

INSTITUTO DE
INVESTIGACIÓN
SANITARIA
HOSPITAL
UNIVERSITARIO
DE LA PRINCESA



2025 Annual Report of Scientific Activity





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200

Letter from the Scientific Director



Isidoro González Álvaro
Scientific Director

The year 2025 was one of intensive work for all departments of La Princesa Health Research Institute (IIS-Princesa), as we faced the renewal of the accreditation of the Institute by the Carlos III Health Institute (ISCIII) for the next five years. This represented a major effort on the part of the Foundation, particularly by the Research Management Unit, whose dedication successfully demonstrated that our Institution is a leader not only in research outcomes but also in research management. After submitting the required documentation in August 2025 and successfully completing the on-site evaluation conducted by the ISCIII assessment team in November 2025, the Institute was ultimately granted the renewal of its ISCIII accreditation in April 2026 for a further five-year period.

Following the realignment of the Institute's structure in 2024 to address the emerging challenges faced by our regional health service (SERMAS) and to align with the strategic priority areas identified by our main funding institutions, 2025 was a year focused on strengthening and promoting innovation, research in Primary and Nursing Care, and the development of emerging researchers. To this end, the Institute launched an internal funding call to support research projects in these strategic areas, thereby fostering innovation, promoting research across different areas of healthcare, and supporting the next generation of researchers.

In terms of scientific output, 2025 maintained IIS-Princesa's publication pace after the pandemic. This year we produced 372 articles fulfilling the ISCIII criteria for evaluation, with an accumulated impact factor reaching almost 2,500 and a mean relative impact per article of 6.6, figures comparable to those of 2023 and 2024. The overall quality of our publications is evidenced by the percentage of output in D1 and Q1, 31% and 68%, respectively, markedly higher than in the pre-pandemic period. Moreover, as of July 2026, the average citation per article has risen to 4.3 [0-103], underscoring the quality and relevance of our research lines.

Additionally, 46% of the publications were led by researchers from IIS-Princesa, reflecting the consolidation of scientific leadership within the Institute. In line with the strategy established in 2022, we have continued to promote open-access publishing, with 68% of our scientific publications now available through Open Access. This progress reinforces our commitment to enhancing the visibility, accessibility, and dissemination of the research generated at IIS-Princesa.

In 2025, we maintained excellent performance in competitive calls for research funding, with 17 grants awarded out of 36 proposals submitted. Our success rates reached 46% in calls issued by ISCIII and 45% in those of the State Research Agency (Agencia Estatal de Investigación, AEI). Of particular significance was the grant awarded to the PANDORA project (Pancreatic Dataset for Oncological Research), funded by the Spanish Ministry for Digital Transformation. The project will develop an advanced platform for the secure management and use of anonymized clinical data and medical images, with the aim of supporting earlier diagnosis and more personalized treatment of pancreatic cancer through the application of artificial intelligence.

Regarding private research funding, we signed 103 contracts for clinical studies this year, of which 69 corresponded to clinical trials and 34 to observational studies. In terms of academic output, 12 doctoral theses were defended, 3 of which received European mention.

Finally, following the restructuring of our Institute's scientific areas carried out in 2024 and the renewal of its accreditation by ISCIII following the 2025 audit, our next priority will be to incorporate the Spanish National Research Council (CSIC) as a new institution within our Institute. This incorporation will enable us to add nine research groups, further strengthening our capacity to conduct translational research. Taken together, these developments will consolidate our scientific capabilities and ensure that we are well positioned to face the coming five-year period, building on a sustained upward trajectory in scientific excellence and impact.

