- Cascales-Campos, PA; Lopez-Lopez, V; Torres-Melero, J; Arjona, A; Munoz-Casares, FC; Barrios, P; Morales, R; Pereira, F; Bretcha-Boix, P; Gonzalez-Bayon, L; Gonzalez-Moreno, S; Gil, J. *Survival outcomes in patients aged 75 years and over with peritoneal colorectal carcinomatosis after cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (HIPEC): multicenter study of the Spanish Group of Peritoneal Cancer Surgery (GECOP)*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2020; 22(1) 130-136. FI: 3.405. Cuartil: 3. (Article).

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Publications of the main WOS collection in journals without impact factor:

- Calvo, FA; Sole, CV; Rutten, HJ; Dries, WJ; Lozano, MA; Cambeiro, M; Poortmans, P; Gonzalez-Bayon, L. *ESTRO/ACROP IORT recommendations for intraoperative radiation therapy in locally recurrent rectal cancer*. CLINICAL AND TRANSLATIONAL RADIATION ONCOLOGY. 2020; 24 41-48. (Article).

AREA 7 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.

GROUPS IN AREA

7.01. Infl ammation 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
7.11. Iron metabolism disorders
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. Artifi cial 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

7.01 Inflammation and vascular damage in chronic kidney disease. Dialysis and kidney transplant. Renal pathophysiology

Group Director: **Mª de los Ángeles Goicoechea Diezhandino**
Organisms involved: **HGUGM**
Consolidated Group

Description of the research group

Chronic kidney disease (CKD) is a major public health problem. A systematic review, based on population studies from developed countries, described an average prevalence of 7.2% (individuals over 30 years old).
According to data from the EPIRCE study, it affects approximately 10% of the Spanish adult population and more than 20% of those over 60 years of age, and furthermore, it is probably under-diagnosed. In patients followed in Primary Care with diseases as frequent as high blood pressure (HTA) or diabetes mellitus (DM), the prevalence of CKD can reach 35-40%. The magnitude of the problem is even greater considering the increase in morbimortality, especially cardiovascular, related to renal deterioration.
Developing a good level of prevention should be a priority objective at the level of national health systems to avoid this dramatic increase in CKD and its consequences. Our research group aims to contribute to improve the prevention, diagnosis and complications of acute and chronic renal failure with different and wide lines of research in all fields.
Since 2017 we are part of RedinRen as a research group. The Renal Research Network (REDINREN) is a Thematic Network of Cooperative Research (RETIC) funded by the Carlos III Institute of Health Research belonging to the Ministry of Health. Consumer Affairs and Social Welfare, which aims to shorten the distance between research, clinical care and citizens and is a reference in the field of nephrology. REDINREN represents the cooperation of the most outstanding basic, translational and clinical research groups in Spain committed to the health of patients with renal disease (www.redinren.org). We are also a member of the Consortium for Research on Acute Renal Failure of the Community of Madrid (CIFRA2-CM) whose objectives include development of new models of acute renal failure in which to study the development of new models of early diagnostic tool, prognostic biomarkers and new therapeutic approaches (http://www.cifra2-cm.com/)

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. Garcia 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. Macias, 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

Group members

Surname		*Name*	*Euraxess Profile*	*Role*
ABAD	ESTEBANEZ	SORAYA	R1	First Stage Researcher
ANAYA	FERNÁNDEZ-LOMANA	FERNANDO	R3	Established Researcher
ARAGONCILLO	SAUCO	INES	R1	First Stage Researcher
ARROYO	RUEDA	DAVID	R1	First Stage Researcher
BARRACA	NUÑEZ	DANIEL	R1	First Stage Researcher
GARCÍA	PRIETO	ANA MARIA	R1	First Stage Researcher
GOICOECHEA	DIEZHANDINO	Mª DE LOS ÁNGELES	R4	Leading Researcher
GONZALEZ	GUERRERO	CHRISTIAN	R2	Recognised Researcher
GONZALEZ-NICOLAS	GONZALEZ	Mª ANGELES	R1	First Stage Researcher
LAZARO	FERNANDEZ	ALBERTO	R3	Established Researcher
LÓPEZ	GÓMEZ	JUAN MANUEL	R3	Established Researcher
MACIAS	CARMONA	NICOLAS	R1	First Stage Researcher
MARTÍN	SANCHÉZ	BEATRIZ	R1	First Stage Researcher
MELERO	MARTÍN	ROSA	R1	First Stage Researcher
PÉREZ	DE JOSÉ	ANA MARÍA	R2	Recognised Researcher
RENGEL	ARANDA	MANUEL ANTONIO	R3	Established Researcher
RODRÍGUEZ	BENÍTEZ	PATROCINIO	R1	First Stage Researcher
RODRÍGUEZ	FERRERO	MARÍA LUISA	R1	First Stage Researcher
SANCHEZ	CAMARA	LUIS ALBERTO	R1	First Stage Researcher
VEGA	MARTINEZ	MARIA ALMUDENA	R2	Recognised Researcher
VERDALLES	GUZMAN	URSULA	R2	Recognised Researcher
VERDE	MORENO	EDUARDO	R2	Recognised Researcher

Research Projects – Competitive Calls

- **Competitive projects**

TITLE: **Intervenciones sobre las balsas de colesterol epiteliales derivadas a evitar la fase de amplificación del daño orgánico agudo.** PI17/00276
DIRECTOR: LAZARO FERNANDEZ, ALBERTO
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Bloquear las balsas de colesterol del borde en cepillo del túbulo proximal previene el fallo renal inducido por nefropatias pigmentosas.paludismo y rabdomiolisis** SENEFRO18/01
DIRECTOR: LAZARO FERNANDEZ, ALBERTO
PROJECT TYPE: Research project
FUNDING BODY: FUNDACIÓN SENEFRO
START DATE: 01/01/2019
END DATE: 31/12/2020

- **Human Resources**

TITLE: **Predoctoral CM.** PEJD-2019-PRE/BMD-16978

DIRECTOR: MARTÍN SÁNCHEZ, BEATRIZ
PROJECT TYPE: Human resources
FUNDING BODY: Consejería de Educación e Investigación. Comunidad de Madrid.
START DATE: 01/02/2020

END DATE: 31/03/2021

Cooperative Research Structures

Type (RETIC. CIBER. others.)	Name of Network	Role
RETICS	REDINREN	Collaborating group
Others (Scientific Societies Networks)	Consorcio para la Investigación del Fracaso Renal Agudo (CIFRA). Comunidad de Madrid	Collaborating group

Industrial and intellectual property registrations

Industrial property

Title	Reference*	Owner	Inventors
Uso de la Cilastatina para reducir la nefrotoxicidad en distintos compuestos	PCT/ES2008/070137 (22 patents)	FIBHGM	Alberto Tejedor. Alberto Lázaro. Sonia Camaño. Ana María Torres. José Antonio Lázaro. Manuela Castilla. María del Carmen de Lucas
Método de diagnóstico de insuficiencia renal	P201131506	FIBHGM - Universidad de Alcalá de Henares - Fundació PUIGVERT	Ricardo Bosch. Arancha Ortega. Jordi Bover. Alberto Lázaro. Alberto Tejedor
Cilastatin for use in the treatment of sepsis	EP 16382299	FIBHGM	Alberto Tejedor. Alberto Lázaro. Blanca Humanes. Mª Ángeles González-Nicolás

Transferred patents

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

Clinical Practice Guidelines

Authors	Title	Journal / Reference
GOICOECHEA. VERDE. LUÑO	**GUIAS DE PRÁCTICA CLÍNICA EN EL MANEJO TERAPEUTICO DE LAS ENFERMEDADES GLOMERULARES**	LIBRO ISBN 978-84-1317-082-4. EDITORIAL CIRCULO ROJO

Publications

Total Impact Factor: ***73.1***

	Nº	FI
Own publications	6	28.3
Joint publications	9	44.8
First decile publications	5	42.3
First quartile publications	8	55.7
Second quartile publications	2	6.7
Third quartile publications	4	8.9
Fourth quartile publications	1	1.8
Nonindexed publications / No IF	2	-
Total publications (including those without IF)	**17**	**73.1**

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

- Perez-Saez, MJ; Blasco, M; Redondo-Pachon, D; Ventura-Aguiar, P; Bada-Bosch, T; Perez-Flores, I; Melilli, E; Sanchez-Camara, LA; Lopez-Oliva, MO; Canal, C; Shabaka, A; Garra-Moncau, N; Martin-Moreno, PL; Lopez, V; Hernandez-Gallego, R; Siverio, O; Galeano, C; Espi-Reig, J; Cabezas, CJ; Rodrigo, MT; Llinas-Mallol, L; Fernandez-Reyes, MJ; Cruzado-Vega, L; Perez-Tamajon, L; Santana-Estupinan, R; Ruiz-Fuentes, MC; Tabernero, G; Zarraga, S; Ruiz, JC; Gutierrez-Dalmau, A; Mazuecos, A; Sanchez-Alvarez, E; Crespo, M; Pascual, J; Spanish Soc Nephrology COVID-19 Gr. *Use of tocilizumab in kidney transplant recipients with COVID-19*. AMERICAN JOURNAL OF TRANSPLANTATION. 2020; 20(11) 3182-3190. FI: 8.086. Cuartil: 1. (Article).

- Jado, JC; Humanes, B; Gonzalez-Nicolas, MA; Camaño S; Lara, JM; Lopez, B; Cercenado, E; Garcia-Bordas, J; Tejedor, A; Lazaro, A. *Nephroprotective Effect of Cilastatin against Gentamicin-Induced Renal Injury In Vitro and In Vivo without Altering Its Bactericidal Efficiency*. ANTIOXIDANTS. 2020; 9(9). FI: 6.312. Cuartil: 1. (Article).

- Vink, P; Torrell, JMR; Fructuoso, AS; Kim, SJ; Kim, SI; Zaltzman, J; Ortiz, F; Plana, JMC; Rodriguez, AMF; Rodrigo, HR; Marti, MC; Perez, R; Roncero, FMG; Kumar, D; Chiang, YJ; Doucette, K; Pipeleers, L; Morales, MLA; Rodriguez-Ferrero, ML; Secchi, A; McNeil, SA; Campora, L; Di Paolo, E; El Idrissi, M; Lopez-Fauqued, M; Salaun, B; Heineman, TC; Oostvogels, L; Rossana, C; Mario, C; Yen-Ta, C; Giacomo, G; Esther, GM; Nada, K; Dirk, K; Cheng-Chia, L; Umberto, M; Pavel, N; Arjan, V; Ignacio, VNJ; Bice, V; Ming-Ju, W; Z-041 Study Grp. *Immunogenicity and Safety of the Adjuvanted Recombinant Zoster Vaccine in Chronically Immunosuppressed Adults Following Renal Transplant: A Phase 3, Randomized Clinical Trial*. CLINICAL INFECTIOUS DISEASES. 2020; 70(2) 181-190. FI: 9.079. Cuartil: 1. (Article).

- Caravaca-Fontan, F; Diaz-Encarnacion, MM; Lucientes, L; Cavero, T; Cabello, V; Ariceta, G; Quintana, LF; Marco, H; Barros, X; Ramos, N; Rodriguez-Mendiola, N; Cruz, S; Fernandez-Juarez, G; Rodriguez, A; de Jose, AP; Rabasco, C; Rodado, R; Fernandez, L; Gomez, VP; Avila, AI; Bravo, L; Lumbreras, J; Allende, N; de la Nieta, MDS; Rodriguez, E; Olea, T; Melgosa, M; Huerta, A; Miquel, R; Mon, C; Fraga, G; de Lorenzo, A; Draibe, J; Cano-Megias, M; Gonzalez, F; Shabaka, A; Lopez-Rubio, ME; Fenollosa, MA; Martin-Penagos, L; Da Silva, I; Titos, JA; de Cordoba, SR; de Jorge, EG; Praga, M; Spanish Grp Study. *Mycophenolate Mofetil in C3 Glomerulopathy and Pathogenic Drivers of the Disease*. CLINICAL JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY. 2020; 15(9) 1287-1298. FI: 8.237. Cuartil: 1. (Article).

- Vega, A; Sanchez-Nino, MD; Ortiz, A; Abad, S; Macias, N; Aragoncillo, I; Santos, A; Garcia-Prieto, A; Torres, E; Hernandez, A; Sanchez-Camara, L; Hurtado, E; Valino-Rivas, L; Luno, J. *The new marker YKL-40, a molecule related to inflammation, is associated with cardiovascular events in stable haemodialysis patients*. CLINICAL KIDNEY JOURNAL. 2020; 13(2) 172-178. FI: 4.452. Cuartil: 1. (Article).

- Garcia-Prieto, AM; Vega, A; Abad, S; Macias, N; Aragoncillo, I; Hurtado, E; Delgado, A; Torres, E; Barbieri, D; Luno, J. *Evaluation of the efficacy of a very high permeability dialyser and comparison with another high-flux dialyser in online haemodiafiltration*. CLINICAL KIDNEY JOURNAL. 2020; 13(1) 114-115. FI: 4.452. Cuartil: 1. (Letter).

- Bermejo, S; Gonzalez, E; Lopez-Revuelta, K; Ibernon, M; Lopez, D; Martin-Gomez, A; Garcia-Osuna, R; Linares, T; Diaz, M; Martin, N; Barros, X; Marco, H; Navarro, MI; Esparza, N; Elias, S; Coloma, A; Robles, NR; Agraz, I; Poch, E; Rodas, L; Lozano, V; Fernandez, B; Hernandez, E; Martinez, MI; Stanescu, RI; Moiron, JP; Garcia, N; Goicoechea, M; Calero, F; Bonet, J; Galceran, JM; Liano, F; Pascual, J; Praga, M; Fulladosa, X; Soler, MJ. *Risk factors for non-diabetic renal disease in diabetic patients*. CLINICAL KIDNEY JOURNAL. 2020; 13(3) 380-388. FI: 4.452. Cuartil: 1. (Article).

- Torres, E; Goicoechea, M; Hernandez, A; Ferrero, MLR; Garcia, A; Macias, N; Anaya, F. *Efficacy of Evolocumab vs low-density lipoprotein cholesterol apheresis in patients with familial hypercholesterolemia and high cardiovascular risk (EVOLAFER01)*. JOURNAL OF CLINICAL APHERESIS. 2020; 35(1) 9-17. FI: 2.821. Cuartil: 3. (Article).

- Pardo, MG; Aparicio, I; Arregui, M; Melero, R; Diaz, F; Alvarez, R; Calles, A; Martin, M. *Nephrotic syndrome in a 60-year-old man*. JOURNAL OF CLINICAL PATHOLOGY. 2020; 73(10). FI: 3.411. Cuartil: 2. (Editorial Material).

- Goicoechea, M; Camara, LAS; Macias, N; de Morales, AM; Rojas, AG; Bascunana, A; Arroyo, D; Vega, A; Abad, S; Verde, E; Prieto, AMG; Verdalles, U; Barbieri, D; Delgado, AF; Carbayo, J; Mijaylova, A; Acosta, A; Melero, R; Tejedor, A; Benitez, PR; de Jose, AP; Ferrero, MLR; Anaya, F; Rengel, M; Barraca, D; Luno, J; Aragoncillo, I. *COVID-19: clinical course and Check for updates outcomes of 36 hemodialysis patients in Spain*. KIDNEY INTERNATIONAL. 2020; 98(1) 27-34. FI: 10.612. Cuartil: 1. (Editorial Material).

- Verdalles, U; Goicoechea, M; de Vinuesa, SG; Torres, E; Hernandez, A; Verde, E; de Jose, AP; Luno, J. *Chronic kidney disease progression in patients with resistant hypertension subject to 2 therapeutic strategies: Intensification with loop diuretics vs aldosterone antagonists*. NEFROLOGIA. 2020; 40(1) 65-73. FI: 2.033. Cuartil: 3. (Article).

- Cedeno, S; Vega, A; Macias, N; Sanchez, L; Abad, S; Lopez-Gomez, JM; Luno, J. *Intradialytic hypotension definitions with mortality prediction capacity in a cohort of haemodialysis patients*. NEFROLOGIA. 2020; 40(4) 403-413. FI: 2.033. Cuartil: 3. (Article).

- Lopez-Gomez, JM; Rivera, F. *Spanish Registry of glomerulonephritis 2020 revisited: past, current data and new challenges*. NEFROLOGIA. 2020; 40(4) 371-383. FI: 2.033. Cuartil: 3. (Editorial Material).
- Palacios-Mendoza, MA; Gines, MLM; Otalora, PJM; Cuello, JP; Sanchez-Soblechero, A; Ros, AL; Aparcero-Suero, JA; Anguita, SL; Anaya, F; Dominguez, JMG. *Plasma exchange in acute attacks of demyelinating diseases of the central nervous system: clinical outcomes and predictors of response*. NEUROLOGICAL SCIENCES. 2020; 41(9) 2569-2574. FI: 3.307. Cuartil: 2. (Article).
- Torres, E; Aragoncillo, I; Moreno, J; Vega, A; Abad, S; Garcia-Prieto, A; Macias, N; Hernandez, A; Godino, MT; Luno, J. *Exercise training during hemodialysis sessions: Physical and biochemical benefits*. THERAPEUTIC APHERESIS AND DIALYSIS. 2020; 24(6) 648-654. FI: 1.762. Cuartil: 4. (Article).

Publications of the main WOS collection in journals without impact factor:

- Tejedor, A. *The heart and kidney in diabetes: Heart and kidney in diabetes*. HIPERTENSION Y RIESGO VASCULAR. 2020; 37(2) 64-71. (Review).
- Garcia-Prieto, AM; Verdalles, U; de Jose, AP; Verde, E; Arroyo, D; Aragoncillo, I; Linares, T; Barbieri, D; Goicoechea, M. *The effect of renin-angiotensin-aldosterone system blockers on the progression of chronic kidney disease in hypertensive elderly patients without proteinuria: PROERCAN study. Rationale and design*. HIPERTENSION Y RIESGO VASCULAR. 2020; 37(3) 101-107. (Article).

Other publications

- Maria Angeles Gonzalez-Nicolas; GONZALEZ, C.; Pérez-Fernández VA. *Cilastatin: a potential treatment strategy against COVID*

7.02 Pathophysiology and natural history of liver and digestive diseases

Group Director: **Rafael Bañares Cañizares**
Organisms involved: **HGUGM**
Consolidated Group

Description of the research group

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..

Research lines

L1: Complications of cirrhosis: natural history of liver cirrhosis
L2: Liver regeneration
L3: Liver transplant in the 21st century
L4: Role of intercellular communication through exosomes in liver diseases
L5: Regulatory mechanisms of the permeability of the intestinal barrier and effect on intestinal homeostasis and on the pathogenesis of inflammatory bowel disease

Group members

Surname		Name	Euraxess Profile	Role
AHUMADA		ADRIANA	R1	First Stage Researcher
ALONSO	LOPEZ	SONIA	R2	Recognised Researcher
ARANDA	HERNANDEZ	JAVIER	R1	First Stage Researcher
ASENSIO	GARCIA	IRIS	R1	First Stage Researcher
BALAREZO	SALDIVAR	ALEJANDRA ESTEFANIA	Other:	Lab Technician
BAÑARES	CAÑIZARES	RAFAEL	R4	Leading Researcher
BLAZQUEZ	LOPEZ	ELENA	R1	First Stage Researcher
BOROBIA	SANCHEZ	RODRIGO	R1	First Stage Researcher
CABALLERO	MARCOS	ARANTXA	R1	First Stage Researcher
CARBONELL	BLANCO	CARLOS	R1	First Stage Researcher
CARRION	MARTIN	LAURA	R1	First Stage Researcher
CATALINA	RODRÍGUEZ	MARÍA DE LA VEGA	R1	First Stage Researcher
CLEMENTE	SANCHEZ	ANA	R1	First Stage Researcher
CUBERO	PALACIO	FRANCISCO JAVIER	R3	Established Researcher
DE GRACIA	FERNANDEZ	CELIA	R1	First Stage Researcher
DIAZ	FONTENLA	FERNANDO	R1	First Stage Researcher
DIAZ	GOMEZ	ARANTXA	R1	First Stage Researcher
DIAZ	RUIZ	RAQUEL	R1	First Stage Researcher
FERNANDEZ	YUNQUERA	AINHOA	R1	First Stage Researcher
FLORES	GARCIA	VIRGINIA	R1	First Stage Researcher

Surname		Name	Euraxess Profile	Role
FRANCO	HERRERA	CAROLINA	R1	First Stage Researcher
GARCIA	MARTINEZ	RITA	R2	Recognised Researcher
GARCIA	LLEDO	JAVIER	R1	First Stage Researcher
HERNANDO	ALONSO	ANA ISABEL	R2	Recognised Researcher
IBAÑEZ	SAMANIEGO	LUIS	R1	First Stage Researcher
LOPEZ	IBAÑEZ	MARIA	R1	First Stage Researcher
LÓPEZ	CAUCE	BEATRIZ	R1	First Stage Researcher
MARIN	JIMENEZ	IGNACIO	R1	First Stage Researcher
MARQUEZ	PEREZ	LAURA	R1	First Stage Researcher
MARTIN	GUERRA	MARIA ROCIO	R1	First Stage Researcher
MARTINEZ	LOZANO	HELENA	R1	First Stage Researcher
MARTOS	VIZCAINO	ESPERANZA	R1	First Stage Researcher
MATILLA	PEÑA	ANA MARÍA	R2	Recognised Researcher
MENCHEN	VISO	LUIS ALBERTO	R3	Established Researcher
MERINO	RODRIGUEZ	BEATRIZ	R1	First Stage Researcher
MIRANDA	BAUTISTA	JOSÉ	R1	First Stage Researcher
NEVZOROVA		YULIA ALEXANDROVNA	R3	Established Researcher
NOGALES	RINCON	OSCAR	R1	First Stage Researcher
PAJARES	DÍAZ	JOSE ANTONIO	R1	First Stage Researcher
PEREZ	CARAZO	LETICIA	R1	First Stage Researcher
PUERTO	CANTERO	MARTA	R2	Recognised Researcher
RINCÓN	RODRÍGUEZ	DIEGO	R2	Recognised Researcher
ROMERO	CRISTOBAL	MARIO	R1	First Stage Researcher
RUBIO	CABALLERO	CARMEN	R1	First Stage Researcher
RUIZ	MARTIN	CHRISTIAN	Other:	Research Support Technician
SALCEDO	PLAZA	MAGDALENA	R2	Recognised Researcher
SECADAS	RINCÓN	LAURA	Other	Research Nurse
SIERRA	ROJAS	JOHANNA	Other:	Management
VAQUERO	MARTIN	JAVIER	R3	Established Researcher
VAZQUEZ	OGANDO	ELENA	R1	First Stage Researcher

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: 31/12/2020

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: 31/12/2021

TITLE: **Fusión celular y comunicación celular por exomas en la enfermedad y regeneración hepática.** PI18/01833
DIRECTOR: VAQUERO MARTIN, JAVIER

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 hipotermia terapéutica en el fracaso hepático augdo (FHA) y en la regeneración hepática: Estudio preclínico en cerdos.** PI15/01083
DIRECTOR: VAQUERO MARTIN, JAVIER
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2016
END DATE: 30/11/2020

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:CONSEJERIA DE EDUCACIÓN. COMUNIDAD DE MADRID
START DATE: 01/01/2018
END DATE: 31/12/2021

* **Not managed by the FIBHGM**

TITLE: **Deconstruyendo el eje intestino-hígado: papel de las c-jun n- terminal quinasas (JNKS) y del estrés del retículo endoplásmico (ER) en el desarrollo de la hepatopatía alcohólica.** SAF2016-78711-R
DIRECTOR: CUBERO, FRANCISCO JAVIER
PROJECT TYPE: Research project
FUNDING BODY: MINISTERIO CIENCIA E INNOVACIÓN
START DATE: 30/12/2016
END DATE: 31/12/2020

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

- **Human Resources**

TITLE: **Río Hortega Contract.** CM19/00247
DIRECTOR: CABALLERO MARCOS, ARANZAZU
PROJECT TYPE: Human Resources
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/12/2019
END DATE: 31/11/2021

TITLE: **Río Hortega Contract.** CM17/00255
DIRECTOR: CLEMENTE SANCHEZ, ANA

PROJECT TYPE: Human Resources
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
END DATE: 31/12/2021

TITLE: **Young employement Contract :Laboratory Technician** PEJ-2018-TL/BMD-12024
DIRECTOR: VAQUERO MARTIN, JAVIER
PROJECT TYPE: Human Resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACON. COMUNIDAD DE MADRID
START DATE: 01/03/2019
END DATE: 31/12/2020

TITLE: **Young employement Contract** PEJ2018-003826-A
DIRECTOR: BAÑARES CAÑIZARES, RAFAEL
PROJECT TYPE: Human Resources
FUNDING BODY: MICINN
START DATE: 01/11/2019

EN DATE: 31/03/2022

Cooperative Research Structures

Type (RETIC. CIBER. others.)	*Name of Network*	*Role*
CIBER	CIBEREHD	Fully fledged group Program Coordinator

Clinical Practice Guidelines

Authors	*Title*	*Journal / Reference*
Bataller R, Cabezas J, Aller R, Ventura-Cots M, Abad J, Albillos A, Altamirano J, Arias-Loste MT, Bañares R, Caballería J, Caballería L, Carrión JA, Diago M, Fernández Rodríguez C, Gallego R, García-Cortes M, García-Monzón C, Genescà J, Ginés P, Hernandez-Guerra M, Jorquera F, Lligoña A, Molina E, Pareja MJ, Planas R, Tomé S, Salmerón J, Romero-Gómez M	**Alcohol-related liver disease. Clinical practice guidelines. Consensus document sponsored by AEEH**	Gastroenterol Hepatol. . 2019 Dec;42(10):657-676.
Barreiro-de Acosta M, Marín-Jimenez I, Rodríguez-Lago I, Guarner F, Espín E, Ferrer Bradley I, Gutiérrez A, Beltrán B, Chaparro M, Gisbert JP, Nos P; en representación de GETECCU.	**Recommendations of the Spanish Working Group on Crohn's Disease and Ulcerative Colitis (GETECCU) on pouchitis in ulcerative colitis. Part 2: Treatment.**	10.1016/j.gastrohep.2020.04.004
Perez-Cuadrado-Robles, E; Pinho, R; Gonzalez, B; de Ferro, SM; Chagas, C; Delgado, PE; Carretero, C; Figueiredo, P; Rosa, B; Lledo, JG; Nogales, O; Ponte, A; Andrade, P; Juanmartinena-Fernandez, JF; San-Juan-Acosta, M; Lopes, S; Prieto-Frias, C; Egea-Valenzuela, J; Caballero, N; Valdivieso-Cortazar, E; Cardoso, H; Galvez, C; Almeida, N; Barrera, PB; Gomez-Rodriguez, BJ; Ceballos, FS; Bernardes, C; Alonso, P; Arguelles-Arias, F; Saraiva, MM; Perez-Cuadrado-Martinez, E; Spanish Soc Gastrointestinal Endos; Portuguese Small-Bowel Study Grp G	**Small bowel enteroscopy - A joint clinical guideline by the Spanish and Portuguese small-bowel study groups**	10.17235/reed.2020.7020/2020

Publications *Total Impact Factor: **474.8***

	Nº	FI
Own publications	19	89.5
Joint publications	34	385.3
First decile publications	18	356.0
First quartile publications	26	407.5
Second quartile publications	6	23.7

Third quartile publications	0	0
Fourth quartile publications	21	43.5
Nonindexed publications / No IF	5	-
Total publications (including those without IF)	58	474.8

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

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Other publications

- Fernández J; Angeli P; Trebicka J; Merli M; Gustot T; Alessandria C; Aagaard NK; de Gottardi A; Welzel TM; Gerbes A; Soriano G; Vargas V; Albillos A; Salerno F; Durand F; Bañares R; Stauber R; Prado V; Arteaga M; Hernández-Tejero M; Aziz F; Morando F; Jansen C; Lattanzi B; Moreno C; Campion D; Gronbaek H; Garcia R; Sánchez C; García E; Amorós A; Pavesi M; Clària J; Moreau R; Arroyo V. *Efficacy of Albumin Treatment for Patients with Cirrhosis and Infections Unrelated to Spontaneous Bacterial Peritonitis.*. CLINICAL GASTROENTEROLOGY AND HEPATOLOGY. 2020; 18(4). (Article).