Members of the Institute

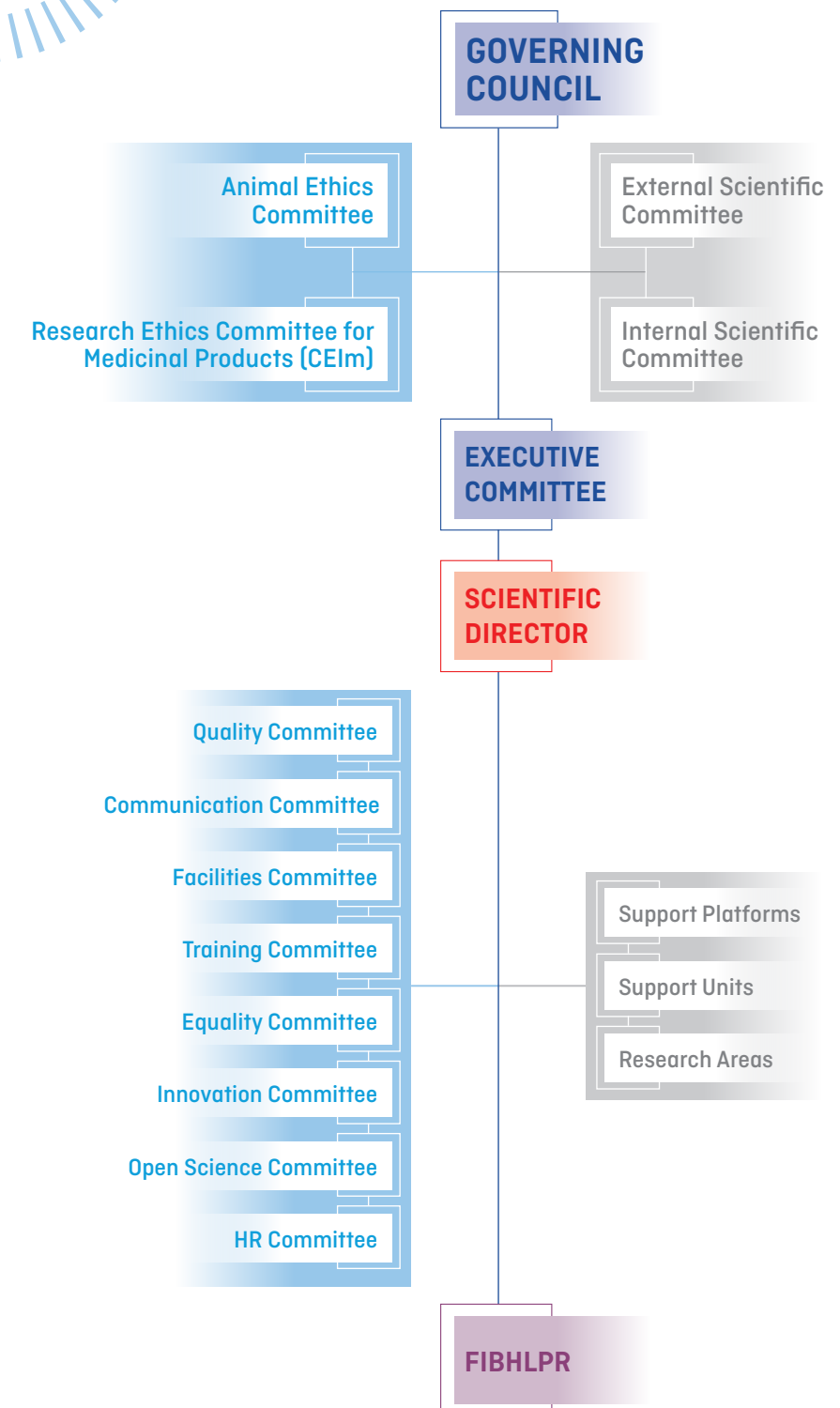
The Health Research Institute of La Princesa University Hospital was established on 15 December 2009 through an agreement signed by the Madrid Health Service —on behalf of La Princesa University Hospital, Santa Cristina University Hospital and Niño Jesús Children’s University Hospital—, the Autonomous University of Madrid, the Foundation for Biomedical Research at La Princesa University Hospital, and the competent regional body of the Community of Madrid for training, research and health studies.

Following an audit by the Carlos III Health Institute, the Institute obtained accreditation as a Health Research Institute almost one year later.