7.04 Diseases of the critically ill child

Group Director: **Jesús López-Herce Cid**
Organisms involved: **HGUGM**
Consolidated Group

Description of the research group

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.

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: Maria José Solana García.
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: Maria José Santiago and Laura Butragueño

Group members

Surname		*Name*	*Euraxess Profile*	*Role*
ALCÓN	NÁJERA	SARA	R1	First Stage Researcher
BUSTINZA	ARRIORTÚA	AMAYA	R1	First Stage Researcher
BUTRAGUEÑO	LAISECA	LAURA	R1	First Stage Researcher
CIEZA	ASENJO	RAQUEL	R1	First Stage Researcher
CORDERO	MARTINEZ	MARTA	R1	First Stage Researcher
DE LA MATA	NAVAZO	SARA	R1	First Stage Researcher
DEL CASTILLO	PERAL	JIMENA	R2	Recognised Researcher
FERNANDEZ	LAFEVER	SARAH NICOLE	R2	Recognised Researcher
GARCIA	SAN PRUDENCIO	MYRIAM	R1	First Stage Researcher
GARRIDO	GASPAR	BEATRIZ	R1	First Stage Researcher
GONZÁLEZ	CORTES	RAFAEL	R2	Recognised Researcher
HERRERA	CASTILLO	LAURA	R1	First Stage Researcher
LOPEZ	GONZALEZ	JORGE	R2	Recognised Researcher
LÓPEZ-HERCE	CID	JESÚS	R4	Leading Researcher
MANRIQUE	MARTÍN	GEMA	R1	First Stage Researcher
MENCÍA	BARTOLOMÉ	SANTIAGO	R3	Established Researcher
SANCHEZ	SANCHEZ	CESAR	R3	Established Researcher

Surname		Name	Euraxess Profile	Role
SÁNCHEZ	GALINDO	AMELIA	R1	First Stage Researcher
SANTIAGO	LOZANO	MARÍA JOSÉ	R3	Established Researcher

Research Projects – Competitive Calls

- **Competitive projects**

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: 31/12/2021

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: 31/12/2020

- **Human Resources**

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: **Río Hortega Contract.** CM17/00210
DIRECTOR: GARCIA SAN PRUDENCIO, MYRIAM
PROJECT TYPE: Human Resources
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
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: 01/10/2020

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

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 patents

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

Intellectual property

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

Publications *Total Impact Factor:* ***122.5***

	Nº	FI
Own publications	16	64.6
Joint publications	11	57.9
First decile publications	3	29.8
First quartile publications	15	97.2
Second quartile publications	3	10.7
Third quartile publications	1	2.5
Fourth quartile publications	8	12.0
Nonindexed publications / No IF	3	-
Total publications (including those without IF)	30	122.5

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

- Lozano, MJS; Alvarez, CA; Heidbuchel, CA; Lafever, SF; Garcia, MJS; Cid, JLH. *Nutrition in children with continuous renal replacement therapy*. ANALES DE PEDIATRIA. 2020; 92(4) 208-214. FI: 1.5. Cuartil: 4. (Article).
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- Cid, JLH; Villaescusa, JU. *Importance and difficulties of voluntary service and cooperation in medical degree students*. ANALES DE PEDIATRIA. 2020; 92(4) 249-250. FI: 1.5. Cuartil: 4. (Letter).
- Sanavia, E; Garcia, M; del Castillo, J; Gonzalez, R; Lopez-Herce, J; Mencia, S. *Effect of neuromuscular blockade on the bispectral index in critically ill patients*. ANALES DE PEDIATRIA. 2020; 93(4) 251-256. FI: 1.5. Cuartil: 4. (Article).
- Navazo, SD; Laiseca, LB; Barrio, MS; Fernandez, AM. *Sulphadiazine crystaluria in a patient with disseminated toxoplasmosis*. ANALES DE PEDIATRIA. 2020; 93(4) 268-269. FI: 1.5. Cuartil: 4. (Editorial Material).
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- Singh, Y; Villaescusa, JU; da Cruz, EM; Tibby, SM; Bottari, G; Saxena, R; Guillen, M; Herce, JL; Di Nardo, M; Cecchetti, C; Brierley, J; de Boode, W; Lemson, J. *Recommendations for hemodynamic monitoring for critically ill children-expert consensus statement issued by the cardiovascular dynamics section of the European Society of Paediatric and Neonatal Intensive Care (ESPNIC)*. CRITICAL CARE. 2020; 24(1). FI: 9.097. Cuartil: 1. (Article).

- Garcia-Salido, A; Vicente, JCD; Hofheinz, SB; Ramirez, JB; Barrio, MS; Gordillo, IL; Yuste, AH; Pardellans, CG; Tejedor, MCM; Labarga, BH; Martinez, JLV; Jimeno, MG; Oulego-Erroz, I; Quintela, JT; Monzon, CM; Ramos, LM; Pena, MSH; Gil-Anton, J; Orti, CS; Gonzalez, JCF; Palomo, RMH; Ganfornina, IS; Romero, EF; Garcia-Besteiro, M; Cid, JLH; Cortes, RG; Spanish Pediat Intensive Care Soc. *Severe manifestations of SARS-CoV-2 in children and adolescents: from COVID-19 pneumonia to multisystem inflammatory syndrome: a multicentre study in pediatric intensive care units in Spain*. CRITICAL CARE. 2020; 24(1). FI: 9.097. Cuartil: 1. (Article).

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- Sanavia, E; Mencia, S; Lopez-Herce, J. *Clonidine Doses For Sedation in the PICU Reply*. PEDIATRIC CRITICAL CARE MEDICINE. 2020; 21(1) 110-111. FI: 3.624. Cuartil: 1. (Letter).
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- Fernandez, SN; Santiago, MJ; Gonzalez, R; Lopez, J; Solana, MJ; Urbano, J; Lopez-Herce, J. *Changes in hemodynamics, renal blood flow and urine output during continuous renal replacement therapies*. SCIENTIFIC REPORTS. 2020; 10(1). FI: 4.379. Cuartil: 1. (Article).
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Other publications

- López-Herce J; Manrique I; Carrillo Á; Calvo C; Manrique G; en representación del Grupo Español de RCP Pediátrica y Neonatal. *25 años de cursos de reanimación cardiopulmonar pediátrica en España.*. ANALES DE PEDIATRIA (BARCELONA, SPAIN : 2003). 2020. (Article).
- García, Miriam; Manrique, Gema; Fernández, Sarah N.; Puerta, Yolanda; Paredes, Patricia; Corchado, Alba M.; Garc{íẗa-Moreno, Ana B.; Jim{éẗnez, Brian; Menc{íẗa, Santiago. *Sleep characteristics of the parents of children admitted to a pediatric intensive care unit: risk factors and repercussion on their daily life activities*. SLEEP MED. X. 2020; 2 100020-100020. (Article).

7.05B. Physiological and Therapeutic Medico-Surgical Aspects of Respiratory Diseases

Group Directors: **Luis Puente Maestu &Ignacio Garutti**
Organisms involved: **HGUGM**
Consolidated Group

Description of the research group

It is a multidisciplinary group that includes anesthesiologists, thoracic surgeons, basic researchers and pulmonologists. Their different lines of research include the biology, physiopathology of the lung, airway and respiratory muscles as well as the effect of lung diseases on aerobic capacity and peripheral muscles. The group also has a vocation to develop and participate in clinical studies aimed at lung diseases and the prevention and management of perioratory complications.

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.

Axis 2: Epidemiology of respiratory diseases
- L1: Outcome of patients admitted with respiratory disease. Leader: Javier de Miguel.
- L2: Characterization of patients with multiple admissions. Leader: Javier de Miguel.
- L3: Phenotypic characterization of patients with asthma and COPD (ARES. CHACOS. EPOCONSUL. PAGE. NOVELTY and y ENEAS studies). Leader: Luis Puente Maestu.

Axis 3: Phisiopatology and biology of exercise and skeletal muscle in COPD
- L1: Effects of pharmacological treatments for COPD and Asthma on aerobic capacity Regenerating and Non-Finalist Studies with GSK. Leader: Luis Puente Maestu.
- L2: Physical activity in COPD. Leader: Luis Puente Maestu.

Axis 4: Bronchoscopy in the management and diagnosis of respiratory diseases
- L1: Prospective registry of bronchial thermoplasty. Leader: Luis Puente Maestu.
- L2: Bacteriological diagnosis of nosocomial pneumonia. Leader: Javier García López.
- L3: Cytologic diagnosis of lymphoma using flow cytometry. Leader: Javier García López.
- L4: Recording the efficacy and safety of endobronchial valves in the treatment of persistent air leak. Leader: Javier García López.

Axis 5: Development of new pharmacological treatments
- L1: Clinical trials with the pharmaceutical industry for COPD. Leader: Luis Puente Maestu.
- L2: Clinical trials with the pharmaceutical industry for asthma. Leader: Luis Puente Maestu
- L2: Clinical trials with the pharmaceutical industry for chronic cough. Leader: Luis Puente Maestu.

Axis 6: Experimental lung transplant model
- L1: Organ preservation. Leader: Carlos Simón Adiego.

Axis 7: Management of venous thromboembolic disease
- L1: Pulmonary embolism and comorbidity. Leader: Javier de Miguel.
- L2: Studies on adaptation of treatment to CPG. Leader: Javier de Miguel.

Axis 8: Respiratory disease and sleep
- L1: Sleep disorders in persons aged >75 years. Leader: Soledad López Martín.
- L2: Optimization of the management of patients with obesity-hypoventilation with respiratory therapies. Leader: Daniel López Padilla

Axis 9: Neuroanatomy of the larynx
- L1: Anatomical variability of the larynx. Leader: Mª Teresa Vázquez Osorio.
- L2: Laryngeal reinnervation. Leader: Mª Teresa Vázquez Osorio.

Group members

Surname		Name	Euraxess Profile	Role
BENEDETTI		PAOLA ANTONELLA	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	DIEZ	JAVIER	R1	First Stage Researcher
FUENTES	ALONSO	MARTA	R1	First Stage Researcher
GALLARDO	BERMEJO	MARIA	Other	Nursing
GARCIA	DE PEDRO	JULIA	R3	Established Researcher
GARCIA	LOPEZ	JOSE JAVIER	R3	Established Researcher
GARCÍA	GARCÍA	MARIA CRUZ		
GARUTTI	MARTÍNEZ	IGNACIO	R4	Leading Researcher
GIRON	MATUTE	WALTHER IVAN	R2	Recognised Researcher
GONZALEZ	MORAGA	FRANCISCO JOSE	R1	First Stage Researcher
GONZÁLEZ	CASAURRÁN	GUILLERMO	R1	First Stage Researcher
GONZÁLEZ	SACRISTAN	ANGELA	R1	First Stage Researcher
HERNANDEZ	YAÑEZ	MARGARITA	Other	Nursing
HUERTA	MARTINEZ	LUIS JAVIER	R1	First Stage Researcher
LOPEZ	PADILLA	DANIEL EDUARDO	R3	Established Researcher
LÓPEZ	MARTÍN	SOLEDAD	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-TOME	ROSA MARIA	Other	Nursing
SANCHEZ	MUÑOZ	GEMA	R2	Recognised Researcher
SANCHEZ	PEDROSA	GUILLERMO		
SANZ	SANZ	MARIA DEL PILAR	R1	First Stage Researcher
SAÑUDO	TEJEDO	JOSE RAMÓN		
SIMÓN	ADIEGO	CARLOS MARIA	R3	Established Researcher
SOLANO	REINA	SEGISMUNDO	R3	Established Researcher
TERAN TINEDO	TINEDO		R2	Recognised Researcher
VARA	AMEIGEIRAS	ELENA		
VAZQUEZ	OSORIO	MARIA TERESA	R3	Established Researcher
DE MIGUEL	DIEZ	JAVIER	R1	First Stage Researcher

Research Projects – Competitive Calls

- **Competitive projects**

TITLE: **Impacto de la administración de lidocaina intravenosa o paravertebral durante el intraoperatorio de la cirugia 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: 31/12/2021

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 INVESTIGACON. COMUNIDAD DE MADRID
START DATE: 01/01/2018
END DATE: 31/12/2020

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 tromboembolíca (RIETE)	Associated group

Publications *Total Impact Factor:* ***252.8***

	Nº	FI
Own publications	19	75.6
Joint publications	26	177.2
First decile publications	8	106.9
First quartile publications	25	179.2
Second quartile publications	13	56.6
Third quartile publications	5	14.4
Fourth quartile publications	2	2.6
Nonindexed publications / No IF	2	-
Total publications (including those without IF)	**47**	**252.8**

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

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S; Diaz-Cambriles, T; Chiner, E; Egea, C; Barca, J; Vazquez-Polo, FJ; Negrin, MA; Martel-Escobar, M; Barbe, F; Corral, J; Spanish Sleep Network. *Echocardiographic Changes with Positive Airway Pressure Therapy in Obesity Hypoventilation Syndrome Long-Term Pickwick Randomized Controlled Clinical Trial*. AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE. 2020; 201(5) 586-597. FI: 21.405. Cuartil: 1. (Article).

- Diez, JD; Garcia, RJ; de Andres, AL. *Living with COPD: Pain is Important Too*. ARCHIVOS DE BRONCONEUMOLOGIA. 2020; 56(6) 351-352. FI: 4.872. Cuartil: 2. (Editorial Material).
- Lopez-Padilla, D; Garcia-Rio, F; Alonso-Arroyo, A; Gallan, MP; Maestu, LP; Segrelles-Calvo, G; de Granda-Orive, JI. *Altmetrics Analysis of ARCHIVOS DE BRONCONEUMOLOGIA From 2014 to 2018*. ARCHIVOS DE BRONCONEUMOLOGIA. 2020; 56(5) 298-305. FI: 4.872. Cuartil: 2. (Article).
- Diez, JD; de Andres, AL; Garcia, RJ. *The Minimum Basic Data Set (MBDS), Our Big Data for the Epidemiological Investigation of Respiratory Diseases*. ARCHIVOS DE BRONCONEUMOLOGIA. 2020; 56(5) 267-268. FI: 4.872. Cuartil: 2. (Editorial Material).
- Barreiro, E; Jimenez, C; de Pedro, JG; Prieto, MTR. *COVID-19 and XXI Century Pulmonology: Challenge or Opportunity?*. ARCHIVOS DE BRONCONEUMOLOGIA. 2020; 56(7) 411-412. FI: 4.872. Cuartil: 2. (Editorial Material).
- Segrelles-Calvo, G; de Granda-Orive, JI; Lopez-Padilla, D; Garcia, EZ. *Therapeutic Limitation in Elderly Patients: Reflections Regarding COVID19*. ARCHIVOS DE BRONCONEUMOLOGIA. 2020; 56(10) 677-679. FI: 4.872. Cuartil: 2. (Letter).
- Embun, R; Royo-Crespo, I; Diaz, JLR; Bolufer, S; Call, S; Congregado, M; Gomez-de Antonio, D; Jimenez, MF; Moreno-Mata, N; Aguinagalde, B; Amor-Alonso, S; Arraras, MJ; Orozco, AIB; Boada, M; Sanchez, AC; Vazquez, IC; Ramos, AC; Carrasco, SC; Fernandez-Martin, E; Garcia-Barajas, S; Garcia-Jimenez, MD; Garcia-Prim, JM; Garcia-Salcedo, JA; Gelbenzu-Zazpe, JJ; Giraldo-Ospina, CF; Hernandez, MTG; Hernandez, J; Wolf, JDI; Abularach, AJ; Jimenez, U; Sanz, IL; Martinez-Hernandez, NJ; Martinez-Tellez, E; Collado, LM; Poce, RM; Moradiellos-Diez, FJ; Moreno-Balsalobre, R; Merino, SBM; Obiols, C; Quero-Valenzuela, F; Ramirez-Gil, ME; Ramos-Izquierdo, R; Rivo, E; Rodriguez-Fuster, A; Rojo-Marcos, R; Sanchez-Lorente, D; Moreno, LS; Simon, C; Trujillo-Reyes, JC; Trancho, FH. *Spanish Video-Assisted Thoracic Surgery Group: Method, Auditing, and Initial Results From a National Prospective Cohort of Patients Receiving Anatomical Lung Resections*. ARCHIVOS DE BRONCONEUMOLOGIA. 2020; 56(11) 718-724. FI: 4.872. Cuartil: 2. (Article).
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- Lopez-de-Andres, A; Albadalejo-Vicente, R; de Miguel-Diez, J; Hernandez-Barrera, V; Ji, ZC; Zamorano-Leon, JJ; Lopez-Herranz, M; Jimenez-Garcia, R. *Incidence and outcomes of hospitalization for community-acquired, ventilator-associated and non-ventilator hospital-acquired pneumonias in patients with type 2 diabetes mellitus in Spain*. BMJ OPEN DIABETES RESEARCH & CARE. 2020; 8(1). FI: 3.388. Cuartil: 3. (Article).
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- Jimenez-Garcia, R; Perez-Farinos, N; de Miguel-Diez, J; Hernandez-Barrera, V; Mendez-Bailon, M; Jimenez-Trujillo, I; de Miguel-Yanes, JM; Lopez-de-Andres, A. *National Trends in Utilization and In-Hospital Outcomes of Surgical Aortic Valve Replacements in Spain, 2001-2015*. BRAZILIAN JOURNAL OF CARDIOVASCULAR SURGERY. 2020; 35(1) 65-74. FI: 1.312. Cuartil: 4. (Article).
- Ferrando, C; Aldecoa, C; Unzueta, C; Belda, FJ; Librero, J; Tusman, G; Suarez-Sipmann, F; Peiro, S; Pozo, N; Brunelli, A; Garutti, I; Gallego, C; Rodriguez, A; Garcia, JI; Diaz-Cambronero, O; Balust, J; Redondo, FJ; de la Matta, M; Gallego-Ligorit, L; Hernandez, J; Martinez, P; Perez, A; Leal, S; Alday, E; Monedero, P; Gonzalez, R; Mazzirani, G; Aguilar, G; Lopez-Baamonde, M; Felipe, M; Mugarra, A; Torrente, J; Valencia, L; Varon, V; Sanchez, S; Rodriguez, B; Martin, A; India, I; Azparren, G; Molina, R; Villar, J; Soro, M; Acosta, J; Alberola, MJ; Alcon, A; Almajano, R; Alvarez, C; Anaya, R; Aragon, C; Argilaga, M; Arocas, B; Ayas, B; Balandron, V; Barcena, E; Bejarano, N; Belmonte, L; Berges, V; Bermejo, MG; Cabadas, R; Cabrera, S; Callejas, R; Carbonell, J; Carrizo, J; Castillo, J; Charco, P; Colas, A; Colomina, L; Cotter, L; Cruz, P; Cuervo, J; Del Castillo, G; Del Rio, E; Delgado, J; Dexeus, C; Diaz, R; Dinu, M; Duca, A; Duque, P; Echarri, G; Fabra, P; Fernandez, C; Florea, R; Forcada, P; Fuentes, I; Garces, C; Del Valle, SG; Garcia, B; Garcia, E; Garcia, M; Garcia, M; Garrigues, B; Gil, F; Gonzalez, D; Gracia, A; Gracia, E; Cranell, M; Guerra, Y; Gutierrez, A; Hernando, J; Herrero, M; Ibanez, M; Imaz, I; Izquierdo, B; Jurado, A; Lafuente, N; Lascorz, L; Leon, I; Lopez, A; Lopez-Herrera, D; Lozano, A; Marcos, JM; Martinez, G; Martinez, S; Mata, E; Matoses, S; Mendez, R; Merino, M; Millaruelo, A; Molina, CR; Monleon, B; Montenegro, OM; Munoz, JL; Oliver-Fornies, P; Ortega, M; Palencia, MA; Parera, A; Pastor, E; Perez, MD; Perez, S; Pestana, D; Pinol, S; Puig, J; Pujol,

R; Quesada, N; Ramon, A; Rego, C; Reviriego, L; Rodriguez, R; Romero, B; Romero, E; Rosello, M; Rovira, L; Ruiz, L; Sancho, L; Sandin, F; Serralta, F; Tres, E; Valls, P; Vaquero, L; Varela, M; Vega, V; Viguera, L; Villazala, R; Villena, A; Visiedo, S; iPROVE-O2 Network. *Effects of oxygen on post-surgical infections during an individualised perioperative open-lung ventilatory strategy: a randomised controlled trial*. BRITISH JOURNAL OF ANAESTHESIA. 2020; 124(1) 110-120. FI: 9.166. Cuartil: 1. (Article).

- de Miguel-Diez, J; L?pez-de-Andr?s, A; Hern?ndez-Barrera, V; M?ndez-Bail?n, M; de Miguel-Yanes, JM; Jim?nez-Garc?a, R. *Impact of COPD on outcomes in hospitalized patients treated with transcatheter aortic valve implantation or surgical aortic valve replacement in Spain*. CATHETERIZATION AND CARDIOVASCULAR INTERVENTIONS. 2020; 95(2) 339-347. FI: 2.692. Cuartil: 3. (Article).

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- Conen, D; Alonso-Coello, P; Douketis, J; Chan, MTV; Kurz, A; Sigamani, A; Parlow, JL; Wang, CY; Villar, JC; Srinathan, SK; Tiboni, M; Malaga, G; Guyatt, G; Sivakumaran, S; Funes, MVR; Cruz, P; Yang, H; Dresser, GK; Alvarez-Garcia, J; Schricker, T; Jones, PM; Drummond, LW; Balasubramanian, K; Yusuf, S; Devereaux, PJ. *Risk of stroke and other adverse outcomes in patients with perioperative atrial fibrillation 1 year after non-cardiac surgery*. EUROPEAN HEART JOURNAL. 2020; 41(5) 645-651. FI: 29.983. Cuartil: 1. (Article).

- Garutti, I; Errando, CL; Mazzinari, G; Bellon, JM; Diaz-Cambronero, O; Ferrando, C; iPROVE Network. *Spontaneous recovery of neuromuscular blockade is an independent risk factor for postoperative pulmonary complications after abdominal surgery A secondary analysis*. EUROPEAN JOURNAL OF ANAESTHESIOLOGY. 2020; 37(3) 203-211. FI: 4.33. Cuartil: 2. (Article).

- de Miguel-Diez, J; Albaladejo-Vicente, R; Hernandez-Barrera, V; Ji, ZC; Lopez-Herranz, M; Jimenez-Garcia, R; Lopez-de-Andres, A. *Original Hospital admissions for community-acquired, ventilator-associated and nonventilator hospital-acquired pneumonia in COPD patients in Spain (2016-2017).*. EUROPEAN JOURNAL OF INTERNAL MEDICINE. 2020; 79 93-100. FI: 4.487. Cuartil: 1. (Article).

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7.06 Regenerative medicine in plastic surgery

Group Directors: **Rosa Pérez Cano & José María Lasso Vázquez**
Organisms involved: **HGUGM**
Emerging group

Research lines

P1: Regenerative medicine
- L1: Breast reconstruction with stem cells from adipose tissue
- L2: Regeneration of peripheral nerves with stem cells
- L3: Regeneration in other diseases

P2: Gene therapy with viral delivery vehicles
- L1: VGEF in the axial nervous system
- L2: Peripheral nervous system
- L3: Vascular system

P3: Hematopoietic chimerism methods

Group members

Surname		Name	Euraxess Profile	Role
ARENAS	DOMINGO	LUIS JAVIER	R1	First Stage Researcher
CORTINA	ACEVEDO	EDGAR ALFONSO	R1	First Stage Researcher
LASSO	VAZQUEZ	JOSE MARIA	R4	Leading Researcher
NAVA	PÉREZ	PAOLA		
PEREZ	CANO	ROSA	R4I	Leading Researcher

Industrial and intellectual property registrations

Industrial property

Title	Reference*	Owner	Inventors
Matriz artificial de gel de fibrina endotelizada superproductora de factores proangiogénicos	P200501182 (Familia con 5 patentes)	FIBHGM	José María Lasso. Paola Nava

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

7.07 Experimental kidney transplant

Group Director: **Enrique Lledó García / Carlos Hernández Fernández**
Organisms involved: **HGUGM**
Emerging group

Description of the research group

Basic and translational surgical research activity group

Research lines

Axis 1: Renal transplantation and graft preservation. Renal graft preservation. Ischaemia reperfusion injury.
Axis 2: URO-ONCOLOGY
- **L2.1**: Surgical technology applied to uro-oncology
- **L2.2**: Renal tumour with vascular invasion: optimisation of surgical technique and prognostic factors
- **L2.3**: High-risk urothelial carcinoma
- **L2.4**: Development of new diagnostic and treatment techniques for prostate cancer: FUSION BIOPSY

Axis 3: Surgical technique
- **L3.1**: Urethro-genital reconstructive surgery
- **L3.2**: Laser application in urogynaecological pathology of the female pelvic floor

Group members

Surname		Name	Euraxess Profile	Role
ARAGON	CHAMIZO	JUAN		
CANCHO	GIL	MARIA JOSE		
CAÑO	VELASCO	JORGE		
GONZALEZ	GARCIA	FRANCISCO JAVIER		
HERNÁNDEZ	FERNÁNDEZ	CARLOS	R4	Leading Researcher
HERRANZ	AMO	FELIPE BERNARDO	R2	Recognised Researcher
JARA	RASCON	JOSE	R2	Recognised Researcher
LLEDO	GARCIA	ENRIQUE	R4	Leading Researcher
RODRIGUEZ	FERNANDEZ	MARIA ELENA		
SUBIRA	RIOS	DAVID	R1	First Stage Researcher

Clinical Practice Guidelines

Authors	Title	Journal / Reference
A. Breda (Chair), K. Budde, A. Figueiredo, E. Lledó García, J. Olsburgh (Vice-chair), H. Regele. Guidelines Associates: R. Boissier, C. Fraser Taylor, V. Hevia, R.H. Zakri.	**EAU guidelines on renal transplantation-update**	https://uroweb.org/guideline/renal-transplantation/

Publications

Total Impact Factor: **29.8**

	Nº	FI
Own publications	19	20.4
Joint publications	5	9.4
First decile publications	0	-
First quartile publications	1	4.2
Second quartile publications	1	3.1

Third quartile publications	1	2.7
Fourth quartile publications	21	19.8
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	**24**	**29.8**

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

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- Pujol, LP; Amo, FH; Velasco, JC; Rios, DS; Garate, MM; Cavieres, JH; Bernardos, GB; Chomon, GB; Fernandez, ER; Fernandez, CH. *Recurrence risk groups after nephrectomy for renal cell carcinoma*. ACTAS UROLOGICAS ESPANOLAS. 2020; 44(2) 111-118. FI: 0.994. Cuartil: 4. (Article).
- Subira-Rios, D; Herranz-Amo, F; Moralejo-Garate, M; Cano-Velasco, J; Bueno-Chomon, G; Rodriguez-Fernandez, E; Barbas-Bernardos, G; Hernandez-Fernandez, C. *Evaluation of laparoscopic approach in radical cystectomy from implementation to consolidation: Internal validation*. ACTAS UROLOGICAS ESPANOLAS. 2020; 44(2) 62-70. FI: 0.994. Cuartil: 4. (Article).
- Jimenez, GD; Amo, FH; Rios, DS; Fernandez, ER; Chomon, GB; Garate, MM; Merino, RD; Patino, GE; Rodriguez, JC; Fernandez, CH. *Mortality prediction model for patients with bladder urothelial tumor after radical cystectomy*. ACTAS UROLOGICAS ESPANOLAS. 2020; 44(4) 215-223. FI: 0.994. Cuartil: 4. (Article).
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- Fernandez, CH. *The endless evolution of laparoscopic approach*. ACTAS UROLOGICAS ESPANOLAS. 2020; 44(2) 59-61. FI: 0.994. Cuartil: 4. (Editorial Material).
- Martinez-Holguin, E; Herranz-Amo, F; Hernandez-Cavieres, J; Lledo-Garcia, E; Subira-Rios, D; Renedo-Villar, T; Hernandez-Fernandez, C. *Laparoscopic radical prostatectomy compared to open radical prostatectomy: Comparison between surgical time, complications and length of hospital stay*. ACTAS UROLOGICAS ESPANOLAS. 2020; 44(1) 41-48. FI: 0.994. Cuartil: 4. (Article).
- Garcia, EL; Carvajal, A; Reyes, L; Tomada, N. *Sexual Medicine. Ibero-American Issue. A Global Project*. ACTAS UROLOGICAS ESPANOLAS. 2020; 44(5) 261-261. FI: 0.994. Cuartil: 4. (Editorial Material).
- Martinez-Holguin, E; Lledo-Garcia, E; Gonzalez, J; Hernandez-Fernandez, C. *Three-piece inflatable penile prosthesis: Ectopic reservoir placement*. ACTAS UROLOGICAS ESPANOLAS. 2020; 44(5) 367-376. FI: 0.994. Cuartil: 4. (Review).
- Herranz-Amo, F. *Radical retropubic prostatectomy: Origins and evolution of the technique*. ACTAS UROLOGICAS ESPANOLAS. 2020; 44(6) 408-416. FI: 0.994. Cuartil: 4. (Article).
- Pujol, LP; Amo, FH; Velasco, JC; Garate, MM; Rios, DS; Bernardos, GB; de Castro, JM; Chamizo, JA; Alonso, AH; Fernandez, CH. *Analysis of recurrence trends according to risk groups after renal cancer nephrectomy*. ACTAS UROLOGICAS ESPANOLAS. 2020; 44(8) 554-560. FI: 0.994. Cuartil: 4. (Article).
- Bernardos, GB; Amo, FH; San Segundo, CG; Velasco, JC; Rios, DS; Garate, MM; de Castro, JM; Chamizo, JA; Fernandez, CH. *Survival analysis of patients with prostate cancer and unfavorable risk factors treated with radical prostatectomy and salvage radiotherapy after biochemical recurrence and persistence*. ACTAS UROLOGICAS ESPANOLAS. 2020; 44(10) 701-707. FI: 0.994. Cuartil: 4. (Article).
- Herranz-Amo, F. *Radical retropubic prostatectomy: Preservation of urinary continence*. ACTAS UROLOGICAS ESPANOLAS. 2020; 44(10) 674-681. FI: 0.994. Cuartil: 4. (Article).
- Martinez-Holguin, E; Herranz-Amo, F; Lledo-Garcia, E; Ruiz-Bel, J; Esteban-Labrador, L; Subira-Rios, D; Hernandez-Fernandez, C. *Comparison between laparoscopic and open prostatectomy: Postoperative urinary continence analysis*. ACTAS UROLOGICAS ESPANOLAS. 2020; 44(8) 535-541. FI: 0.994. Cuartil: 4. (Article).

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- Alvarez, RQ; Amo, FBH; de Castro, JM; Fernandez, CH. *External iliac artery dissection with prosthesis replacement in renal transplantation*. ACTAS UROLOGICAS ESPANOLAS. 2020; 44(9) 639-639. FI: 0.994. Cuartil: 4. (Letter).
- Barbas-Bernardos, G; Herranz-Amo, F; Cano-Velasco, J; Gonzalo-Balbas, A; Subira-Rios, D; Moralejo-Garate, M; Mayor-de Castro, J; Escribano-Patino, G; Rodriguez-Fernandez, E; Aragon-Chamizo, J; Fernandez, CH. *Effect of surgical approach on radical nephrectomy outcomes: Comparative study between open and laparoscopic nephrectomy*. ARCHIVOS ESPANOLES DE UROLOGIA. 2020; 73(3) 172-182. FI: 0.436. Cuartil: 4. (Article).
- Fraile, A; Iribarren, IM; Abal, VC; Fernandez-Pascual, E; Otero, JR; Isa, M; Lledo, E; Egui-Rojo, A; Garcia-Baquero, R; Torremade, J; Sarquella, J; Ascanio, EF; Cruz, N; Martinez-Jabaloyas, JM; Lujan, S; Cruz, EG; Martinez-Salamanca, JI. *Andrology and penile cancer. Recommendations during COVID-19 pandemia*. ARCHIVOS ESPANOLES DE UROLOGIA. 2020; 73(5) 395-404. FI: 0.436. Cuartil: 4. (Article).
- Lledo-Garcia, E; Gonzalez, J; Martinez-Holguin, E; Herranz-Amo, F; Hernandez-Fernandez, C. *Beyond the Limits: How to Avoid a Surgical Nightmare in the Third and Subsequent Renal Transplantation Procedures*. CURRENT UROLOGY REPORTS. 2020; 21(2). FI: 3.092. Cuartil: 2. (Article).
- Angulo, JC; Virseda-Chamorro, M; Arance, I; Ruiz, S; Ojea, A; Carballo, M; Rodriguez, A; Pereira, J; Teyrouz, A; Rebassa, M; Escribano, G; Teba, F; Celada, G; Madurga, B; Martins, FE; Mendes, PA; Cruz, F. *Long-term outcome of adjustable transobturator male system for stress urinary incontinence in the Iberian multicentre study*. NEUROUROLOGY AND URODYNAMICS. 2020; 39(6) 1737-1745. FI: 2.696. Cuartil: 3. (Article).
- Jose, FG; Gonzalez, JGA; Molina, JMC; Arnau, LB; Iribarren, IM; Jabaloyas, JMM; Rico, FM; Garcia-Baquero, R; Gaya, MR; Garcia, EL; Lopez, CL; Castro, RP; Salamanca, JIM. *SARS-CoV-2 infection: implications for sexual and reproductive health. A position statement of the Asociacion Espanola de Andrologia, Medicina Sexual y Reproductiva (ASESA)*. REVISTA INTERNACIONAL DE ANDROLOGIA. 2020; 18(3) 117-123. FI: 1.063. Cuartil: 4. (Article).
- Llorente, C; Guijarro, A; Hernandez, V; Fernandez-Conejo, G; Passas, J; Aguilar, L; Tejido, A; Hernandez, C; Moralejo, M; Subira, D; Gonzalez-Enguita, C; Husillos, A; Ortiz, F; Sanchez-Chapado, M; Carballido, J; Castillon, I; Mateo, E; Romero, I; del Alamo, JF; Llanes, L; Blazquez, C; Sanchez-Encinas, M; Borrego, J; Tellez, M; Diez, L; Carrero, VM; Perez-Fernandez, E; Fuentes-Ramirez, L; Del Valle, SG. *Outcomes of an enhanced recovery after radical cystectomy program in a prospective multicenter study: compliance and key components for success*. WORLD JOURNAL OF UROLOGY. 2020; 38(12) 3121-3129. FI: 4.226. Cuartil: 1. (Article).

7.08 Pediatric endocrinology

Group Director: **Mª Dolores Rodríguez Arnao**
Organisms involved: **HGUGM**
Associated Group

Research lines

L1: Pediatric endocrinology. Hypothyroidism
L2: Gene therapy: polymorphisms and mutations
L3: Hormone therapy

Group members

Surname		Name	Euraxess Profile	Role
MONTERO	GARCIA	VIRGINIA	R1	First Stage Researcherl
MORILLAS	CANTERO	ISABEL	R1	First Stage Researcherl
RODRIGUEZ	ARNAO	MARIA DOLORES	R4	Leading Researcher
RODRIGUEZ	SANCHEZ	AMPARO	R1	First Stage Researcher
ROLDÁN	MARTÍN	BELÉN	R1	First Stage Researcher

Publications

Total Impact Factor **6.1**

	Nº	IF
Own publications	2	1.5
Joint publications	2	4.6
First decile publications	0	-
First quartile publications	0	0.0
Second quartile publications	0	0.0
Third quartile publications	1	3.1
Fourth quartile publications	3	3.0
Nonindexed publications / No IF	1	-
Total publications (including those without IF)	**5**	**6.1**

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

- Carcavilla, A; Suarez-Ortega, L; Sanchez, AR; Gonzalez-Casado, I; Ramon-Krauel, M; Labarta, JI; Gonzalez, SQ; Galan, IR; Zubicaray, BE; Lopez-Siguero, JP. *Noonan syndrome: genetic and clinical update and treatment options*. ANALES DE PEDIATRIA. 2020; 93(1). FI: 1.5. Cuartil: 4. (Article).
- Morales, LG; Arnao, MDR; Sanchez, AR; Iniguez, ED; Gonzalez, MAA. *Sustained attention in school-age children with congenital hypothyroidism: Influence of episodes of overtreatment in the first three years of life*. NEUROLOGIA. 2020; 35(4) 226-232. FI: 3.109. Cuartil: 3. (Article).
- Sitja, MM; Fernandez, MS; Gonzalez-Pinto, LC; Sanchez, AR. *Impact of the COVID-19 pandemic on Neonatal Screening for Congenital Hypothyroidism*. REVISTA ESPANOLA DE SALUD PUBLICA. 2020; 94. FI: 0.756. Cuartil: 4. (Article).
- Fernandez, MS; Sitja, MM; Pinto, LCG; Sanchez, AR. *Analysis of the degree of clinical suspect in patients with congenital adrenal hyperplasia by 21-hydroxylase deficiency before obtaining the result of the newborn screening program of the autonomous Community of Madrid*. REVISTA ESPANOLA DE SALUD PUBLICA. 2020; 94. FI: 0.756. Cuartil: 4. (Article).

Others Publications

- Mora Sitja M; Sanz Fernández M; Carrascón González-Pinto L; Rodríguez Sánchez A. *Impacto de la pandemia por COVID-19 en el cribado neonatal de hipotirodismo congénito.*. REVISTA ESPANOLA DE SALUD PUBLICA. 2020; 94. (Article).

7.10 Regeneration and biomaterials in musculoskeletal diseases

Group Director**: Francisco Javier Vaquero Martín**
Organisms involved: **HGUGM**
UCM
Associated Group

Description of the research group

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.

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

Group members

Surname		*Name*	*Euraxess Profile*	*Role*
CALVO	HARO	JOSE 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
LOPEZ	TORRES	IRENE ISABEL		
MATAS	DIAZ	JOSE ANTONIO	R1	First Stage Researcher
NARBONA	CARCELES	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	FRANCISCO JAVIER	R4	Leading Researcher

Cooperative Research Structures

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

Industrial and intellectual property registrations

Industrial property

Title	*Reference**	*Owner*	*Inventors*
Bone cement comprising microencapsulated antimicrobial compounds	EP16382170.5)		Carbo E, Sanz-Ruiz P, Vaquero J, Del Real JC, Ballesteros MY, Paz E, Aran F, Pérez-Limiñana MA, Sánchez-Navarro MM.

Publications *Total Impact Factor: **27.9***

	Nº	FI
Own publications	7	16.8
Joint publications	5	11.1
First decile publications	0	-
First quartile publications	1	4.8
Second quartile publications	5	13.8
Third quartile publications	3	5.8
Fourth quartile publications	3	3.6
Nonindexed publications / No IF	2	-
Total publications (including those without IF)	**14**	**27.9**

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

- Moreta-Martinez, R; Calvo-Haro, JA; Perez-Mananes, R; Garcia-Sevilla, M; Mediavilla-Santos, L; Pascau, J. *Desktop 3D Printing: Key for Surgical Navigation in Acral Tumors?*. APPLIED SCIENCES-BASEL. 2020; 10(24). FI: 2.679. Cuartil: 2. (Article).
- Ribed, A; Monje, B; Garcia-Gonzalez, X; Sanchez-Somolinos, M; Sanz-Ruiz, P; Rodriguez-Gonzalez, CG; Sanjurjo-Saez, M. *Improving surgical antibiotic prophylaxis adherence and reducing hospital readmissions: a bundle of interventions including health information technologies*. EUROPEAN JOURNAL OF HOSPITAL PHARMACY. 2020; 27(4) 237-242. FI: 1.652. Cuartil: 4. (Article).
- De Prado, M; Cuervas-Mons, M; De Prado, V; Golano, P; Vaquero, J. *Does the minimally invasive complete plantar fasciotomy result in deformity of the Plantar arch? A prospective study*. FOOT AND ANKLE SURGERY. 2020; 26(4) 347-353. FI: 2.705. Cuartil: 2. (Article).
- Mikel, AB; Javier, AB; Fausto, LM; Angel, PM; Irene, LT; Carlos, AG. *A retrospective comparative cohort study of radial head arthroplasty versus resection in complex elbow dislocations*. INJURY-INTERNATIONAL JOURNAL OF THE CARE OF THE INJURED. 2020; 51 89-93. FI: 2.586. Cuartil: 2. (Article).
- Lopez-Torres, II; Sanz-Ruiz, P; Montero-Fernandez, N; Chana, F; Serra-Rexach, JA; Benjumea-Carrasco, A; Vaquero-Martin, J. *Surgical treatment of hip fracture in centenarians: Complications and independent risk factors of death*. INJURY-INTERNATIONAL JOURNAL OF THE CARE OF THE INJURED. 2020; 51 25-29. FI: 2.586. Cuartil: 2. (Article).
- Sanz-Ruiz, P; Matas-Diez, JA; Villanueva-Martinez, M; Blanco, ADV; Vaquero, J. *Is Dual Antibiotic-Loaded Bone Cement More Effective and Cost-Efficient Than a Single Antibiotic-Loaded Bone Cement to Reduce the Risk of Prosthetic Joint Infection in Aseptic Revision Knee Arthroplasty?*. JOURNAL OF ARTHROPLASTY. 2020; 35(12) 3724-3729. FI: 4.757. Cuartil: 1. (Article).
- Cuervas-Mons, M; Leon-Roman, E; Solans, C; Martinez-Ayora, A; Vaquero, J. *Retrograde Tibial Nail and Trabecular Titanium Spacer Block for the Treatment of Missing Talus: A Rare Case Report*. JOURNAL OF FOOT & ANKLE SURGERY. 2020; 59(1) 184-189. FI: 1.286. Cuartil: 4. (Article).
- Iborra-Marcos, A; Villanueva-Martinez, M; Barrett, SL; Sanz-Ruiz, P. *Ultrasound-Guided Decompression of the Intermetatarsal Nerve for Morton's Neuroma A Novel Closed Surgical Technique*. JOURNAL OF THE AMERICAN PODIATRIC MEDICAL ASSOCIATION. 2020; 110(6). FI: 0.675. Cuartil: 4. (Article).

- Moreta-Martinez, R; Garcia-Mato, D; Garcia-Sevilla, M; Perez-Mananes, R; Calvo-Haro, JA; Pascau, J. *Combining Augmented Reality and 3D Printing to Display Patient Models on a Smartphone*. JOVE-JOURNAL OF VISUALIZED EXPERIMENTS. 2020; (155). FI: 1.355. Cuartil: 3. (Article).
- Alonso, B; Bravo, B; Mediavilla, L; Gortazar, AR; Forriol, F; Vaquero, J; Guisasola, MC. *Osteoarthritis-related biomarkers profile in chronic anterior cruciate ligament injured knee*. KNEE. 2020; 27(1) 51-60. FI: 2.199. Cuartil: 3. (Article).
- Lopez-Torres, II; Sanz-Ruiz, P; Navarro-Garcia, F; Leon-Roman, VE; Vaquero-Martin, J. *Experimental reproduction of periprosthetic joint infection: Developing a representative animal model*. KNEE. 2020; 27(3) 1106-1112. FI: 2.199. Cuartil: 3. (Article).
- Garcia-Vazquez, V; Calvo, FA; Ledesma-Carbayo, MJ; Sole, CV; Calvo-Haro, J; Desco, M; Pascau, J. *Intraoperative computed tomography imaging for dose calculation in intraoperative electron radiation therapy: Initial clinical observations*. PLOS ONE. 2020; 15(1). FI: 3.24. Cuartil: 2. (Article).

Publications of the main WOS collection in journals without impact factor:

- Sanz-Ruiz, P; Berberich, C. *Infection Risk-Adjusted Antibiotic Prophylaxis Strategies in Arthroplasty: Short Review of Evidence and Experiences of a Tertiary Center in Spain*. ORTHOPEDIC RESEARCH AND REVIEWS. 2020; 12 89-96. (Review).

Other publications

- Sánchez-Pérez C; Fernández-Santos ME; Chana-Rodríguez F; Vaquero-Martín J; Crego-Vita D; Carbó Laso E; González de Torre I; Narbona-Cárceles J. *In vitro chondral culture under compression and shear stimuli. From mesenchymal stem cells to hyaline cartilage*. REVISTA ESPANOLA DE CIRUGIA ORTOPEDICA Y TRAUMATOLOGIA. 2020; 64(6) 380-387. (Article)

7.11 Iron metabolism disorders

Group Director: **Rosa Peraita Adrados**
Organisms involved: **HGUGM**
Associated Group

Description of the research group

Multidisciplinary team, focused on the study of the physiopathology of iron, and its involvement in systemic pathology, with special interest in sleep pathology.
During 2019 the studies have been mainly related to Restless Legs Syndrome, and Narcolepsy.
Since 2014 we are developing a prospective study on iron physiopathology and Restless Legs Syndrome in blood donors.
In 2019 the clinical data collection was completed and the database was completed.

Research lines

Axis 1: Iron pathophysiology and sleep disorders
L1: Restless Legs Syndrome in blood donors.

Group members

Surname		*Name*	*Euraxess Profile*	*Role*
CLAVERO	OLMOS	MARTA	R1	First Stage Researcher
GARCÍA-ESPONA	PANCORBO	ALEJANDRO	R1	First Stage Researcher
GUILLEN	MESADO	AMPARO		
LILLO	TRIGUERO	LAURA		
LOPEZ	APARICIO	ANA	R1	First Stage Researcher
MATSKIV		NADIYA		
PERAITA	ADRADOS	ROSA	R4	Leading Researcher
SANCHEZ	PABLO	MIGUEL ANGEL		

Publications

Total Impact Factor: ***9.9***

	Nº	FI
Own publications	3	9.9
Joint publications	0	0.0
First decile publications	0	-
First quartile publications	0	0.0
Second quartile publications	3	9.9
Third quartile publications	0	0.0
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	**3**	**9.9**

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

- Medrano-Martinez, P; Peraita-Adrados, R. *Neuropsychological Alterations in Narcolepsy with Cataplexy and the Expression of Cognitive Deficits*. JOURNAL OF THE INTERNATIONAL NEUROPSYCHOLOGICAL SOCIETY. 2020; 26(6) 587-595. FI: 2.892. Cuartil: 2. (Article).