Since its establishment, the institutional framework of the Institute has been updated through successive amendments and agreements, reflecting the progressive consolidation and development of IIS-Princesa. The original agreement was amended and extended through addenda signed in 2013 and 2017. More recently, in 2022, a collaboration agreement was signed between the Community of Madrid, through the Regional Ministry of Health, the Madrid Health Service, the Autonomous University of Madrid, and the Foundation for Biomedical Research at La Princesa University Hospital, for the maintenance and development of the Health Research Institute of La Princesa University Hospital, IIS-Princesa.



Organisational Chart



GOVERNING COUNCIL

CHAIRMAN

Laura Gutiérrez Barreno
Deputy Minister of Health Assistance, Comunidad de Madrid

VICE-CHAIRMAN

Amaya Mendikoetxea Pelayo
Chancellor of Universidad Autónoma de Madrid

MEMBERS

José Julián Díaz Melguizo
General Director, Hospital Universitario de La Princesa

Víctor Vidal Lacosta
General Director, Hospital Universitario Santa Cristina

Julio Zarco Rodríguez
General Director, Hospital Infantil Universitario Niño Jesús

Inmaculada Ibáñez de Cáceres
Director of Research, Education and Innovation, Consejería de Sanidad de la Comunidad de Madrid

Isidoro González Álvaro
Scientific Director of Instituto de Investigación Sanitaria del Hospital Universitario de La Princesa

Julio Ancochea Bermúdez
Head of Respiratory Department, Hospital Universitario de La Princesa

Gustavo Casero Balboa
Management and General Services Director, Hospital Universitario de La Princesa

Cristina Murga Montesinos
Universidad Autónoma de Madrid / Centro de Biología Molecular Severo Ochoa, Madrid

Federico Plaza Piñol
Director of Government Affairs, Roche Farma España

María Rosario Azcutia Gómez
Manager of Atención Primaria, Servicio Madrileño de Salud

Cecilia Salvador González
Asociación Española de Portadores de Válvulas Cardíacas y Anticoagulados

Alberto José Sebastián Palomino
Management, Hospital Universitario de La Princesa

María Mercedes Vinuesa Sebastián
Quality Coordinator, Hospital Universitario de La Princesa

SECRETARY

Rosario Ortiz de Urbina Barba
Director of Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

EXECUTIVE COMMITTEE

CHAIRMAN

José Julián Díaz Melguizo
General Director, Hospital Universitario de La Princesa

MEMBERS

Manuela García López
Universidad Autónoma de Madrid

Manuel Fresno Escudero
Universidad Autónoma de Madrid / Centro de Biología Molecular Severo Ochoa, Madrid

María Elena Martín Pérez
General and Gastrointestinal Surgery, Hospital Universitario de La Princesa

José Luis Gallego Lago
Director of Continuity of Care, Hospital Universitario Santa Cristina

Manuel Ramírez Orellana
Medical Oncology Department, Hospital Infantil Universitario Niño Jesús

Isidoro González Álvaro
Scientific Director of Instituto de Investigación Sanitaria del Hospital Universitario de La Princesa

María Mercedes Vinuesa Sebastián
Quality Coordinator, Hospital Universitario de La Princesa

SECRETARY

Rosario Ortiz de Urbina Barba
Director of Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

SCIENTIFIC DIRECTOR

Isidoro González Álvaro

EXTERNAL SCIENTIFIC COMMITTEE

CHAIRMAN

Xosé Ramón García Bustelo
Chairman, Professor, Centro de Investigación del Cáncer, CSIC, Salamanca

MEMBERS

Andrés Alcover Santos
Professor, Instituto Pasteur

Isabel Fariñas Gómez
Professor, Universidad de Valencia

Francisco J. Blanco García

Professor, Instituto de Investigación Biomédica de A Coruña (INIBIC)

Cristina Fillat i Fonts

Professor, Institut d'Investigacions Biomèdiques August Pi Sunyer (IDIBAPS)

Miguel López-Botet Arbona

Professor, Universidad Pompeu Fabra. Scientific Director IMIM, Barcelona

Guadalupe Sabio Buzo

Associate Professor, Centro Nacional de Investigaciones Cardiovasculares Carlos III

INTERNAL SCIENTIFIC COMMITTEE

CHAIRMAN

Isidoro González Álvaro
Scientific Director of Instituto de Investigación Sanitaria del Hospital Universitario de La Princesa