- Peraita-Adrados, R; Lillo-Triguero, L; Medrano-Martinez, P; Fernez-Arquero, M. *A new family case of narcolepsy with cataplexy and multiple sclerosis: implication of immunogenic mechanisms in the pathophysiology of both diseases*. SLEEP MEDICINE. 2020; 71 47-47. FI: 3.492. Cuartil: 2. (Letter).
- Peraita-Adrados, R; Medrano-Martinez, P; Peirano, P; Algarin, C; Lillo-Triguero, L. *RLS with PLMS in a child with hemolytic anemia caused by pyruvate kinase deficiency*. SLEEP MEDICINE. 2020; 69 100-102. FI: 3.492. Cuartil: 2. (Editorial Material).

Publications of the main WOS collection in journals without impact factor:

- Peraita-Adrados, R. *IN MEMORIAM William C. Dement (1928-2020), has works published, Professor*. REVISTA DE NEUROLOGIA. 2020; 71(6) 236-236. (Biographical-Item).

7.12 Emergency medicine

Group Director: **Javier Muñoz González**
Organisms involved: **HGUGM**
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

Surname		*Name*	*Euraxess Profile*	*Role*
DE LA CALLE	REVIRIEGO	BRAULIO	R1	First Stage Researcher I
GARCIA	OLIVARES	PABLO	R1	First Stage Researcher I
GUERRERO	SANZ	JOSE EUGENIO	R2	Recognised Researcher
MUÑOZ	GONZALEZ	JAVIER	R4	Leading Researcher
SÁNCHEZ	FERNÁNDEZ	GUIOMAR		
SANTA TERESA	ZAMARRO	PATRICIA	R2	Recognised Researcher
SOTILLO	DÍAZ	JUAN CARLOS	R2	Recognised Researcher
TOMEY	SORIA	MARÍA JESÚS	R1	First Stage Researcher

7.16 Regenerative medicine and system development: cardiovascular and osteochondral

Group Director: **Begoña Quintana Villamandos**
Organisms involved: **HGUGM**
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.

Axis 4: Plate Transplantation
- Line 1: Formation of cryopreserved growth plate bank
- Line 2: Immunosuppression therapies
- Line 3: Mixed plate transplantation plus bone grafting

Group members

Surname		*Name*	*Euraxess Profile*	*Role*
ARNALICH	MONTIEL	ANA	R2	Recognised Researcher
ARRIBAS	RODRIGUEZ	SILVIA MAGDALENA	R2	Recognised Researcher
DELGADO	BAEZA	EMILIO	R3	Recognised Researcher
DELGADO	MARTOS	MARIA JESUS	R2	Recognised Researcher
GÓMEZ	DE DIEGO	JOSÉ JUAN	R2	Recognised Researcher
GONZALEZ	GARCIA	MARIA 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	MARIA BEGOÑA	R4	Leading Researcher
ARNALICH	MONTIEL	ANA	R2	Recognised Researcher
ARRIBAS	RODRIGUEZ	SILVIA MAGDALENA	R2	Recognised Researcher
DELGADO	BAEZA	EMILIO	R3	Recognised Researcher

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: **Aeroevacuación en un escenario real: nueva herramienta de aprendizaje en las futuras generaciones de estudiantes de medicina.** PIMCD-245
DIRECTOR: QUINTANA VILLAMANDOS, BEGOÑA
PROJECT TYPE: Innovation project
FUNDING BODY: UCM
START DATE: 09/01/2018
END DATE: 31/12/2020

TITLE: **Innovación en la docencia del grado de medicina: aerotransporte de pacientes con alto riesgo de contaminacion 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 aeroevacuación 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

Doctoral theses. Bachelor theses and Master theses

Type	*Candidate*	*Title*	*Name/s Director/s*	*University*	*Date Defended*
Ph Thesis	**Mónica Barranco Benito**	Nuevos avances en la monitorización del gasto cardiaco en asistencia mecánica circulatoria. estudio experimental	Maria Begoña Quintana Villamandos Juan Francisco Del Cañizo López	UCM	26/02/2020
Ph Thesis	**M Sofia Vieira**	Relación entre el sistema renina angiotensina y la neurotransmisión simpática vascular en la programación fetal de la hipertensión: enfocado en la capa adventicia	Silvia M Arribas	UAM- Mención internacional	20/05/2020

Industrial and intellectual property registrations

Industrial property

Title	*Reference**	*Owner*	*Inventors*
Use of esmolol for early regresion of left ventricular hypertrophy	EP10382141 (Familia con 2 patentes)	FIBHGM	Emilio Delgado Begoña Quintana
Dispositivo protector bucal con depresor lingual	P 201531508	FIBHGM	Guillermo Juan Rodríguez Javier Casanova

	Transferred patents

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

Publilications *Total Impact Factor: **9.7***

	Nº	FI
Own publications	2	9.7
Joint publications	0	0.0
First decile publications	0	-
First quartile publications	2	9.7
Second quartile publications	0	0.0
Third quartile publications	0	0.0
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	**2**	**9.7**

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

- Pazo-Sayos, L; Gonzalez, MC; Quintana-Villamandos, B. *Inhibition of the NFATc4/ERK/AKT Pathway and Improvement of Thiol-Specific Oxidative Stress by Dronedarone Possibly Secondary to the Reduction of Blood Pressure in an Animal Model of Ventricular Hypertrophy*. FRONTIERS IN PHYSIOLOGY. 2020; 11. FI: 4.566. Cuartil: 1. (Article).
- Quintana-Villamandos, B; Pazo-Sayos, L; del Pozo, IG; Rodriguez-Rodriguez, P; Bellon, JM; Pedraz-Prieto, A; Pinto, AG; Gonzalez, MC. *OXY-SCORE: a new perspective for left ventricular hypertrophy diagnosis*. THERAPEUTIC ADVANCES IN CHRONIC DISEASE. 2020; 11. FI: 5.091. Cuartil: 1. (Article).

7.18 Peritransplant evaluation of the liver

Group Director: **José María Pérez Peña**
Organisms involved: **HGUGM**
Associated Group

Description of the research group

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 had previously studied the preoperative evaluation of cardiomyopathy in cirrhotic patients and its influence on intraoperative behavior during LT. We are currently investigating the utility of cardiac biomarkers (troponin and proBNP) and intraoperative monitoring of cardiac and pulmonary hemodynamic parameters during LT with respect to perioperative morbidity and mortality after transplant.
3. Influence of anesthetic agents in major liver surgery and LT.
   The various anesthetics induce variations in hepatic blood flow, systemic and portal hemodynamics, and modulation of the inflammatory response during liver surgery and LT. Our group is using an experimental porcine model to evaluate the effects of the anesthetics used in clinical practice (sevoflurane and propofol) on liver hemodynamics and function after extensive resection.
4. Our group forms part of a multidisciplinary clinical and experimental research team composed of hepatologists, surgeons, pathologists, biochemists, and anesthesiologists from HGU Gregorio Marañón. In recent years, the team has been developing a research line in a porcine experimental model of the
   pathophysiological mechanisms that affect in the development of acute liver failure after extensive resection and "small for size" syndrome, as well as the effects of normothermic perfusion on marginal donor liver graft recovery and liver regeneration.

Research lines

L1: Evaluation of early graft function in human liver transplantation.
L2: Usefulness of cardiac biomarkers in liver transplantation.
L3: Influence of anaesthetic agents in major liver surgery.

Group members

Surname		Name	Euraxess Profile	Role
DUQUE	GONZÁLEZ	PATRICIA	R2	Recognised Researcher
JIMENEZ	DE LA FUENTE	CONSOLACIÓN	R1	First Stage Researcher
LISBONA	SAEZ	CRISTINA JULIA	R2	Recognised Researcher
OLMEDILLA	ARNAL	LUÍS ENRIQUE	R2	Recognised Researcher
PEREZ	PEÑA	JOSÉ MARÍA	R4	Leading Researcher
VILCHEZ	MONGE	ALMUDENA LUCIA	R1	First Stage Researcher
DUQUE	GONZÁLEZ	PATRICIA	R2	Recognised Researcher

Cooperative Research Structures

Type (RETIC, CIBER, others.))	Name of Network	Role
Others	Spanish Perioperative Audit and Research Network (REDGERM)	Coordinating group

Publications *Total Impact Factor: **27.3***

	Nº	FI
Own publications	2	10.9
Joint publications	5	16.4
First decile publications	2	12.7
First quartile publications	3	17.8
Second quartile publications	2	6.1
Third quartile publications	0	0.0
Fourth quartile publications	2	3.3
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	**7**	**27.3**

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

- Duque, P; Mora, L; Levy, JH; Schochl, H. *Pathophysiological Response to Trauma-Induced Coagulopathy: A Comprehensive Review*. ANESTHESIA AND ANALGESIA. 2020; 130(3) 654-664. FI: 5.108. Cuartil: 1. (Review).

- Ramirez-Rodriguez, JM; Martinez-Ubieto, J; Munoz-Rodes, JL; Rodriguez-Fraile, JR; Garcia-Erce, JA; Blanco-Gonzalez, J; Del Valle-Hernandez, E; Abad-Gurumeta, A; Centeno-Robles, E; Martinez-Perez, C; Leon-Arellano, M; Echazarreta-Gallego, E; Elia-Guedea, M; Pascual-Bellosta, A; Miranda-Tauler, E; Manuel-Vazquez, A; Balen-Rivera, E; Alvarez-Martinez, D; Perez-Pena, J; Abad-Motos, A; Redondo-Villahoz, E; Biosta-Perez, E; Guadalajara-Labajo, H; Ripolles-Melchor, J; Latre-Saso, C; de Laspra, ECD; Sanchez-Guillen, L; Cabellos-Olivares, M; Longas-Valien, J; Ortega-Lucea, S; Ocon-Breton, J; Arroyo-Sebastian, A; Garcia-Olmo, D. *Surgical treatment for colorectal cancer: analysis of the influence of an enhanced recovery programme on long-term oncological outcomes-a study protocol for a prospective, multicentre, observational cohort study*. BMJ OPEN. 2020; 10(10). FI: 2.692. Cuartil: 2. (Article).

- Diaz-Catribronero, O; Mazzinari, G; Lorente, BF; Gregorio, NG; Robles-Hernandez, D; Arnal, LEO; de Pablos, AM; Schultz, MJ; Errando, CL; Navarro, MPA; IPPColLapSe II Study Investigators. *Effect of an individualized versus standard pneumoperitoneum pressure strategy on postoperative recovery: a randomized clinical trial in laparoscopic colorectal surgery*. BRITISH JOURNAL OF SURGERY. 2020; 107(12) 1605-1614. FI: 6.939. Cuartil: 1. (Article).

- Orue-Echebarria, MI; Lozano, P; Olmedilla, L; Sabrido, JLG; Asencio, JM. *"Small-for-Flow" Syndrome: Concept Evolution*. JOURNAL OF GASTROINTESTINAL SURGERY. 2020; 24(6) 1386-1391. FI: 3.452. Cuartil: 2. (Article).

- Vilchez-Monge, AL; Garutti, I; Jimeno, C; Zaballos, M; Jimenez, C; Olmedilla, L; Pi?eiro, P; Duque, P; Salcedo, M; Asencio, JM; Lopez-Baena, JA; Maruszewski, P; Ba?ares, R; Perez-Pena, JM. *Intraoperative Troponin Elevation in Liver Transplantation Is Independently Associated With Mortality: A Prospective Observational Study*. LIVER TRANSPLANTATION. 2020; 26(5) 681-692. FI: 5.799. Cuartil: 1. (Article).

- Asencio, JM; Cortese, S; Baena, JAL; Olmedilla, L; Pena, JMP; Salcedo, MM; Matilla, A; Martin, L; Martinez, C; Orue-Echebarria, MI; Lozano, P. *Evaluation of Plasma Disappearance Rate Indocyanine Green Clearance as a Predictor of Liver Graft Rejection in Donor Brain Death*. TRANSPLANTATION PROCEEDINGS. 2020; 52(5) 1472-1476. FI: 1.066. Cuartil: 4. (Article).

- Diaz-Cambronero O; Mazzinari G; Errando CL; Schultz MJ; Lorente BF; García-Gregorio N; Montañés MV; Robles-Hernández D; Arnal LEO; Martín-De-Pablos A; Marí AM; Navarro MPA. *Correction to: An individualised versus a conventional pneumoperitoneum pressure strategy during colorectal laparoscopic surgery: rationale and study protocol for a multicentre randomised clinical study.*. TRIALS. 2020; 21(1) 70-70. FI: 2.279. Cuartil: 4. (Article).

7.19 Perianesthesia assessment

Group Director: **Mª Carmen Fernández Riveira**
Organisms involved: **HGUGM**
Associated Group

Group members

Surname		Name	Euraxess Profile	Role
DEL CASTILLO		TERESA	R1	First Stage Researcher
DIAZ	RUANO	SUSANA	R1	First Stage Researcher
FERNANDEZ	FERNANDEZ	ALEJANDRO	R1	First Stage Researcher
FERNANDEZ	RIVEIRA	Mª CARMEN	R4	Leading Researcher
MEMBRILLO	RUBALCABA	MARIA JOSE	R1	First Stage Researcher
MIGUEL	GUIJARRO	Mª ANGELES	R1	First Stage Researcher
OROZCO	GALEANO	HUGO DAVID	R1	First Stage Researcher
PALENCIA	JORGE	MARIA	R1	First Stage Researcher
REYES	OSORIO	IFDEL EDUARDO	R1	First Stage Researcher
RIAÑO	MENDEZ	BIBIANA	R1	First Stage Researcher
SAN JUAN	LÓPEZ	ERIKA	R1	First Stage Researcher
SANZ	FERNANADEZ	JAVIER	R2	Recognised Researcher
TORRE	OÑATE	Mª TERESA	R1	First Stage Researcher
VALERA	CABO	JESUS ALBERTO	R1	First Stage Researcher

7.20 Anesthesia, toxins and arrhythmias

Group Director: **Matilde Zeballos García**
Organisms involved: **HGUGM**
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

Group members

Surname		*Name*	*Euraxess Profile*	*Role*
ALMENDRAL	GARROTE	JESUS	R3	Established Researcher
ANADON	BASELGA	MARIA JOSE	R2	Recognised Researcher
CALLEJO	CRESPO	DAVID	R1	First Stage Researcher
QUINTELA	JORGE	OSCAR	R1	First Stage Researcher
SEVILLA	BAYÓN	RAÚL	R2	Recognised Researcher
VARELA	GARCÍA	OLALLA	R1	First Stage Researcher I
ZABALLOS	GARCIA	MATILDE	R4	Leading Researcher

Research Projects – Competitive Calls

- **Competitive projects**

TITLE: **Evaluación de la eficacia de dos antídotos: bicarbonato sódico versus intralipid en un modelo porcino de farmacotoxicidad cardiaca por ropivacaína. Análisis del impacto en los parámetros hemodinámicos, electroctrocardiográficos, electrofisiológicos y de las arritmias**. PI15/00695
DIRECTOR: ZABALLOS GARCÍA, MATILDE
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2016
END DATE: 30/11/2020

Publications

Total Impact Factor: ***11.1***

	Nº	FI
Own publications	1	2.2
Joint publications	2	8.9
First decile publications	1	5.8
First quartile publications	1	5.8
Second quartile publications	0	0.0
Third quartile publications	1	3.1
Fourth quartile publications	1	2.2
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	**3**	**11.1**

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

- Monteserin-Matesanz, C; Gonzalez, T; Anadon-Baselga, MJ; Zaballos, M. *Supreme (TM) laryngeal mask airway insertion requires a lower concentration of sevoflurane than ProSeal (TM) laryngeal mask airway insertion during target-controlled remifentanil infusion: a prospective randomised controlled study*. BMC ANESTHESIOLOGY. 2020; 20(1). FI: 2.217. Cuartil: 4. (Article).
- Vilchez-Monge, AL; Garutti, I; Jimeno, C; Zaballos, M; Jimenez, C; Olmedilla, L; Pi?eiro, P; Duque, P; Salcedo, M; Asencio, JM; Lopez-Baena, JA; Maruszewski, P; Ba?ares, R; Perez-Pena, JM. *Intraoperative Troponin Elevation in Liver Transplantation Is Independently Associated With Mortality: A Prospective Observational Study*. LIVER TRANSPLANTATION. 2020; 26(5) 681-692. FI: 5.799. Cuartil: 1. (Article).
- Ripolles-Melchor, J; Zaballos-Garcia, M; Monge Garcia, MI. *The phenylephrine challenge*. MINERVA ANESTESIOLOGICA. 2020; 86(10) 1015-1018. FI: 3.051. Cuartil: 3. (Editorial Material).

7.21 Biopathology of aging

Group Director: **José Antonio Serra Rexach**
Organisms involved: **HGUGM**
Consolidated Group

Description of the research group

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) capable of successfully participating in competitive calls for projects and human resources.
Our research field covers a wide range of pathology related to ageing, especially linked to fragility: cardiovascular pathology, hip fracture, physical activity, etc. In addition, we have designed interventions to improve the prognosis in hospitalized elderly people (prevention of functional impairment and confusional conditions). Likewise, we have valued the usefulness of ICTs in the care of the elderly. Our most relevant contributions have contributed to modify the clinical practice in such important pathologies as the management of the acute confusional picture or the hip fracture.
Recently we have participated in the design of an Integrated Project of Excellence "Athero-Brain: Heart to Head (H2H) Study", finally funded, in which our group (Dr. Vidán) participates together with the National Center of Cardiovascular Research and the Cardiology Service of the Hospital 12 de Octubre in Madrid.
This solid background has contributed to our group being included as one of the 20 recently created CIBER groups on "fragility and aging" (CIBERFES) that has started in 2017.

Research lines

Axis 1: Frailty and cardiovascular disease
Axis 2: Frailty and cognition
Axis 3: Frailty and hip fracture
Axis 4: Physical exercise to prevent disability during hospitalization
Axis 5: Use of communication and information technologies (CIT) to help frailty patients with disability

Group members

Surname		*Name*	*Euraxess Profile*	*Role*
MAYORDOMO	CAVA	JENNIFER	R2	Recognised Researcher
MONTERO	FERNANDEZ	NURIA	R1	First Stage Researcher
ORTIZ	ALONSO	JAVIER	R3	Established Researcher
SERRA	REXACH	JOSÉ ANTONIO	R4	Leading Researcher
VIDAN	ASTIZ	MARÍA TERESA	R3	Established Researcher
ZARRALANGA	LASOBRAS	TERESA	R1	First Stage Researcher

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: 31/12/2021

Cooperative Research Structures

Type (RETIC. CIBER. others.)	*Name of Network*	*Role*

CIBER	CIBERFES. Fragilidad y envejecimiento saludable	Collaborating group

Publications *Total Impact Factor:* ***52.4***

	Nº	FI
Own publications	4	20.1
Joint publications	8	32.3
First decile publications	2	16.5
First quartile publications	5	30.5
Second quartile publications	4	16.6
Third quartile publications	1	2.2
Fourth quartile publications	2	3.1
Nonindexed publications / No IF	3	-
Total publications (including those without IF)	**15**	**52.4**

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

- Valenzuela, PL; Morales, JS; Castillo-Garcia, A; Mayordomo-Cava, J; Garcia-Hermoso, A; Izquierdo, M; Serra-Rexach, JA; Lucia, A. *Effects of exercise interventions on the functional status of acutely hospitalised older adults: A systematic review and meta-analysis*. AGEING RESEARCH REVIEWS. 2020; 61. FI: 10.895. Cuartil: 1. (Review).
- Mayordomo-Cava, J; Iborra-Lazaro, G; Djebari, S; Temprano-Carazo, S; Sanchez-Rodriguez, I; Jeremic, D; Gruart, A; Delgado-Garcia, JM; Jimenez-Diaz, L; Navarro-Lopez, JD. *Impairments of Synaptic Plasticity Induction Threshold and Network Oscillatory Activity in the Hippocampus Underlie Memory Deficits in a Non-Transgenic Mouse Model of Amyloidosis*. BIOLOGY-BASEL. 2020; 9(7). FI: 5.079. Cuartil: 1. (Article).
- Lopez-Torres, II; Sanz-Ruiz, P; Montero-Fernandez, N; Chana, F; Serra-Rexach, JA; Benjumea-Carrasco, A; Vaquero-Martin, J. *Surgical treatment of hip fracture in centenarians: Complications and independent risk factors of death*. INJURY-INTERNATIONAL JOURNAL OF THE CARE OF THE INJURED. 2020; 51 25-29. FI: 2.586. Cuartil: 2. (Article).
- Mayordomo-Cava, J; Abasolo, L; Montero-Fernandez, N; Ortiz-Alonso, J; Vidan-Astiz, M; Serra-Rexach, JA. *Hip Fracture in Nonagenarians: Characteristics and Factors Related to 30-Day Mortality in 1177 Patients*. JOURNAL OF ARTHROPLASTY. 2020; 35(5) 1186-1193. FI: 4.757. Cuartil: 1. (Article).
- Ariza-Sole, A; Lorente, V; Formiga, F; Lopez-Palop, R; Sanchis, J; Marin, F; Vidan, MT; Martinez-Selles, M; Sanchez-Salado, JC; Garay, A; Guerrero, C; Bueno, H; Alegre, O; Abu-Assi, E; Cequier, A; LONGEVO-SCA Registry Investigators. *Prognostic impact of anemia according to frailty status in elderly patients with acute coronary syndromes*. JOURNAL OF CARDIOVASCULAR MEDICINE. 2020; 21(1) 27-33. FI: 2.16. Cuartil: 3. (Article).
- Valenzuela, PL; Ortiz-Alonso, J; Bustamante-Ara, N; Vidan, MT; Rodriguez-Romo, G; Mayordomo-Cava, J; Javier-Gonzalez, M; Hidalgo-Gamarra, M; Lopez-Tatis, M; Valades-Malagon, MI; Santos-Lozano, A; Serra-Rexach, JA; Lucia, A. *Individual Responsiveness to Physical Exercise Intervention in Acutely Hospitalized Older Adults*. JOURNAL OF CLINICAL MEDICINE. 2020; 9(3). FI: 4.241. Cuartil: 1. (Article).
- Martinez-Peromingo, J; Serra-Rexach, JA. *Long-Term Care Facilities and the COVID-19 Pandemic: Lessons Learned in Madrid*. JOURNAL OF THE AMERICAN GERIATRICS SOCIETY. 2020; 68(9) 1920-1922. FI: 5.562. Cuartil: 1. (Letter).
- Valenzuela, PL; Santos-Lozano, A; Lista, S; Serra-Rexach, JA; Emanuele, E; Lucia, A. *Coronavirus Lockdown: Forced Inactivity for the Oldest Old?*. JOURNAL OF THE AMERICAN MEDICAL DIRECTORS ASSOCIATION. 2020; 21(7) 988-989. FI: 4.669. Cuartil: 2. (Letter).
- Rodriguez-Queralto, O; Formiga, F; Lopez-Palop, R; Marin, F; Vidan, MT; Martinez-Selles, M; Diez-Villanueva, P; Sanchis, J; Corbi, M; Aboal, J; Bernal, E; Alegre, O; Vicent, L; Ariza-Sole, A; LONGEVO-SCA Registry Investigators. *FRAIL Scale also Predicts Long-Term Outcomes in Older Patients With Acute Coronary Syndromes*. JOURNAL OF THE AMERICAN MEDICAL DIRECTORS ASSOCIATION. 2020; 21(5) 683. FI: 4.669. Cuartil: 2. (Article).
- Ortiz-Alonso, J; Bustamante-Ara, N; Valenzuela, PL; Vidan-Astiz, M; Rodriguez-Romo, G; Mayordomo-Cava, J; Javier-Gonzalez, M; Hidalgo-Gamarra, M; Lopez-Tatis, M; Valades-Malagon, MI; Santos-Lozano, A; Lucia, A;

Serra-Rexach, JA. *Effect of a Simple Exercise Program on Hospitalization-Associated Disability in Older Patients: A Randomized Controlled Trial*. JOURNAL OF THE AMERICAN MEDICAL DIRECTORS ASSOCIATION. 2020; 21(4) 531. FI: 4.669. Cuartil: 2. (Article).

- Bouza, E; Brenes, FJ; Domingo, JD; Bouza, JME; Gonzalez, J; Gracia, D; Gonzalez, RJ; Munoz, P; Torregrossa, RP; Casado, JMR; Cordero, PR; Rovira, ER; Torralba, MES; Rexach, JAS; Garcia, JT; Bravo, CV; Palomo, E. *The situation of infection in the elderly in Spain: a multidisciplinary opinion document*. REVISTA ESPANOLA DE QUIMIOTERAPIA. 2020; 33(5) 327-349. FI: 1.553. Cuartil: 4. (Article).

- Candel, FJ; Barreiro, P; San Roman, J; Abanades, JC; Barba, R; Barberan, J; Bibiano, C; Canora, J; Canton, R; Calvo, C; Carretero, M; Cava, F; Delgado, R; Garcia-Rodriguez, J; del Castillo, JG; de Villaumbrosia, CG; Hernandez, M; Losa, JE; Martinez-Peromingo, FJ; Molero, JM; Munoz, P; Onecha, E; Onoda, M; Rodriguez, J; Sanchez-Celaya, M; Serra, JA; Zapatero, A. *Recommendations for use of antigenic tests in the diagnosis of acute SARS-CoV-2 infection in the second pandemic wave: attitude in different clinical settings*. REVISTA ESPANOLA DE QUIMIOTERAPIA. 2020; 33(6) 466-484. FI: 1.553. Cuartil: 4. (Article).

Other publications

- González-Montalvo JI; Ramírez-Martín R; Menéndez Colino R; Alarcón T; Tarazona-Santabalbina FJ; Martínez-Velilla N; Vidán MT; Pi-Figueras Valls M; Formiga F; Rodríguez Couso M; Hormigo Sánchez AI; Vilches-Moraga A; Rodríguez-Pascual C; Gutiérrez Rodríguez J; Gómez-Pavón J; Sáez López P; Bermejo Boixareu C; Serra Rexach JA; Martínez Peromingo J; Sánchez Castellano C; González Guerrero JL; Martín-Sánchez FJ. *Geriatría transversal. Un reto asistencial para el siglo xxi.*. REVISTA ESPANOLA DE GERIATRIA Y GERONTOLOGIA. 2020; 55(2) 84-97. (Article).

- Tarazona-Santabalbina FJ; Martínez-Velilla N; Vidán MT; García-Navarro JA. *COVID-19, adulto mayor y edadismo: errores que nunca han de volver a ocurrir.*. REVISTA ESPANOLA DE GERIATRIA Y GERONTOLOGIA. 2020; 55(4) 191-192. (Article).

- Díez-Villanueva P; Salamanca J; Ariza-Solé A; Formiga F; Martín-Sánchez FJ; Bonanad Lozano C; Vidán MT; Martínez-Sellés M; Terres B; Jiménez Méndez C; Bueno H; Alfonso F. *Impacto de la FRAgilidad y otros síndromes Geriátricos en el manejo clínico y pronóstico del paciente anciano ambulatorio con Insuficiencia Cardiaca (FRAGIC). Estudio prospectivo y multicéntrico.*. REVISTA ESPANOLA DE GERIATRIA Y GERONTOLOGIA. 2020; 55(1) 29-33. (Article).

7.22 Neonatal and developmental physiology

Group Director: **Manuel Sánchez Luna**
Organisms involved: **HGUGM**
Emerging group

Description of the research group

Group with established lines of research in animal and clinical experimental respiratory physiology, neonatal neurobiology, pain and personalised nutrition

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.Z eballos

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.

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

Surname		*Name*	*Euraxess Profile*	*Role*
ARRIAGA	REDONDO	MARÍA	R2	Recognised Researcher
BERNARDO	ATIENZA	ANA BELÉN	R1	First Stage Researcher
BLANCO	BRAVO	DOROTEA	R2	Recognised Researcher
CABALLERO	MARTÍN	SYLVIA	R1	First Stage Researcher
CHIMENTI	CAMACHO	PAZ	R1	First Stage Researcher
GONZALEZ	PACHECO	NOELIA	R1	First Stage Researcher
GREGORIO	HERNANDEZ	REBECA	R1	First Stage Researcher
MADERUELO	RODRÍGUEZ	ELENA	R1	First Stage Researcher
MARSINYACH	ROS	MARÍA ITZIAR	R2	Recognised Researcher
PEREZ	PEREZ	ALBA	R1	First Stage Researcher
PESCADOR	CHAMORRO	MARIA ISABEL	R1	First Stage Researcher
RAMOS	NAVARRO	MARIA CRISTINA	R1	First Stage Researcher
RODRIGUEZ	SANCHEZ DE LA BLANCA	ANA	R1	First Stage Researcher
RODRIGUEZ	CORRALES	ELENA	R1	First Stage Researcher
SANCHEZ	LUNA	MANUEL	R4	Leading Researcher
SÁNCHEZ	GÓMEZ DE ORGAZ	MARÍA DEL CARMEN	R1	First Stage Researcher
SANZ	LÓPEZ	ESTHER	R1	First Stage Researcher
VIGIL	VAZQUEZ	SARA	R1	First Stage Researcher
VILLAR	CASTRO	SONIA	R1	First Stage Researcher
ZAMORA	FLORES	ELENA	R1	First Stage Researcher
ZEBALLOS	SARRATO	GONZALO	R1	First Stage Researcher
ZEBALLOS	SARRATO	SUSANA ELENA	R1	First Stage Researcher

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: SANCHEZ LUNA, MANUEL
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2018
END DATE: 31/12/2020

TITLE: **Aspectos clínicos e inmunovirológicos de la infección por SARS-CoV2 en una cohorte de gestantes y recién nacidos. Proyecto prospectivo multicéntrico 12 hospitales.** COV20/00808
DIRECTOR: NAVARRO, MARIA LUISA
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/04/2020
END DATE: 30/04/2021

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
CIBER	CIBERFES. Fragilidad y envejecimiento saludable	Collaborating group
ISCII 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

Industrial and intellectual property registrations

Industrial property

Title	Reference*	Owner	Inventors
Incubadora para imagen con radiación no ionizante	PCT/ES2007/070214 (Familia con 3 patentes)	FIBHGM	Juan José Vaquero. Manuel Desco. Manuel Sánchez-Luna

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

Doctoral theses, Bachelor theses and Master theses

Type	Candidate	Title	Name/s Director/s	University	Date Defended
Ph Thesis	**Gonzalo Zeballos Serrato**	Estudio de dinámica respiratoria durante la estabilización y reanimación al nacimiento en menores de 32 semanas de gestación	Manuel Sánchez Luna	UCM	November 3th 2020

Clinical Practice Guidelines

Authors	Title	Journal / Reference
Sociedad Esañola de Neonatología	**Recomendaciones para el manejo del recién nacido en relación con la infección por SARS-CoV-2**	seneo.es

Publications

Total Impact Factor: **35.1**

	Nº	FI
Own publications	9	23.7
Joint publications	4	11.4
First decile publications	0	-
First quartile publications	5	16.2
Second quartile publications	3	9.6
Third quartile publications	2	4.9
Fourth quartile publications	3	4.5
Nonindexed publications / No IF	0	-
Total publications (including those without IF)	**13**	**35.1**

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

- Luna, MS; Martin, SC; de Orgaz, MDSG; Corrales, ER; Blanco, AJ. *Skimmed breast milk in newborns with chylothorax: Options with a personalised nutrition unit*. ANALES DE PEDIATRIA. 2020; 93(3) 194-195. FI: 1.5. Cuartil: 4. (Letter).
- Perez, A; Gregorio, R; Gomez, P; Ruiz, Y; Sanchez-Luna, M. *Cerebral air embolism in neonates*. ANALES DE PEDIATRIA. 2020; 93(1) 54-57. FI: 1.5. Cuartil: 4. (Letter).
- Sanchez-Redondo, MD; Cernada, M; Boix, H; Fernandez, MGE; Gonzalez-Pacheco, N; Martin, A; Perez-Munuzuri, A; Couce, ML; Com Estandares; Soc Espanola Neonatologia. *Home births: A growing phenomenon with potential risks*. ANALES DE PEDIATRIA. 2020; 93(4). FI: 1.5. Cuartil: 4. (Article).
- Gonzalez-Pacheco, N; Sanchez-Luna, M; Arribas-Sanchez, C; Santos-Gonzalez, M; Orden-Quinto, C; Tendillo-Cortijo, F. *DCO2/PaCO2 correlation on high-frequency oscillatory ventilation combined with volume guarantee using increasing frequencies in an animal model*. EUROPEAN JOURNAL OF PEDIATRICS. 2020; 179(3) 499-506. FI: 3.183. Cuartil: 1. (Article).
- Ramos-Navarro, C; Gonzalez-Pacheco, N; de la Blanca, ARS; Sanchez-Luna, M. *Effect of a new respiratory care bundle on bronchopulmonary dysplasia in preterm neonates*. EUROPEAN JOURNAL OF PEDIATRICS. 2020; 179(12) 1833-1842. FI: 3.183. Cuartil: 1. (Article).
- Gregorio-Hernandez, R; Arriaga-Redondo, M; Perez-Perez, A; Ramos-Navarro, C; Sanchez-Luna, M. *Lung ultrasound in preterm infants with respiratory distress: experience in a neonatal intensive care unit*. EUROPEAN JOURNAL OF PEDIATRICS. 2020; 179(1) 81-89. FI: 3.183. Cuartil: 1. (Article).
- Ros, IM; Garcia, LS; Torres, AS; Pena, RM; Grande, MDP; Castano, MJR; Fernandez, MDE; Luna, MS. *Evaluation of specific quality metrics to assess the performance of a specialised newborn transport programme*. EUROPEAN JOURNAL OF PEDIATRICS. 2020; 179(6) 919-928. FI: 3.183. Cuartil: 1. (Article).
- Colomer, BF; Sanchez-Luna, M; Romero, CD; Alarcon, A; Souto, AB; Longueira, FC; Cernada, M; Pradell, ZG; Lopez, MG; Herrera, MCL; Bautista, CR; Garcia, LS; Flores, EZ; Pellicer, A; Diaz, CA; Perea, CH; Ramirez, DSR; Teran, ID; Chamorro, IP; Trisac, JLF; Gomez, LA; Fernandez, LMC; Garcia, MJG; Lopez, MN; Lopez, MH; Gomez, MR; Gonzalez, NH; Sanchez, RG; Sert, SZ; Capaces, SL; del Pozo, VM; Spanish Soc Neonatology. *Neonatal Infection Due to SARS-CoV-2: An Epidemiological Study in Spain*. FRONTIERS IN PEDIATRICS. 2020; 8. FI: 3.418. Cuartil: 1. (Article).
- Ramos-Navarro, C; S?nchez-Luna, M; Zeballos-Sarrato, S; Gonzalez-Pacheco, N. *Three-year perinatal outcomes of less invasive beractant administration in preterm infants with respiratory distress syndrome*. JOURNAL OF MATERNAL-FETAL & NEONATAL MEDICINE. 2020; 33(16) 2704-2710. FI: 2.398. Cuartil: 3. (Article).
- Luna, MS; Bacher, P; Unnebrink, K; Martinez-Tristani, M; Navarro, CR. *Beractant and poractant alfa in premature neonates with respiratory distress syndrome: a systematic review of real-world evidence studies and randomized controlled trials*. JOURNAL OF PERINATOLOGY. 2020; 40(8) 1121-1134. FI: 2.521. Cuartil: 2. (Review).
- Yago, MAR; Mayayo, IA; Lopez, RG; Angel, MNP; Miranda, AP; Aracil, MC; Fuentes, EC; Nunez, AR; Martinez, IM; Cid, JLH; Sarrato, GZ; Macias, CC; Hernandez-Tejedor, A. *Recommendations on cardiopulmonary resuscitation in patients with suspected or confirmed SARS-CoV-2 infection (COVID-19). Executive summary*. MEDICINA INTENSIVA. 2020; 44(9) 566-576. FI: 2.491. Cuartil: 3. (Article).

- Vandenplas, Y; Carnielli, VP; Ksiazyk, J; Luna, MS; Migacheva, N; Mosselmans, JM; Picaud, JC; Possner, M; Singhal, A; Wabitsch, M. *Factors affecting early-life intestinal microbiota development*. NUTRITION. 2020; 78. FI: 4.008. Cuartil: 2. (Review).
- de la Blanca, ARS; Luna, MS; Pacheco, NG; Navarro, CR; Gonzalez, MS; Cortijo, FT. *New indicators for optimal lung recruitment during high frequency oscillator ventilation*. PEDIATRIC PULMONOLOGY. 2020; 55(12) 3525-3531. FI: 3.039. Cuartil: 2. (Article).

7.25 Artificial Circulation Laboratory

Group Director: **Juan Francisco del CañizoLópez**
Organisms involved: **HGUGM**
Emerging group

Description of the research group

Experimental group in multidisciplinary animal research composed of professional specialists (cardiac surgery, general surgery, plastic surgery, anesthesia, veterinary, nursing and laboratory technician), which develops several lines of experimental surgical research in liver transplantation pathology, ventricular assistance, 3D organ printing and simulation models.

Research lines

L 1: Circulatory support devices. Effects of the different types of flow (pulsatile and nonpulsatile) on perfusion of different organs. Leader: Manuel Ruiz Fernández
L 2: Normothermic perfusion of the isolated liver. Leader: Andrés Rivera Muñoz
L 3: Decellularization of the liver. Leader: Ignacio Fernández López
L 4: 3D printing of tissues. Leader: Juan Francisco del Cañizo
L 5: Simulation of various medical devices. Leader: Juan Francisco del Cañizo

Group members

Surname		Name	Euraxess Profile	Role
BARRIO	GUTIÉRREZ	JOSÉ MARÍA	R2	Recognised Researcher
BENEYTO	CRUZ	ROSARIO	Other	Lab Technician
CUERPO	CABALLERO	GREGORIO PABLO	R2	Recognised Researcher
DEL CAÑIZO	LÓPEZ	JUAN FRANCISCO	R4	Leading Researcher
FERNANDEZ	LOPEZ	IGNACIO	R1	First Stage Researcher
PÉREZ-CABALLERO	MARTINEZ	RAMÓN	R2	Recognised Researcher
RIVERA	MUÑOZ	ANDRES	R1	First Stage Researcher
RUIZ	FERNÁNDEZ	MANUEL	R3	Established Researcher
SICILIA	ALONSO	JAVIER	R2	Recognised Researcher
ZAMORANO	SERRANO	JOSE ANGEL	Other	Nursing

Research Projects – Competitive Calls

- **Competitive projects**

TITLE: **Efectos del tipo de flujo sanguineo (continuo o pulsatil) 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: 31/12/2020

- **Human Resources**

TITLE: **Nuevas Tecnologías de Fabricación y Optimización de Tejidos : La Piel como sistema Modelo** PEJ2018-004026-A
DIRECTOR: DEL CAÑIZO LÓPEZ, JUAN FRANCISCO
PROJECT TYPE: Human Resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACON. COMUNIDAD DE MADRID
START DATE: 06/03/2019

END DATE: 06/03/2023

TITLE: **Mejora de las prestaciones del area quirurgica del servicio de medicina y cirugia experimental para el apoyo a los investigadores del Instituto de Investigacion Sanitaria del Hospital Gregorio Marañón** S2018/BAA-4480
DIRECTOR: DEL CAÑIZO LÓPEZ, JUAN FRANCISCO
PROJECT TYPE: Human Resources
FUNDING BODY: MICINN
START DATE: 01/01/2019
END DATE: 31/12/2020

Cooperative Research Structures

Type (RETIC. CIBER. others.)	*Name of Network*	*Role*
ISCIII Platform	ITEMAS Innovación en Tecnologías Médicas y Sanitarias PT13/0006/0001	Collaborating group

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
Método y aparato de hemodiafiltración	PCT/ES2007/070081 (3 patents)	FIBHGM	Juan Francisco del Cañizo
Dispositivo de asistencia ventricular	P201331422	FIBHGM	Juan Francisco del Cañizo. Manuel Ruiz
Dispositivo para prevenir la neumonía asociada a ventilación mecánica	U 2014 30814	FIBHGM	Juan Francisco del Cañizo. Emilio Bouza. Mª Jesús Pérez
Dispositivo para bombeo de sangre de forma tubular. con válvulas activas gobernado por vacío y aplicación del mismo	P9501070 (14 patents)	SERMAS - HGUGM	Juan Francisco del Cañizo

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

Publications *Total Impact Factor:* ***15.4***

	Nº	FI
Own publications	1	4.8
Joint publications	3	10.6
First decile publications	0	-
First quartile publications	0	0.0
Second quartile publications	3	13.7
Third quartile publications	0	0.0
Fourth quartile publications	1	1.7
Nonindexed publications / No IF	4	-
Total publications (including those without IF)	**8**	**15.4**

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

- Bouza, E; Burillo, A; de Egea, V; Hortal, J; Barrio, JM; Vicente, T; Muñoz P; Perez-Granda, MJ. *Colonization of the nasal airways by Staphylococcus aureus on admission to a major heart surgery operating room: A real-world*

experience. ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA. 2020; 38(10) 466-470. FI: 1.731. Cuartil: 4. (Article).

- Postigo, A; Bermejo, J; Munoz, P; Valerio, M; Marin, M; Pinilla, B; Cuerpo, G; Mari, A; Delgado-Montero, A; Bouza, E; Fernandez-Aviles, F; Martinez-Selles, M. *Troponin elevation is very common in patients with infective endocarditis and is associated with a poor outcome*. INTERNATIONAL JOURNAL OF CARDIOLOGY. 2020; 307 82-86. FI: 4.164. Cuartil: 2. (Article).
- Gil-Jaurena, JM; Pardo, C; Pita, A; Monzon, D; Bellido, A; Perez-Caballero, R. *Aortic root surgery after arterial switch operation*. REVISTA ESPANOLA DE CARDIOLOGIA. 2020; 73(11) 956-958. FI: 4.753. Cuartil: 2. (Letter).
- Gil-Jaurena, JM; Perez-Caballero, R; Pita, A; Pardo, C; Zunzunegui, JL; Ballesteros, F. *Surgery in patients with stents. New challenges in congenital heart disease*. REVISTA ESPANOLA DE CARDIOLOGIA. 2020; 73(10) 857-859. FI: 4.753. Cuartil: 2. (Letter).

Publications of the main WOS collection in journals without impact factor:

- Caballero, GPC. *Interpretation of the Excel Trial bayesian analysis*. CIRUGIA CARDIOVASCULAR. 2020; 27(4) 123-124. (Editorial Material).
- Ortiz, AI; Margaryan, R; Bianchi, G; Cuerpo, G; Gonzalez-Pinto, A; Solinas, M. *Endoscopic mitral valve repair in octogenarian patients with infective endocarditis*. CIRUGIA CARDIOVASCULAR. 2020; 27(3) 105-108. (Article).
- Garcia, PC; Fuster, RG; Mateo, E; Gamarra, SB; Cantero, ML; Carretero, EG; Maestre, ML; Legname, V; Fita, G; Vives, M; Bernhard, TK; Perez, ES; Bagan, JM; Italiano, S; Darias-Delbey, B; Barrio, JM; Hortal, J; de Ibarra, JIS; Hernandez, A. *Intraoperative transesophageal echocardiography in cardiovascular surgery. Consensus document from the Spanish Society of Anesthesia and Critical Care (SEDAR) and the Spanish Society of Endovascular and Cardiovascular Surgery (SECCE)*. CIRUGIA CARDIOVASCULAR. 2020; 27(5) 190-218. (Review).

- Garcia, PC; Fuster, RG; Mateo, E; Gamarra, SB; Cantero, ML; Carretero, EG; Maestre, ML; Legname, V; Fita, G; Vives, M; Bernhard, TK; Perez, ES; Bagan, JM; Italiano, S; Darias-Delbey, B; Barrio, JM; Hortal, J; de Ibarra, JIS; Hernandez, A. *Intraoperative transesophageal echocardiography in cardiovascular surgery. Consensus document from the Spanish Society of Anesthesia and Critical Care (SEDAR) and the Spanish Society of Endovascular and Cardiovascular Surgery (SECCE)*. REVISTA ESPANOLA DE ANESTESIOLOGIA Y REANIMACION. 2020; 67(8) 446-480. (Article).

7.26 Evaluation of health services and clinical epidemiology

Group Director: **Nieves Lopez Fresneña**
Organisms involved: **HGUGM**
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 Lopez Fresneña

Group members

Surname		*Name*	*Euraxess Profile*	*Role*
DIAZ	REDONDO	ALICIA	R1	First Stage Researcher
GRANDE	ARMESTO	MARTA BEATRIZ	R1	First Stage Researcher
IZQUIERDO	MEMBRILLA	MARIA ISABEL	R1	First Stage Researcher
LLORENTE	PARRADO	CESAR	R3	Established Researcher
LOPEZ	FRESNEÑA	NIEVES	R4	Leading Researcher
MOLINA	VILLAVERDE	DIANA		
NIETO	PEREDA	BEATRIZ	R1	First Stage Researcher
PLA	MESTRE	ROSA	R4	Leading Researcher
PUENTE	GONZÁLEZ	DOLORES	R1	First Stage Researcher
VIGIL	ESCRIBANO	MARÍA DOLORES		
ZONI	MATTA	ANA CLARA	R1	First Stage Researcher

Publications

Total Impact Factor: ***3.3***

	Nº	IF
Own publications	0	0.0
Joint publications	1	3.3
First decile publications	0	-
First quartile publications	0	0.0
Second quartile publications	1	3.3
Third quartile publications	0	0.0
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	2	-
Total publications (incluging those without IF)	**3**	**3.3**

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

- Rodriguez-Gonzalez, CG; Sarobe-Gonzalez, C; Duran-Garcia, ME; Mur-Mur, A; Sanchez-Fresneda, MN; Pañero-Taberna MLM; Pla-Mestre, R; Herranz-Alonso, A; Sanjurjo-Saez, M. *Use of the EFQM excellence model to improve hospital pharmacy performance*. RESEARCH IN SOCIAL & ADMINISTRATIVE PHARMACY. 2020; 16(5) 710-716. FI: 3.336. Cuartil: 2. (Article).

Publications of the main WOS collection in journals without impact factor:

- Castro-Rodriguez, C; Solis-Garcia, G; Mora-Capin, A; Diaz-Redondo, A; Jove-Blanco, A; Lorente-Romero, J; Vazquez-Lopez, P; Maranon, R. *Briefings: A Tool to Improve Safety Culture in a Pediatric Emergency Room*. JOINT COMMISSION JOURNAL ON QUALITY AND PATIENT SAFETY. 2020; 46(11) 617-622. (Article).

Other publications

- Simón-Gozalbo A; Llorente Parrado C; Diaz Redondo A; Ignacio Cerro C; Vázquez López P; Mora Capín A. *Calidad percibida en población hiperfrecuentadora infantil: una aproximación cualitativa.*. JOURNAL OF HEALTHCARE QUALITY RESEARCH. 2020; 35(1) 19-26. (Article)

7.27 Hospital pharmacy and pharmacogenomics

Group Director: **María Sanjurjo Sáez**
Organisms involved: **HGUGM**
Consolidated Group

Description of the research group

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 achieve an effective transfer of pharmaceutical services and thus contribute to improving the health and quality of life of the population.

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: Development and professional competence.
Axix 2. Pharmacogenetics and pharmacogenomics. Leader: Luis Andrés López Fernández
Line 1: Pharmacogenetics and pharmacogenomics.

Group members

Surname		Name	Euraxess Profile	Role
AIS	LARISGOITIA	MARÍA ARANZAZU	R1	First Stage Researcher
ARAGONESES	DURAN	MARIA GUADALUPE	R1	First Stage Researcher
CHAMORRO	DE VEGA	ESTHER	R2	Recognised Researcher
COLLADO	BORRELL	ROBERTO	R2	Recognised Researcher
DE LORENZO	PINTO	ANA	R2	Recognised Researcher
DURÁN	GARCÍA	MARÍA ESTHER	R2	Recognised Researcher
ESCUDERO	VILAPLANA	VICENTE	R2	Recognised Researcher
FRAILE	RODRIGUEZ	CARLOS	R1	First Stage Researcher
GARCIA	MORENO	FELIX JESUS	R1	First Stage Researcher
GARCIA	SANCHEZ	SEBASTIAN	R2	Recognised Researcher
GARCÍA	GONZÁLEZ	XANDRA	R1	First Stage Researcher
GIMENEZ	MANZORRO	ALVARO	R2	Recognised Researcher
GOMEZ	COSTAS	DANIEL	R1	First Stage Researcher
GOMEZ	MARTINEZ-SAGRERA	PATRICIA	R1	First Stage Researcher
GONZALEZ	RUIZ	LUCIA	R1	First Stage Researcher
GONZÁLEZ-HABA	PEÑA	EVA	R2	Recognised Researcher
HERRANZ	ALONSO	ANA	R2	Recognised Researcher
HERRERO	BERMEJO	SERGIO	R1	First Stage Researcher
IBAÑEZ	GARCIA	SARA	R2	Recognised Researcher
LOBATO	MATILLA	MARÍA ELENA	R1	First Stage Researcher
LOPEZ	FERNANDEZ	LUIS ANDRES	R3	Established Researcher
LOPEZ	SANTIAGO	MARTA	R1	First Stage Researcher
MANRIQUE	RODRIGUEZ	SILVIA	R2	Recognised Researcher
MARTÍN	BARBERO	MARÍA LUISA	R1	First Stage Researcher
MARTÍNEZ	FERNÁNDEZ-LLAMAZARES	CECILIA	R2	Recognised Researcher

Surname		Name	Euraxess Profile	Role
MARZAL	ALFARO	MARIA BELEN	R2	Recognised Researcher
MELGAREJO	ORTUÑO	ALEJANDRA	R1	First Stage Researcher
MUR	MUR	ANA	R1	First Stage Researcher
NARRILLOS	MORAZA	ALVARO	R1	First Stage Researcher
ORTEGA	NAVARRO	MARIA CRISTINA	R1	First Stage Researcher
PERNIA	LÓPEZ	MARÍA SAGRARIO	R1	First Stage Researcher
PIZARRO	GOMEZ	CAROLINA	R1	First Stage Researcher
REVUELTA	HERRERO	JOSE LUIS	R1	First Stage Researcher
RIBED	SANCHEZ	ALMUDENA	R2	Recognised Researcher
RODRÍGUEZ	GONZÁLEZ	CARMEN GUADALUPE	R2	Recognised Researcher
ROMERO	JIMENEZ	ROSA MARIA	R2	Recognised Researcher
RUIZ	BRIONES	PAULA	R1	First Stage Researcher
SALVADOR	MARTIN	SARA	R1	First Stage Researcher
SÁNCHEZ	FRESNEDA	MARÍA NORBERTA	R1	First Stage Researcher
SANJURJO	SAEZ	MARÍA	R4	Leading Researcher
SAROBE	GONZALEZ	CAMINO	R1	First Stage Researcher
SOMOZA	FERNANDEZ	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: **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

TITLE: **Oncommunities: online cancer support communities**. PR343/18
DIRECTOR: OCHOA, CRISTIAN & ESCUDERO VILAPLANA, VICENTE
PROJECT TYPE: Research project
FUNDING BODY: EIT Health
START DATE: 01/01/2020
END DATE: 31/12/2020

TITLE: **Marcadores genéticos, transcriptómicos y celulares de respuesta a terapia biológica en enfermedad inflamatoria intestinal pediátrica.** PI19/00792
DIRECTOR: LOPEZ FERNANDEZ, LUIS ANDRES
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2020
END DATE: 31/12/2022

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

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: SOCOEDAD ESPAÑOLA DE FARMACIA HOSPITALARIA
START DATE: 01/01/2020

TITLE: **Estandarización y caracterización de la terapia intravenosa en pediatría: un paso más en materia de seguridad**
DIRECTOR: MANRIQUE RODRIGUEZ, SILVIA
PROJECT TYPE: Research project
FUNDING BODY: Fundación Española de Farmacia Hospitalaria
START DATE: 01/01/2020

- **Human Resources**

TITLE: **Young employement contract: Predoctoral.** PEJD-2018-PRE/BMD-8665
DIRECTOR: LOPEZ FERNANDEZ, LUIS ANDRES
PROJECT TYPE: Human resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACION. COMUNIDAD DE MADRID
START DATE: 01/01/2019
END DATE: 28/02/2020

Cooperative Research Structures

Type (RETIC. CIBER. others.)	*Name of Network*	*Role*
ISCIII Platform	SCReN: Spanish Clinical Research Network	Collaborating group

Industrial and intellectual property registrations

Intellectual property

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**
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
Curso sobre el manejo seguro de los sistemas automatizados de dispensación por el personal sanitaria de Research in nursing de planta y evaluación de su competencia	Nº Asiento Registral: 16/2015/503	FIBHGM	Elena Lobato **María Sanjurjo** Ana Herranz Carmen Rodríguez
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/antiagregados	Nº Asiento Registral: 16/2017/507	FIBHGM	Sara Ibáñez Ana de Lorenzo Ana Herranz **María Sanjurjo**

Title	Reference	Owner	Inventors
			Ana María Rodríguez
Control-Sugar24: calculadora para la insulinización subcutánea del paciente diabético durante las primeras 24 horas de atención hospitalaria	Nº asiento registro: 16/2017/6705	FIBHGM	Ana de Lorenzo. María Sanjurjo. Raquel García. Rogelio García
PK-GUIDE: Guía para monitorización clínica de fármacos	Nº asiento registro: 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 registro: 16/2017/6957	FIBHGM	Xandra García. Sara Ibáñez. Ana Herranz. Gema Sánchez. Gabriela Rodríguez. Mª Luisa Galiano. Margarita Ganzo. María Sanjurjo. Mª Teresa Vidán
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

Doctoral theses. Bachelor theses and Master theses

Type	Candidate	Title	Name/s Director/s	University	Date Defended
Ph Thesis	**Sara Salvador Martín**	Factores Farmacogenómicos y monitorización terapéutica como predicadores de respuesta a anti-TNFs en pacientes con enfermedad inflamatoria intestinal	Luis Andrés López Fernández	UCM	15/12/2020

Clinical Practice Guidelines

Authors	Title	Journal / Reference
Carmen Rodríguez González, et al.	**Documentos de consenso para mejorar la adherencia a la farmacoterapia en pacientes con infeccion por el virus de la inmunodeficiencia humana en tratamiento antirretroviral**	https://gesida-seimc.org/documento-de-consenso-para-mejorar-la-adherencia-a-la-farmacoterapia-en-pacientes-con-infeccion-por-el-virus-de-la-inmunodeficiencia-humana-en-tratamiento-antirretroviral/
Carmen Rodríguez González, et al.	**Manual para la implementación del programa de Profilaxis Pre-exposición al VIH en España**	https://www.mscbs.gob.es/ciudadanos/enfLesiones/enfTransmisibles/sida/docs/MANUAL_PREP.pdf
Carmen Rodríguez González, et al.	**Sistema de información de programas de profilaxis preexposicion (PrEP) al VIH en España (SIPrEP)**	https://www.mscbs.gob.es/ciudadanos/enfLesiones/enfTransmisibles/sida/PrEP/ANEXO_FINAL_SiPREp1.pdf
Antonio Calles, Xandra García	**Next Generation Sequencing (NGS): 10 retos en oncología y farmacia hospitalaria**	ISBN: 978-84-09-21510-2

Publications *Total Impact Factor:* ***105.01***

	Nº	FI
Own publications	20	68.4
Joint publications	8	36.6
First decile publications	4	23.3

First quartile publications	9	47.9
Second quartile publications	8	32.6
Third quartile publications	5	14.4
Fourth quartile publications	6	10.1
Nonindexed publications / No IF	7	-
Total publications (including those without IF)	**35**	**105.0**

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

- Chamorro-de-Vega, E; Rodriguez-Gonzalez, CG; Gimenez-Manzorro, A; Herranz, A; Sanjurjo, M. *Hepatitis C virus infection and the role of a pharmaceutical care program*. AMERICAN JOURNAL OF HEALTH-SYSTEM PHARMACY. 2020; 77(6) 479-486. FI: 2.637. Cuartil: 3. (Article).
- Collado-Borrell, R; Escudero-Vilaplana, V; Ribed, A; Jimenez, RR; Peinado, II; Herranz-Alonso, A; Sanjurjo-Saez, M. *Novel mobile application for direct communication between pharmacists and patients treated with oral antineoplastic agents*. AMERICAN JOURNAL OF HEALTH-SYSTEM PHARMACY. 2020; 77(17) 1393-1402. FI: 2.637. Cuartil: 3. (Article).
- Melgarejo-Ortuno, A; Rodriguez-Gonzalez, CG; Chamorro-de Vega, E; Valerio-Minero, M; Pernia-Lopez, MS; Garcia-Gonzalez, X; Herranz-Alonso, A; Sanjurjo-Saez, M. *Topical Administration of Amphotericin B as an Effective Adjuvant Treatment for a Deep Fungal Infection of Diabetic Foot Injury*. AMERICAN JOURNAL OF THERAPEUTICS. 2020; 27(6) 670-671. FI: 2.688. Cuartil: 3. (Letter).
- Rodriguez-Gonzalez, CG; Chamorro-de-Vega, E; Ortega-Navarro, C; Alonso, R; Herranz-Alonso, A; Sanjurjo-Saez, M. *Effectiveness, Safety, and Costs of Dolutegravir/Abacavir/Lamivudine Single-Tablet Regimen in a Real-Life Cohort of HIV-1 Adult Infected Patients*. ANNALS OF PHARMACOTHERAPY. 2020; 54(7) 633-643. FI: 3.154. Cuartil: 3. (Article).
- Butragueno-Laiseca, L; Troconiz, IF; Grau, S; Campillo, N; Garcia, X; Padilla, B; Fernandez, SN; Santiago, MJ. *Finding the Dose for Ceftolozane-Tazobactam in Critically Ill Children with and without Acute Kidney Injury*. ANTIBIOTICS-BASEL. 2020; 9(12). FI: 4.639. Cuartil: 2. (Article).
- Garcia-Gonzalez, X; Kaczmarczyk, B; Abarca-Zabalia, J; Thomas, F; Garcia-Alfonso, P; Robles, L; Pachon, V; Vaz, A; Salvador-Martin, S; Sanjurjo-Saez, M; Lopez-Fernandez, LA. *New DPYD variants causing DPD deficiency in patients treated with fluoropyrimidine*. CANCER CHEMOTHERAPY AND PHARMACOLOGY. 2020; 86(1) 45-54. FI: 3.333. Cuartil: 3. (Article).
- de Lorenzo-Pinto, A; Garcia-Sanchez, R; Herranz, A; Miguens, I; Sanjurjo-Saez, M. *Promoting clinical pharmacy services through advanced medication review in the emergency department*. EUROPEAN JOURNAL OF HOSPITAL PHARMACY. 2020; 27(2) 73-77. FI: 1.652. Cuartil: 4. (Review).
- Marquinez-Alonso, I; Escudero-Vilaplana, V; Osorio, S; Rodriguez-Gonzalez, CG; Gonzalez-Haba, E; Sanjurjo-Saez, M. *Evaluation of the use, effectiveness and safety of tyrosine kinase inhibitors in chronic myelogenous leukaemia in a general university hospital*. EUROPEAN JOURNAL OF HOSPITAL PHARMACY. 2020; 27(5) 299-301. FI: 1.652. Cuartil: 4. (Article).
- Ribed, A; Monje, B; Garcia-Gonzalez, X; Sanchez-Somolinos, M; Sanz-Ruiz, P; Rodriguez-Gonzalez, CG; Sanjurjo-Saez, M. *Improving surgical antibiotic prophylaxis adherence and reducing hospital readmissions: a bundle of interventions including health information technologies*. EUROPEAN JOURNAL OF HOSPITAL PHARMACY. 2020; 27(4) 237-242. FI: 1.652. Cuartil: 4. (Article).
- Escudero-Vilaplana, V; Collado-Borrell, R; Hoyo-Munoz, A; Gimenez-Manzorro, A; Calles, A; Osorio, S; Herranz-Alonso, A; Sanjurjo-Saez, M. *Potential drug interactions between targeted oral antineoplastic agents and concomitant medication in clinical practice*. EXPERT OPINION ON DRUG SAFETY. 2020; 19(8) 1041-1048. FI: 4.25. Cuartil: 2. (Article).
- Escudero-Vilaplana, V; Calles, A; Collado-Borrell, R; Marzal-Alfaro, MB; Polanco, C; Garrido, C; Suarez, J; Ortiz, A; Appierto, M; Comellas, M; Lizan, L. *Standardizing Health Outcomes for Lung Cancer. Adaptation of the International Consortium for Health Outcomes Measurement Set to the Spanish Setting*. FRONTIERS IN ONCOLOGY. 2020; 10. FI: 6.244. Cuartil: 2. (Article).
- Marzal-Alfaro, M; Rodriguez-Gonzalez, CG; Escudero-Vilaplana, V; Revuelta-Herrero, JL; Gonzalez-Haba, E; Ibanez-Garcia, S; Iglesias-Peinado, I; Herranz-Alonso, A; Saez, MS. *Risks and medication errors analysis to evaluate*

the impact of a chemotherapy compounding workflow management system on cancer patients' safety. HEALTH INFORMATICS JOURNAL. 2020; 26(3) 1995-2010. FI: 2.681. Cuartil: 2. (Article).

- Salvador-Martin, S; Raposo-Gutierrez, I; Navas-Lopez, VM; Gallego-Fernandez, C; Moreno-Alvarez, A; Solar-Boga, A; Munoz-Codoceo, R; Magallares, L; Martinez-Ojinaga, E; Fobelo, MJ; Millan-Jimenez, A; Rodriguez-Martinez, A; Vayo, CA; Sanchez, C; Tolin, M; Bossacoma, F; Pujol-Muncunill, G; de Caldas, RG; Loverdos, I; Blanca-Garcia, JA; Segarra, O; Eizaguirre, FJ; Garcia-Romero, R; Merino-Bohorquez, V; Sanjurjo-Saez, M; Lopez-Fernandez, LA. *Gene Signatures of Early Response to Anti-TNF Drugs in Pediatric Inflammatory Bowel Disease*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2020; 21(9). FI: 5.923. Cuartil: 1. (Article).

- Abarca-Zabalia, J; Garcia, MI; Ros, AL; Marin-Jimenez, I; Martinez-Gines, ML; Lopez-Cauce, B; Martin-Barbero, ML; Salvador-Martin, S; Sanjurjo-Saez, M; Garcia-Dominguez, JM; Fernandez, LAL. *Differential Expression of SMAD Genes and S1PR1 on Circulating CD4+T Cells in Multiple Sclerosis and Crohn's Disease*. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2020; 21(2). FI: 5.923. Cuartil: 1. (Article).

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- Nieto-Benito, LM; Mateos-Mayo, A; Romero-Jimenez, R; Baniandres-Rodriguez, O. *Anemia in a psoriatic patient treated with ixekizumab*. JOURNAL OF DERMATOLOGY. 2020; 47(5) 209-210. FI: 4.005. Cuartil: 2. (Letter).

- Collado-Borrell, R; Escudero-Vilaplana, V; Villanueva-Bueno, C; Herranz-Alonso, A; Sanjurjo-Saez, M. *Features and Functionalities of Smartphone Apps Related to COVID-19: Systematic Search in App Stores and Content Analysis*. JOURNAL OF MEDICAL INTERNET RESEARCH. 2020; 22(8). FI: 5.428. Cuartil: 1. (Article).

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- Collado-Borrell, R; Escudero-Vilaplana, V; Ribed, A; Anglada-Martinez, H; Mart?n-Conde, M; Herranz-Alonso, A; Codina-Jane, C; Sanjurjo-Saez, M. *Design of the functional requirements of a smartphone app for patients receiving oral antineoplastic agents: The e-OncoSalud (R) app*. JOURNAL OF ONCOLOGY PHARMACY PRACTICE. 2020; 26(1) 105-115. FI: 1.809. Cuartil: 4. (Article).

- Salvador-Martin, S; Bossacoma, F; Pujol-Muncunill, G; Navas-Lopez, VM; Gallego-Fernandez, C; Viada, J; Muñoz-Codoceo R; Magallares, L; Martinez-Ojinaga, E; Moreno-Alvarez, A; Solar-Boga, A; Segarra, O; Clemente, S; Rodriguez-Martinez, A; Alvarez-Vayo, C; Loverdos, I; Merino-Bohorquez, V; Balboa-Vega, MJ; Blanca-Garcia, JA; Fobelo, MJ; Millan-Jimenez, A; Garcia-Romero, R; Sanchez, C; Tolin, M; Caldas RG; Eizaguirre, FJ; Sanchez-Hernandez, JG; Torres-Peral, R; Aznal, E; Garcia-Gonzalez, X; Sanjurjo-Saez, M; Lopez-Fernandez, LA. *Genetic Predictors of Long-term Response to Antitumor Necrosis Factor Agents in Pediatric Inflammatory Bowel Disease*. JOURNAL OF PEDIATRIC GASTROENTEROLOGY AND NUTRITION. 2020; 71(4) 508-515. FI: 2.839. Cuartil: 2. (Article).

- Pulido-Perez, A; Carretero-Lopez, F; Bergon-Sendin, M; Nieto-Benito, LM; Romero-Jimenez, R; Dorado-Herrero, N; Bastos-Oreiro, MB; Suarez-Fernandez, R. *Aprepitant in refractory pruritus of systemic lymphoproliferative disorders*. JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY. 2020; 34(8) 422-424. FI: 6.166. Cuartil: 1. (Letter).

- Fernandez-Cruz, A; Semiglia, MA; Guinea, J; Martínez-Jiménez MDC; Escribano, P; Kwon, M; Rodriguez-Macias, G; Chamorro-de-Vega, E; Rodriguez-Gonzalez, C; Navarro, R; Galar, A; Sanchez-Carrillo, C; Diez-Martin, JL; Muñoz P. *A retrospective cohort of invasive fusariosis in the era of antimould prophylaxis*. MEDICAL MYCOLOGY. 2020; 58(3) 300-309. FI: 4.076. Cuartil: 1. (Article).

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- Santiago-Garcia, B; Rincon-Lopez, EM; Salas, BP; de la Red, YA; Colino, CG; Fernandez-Llamazares, CM; Saavedra-Lozano, J; Matos, THS; Gomez, MLN; Sebastian, MDS; de Julian, EC; Bieler, CB; Fernandez, CM;

Aragones, JH; Morin, MG; Gomez, MIY; Vazquez, SV; POPA Study Grp. *Effect of an intervention to improve the prescription of antifungals in pediatric hematology-oncology*. PEDIATRIC BLOOD & CANCER. 2020; 67(4). FI: 3.167. Cuartil: 1. (Article).

- Hamzic, S; Kummer, D; Froehlich, TK; Joerger, M; Aebi, S; Palles, C; Thomlinson, I; Meulendijks, D; Schellens, JHM; Garcia-Gonzalez, X; Lopez-Fernandez, LA; Amstutz, U; Largiader, CR. *Evaluating the role of ENOSF1 and TYMS variants as predictors in fluoropyrimidine-related toxicities: An IPD meta-analysis*. PHARMACOLOGICAL RESEARCH. 2020; 152. FI: 7.658. Cuartil: 1. (Article).

- Rodriguez-Gonzalez, CG; Sarobe-Gonzalez, C; Duran-Garcia, ME; Mur-Mur, A; Sanchez-Fresneda, MN; Pañero-Taberna MLM; Pla-Mestre, R; Herranz-Alonso, A; Sanjurjo-Saez, M. *Use of the EFQM excellence model to improve hospital pharmacy performance*. RESEARCH IN SOCIAL & ADMINISTRATIVE PHARMACY. 2020; 16(5) 710-716. FI: 3.336. Cuartil: 2. (Article).

- Manrique, G; Butragueno-Laiseca, L; Gonzalez, R; Rey, C; de Companon, ZM; Gil, J; Rodriguez-Nunez, A; Martinez, C; Manrique, S; Lopez-Herce, J. *Effectiveness of steroids versus placebo in preventing upper airway obstruction after extubation in critically ill children: rationale and design of a multicentric, double-blind, randomized study*. TRIALS. 2020; 21(1). FI: 2.279. Cuartil: 4. (Article).

Publications of the main WOS collection in journals without impact factor:

- Diaz-Carrasco, MS; Gonzalez-Haba, E; Garcia-Soler, JI; Espuny-Miro, A. *Predictive biomarkers of response to immune checkpoint inhibitors*. FARMACIA HOSPITALARIA. 2020; 44(4) 141-148. (Review).

- Gonzalez-Haba-Pena, E; Garrido-Siles, M; Martinez-Bautista, MJ; Burgos-San Jose, A; Aldaz-Pastor, A; Mangues-Bafalluy, I; Spanish Soc Hosp Pharmacists. *Observational study of clinical toxicity with different formulations of docetaxel in breast cancer patients*. FARMACIA HOSPITALARIA. 2020; 44(5) 192-197. (Article).

- Tortajada-Goitia, B; Morillo-Verdugo, R; Margusino-Framinan, L; Marcos, JA; Fernandez-Llamazares, CM. *Survey on the situation of telepharmacy as applied to the outpatient care in hospital pharmacy departments in Spain during the COVID-19 pandemic*. FARMACIA HOSPITALARIA. 2020; 44(4) 135-140. (Article).

- Fernandez-Llamazares, CM; Lopez-Briz, E. *Hospital pharmacist challenges in evaluation of scientific evidence and its incorporation to pharmacotherapeutic protocols through therapeutic committees in COVID-19 times*. FARMACIA HOSPITALARIA. 2020; 44 24-27. (Article).

- Herranz-Alonso, A; Rodriguez-Gonzalez, CG; Sarobe-Gonzalez, C; Alvarez-Diaz, A; Sanjurjo-Saez, M. *Pharmacy Department management and organization*. FARMACIA HOSPITALARIA. 2020; 44 5-10. (Article).

- Manrique-Rodriguez, S; Fernandez-Llamazares, CM. *Standardization for safety: a feasible challenge*. FARMACIA HOSPITALARIA. 2020; 44(3) 79-80. (Editorial Material).

- Fernandez-Cruz, A; Ortega, L; Garcia, G; Gallego, I; Alarez-Uria, A; Chamorro-de-Vega, E; Garcia-Lopez, JJ; Gonzalez-del-Val, R; Martin-Rabadan, P; Rodriguez, C; Pedro-Botet, ML; Martin, M; Bouza, E. *Etiology and Prognosis of Pneumonia in Patients with Solid Tumors: A Prospective Cohort of Hospitalized Cases*. ONCOLOGIST. 2020; 25(5) 861-869. (Article).

7.28 Clinical nutrition

Group Director: **Mª Cristina de la Cuerda Compés**
Organisms involved: **HGUGM**
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 hematopoyetic 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 DOCIMILIARY CARE IN PARENTERAL NUTRITION
L15. Nutrihome Patient Quality of Life Study
L16. Estudio retrospectivo de coste en pacientes con NPD y SIC

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-1: 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

Group members

Surname		*Name*	*Euraxess Profile*	*Role*
ARHIP		LOREDANA	R1	First Stage Researcher
BRETÓN	LESMES	IRENE	R1	First Stage Researcher
CAMBLOR	ÁLVAREZ	MIGUEL	R1	First Stage Researcher
CARRASCAL	FABIAN	Mª LUISA	Other	
DE LA CUERDA	COMPÉS	MARÍA CRISTINA	R4	Leading Researcher
FRIAS	SORIANO	LAURA	R1	First Stage Researcher
MORALES	CERCHIARO	ANGELA PATRICIA	R1	First Stage Researcher
MOTILLA	DE LA CAMARA	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, Mª 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*
Stephan C. Bischoff a, * , Peter Austin b, c , Kurt Boeykens d , Michael Chourdakis e , Cristina Cuerda f , Cora Jonkers-Schuitema g , Marek Lichota h , Ibolya Nyulasi i , Stephane M. Schneider j , Zeno Stanga k , Loris Pironi l	**ESPEN guideline on home enteral nutrition.**	https://doi.org/10.1016/j.clnu.2019.04.022 0261-5614/
Ana Cantón Blanco 1, Francisca Margarita Lozano Fuster 2, M ª Dolores Del Olmo García 3, María Nuria Virgili Casas 4, Carmina Wanden-Berghe Lozano 5, Victoria Avilés 6, Rosana Ashbaugh Enguídanos 7, Isabel Ferrero López 8, Juan Bautista Molina Soria 9, Juan Carlos Montejo González 10, Irene Bretón Lesmes 11, Julia Álvarez 12, José Manuel Moreno Villares 13	**Nutritional management of advanced dementia: summary of recommendations of the SENPE Ethic Group**	DOI: 10.20960/nh.02723

Publications *Total Impact Factor:* ***90.2***

	Nº	FI
Own publications	2	8.7
Joint publications	11	81.5
First decile publications	1	23.1
First quartile publications	10	84.3
Second quartile publications	0	0.0
Third quartile publications	1	3.4
Fourth quartile publications	2	2.5
Nonindexed publications / No IF	1	-
Total publications (including those without IF)	**14**	**90.2**

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

- Olveira, G; Abuin, J; Lopez, R; Herranz, S; Garcia-Almeida, JM; Garcia-Malpartida, K; Ferrer, M; Cancer, E; Luengo-Perez, LM; Alvarez, J; Aragon, C; Ocon, MJ; Garcia-Manzanares, A; Breton, I; Serrano-Aguayo, P; Perez-Ferre, N; Lopez-Gomez, JJ; Olivares, J; Arraiza, C; Tejera, C; Martin, JD; Garcia, S; Abad, AL; Alhambra, MR; Zugasti, A; Parra, J; Torrejon, S; Tapia, MJ. *Regular insulin added to total parenteral nutrition vs subcutaneous glargine in non-critically ill diabetic inpatients, a multicenter randomized clinical trial: INSUPAR trial*. CLINICAL NUTRITION. 2020; 39(2) 388-394. FI: 7.324. Cuartil: 1. (Article).

- Bischoff, SC; Austin, P; Boeykens, K; Chourdakis, M; Cuerda, C; Jonkers-Schuitema, C; Lichota, M; Nyulasi, I; Schneider, SM; Stanga, Z; Pironi, L. *ESPEN guideline on home enteral nutrition*. CLINICAL NUTRITION. 2020; 39(1) 5-22. FI: 7.324. Cuartil: 1. (Article).

- Lal, S; Van Gossum, A; Joly, F; Bozzetti, F; Cuerda, C; Lamprecht, G; Mundi, MS; Staun, M; Szczepanek, K; Wanten, G; Wheatley, C; Pironi, L; European Soc Clinical Nutr Metab. *Considerations for the management of home parenteral nutrition during the SARS-CoV-2 pandemic: A position paper from the Home Artificial Nutrition and Chronic Intestinal Failure Special Interest Group of ESPEN*. CLINICAL NUTRITION. 2020; 39(7) 1988-1991. FI: 7.324. Cuartil: 1. (Article).

- Pironi, L; Steiger, E; Brandt, C; Joly, F; Wanten, G; Chambrier, C; Aimasso, U; Sasdelli, AS; Zeraschi, S; Kelly, D; Szczepanek, K; Jukes, A; Di Caro, S; Theilla, M; Kunecki, M; Daniels, J; Serlie, M; Poullenot, F; Wu, J; Cooper, SC; Rasmussen, HH; Compher, C; Seguy, D; Crivelli, A; Pagano, MC; Hughes, SJ; Guglielmi, FW; Kozjek, NR; Schneider, SM; Gillanders, L; Ellegard, L; Thibault, R; Matras, P; Zmarzly, A; Matysiak, K; Van Gossum, A; Forbes, A; Wyer, N; Taus, M; Virgili, NM; O'Callaghan, M; Chapman, B; Osland, E; Cuerda, C; Sahin, P; Jones, L; Lee, ADW; Masconale, L; Orlandoni, P; Lzbeki, F; Spaggiari, C; Bueno, M; Doitchinova-Simeonova, M; Garde, C; Serralde-Zuniga, AE; Olveira, G; Krznaric, Z; Czako, L; Kekstas, G; Sanz-Paris, A; Jauregui, EP; Murillo, AZ; Schafer, E; Arends, J; Suarez-Llanos, JP; Lal, S; ESPEN; European Soc Clinical Nutr Metab. *Home parenteral nutrition provision modalities for chronic intestinal failure in adult patients: An international survey*. CLINICAL NUTRITION. 2020; 39(2) 585-591. FI: 7.324. Cuartil: 1. (Article).

- Krznaric, Z; Bender, DV; Laviano, A; Cuerda, C; Landi, F; Monteiro, R; Pirlich, M; Barazzoni, R. *A simple remote nutritional screening tool and practical guidance for nutritional care in primary practice during the COVID-19 pandemic*. CLINICAL NUTRITION. 2020; 39(7) 1983-1987. FI: 7.324. Cuartil: 1. (Editorial Material).

- Bischoff, SC; Cuerda, C; Barazzoni, R. *Practical guidelines and apps for improvement of guideline implementation*. CLINICAL NUTRITION. 2020; 39(10) 2943-2944. FI: 7.324. Cuartil: 1. (Editorial Material).

- Cuerda, C; Muscaritoli, M; Donini, LM; Baque, P; Barazzoni, R; Gaudio, E; Jezek, D; Krznaric, Z; Pirlich, M; Schetgen, M; Schneider, S; Vargas, JA; Van Gossum, A. *Nutrition education in medical schools (NEMS). An ESPEN position paper*. CLINICAL NUTRITION. 2020; 39(9) 2938-2939. FI: 7.324. Cuartil: 1. (Letter).

- Olveira, G; Abuin, J; Lopez, R; Herranz, S; Garcia-Almeida, JM; Garcia-Malpartida, K; Ferrer, M; Cancer, E; Luengo-Perez, LM; Alvarez, J; Aragon, C; Ocon, MJ; Garcia-Manzanares, A; Breton, I; Serrano-Aguayo, P; Perez-Ferre, N; Lopez-Gomez, JJ; Olivares, J; Arraiza, C; Tejera, C; Martin, JD; Garcia, S; Abad, AL; Alhambra, MR; Zugasti, A; Parra, J; Torrejon, S; Tapia, MJ. *RISK FACTORS FOR HYPOGLYCEMIA IN INPATIENTS WITH TOTAL PARENTERAL NUTRITION AND TYPE 2 DIABETES: A POST HOC ANALYSIS OF THE INSUPAR STUDY*. ENDOCRINE PRACTICE. 2020; 26(6) 604-611. FI: 3.443. Cuartil: 3. (Article).

- Pomar, MDB; Lesmes, IB. *Clinical Nutrition in times of COVID-19*. ENDOCRINOLOGIA DIABETES Y NUTRICION. 2020; 67(7) 427-430. FI: 1.417. Cuartil: 4. (Editorial Material).

- Pironi, L; Steiger, E; Joly, F; Wanten, GJA; Chambrier, C; Aimasso, U; Sasdelli, AS; Szczepanek, K; Jukes, A; Theilla, M; Kunecki, M; Daniels, J; Serlie, MJ; Cooper, SC; Poullenot, F; Rasmussen, HH; Compher, CW; Crivelli, A; Hughes, SJ; Santarpia, L; Guglielmi, FW; Kozjek, NR; Ellegard, L; Schneider, SM; Matras, P; Forbes, A; Wyer, N; Zmarzly, A; Taus, M; O'Callaghan, M; Osland, E; Thibault, R; Cuerda, C; Jones, L; Chapman, B; Sahin, P; Virgili, NM; Lee, ADW; Orlandoni, P; Matysiak, K; Di Caro, S; Doitchinova-Simeonova, M; Masconale, L; Spaggiari, C; Garde, C; Serralde-Zuniga, AE; Olveira, G; Krznaric, Z; Jauregui, EP; Murillo, AZ; Suarez-Llanos, JP; Nardi, E; Van Gossum, A; Lal, S. *Intravenous supplementation type and volume are associated with 1-year outcome and major complications in patients with chronic intestinal failure*. GUT. 2020; 69(10) 1787-1795. FI: 23.059. Cuartil: 1. (Article).

- de Hollanda, A; Lecube, A; Rubio, MA; Sanchez, E; Vilarrasa, N; Oliva, JG; Fernandez-Soto, ML; Salas-Salvado, J; Ballesteros-Pomar, MD; Ciudin, A; Torres, F; Vidal, C; Morales, MJ; Valdes, S; Pellitero, S; Minambres, I; Masmiquel, L; Goday, A; Suarez, L; Flores, L; Bueno, M; Caixas, A; Breton, I; Camara, R; Olbeyra, R; Penso, R; de la Cruz, MJ; Simo-Servat, A; Pereyra-Garcia, FM; Lopez-Mezquita, ET; Gils, A; Fidilio, E; Bandres, O; Martinez, A; Abuin, J; Marques-Pamies, M; Tuneu, L; Arteaga, M; Castaner, O; Goni, F; Arrizabalaga, C; Botana, MA; Calanas, A; Rebollo, A. *New Metrics to Assess Type 2 Diabetes after Bariatric Surgery: The "Time-Within-Remission Range"*. JOURNAL OF CLINICAL MEDICINE. 2020; 9(4). FI: 4.241. Cuartil: 1. (Article).

- Wanden-Berghe, C; Compes, CC; Jimenez, MIM; Cunill, JLP; Boluda, ER; Candela, CG; Casas, NV; Pelaez, RB; Roman, DAD; Lazaro, MAP; Martos, EAS; Faedo, CM; Guardiola, PD; Hernandez, JA; Murillo, AZ; Martin, CC; Paris, AS; Fontalba, MDM; Lobo, G; Martin, PM; Perez, FC; Folgueras, TM; Palmero, MAM; Perez, LML; Burdiel, OSV; Costa, CM; Perez, CT; Ramirez, MJM; Delgado, YG; Gonzalez, MAP; Roca, SM; Zafra, MVG; Diaz, MG; Gabino, VR; Baeza, BM; Marin, MG; Rocamora, JAI; Sanchez, RS; Celaya, AA; Ortiz, CJ; Llanos, JPS; de la Maza, BP; Garcia, PL; Martinez, MCG; Santaliestra, MJC; Grp NADYA-SENPE. *Home and Ambulatory Artificial Nutrition (NADYA) Group Report. Home parenteral nutrition in Spain, 2018*. NUTRICION HOSPITALARIA. 2020; 37(2) 403-407. FI: 1.057. Cuartil: 4. (Article).

- Abuin-Fernandez, J; Tapia-Guerrero, MJ; Lopez-Urdiales, R; Herranz-Antolin, S; Garcia-Almeida, JM; Garcia-Malpartida, K; Ferrer-Gomez, M; Cancer-Minchot, E; Luengo-Perez, LM; Alvarez-Hernandez, J; Valera, CA; Ocon-Breton, J; Garcia-Manzanares, A; Breton-Lesmes, I; Serrano-Aguayo, P; Perez-Ferre, N; Lopez-Gomez, JJ; Olivares-Alcolea, J; Arraiza-Irigoyen, C; Tejera-Perez, C; Martinez-Gonzalez, JD; Urioste-Fondo, A; Abad-Gonzalez, AL; Molina-Puerta, MJ; Zugasti-Murillo, A; Parra-Barona, J; Lopez-Cobo, I; Olveira, G. *Fish Oil Enriched Intravenous Lipid Emulsions Reduce Triglyceride Levels in Non-Critically Ill Patients with TPN and Type 2 Diabetes. A Post-Hoc Analysis of the INSUPAR Study*. NUTRIENTS. 2020; 12(6). FI: 5.717. Cuartil: 1. (Article).

Publications of the main WOS collection in journals without impact factor:

- Arhip, L; Camblor, M; Breton, I; Motilla, M; Serrano-Moreno, C; Frias, L; Velasco, C; Carrascal, ML; Morales, A; Cuerda, C. *Social and economic costs of home parenteral nutrition*. CLINICAL NUTRITION ESPEN. 2020; 40 103-109. (Article)

7.29 Pharmacology and vascular pathophysiology

Group Director: **Francisco Pérez Vizcaíno**
Organisms involved: **HGUGM**
UCM
Consolidated Group

Description of the research group

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

Research lines

Axis 1. Pulmonary Hypertension

L1. Pulmonary vascular dysfunction in pulmonary hypertension (PH). Leader: Francisco Pérez Vizcaíno
L2. Role of vitamin D and the microbiota in pulmonary hypertension (PH). Leader: Francisco Pérez Vizcaíno
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 Vizcaíno

Axis 3. Acute lung damage

L1. Acute Respiratory Distress Syndrome (ARDS). Leader: Laura Moreno Gutiérrez
L2. Bronchodysplasia of the lung (BDP). Leader: Laura Moreno Gutiérrez

Group members

Surname		Name	Euraxess Profile	Role
BARREIRA	BARBA	BIANCA	Other	Research Support Technician
CALLEJO	ARRANZ	MARIA	R1	First Stage Researcher
COGOLLUDO	TORRALBA	ÁNGEL	R3	Established Researcher
ESQUIVEL	RUIZ	SERGIO ANTONIO	R1	First Stage Researcher
JERÓNIMO	ALBALADEJO	MARTA	Other	
MACÍAS	MONTERO	MIGUEL	R1	First Stage Researcher
MONDEJAR	PARREÑO	GEMA	R1	First Stage Researcher
MORENO	GUTIERREZ	LAURA	R3	Established Researcher
OLIVENCIA	PLAZA	MIGUEL ÁNGEL	R1	First Stage Researcher
PEREZ	VIZCAINO	FRANCISCO	R4	Leading Researcher
SANCHEZ	SANCHEZ	CRISTINA	Other	

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, ANGEL
PROJECT TYPE: Research project
FUNDING BODY: Cardiovascular Medical Research and Education Fund.
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE: **Vitamina D en la hipertensión pulmonar**. SAF2016-77222-R
DIRECTOR: PÉREZ VIZCAINO, FRANCISCO; COGOLLUDO TORRALBA, ANGEL
PROJECT TYPE: Research project
FUNDING BODY: Plan Nacional de I+D (CICYT)
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE: **Papel de la hipoxia y la inflamación en la disfunción de células endoteliales progenitoras en hipertensión pulmonar pediátrica**. PI19/01616
DIRECTOR: MORENO GUTIERREZ, 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, Mª JESUS
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2020
END DATE: 31/12/2023

- **Human Resources**

TITLE: **Ayudante de Investigación** PEJ-2019-AI/BMD-13475
DIRECTOR: SÁNCHEZ SÁNCHEZ, CRISTINA
PROJECT TYPE: Human resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACON. COMUNIDAD DE MADRID
START DATE: 01/01/2020
END DATE: 31/12/2021

* **Not managed by the FIBHGM**

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

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

Cooperative Research Structures

Type (RETIC. CIBER. others.)	Name of Network	Role
CIBER	CIBERES (Enfermedades Respiratorias). CB06/06/1084	Collaborating group

Doctoral theses, Bachelor theses and Master theses

Type	Candidate	Title	Name/s Director/s	University	Date Defended
Ph Thesis	**Gema Mondéjar Parreño**	Regulación de canales de potasio en la vasculatura pulmonar: Implicación en hipertensión pulmonar	Cogolludo Torralba, Ángel; Pérez Vizcaino, Francisco	UCM	24/09/2020

Publications

Total Impact Factor: ***113.7***

	Nº	FI
Own publications	6	40.4
Joint publications	6	73.3
First decile publications	5	81.5
First quartile publications	11	110.7
Second quartile publications	1	3.0
Third quartile publications	0	0.0
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	1	-
Total publications (including those without IF)	**13**	**113.7**

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

- Callejo, M; Mondejar-Parreno, G; Morales-Cano, D; Barreira, B; Esquivel-Ruiz, S; Olivencia, MA; Manaud, G; Perros, F; Duarte, J; Moreno, L; Cogolludo, A; Perez-Vizcaino, F. *Vitamin D deficiency downregulates TASK-1 channels and induces pulmonary vascular dysfunction*. AMERICAN JOURNAL OF PHYSIOLOGY-LUNG CELLULAR AND MOLECULAR PHYSIOLOGY. 2020; 319(4) 627-640. FI: 5.464. Cuartil: 1. (Article).
- Robles-Vera, I; de la Visitacion, N; Toral, M; Sanchez, M; Romero, M; Gomez-Guzman, M; Yang, T; Izquierdo-Garcia, JL; Guerra-Hernandez, E; Ruiz-Cabello, J; Raizada, MK; Perez-Vizcaino, F; Jimenez, R; Duarte, J. *ProbioticBifidobacterium breveprevents DOCA-salt hypertension*. FASEB JOURNAL. 2020; 34(10) 13626-13640. FI: 5.191. Cuartil: 1. (Article).
- Mondejar-Parreno, G; Perez-Vizcaino, F; Cogolludo, A. *Kv7 Channels in Lung Diseases*. FRONTIERS IN PHYSIOLOGY. 2020; 11. FI: 4.566. Cuartil: 1. (Review).
- Mondejar-Parreno, G; Barreira, B; Callejo, M; Morales-Cano, D; Barrese, V; Esquivel-Ruiz, S; Olivencia, MA; Macias, M; Moreno, L; Greenwood, IA; Perez-Vizcaino, F; Cogolludo, A. *Uncovered Contribution of Kv7 Channels to Pulmonary Vascular Tone in Pulmonary Arterial Hypertension*. HYPERTENSION. 2020; 76(4) 1134-1146. FI: 10.19. Cuartil: 1. (Article).
- Callejo, M; Mondejar-Parreno, G; Esquivel-Ruiz, S; Olivencia, MA; Moreno, L; Blanco, I; Escribano-Subias, P; Cogolludo, A; Barbera, JA; Perez-Vizcaino, F. *Total, Bioavailable, and Free Vitamin D Levels and Their Prognostic Value in Pulmonary Arterial Hypertension*. JOURNAL OF CLINICAL MEDICINE. 2020; 9(2). FI: 4.241. Cuartil: 1. (Article).

- Perez-Vizcaino, F. *Lung ACE2 and ADAM17 in pulmonary arterial hypertension: Implications for COVID-19?*. JOURNAL OF HEART AND LUNG TRANSPLANTATION. 2020; 39(10) 1167-1169. FI: 10.247. Cuartil: 1. (Letter).

- Martinez-Oca, P; Robles-Vera, I; Sanchez-Roncero, A; Escriva, F; Perez-Vizcaino, F; Duarte, J; Alvarez, C; Fernandez-Millan, E. *Gut DYSBIOSIS and altered barrier function precedes the appearance of metabolic syndrome in a rat model of nutrient-induced catch-up growth*. JOURNAL OF NUTRITIONAL BIOCHEMISTRY. 2020; 81. FI: 6.048. Cuartil: 1. (Article).

- Mohammed, R; Dias-Guichot, Y; Van der Sterren, S; Blanco, CE; Cogolludo, AL; Villamor, E. *VASOACTIVITY OF MAGNESIUM SULFATE IN CHICKEN DUCTUS ARTERIOSUS*. JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY. 2020; 71(5). FI: 3.011. Cuartil: 2. (Article).

- Robles-Vera, I; Toral, M; de la Visitacion, N; Sanchez, M; Gomez-Guzman, M; Romero, M; Yang, T; Izquierdo-Garcia, JL; Jimenez, R; Ruiz-Cabello, J; Guerra-Hernandez, E; Raizada, MK; Perez-Vizcaino, F; Duarte, J. *Probiotics Prevent Dysbiosis and the Rise in Blood Pressure in Genetic Hypertension: Role of Short-Chain Fatty Acids*. MOLECULAR NUTRITION & FOOD RESEARCH. 2020; 64(6). FI: 5.914. Cuartil: 1. (Article).

- Hernansanz-Agustin, P; Choya-Foces, C; Carregal-Romero, S; Ramos, E; Oliva, T; Villa-Pina, T; Moreno, L; Izquierdo-alvarez, A; Cabrera-Garcia, JD; Cortes, A; Lechuga-Vieco, AV; Jadiya, P; Navarro, E; Parada, E; Palomino-Antolin, A; Tello, D; Acin-Perez, R; Rodriguez-Aguilera, JC; Navas, P; Cogolludo, A; Lopez-Montero, I; Martinez-del-Pozo, A; Egea, J; Lopez, MG; Elrod, JW; Ruiz-Cabello, J; Bogdanova, A; Enriquez, JA; Martinez-Ruiz, A. *Na(+)controls hypoxic signalling by the mitochondrial respiratory chain*. NATURE. 2020; 586(7828) 287. FI: 49.962. Cuartil: 1. (Article).

- Callejo, M; Barbera, JA; Duarte, J; Perez-Vizcaino, F. *Impact of Nutrition on Pulmonary Arterial Hypertension*. NUTRIENTS. 2020; 12(1). FI: 5.717. Cuartil: 1. (Review).

- Faura, A; Rives, S; Lassaletta, A; Sebastian, E; Madero, L; Huerta, J; Garcia-Morin, M; Martinez, AP; Sisinni, L; Astigarraga, I; Velasco, P; Gros, L; Moreno, L; Carbone, A; Rodriguez-Vigil, C; Riesco, S; Mendoza, MD; Macias, EG; Trabazo, M; Torrent, M; Badell, I; Fuster, JL; Dominguez-Pinilla, N; Ribelles, AJ; Perez-Alonso, V; Sanmartin, MF; Baragano, M; Gorostegui, M; Perez-Jaume, S; Fernandez-Teijeiro, A; La Madrid, AM; Dapena, JL. *Initial report on Spanish pediatric oncologic, hematologic, and post stem cell transplantation patients during SARS-CoV-2 pandemic*. PEDIATRIC BLOOD & CANCER. 2020; 67(9). FI: 3.167. Cuartil: 1. (Letter).

Publications of the main WOS collection in journals without impact factor:

- Herrero, R; Sanchez, G; Asensio, I; Lopez, E; Ferruelo, A; Vaquero, J; Moreno, L; de Lorenzo, A; Banares, R; Lorente, JA. *Liver-lung interactions in acute respiratory distress syndrome*. INTENSIVE CARE MEDICINE EXPERIMENTAL. 2020; 8. (Article).

7.31 Pathophysiology in women, pregnancy, labor and puerperium

Group Director: **Santiago Lizarraga Bonelli and Juan Antonio de León Luis**
Organisms involved: **HGUGM**
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 morbitidy 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

Surname		Name	Euraxess Profile	Role
CABALLERO	CAMPO	MIGUEL	R2	Recognised Researcher
CAMPOS	FERNANDEZ	RAUL		
CEBALLOS	GARCÍA	ELENA	R1	First Stage Researcher
COLLAZOS	BLANCO	ANA		
DE LEÓN	LUIS	JUAN ANTONIO	R4	Leading Researcher
GAMEZ	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
MENDIZABAL	VICENTE	ELSA	R2	Recognised Researcher
MERCADER	CIDONCHA	ENRIQUE	R1	First Stage Researcher I
MORENO	MOLINERO	VERÓNICA	R1	First Stage Researcher
MUÑOZ-CHAPULÍ	GUTIÉRREZ	MARIA 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 a
PÉREZ	MILÁN	FEDERICO	R3	Established Researcher
PINTADO	RECARTE	PILAR	R2	Recognised Researcher
RELLOSO	CERECEDA	MIGUEL	R3	Established Researcher
RUIZ	LABARTA	JAVIER	R1	First Stage Researcher
TROBO	MARINA	DUNA	R1	First Stage Researcher
VEIGA	FERNANDEZ	AMANDA		
VIÑUELA	BENEITEZ	M DEL CARMEN	R1	First Stage Researcher

Research Projects – Competitive Calls

- **Competitive projects**

TITLE: **Papel de la progesterona como inmunoactivador en la lucha contra las candidiasis vaginales y sistémicas: posible efecto antitumoral y sobre la implantación embrionaria**. PI16/00050
DIRECTOR: RELLOSO CERECEDA, MIGUEL
PROJECT TYPE: Research project
FUNDING BODY: INSTITUTO DE SALUD CARLOS III
START DATE: 01/01/2017
END DATE: 31/12/2020

TITLE: **Relación del fallo de implantacion 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: 31/12/2020

- **Human Resources**

TITLE: **Young employement contract: Predoctoral** PEJD-2018-PRE/BMD-9513
DIRECTOR: PÉREZ MILÁN, FEDERICO
PROJECT TYPE: Human resources
FUNDING BODY: CONSEJERÍA DE EDUCACIÓN E INVESTIGACON. COMUNIDAD DE MADRID
START DATE: 01/01/2019
END DATE: 31/12/2020

Industrial and intellectual property registrations

Industrial property

Title	*Reference**	*Owner*	*Inventors*
Maqueta didáctica armable	U201530218	FIBHGM	Juan Antonio León

Transferred patents

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

Intellectual property

Title	*Reference*	*Owner*	*Inventors*
Parto vaginal en 3D	Nº Asiento Registral: 16 / 2019 / 2823	FIBHGM	Juan Antonio de León

Publications *Total Impact Factor: **85.4***

	Nº	FI
Own publications	6	20.7
Joint publications	3	64.8
First decile publications	2	63.2
First quartile publications	2	63.2
Second quartile publications	2	8.3
Third quartile publications	4	12.4
Fourth quartile publications	1	1.6
Nonindexed publications / No IF	1	-

Total publications (including those without IF)	**10**	**85.4**

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

- Larroca, SGT; Valera, FA; Herrera, EA; Hernandez, IC; Lopez, YC; De Leon-Luis, J. *Human Development Index of the maternal country of origin and its relationship with maternal near miss: A systematic review of the literature*. BMC PREGNANCY AND CHILDBIRTH. 2020; 20(1). FI: 3.007. Cuartil: 2. (Review).
- Aviles-Izquierdo, JA; Nieto-Benito, LM; Lazaro-Ochaita, P; Escat-Cortes, JL; Marquez-Rodas, I; Mercader-Cidoncha, E. *Prognostic significance of sentinel node biopsy status in cutaneous melanoma: a 21-years prospective study from a single institution*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2020; 22(9) 1611-1618. FI: 3.405. Cuartil: 3. (Article).
- Izquierdo, JAA; Lopez, IM; Morillo, PS; Rodas, IM; Cidoncha, EM. *Utility of PET/CT in patients with stage I-III melanoma*. CLINICAL & TRANSLATIONAL ONCOLOGY. 2020; 22(8) 1414-1417. FI: 3.405. Cuartil: 3. (Article).
- Olivera-Valle, I; Latorre, MC; Calvo, M; Gaspar, B; Gomez-Oro, C; Collazos, A; Breton, A; Caballero-Campo, P; Ardoy, M; Asensio, F; Sanchez-Mateos, P; Perez-Millan, F; Relloso, M. *Vaginal neutrophils eliminate sperm by trogocytosis*. HUMAN REPRODUCTION. 2020; 35(11) 2567-2578. FI: 6.918. Cuartil: 1. (Article).
- Martinez-Perez, O; Vouga, M; Melguizo, SC; Acebal, LF; Panchaud, A; Munoz-Chapuli, M; Baud, D. *Association Between Mode of Delivery Among Pregnant Women With COVID-19 and Maternal and Neonatal Outcomes in Spain*. JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. 2020; 324(3) 296-299. FI: 56.272. Cuartil: 1. (Letter).
- Ortega, MA; Romero, B; As?nsolo, A; Mart?nez-Vivero, C; Sainz, F; Bravo, C; De Le?n-Luis, J; Alvarez-Mon, M; Buj?n, J; Garc?a-Honduvilla, N. *Pregnancy-associated venous insufficiency course with placental and systemic oxidative stress*. JOURNAL OF CELLULAR AND MOLECULAR MEDICINE. 2020; 24(7) 4157-4170. FI: 5.31. Cuartil: 2. (Article).
- Veiga-Fernandez, A; Joigneau Prieto L; Alvarez, T; Ruiz, Y; Perez, R; Gamez, F; Ortega Abad V; Yllana, F; De León-Luis J. *Perinatal diagnosis and management of early-onset Marfan syndrome: case report and systematic review*. JOURNAL OF MATERNAL-FETAL & NEONATAL MEDICINE. 2020; 33(14) 2493-2504. FI: 2.398. Cuartil: 3. (Article).
- Cuello, JP; Martínez Ginés ML; Tejeda-Velarde, A; Medina Heras S; García Domínguez JM; Fernández Velasco JI; Lozano Ros A; Higueras, Y; Meldaña Rivera A; Goicochea Briceño H; Garcia-Tizon Larroca S; De Leon-Luis, J; de Andres, C; Álvarez Lafuente R; Villar, LM. *Cytokine profile during pregnancy predicts relapses during pregnancy and postpartum in multiple sclerosis*. JOURNAL OF THE NEUROLOGICAL SCIENCES. 2020; 414 116811-116811. FI: 3.181. Cuartil: 3. (Article).
- Vinuela, MC; De Leon-Luis, JA; Alonso, R; Catalan, P; Lizarraga, S; Munoz, P; Bouza, E; Gregorio Maranon Obstet Gynecology. *SARS-CoV-2 screening of asymptomatic women admitted for delivery must be performed with a combination of microbiological techniques: an observational study*. REVISTA ESPANOLA DE QUIMIOTERAPIA. 2020; 33(6) 415-421. FI: 1.553. Cuartil: 4. (Article).

Publications of the main WOS collection in journals without impact factor:

- Alger, J; Ximenes, RAD; Avelino-Silva, VI; Bardaji, A; Mojica, CHB; Benedetti, A; Teixeira, MDB; Bethencourt, S; Aburto, VHB; Brant, F; Brasil, P; Brickley, EB; Broutet, N; Buekens, P; Cafferata, ML; Calvet, G; Campbell, H; Carabali, M; Chan, D; Costa, F; Ferreira, OD; Coutinho, CM; Cunha, AJ; Cure, CC; Damen, JAA; de Jong, VMT; Debray, TP; DeBiasi, RL; Diaz-Martinez, LA; Duarte, G; Ferriol, DM; Ganz, JS; Gerardin, P; Gilboa, SM; Gonzalez, M; Muniz, CG; Gustafson, P; Sanchez, LAG; Guzman, MG; Hofer, C; Holband, N; Inwani, I; Jaenisch, T; Joao, E; Juliana, A; Kara, E; Kim, C; Ko, AI; Koopmans, M; LaBeaud, AD; Lash, M; Lee, EH; Leo, YS; Levis, B; Low, N; Macpherson, CNL; Marban-Castro, E; Mattar, S; Maxwell, L; Mayaud, P; Melo, A; Menendez, C; Reyes, MM; Montoya, MCM; Miranda, DD; Moons, KGM; Morales, I; Moreira, ME; Mulkey, SB; Medina, JEM; Mussi-Pinhata, MM; Natrajan, MS; Njenga, MK; Noel, TP; Nogueira, M; Osoro, E; Martinez, MLO; Paladini, M; Passos, S; Perez, F; Pomar, L; Prata-Barbosa, A; Reis, M; Reveiz, L; Rodo, C; Rosado, LEP; Rosenberger, KD; Clemente, NS; Sayers, JL; Silva, AA; de Siqueira, IC; Sohan, K; Soria-Segarra, C; Soriano-Arandes, A; Sousa, P; Souza, JP; Franch, AS; Tami, A; Teixeira, M; Thwin, SS; Tong, VT; Turchi, MD; Martelli, CMT; Valencia, D; Van Kerkhove, MD; de Araujo, TVB; Villar, LA; Beneitez, CV; Wei, YH; Widdowson, MA; Wilder-Smith, A; Zika Virus Individual Participant. *The Zika Virus Individual Participant Data Consortium: A Global Initiative to Estimate the Effects of Exposure to Zika Virus during Pregnancy on Adverse Fetal, Infant, and Child Health Outcomes*. TROPICAL MEDICINE AND INFECTIOUS DISEASE. 2020; 5(4). (Article).

7.32 Physical medicine and rehabilitation

Group Director: **Pilar Crespo Cobo and Marta Supervía Pola**
Organisms involved: **HGUGM**
Emerging group

Research lines

L1: Infant cardiac rehabilitation. Leader: Marta Supervía
L2: Adult cardiac rehabilitation. Leader: Marta Supervía

Group members

Surname		Name	Euraxess Profile	Role
ARROYO	RIAÑO	Mª OLGA	R2	Postdoctoral
CRESPO	COBO	PILAR	R4	Senior researcher
GARCÍA	DELGADO	ISABEL	R2	Postdoctoral
LÓPEZ	CHICHARRO	JOSÉ	R3	Senior researcher
MORENO	PALACIOS	ANTONIO	R2	Postdoctoral
PÉREZ	RUIZ	MARGARITA	R3	Senior researcher
SUPERVIA	POLA	MARTA	R4	Senior researcher
UBEDA	TIKKANEN	ANA	R4	Senior researcher

Publications

Total Impact Factor: **22.5**

	Nº	IF
Own publications	0	0.0
Joint publications	6	22.5
First decile publications	0	-
First quartile publications	3	12.9
Second quartile publications	2	7.6
Third quartile publications	1	2.1
Fourth quartile publications	0	0.0
Nonindexed publications / No IF	3	-
Total publications (including those without IF)	**9**	**22.5**

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

- Britto, RR; Supervia, M; Turk-Adawi, K; Chaves GSDS; Pesah, E; Lopez-Jimenez, F; Pereira DAG; Herdy, AH; Grace, SL. *Cardiac rehabilitation availability and delivery in Brazil: a comparison to other upper middle-income countries*. BRAZILIAN JOURNAL OF PHYSICAL THERAPY. 2020; 24(2) 167-176. FI: 3.377. Cuartil: 1. (Article).
- Chaves, G; Turk-Adawi, K; Supervia, M; Pio, CSD; Abu-Jeish, AH; Mamataz, T; Tarima, S; Jimenez, FL; Grace, SL. *Cardiac Rehabilitation Dose Around the World: Variation and Correlates*. CIRCULATION-CARDIOVASCULAR QUALITY AND OUTCOMES. 2020; 13(1). FI: 5.882. Cuartil: 1. (Article).
- Babu, AS; Turk-Adawi, K; Supervia, M; Jimenez, FL; Contractor, A; Grace, SL. *Cardiac Rehabilitation in India: Results from the International Council of Cardiovascular Prevention and Rehabilitation's Global Audit of Cardiac Rehabilitation*. GLOBAL HEART. 2020; 15(1). FI: 3.426. Cuartil: 2. (Article).
- Pio, CSD; Beckie, TM; Varnfield, M; Sarrafzadegan, N; Babu, AS; Baidya, S; Buckley, J; Chen, SY; Gagliardi, A; Heine, M; Khiong, JS; Mola, A; Radi, B; Supervia, M; Trani, MR; Abreu, A; Sawdon, JA; Moffatt, PD; Grace, SL. *Promoting patient utilization of outpatient cardiac rehabilitation: A joint International Council and Canadian*

Association of Cardiovascular Prevention and Rehabilitation position statement. INTERNATIONAL JOURNAL OF CARDIOLOGY. 2020; 298 1-7. FI: 4.164. Cuartil: 2. (Article).

- Pio, CSD; Beckie, TM; Varnfield, M; Sarrafzadegan, N; Babu, AS; Baidya, S; Buckley, J; Chen, SY; Gagliardi, A; Heine, M; Khiong, JS; Mola, A; Radi, B; Supervia, M; Trani, MR; Abreu, A; Sawdon, JA; Moffatt, PD; Grace, SL. *Promoting Patient Utilization of Outpatient Cardiac Rehabilitation A JOINT INTERNATIONAL COUNCIL AND CANADIAN ASSOCIATION OF CARDIOVASCULAR PREVENTION AND REHABILITATION POSITION STATEMENT*. JOURNAL OF CARDIOPULMONARY REHABILITATION AND PREVENTION. 2020; 40(2) 79-86. FI: 2.081. Cuartil: 3. (Review).
- Gomez-Vela, P; Perez-Ruiz, M; Hernández Martín MF; Roman, J; Larumbe-Zabala, E. *Acute effect of orange chromatic environment on perceived health status, pain, and vital signs during chemotherapy treatment*. SUPPORTIVE CARE IN CANCER. 2020; 28(5) 2321-2329. FI: 3.603. Cuartil: 1. (Article).

Other Publications:

- Almendro-Martínez I; Llorente-Parrado C; Cadarso-Mora A; Nuño-Estévez M; Dumitrescu A; Arroyo-Riaño O. *Perspectivas de pacientes con distrofia muscular de Duchenne: grupo focal para mejorar la calidad asistencial.*. JOURNAL OF HEALTHCARE QUALITY RESEARCH. 2020; 35(5) 273-279. (Article).
- Saeidifard F; Medina-Inojosa JR; Supervia M; Olson TP; Somers VK; Prokop LJ; Stokin GB; Lopez-Jimenez F. *The Effect of Replacing Sitting With Standing on Cardiovascular Risk Factors: A Systematic Review and Meta-analysis.*. MAYO CLINIC PROCEEDINGS. INNOVATIONS, QUALITY & OUTCOMES. 2020; 4(6) 611-626. (Article).
- Forner Cordero I; López Martin M; Reina Gutiérrez L; Belmonte R; Ruiz Miñarro R; Crespo Cobo MP; Pardo Sievers B; Pujol Blaya V; De Miguel Benadiba C; Puigdellivol C. *La atención al paciente con patología linfática y lipedema en la pandemia COVID-19. Recomendaciones del Grupo Español de Linfología (GEL).*. REHABILITACION. 2020; 54(4) 276-283. (Article).

NURSING CARE RESEARCH GROUP

Coordinator: **Ana García Pozo**

Description of the research group

Research on the care provided by the nursing group is beginning to generate a large number of major. mainly joint projects. Some of these projects are funded with other nursing groups from other hospitals in the Comunidad de Madrid. the Universidad Complutense de Madrid (UCM). Universidad Rey Juan Carlos (URJC). and Universidad Autonoma de Madrid (UAM). These projects are integrated in the research line of health services and care.
The group is composed of nurses from all professional areas (care. teaching. and management). of whom a large number are lecturers at UCM. URJC and UAM.
Its organizational structure is unique in the Madrid health area. in that it provides support and advice and promotes research in nursing through the Unidad de Apoyo a la Investigación de Enfermería (UAIE [Nursing Research Support Unit]).
The group has a strong certified research training plan for nurses and nursing trainees. Similarly. the group runs a large number of activities to promote research. such as one-day courses. prizes for research. and access to documentary and research resources

Research lines

Axis 1: Nursing care.
- Line 1: Care for chronically ill patients
- Line 2: Care for critically ill patients
- Line 3: Physiotherapy and rehabilitation
- Line 4: Patient Safety

Axis 2: Innovation in health care and services
- Line 1: Development of applications and patents
- Line 2: Advanced practice
- Line 3: Design and validation of measuring instruments

Axis 3: Management of human resources
- Line 1: Professional skills and competence
- Line 2: Evaluation and measurement of nursing care time
- Line 3: Occupational health and work environment

Group members

Surname		*Name*	*Euraxess Profile*	*Role*
CALDERARI	FERNÁNDEZ	ELENA	R2	Recognised Researcher
CID	EXPOSITO	GEMA	R2	Recognised Researcher
CORRAL	LIRIA	INMACULADA	R2	Recognised Researcher
DE LAS POZAS	ABRIL	JULIA	R1	First Stage Researcher
DURANGO	LIMÁRQUEZ	MARÍA ISABEL	R1	First Stage Researcher
FERNANDEZ	ARRANZ	JULITA	R2	Recognised Researcher
FERNANDEZ	BLANCO	RAQUEL	R2	Recognised Researcher
GARCIA	PEREA	EVA	R2	Recognised Researcher
GARCIA	POZO	ANA MARIA	R4	Leading Researcher
GONZALEZ	BAZ	MARIA DOLORES	R1	First Stage Researcher
GONZÁLEZ	LLUVA	CONCEPCIÓN	R1	First Stage Researcher
GUERRA	SÁNCHEZ	LUIS	R2	Recognised Researcher
GUERRERO	MARQUEZ	GLORIA	R1	First Stage Researcher
GUIJARRO	JIMENEZ	ESTHER	R1	First Stage Researcher
LOBO	RODRIGUEZ	CARMEN	R2	Recognised Researcher
LOPEZ	SANCHEZ	RAQUEL	R2	Recognised Researcher
LUENGO	GONZALEZ	RAQUEL	R2	Recognised Researcher
MARTÍN	FERNÁNDEZ	MILAGROS	R1	First Stage Researcher

Surname		Name	Euraxess Profile	Role
MARTÍNEZ	CASTELLANOS	TERESA	R1	First Stage Researcher
MEDINA	TORRES	MARGARITA	R1	First Stage Researcher
MORO	TEJEDOR	MARÍA NIEVES	R2	Recognised Researcher
OLTRA	RODRIGUEZ	ENRIQUE	R2	Recognised Researcher
PALACIOS	CEÑA	DOMINGO	R3	Established Researcher
PASCUAL	FERNÁNDEZ	CRISTINA	R2	Recognised Researcher
PEÑA	GRANGER	MARIA DE LAS MERCEDES	R1	First Stage Researcher
PEÑA	OTERO	DAVID	R2	Recognised Researcher
RAMASCO	GUTIERREZ	MILAGROS	R2	Recognised Researcher
RECIO	VIVAS	ANA MARIA	R2	Recognised Researcher
ROBLEDO	MARTIN	JUANA	R2	Recognised Researcher
SOTO	LUCIA	MARÍA CONSUELO	R1	First Stage Researcher
SUAREZ	BUSTAMANTE	ROSA	R1	First Stage Researcher
TORAÑO	OLIVERA	Mª JOSÉ	R1	First Stage Researcher
TRUJILLO	GALLEGO	FERNANDO	R1	First Stage Researcher
VAQUERO	LOZANO	MARIA PAZ	R1	First Stage Researcher
VELARDE	GARCIA	JUAN FRANCISCO	R2	Recognised Researcher
VISIERS	JIMENEZ	LAURA	R2	Recognised Researcher

Cooperative Research Structures

Type (RETIC. CIBER. others.)	Name of Network	Role
Plataforma ISCIII	Plataforma Española de Ensayos clínicos SCReN	Collaborating group

Industrial and intellectual property registrations

Intellectual property

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

Publications *Total Impact Factor: **26.9***

	Nº	FI
Own publications	4	8,9
Joint publications	5	17,9
First decile publications	1	6,9
First quartile publications	5	20,5
Second quartile publications	1	2,1
Third quartile publications	1	2,1
Fourth quartile publications	2	2,2
Nonindexed publications / No IF	6	-
Total publications (including those without IF)	**15**	**26,9**

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

- Jimenez-Ruiz, CA; Martin, V; Alsina-Restoy, X; de Granda-Orive, JI; de Higes-Martinez, E; Garcia-Rueda, M; Genoves-Crespo, M; Lopez-Garcia, C; Lorza-Blasco, JJ; Marquez, FL; Ramos-Pinedo, A; Riesco-Miranda, JA; Signes-Costa, J; Solano-Reina, S; Vaquero-Lozano, P; Rejas, J. *Cost-benefit analysis of funding smoking cessation before surgery*. BRITISH JOURNAL OF SURGERY. 2020; 107(8) 978-994. FI: 6.939. Cuartil: 1. (Article).

- Pedraz-Marcos, A; Palmar-Santos, AM; Hale, CA; Zarco-Colon, J; Ramasco-Gutierrez, M; Garcia-Perea, E; Velasco-Ripoll, T; Martin-Alarcon, J; Sapena-Fortea, N. *Living With Rheumatoid Arthritis in Spain: A Qualitative Study of Patient Experience and the Role of Health Professionals*. CLINICAL NURSING RESEARCH. 2020; 29(8) 551-560. FI: 2.075. Cuartil: 2. (Article).

- Fernandez-Martinez, E; Abreu-Sanchez, A; Perez-Corrales, J; Ruiz-Castillo, J; Velarde-Garcia, JF; Palacios-Cena, D. *Living with Pain and Looking for a Safe Environment: A Qualitative Study among Nursing Students with Dysmenorrhea*. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2020; 17(18). FI: 3.39. Cuartil: 1. (Article).

- Fernandez-Alonso, V; Palacios-Cena, D; Silva-Martin, C; Garcia-Pozo, A. *Facilitators and Barriers in the Organ Donation Process: A Qualitative Study among Nurse Transplant Coordinators*. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2020; 17(21). FI: 3.39. Cuartil: 1. (Article).

- Fernandez-Martinez, E; Abreu-Sanchez, A; Velarde-Garcia, JF; Iglesias-Lopez, MT; Perez-Corrales, J; Palacios-Cena, D. *Living with Restrictions. The Perspective of Nursing Students with Primary Dysmenorrhea*. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2020; 17(22). FI: 3.39. Cuartil: 1. (Article).

- Mansilla Domínguez JM; Font Jiménez I; Belzunegui Eraso A; Peña Otero D; Díaz Pérez D; Recio Vivas AM. *Risk Perception of COVID-19 Community Transmission among the Spanish Population*. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 2020; 17(23). FI: 3.39. Cuartil: 1. (Article).

- Fernandez-Lopez, I; Pena-Otero, D; Atin-Arratibel, MD; Eguillor-Mutiloa, M. *Influence of the phrenic nerve in shoulder pain: A systematic review*. INTERNATIONAL JOURNAL OF OSTEOPATHIC MEDICINE. 2020; 36 36-48. FI: 2.149. Cuartil: 3. (Review).

- Atance-Pereira, D; Zamarro-Arranz, ML; Velarde-Garcia, JF; Huertas-Hoyas, E; Cachon-Perez, JM; Paras, P; Palacios-Cena, D. *Perspectives of Victims of Gender Violence*. JOURNAL OF PSYCHOSOCIAL NURSING AND MENTAL HEALTH SERVICES. 2020; 58(6) 30-39. FI: 1.098. Cuartil: 4. (Article).

- Guerra-Sanchez, L; Fresno-Flores, M; Martinez-Rincon, C. *Effect of a double nutritional intervention on the nutritional status, functional capacity, and quality of life of patients with chronic heart failure: 12-month results from a randomized clinical trial*. NUTRICIÓN HOSPITALARIA. 2020; 37(3) 422-431. FI: 1.057. Cuartil: 4. (Article).

Publications of the main WOS collection in journals without impact factor:

- Arias-Rivera, S; Lopez-Lopez, C; Frade-Mera, MJ; Via-Clavero, G; Rodriguez-Mondejar, JJ; Sanchez-Sanchez, MM; Acevedo-Nuevo, M; Gil-Castillejos, D; Robleda, G; Cachon-Perez, M; Latorre-Marco, I; Mera, MJF; Rivera, SA; Vega, VB; Lavela, JE; Basurto, FP; Monzo, VM; Sanchez, MDS; Olivares, JCQ; Mancera, AIN; Jaen, SH; Diaz, NR; Rodriguez-Rey, LFC; Garcia, MDH; Lopez, CL; Sanz, TRV; de la Ventana, ABS; Martinez, MG; Olivera, MJT; Sanchez, LG; Gozalo, MJ; Pena, JAT; Dominguez, SR; Cobo, MCM; Fernandez, OH; Mora, MA; Gonzalez, MDB; Lopez, JM; Ayala, AC; Blanco, RG; Rodriguez-Palmero, LMM; Nuevo, MA; Marco, IL; Gonzalez, SG; Fernandez, AC; Santos, CF; Garcia, SD; Sevillano, MCA; Mondejar, JJR; Molina, AR; Celdran, DL; Lopez, NDE; Garcia, ABG; Sanz, LN; Rojo, FJM; Hernandez, AF; Gonzalez, SA; Viguria, RG; Oroz, AM; Berardo, BMM; Roig, MAZ; Ortiz, MDG; Orue, PA; Gallano, JB; Gomez, YG; Salazar, MLM; Nunez, CR; Martinez, MM; Aguado, GL; Hervas, PP; Marmaneu, MM; Artola, MMA; Cisternas, ES; Gimeno, YM; Calvo, AR; Tato, JLT; Carbonell, JI; Talavera, DV; Jara, MS; Martinez, JM; Sanchez, BM; Ceron, MY; Pagan, MCP; Equipo ASCyD. *Assessment of analgesia, sedation, physical restraint and delirium in patients admitted to Spanish intensive care units. Proyecto ASCyD*. ENFERMERIA INTENSIVA. 2020; 31(1) 3-18. (Article).

- Acevedo-Nuevo, M; Gonzalez-Gil, MT; Solis-Munoz, M; Arias-Rivera, S; Torano-Olivera, MJ; Rodriguez-Rey, LFC; Velasco-Sanz, TR; Rivera, BEM; Carmona-Monge, FJ; Rodriguez-Huerta, MD; Lospitao-Gomez, S; Alvarez, AM; Garcia-Gonzalez, S; Laiz-Diez, N. *Physical restraint in critical care units from the experience of doctors and nursing assistants: In search of an interdisciplinary interpretation*. ENFERMERIA INTENSIVA. 2020; 31(1) 19-34. (Article).

- Lopez-Sanchez, R; Jimenez-Garcia, E; Osorio-Alvarez, S; Riestra-Rodriguez, MR; Oltra-Rodriguez, E; Garcia-Pozo, AM. *Suitability of therapeutic effort in paediatric intensive care units: Opinion and attitude of professionals*. ENFERMERIA INTENSIVA. 2020; 31(4) 184-191. (Article).

Romero, AG; Otero, DP; Cernuda, VG; Samaniego, PA; Gonzalez, IC; Cordero, FJG. *Validation of the thermometer as a determining factor in the effectiveness of temperature measuring in covid-19 infection*. REVISTA ROL DE ENFERMERIA. 2020; 43(9) 60-68. (Article).

Other publications

- López Sánchez, Raquel; Jimenez Garcia, Elena; Osorio Alvarez, Sofia; Riestra Rodriguez, Maria del Rosario; Oltra Rodriguez, Enrique; GARCIA, A.. *Adecuación del Esfuerzo Terapéutico en Unidades de Cuidados Intensivos Pediátricos: Opinión y Actitud de los profesionales*. ENFERMERIA INTENSIVA. 2020. (Article).

- FERNANDEZ ALONSO, VICTOR; Palacios-Cena, D; MORO, M.; GIL DE MIGUEL, ANGEL; Garcia-Pozo A. *La profesión de enfermería en el proceso de donación de órganos en la Comunidad de Madrid: un protocolo de investigación de metodología mixta*. NURE INVESTIGACIÓN. 2020; 17(105). (Article).

5. OTHER RESEARCH ACTIVITIES

*Publications generated by **clinical researchers associated** with the IiSGM*

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

- Berenguer, B; Lorca-Garcia, C; Lancharro, A; DeTomas, E. *Pediatric tumors of the buccal fat pad: lipoma and hemangioma*. ACTA CHIRURGICA BELGICA. 2020; 120(5) 341-343. FI: 1.09. Cuartil: 4. (Article).
- Camarillo, L; Ferre, F; Echeburua, E; Amor, PJ. *Partner's Emotional Dependency Scale: Psychometrics*. ACTAS ESPANOLAS DE PSIQUIATRIA. 2020; 48(4) 145-153. FI: 1.196. Cuartil: 4. (Article).
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1. PARTNER COMPANIES 2020

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*During this year 2020, the funding provided to the **FIBHGM by Janssen-Cilag S.A.** to support the "Fellowship Program for Scientific Research" came to 150,000€*