MEMBERS

Fernando Alfonso Manterola
Cardiology Department, Hospital Universitario de La Princesa. Adjunct Professor, Universidad Autónoma de Madrid

Javier Aspa Marco
Respiratory Department, Hospital Universitario de La Princesa. Associate Professor, Universidad Autónoma de Madrid

José Luis Ayuso Mateos
Psychiatry Department, Hospital Universitario de La Princesa. Professor, Universidad Autónoma de Madrid

María J. Calzada García
Associate Professor, Universidad Autónoma de Madrid

María Chaparro Sánchez
Gastroenterology Department, Hospital Universitario de La Princesa

Julie Ann Chowen King
Research Unit, Hospital Infantil Universitario Niño Jesús

Ramón Colomer Bosch
Medical Oncology Department, Hospital Universitario de La Princesa. Associate Professor, Universidad Autónoma de Madrid

Rodrigo Jiménez Saiz
Researcher associated to Allergy Department, Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa. Associate Professor, Universidad Autónoma de Madrid

Rebeca Martínez Hernández
Researcher associated to Endocrinology Department, Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

Antonio Martínez Ruiz

Research Department, Hospital Universitario Santa Cristina. Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

Cecilia Muñoz Calleja

Immunology Department, Hospital Universitario de La Princesa. Associate Professor, Universidad Autónoma de Madrid

Blanca Novella Arribas

Area of Public Health, Epidemiology and Care Research, Atención Primaria

Dolores Ochoa Mazarro

Clinical Pharmacology Service, Hospital Universitario de La Princesa

Eduardo Pacios Blanco

Innovation Support Unit. Radiology Department, Hospital Universitario de La Princesa

Marisa Pardines Ortiz

Predoctoral researcher associated to Rheumatology Service, Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

Petronila Penela Márquez

Associate Professor, Universidad Autónoma de Madrid / Centro de Biología Molecular Severo Ochoa

Manuel Ramírez Orellana

Medical Oncology Department, Hospital Infantil Universitario Niño Jesús

SECRETARY

María Chaparro Sánchez

Gastroenterology Department, Hospital Universitario de La Princesa

RESEARCH ETHICS COMMITTEE FOR MEDICINAL PRODUCTS (CEIm)

The Research Ethics Committee for Medicinal Products (CEIm) of Hospital Universitario de La Princesa is an independent, multidisciplinary body whose main objective is to ensure the protection of the rights, safety and well being of participants involved in biomedical research projects. It also provides public assurance by issuing an opinion on the relevant research documentation, while taking into consideration the perspectives of laypersons, particularly patients.

CHAIRMAN

Francisco Abad Santos

Clinical Pharmacology Department, Hospital Universitario de La Princesa

VICE-CHAIRMAN

Enrique Alday Muñoz

Anesthesiology Department, Hospital Universitario de La Princesa

TECHNICAL SECRETARIAT

María del Mar Ortega Gómez

Biobank Director, Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

MEMBERS

Ángel Carlos Abanades Cuenca

Patient representative

Sara Cardenal Rodríguez

Clinical Trials Department, Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

Carmen del Arco Galán

Emergency Department, Hospital Universitario de La Princesa

Ángela de la Hoz Rodríguez

General Surgery Department, Hospital Universitario de La Princesa

Alexandra González Aguña

Nurse, Hospital Universitario Santa Cristina

Andrés López Romero

Family and Community Medicine, Atención Primaria

Gina Paola Mejía Abril

Clinical Pharmacology Department, Hospital Universitario de La Princesa

Eva María Nicolás Carrillo

Patient representative

Dolores Ochoa Mazarro

Clinical Pharmacology Department, Member of the Research Committee, Hospital Universitario de La Princesa

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Radiology Department, Member of the Clinical Ethics Committee, Hospital Universitario de La Princesa

Igor Pinedo García

Law Graduate

Carolina Pozuelo González

Pharmacy Department, Atención Primaria

Amelia Rodríguez Nogueiras

Nurse, Hospital Universitario de La Princesa

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Endocrinology Department, Hospital Universitario de La Princesa

Beatriz Sánchez Moreno

Internal Medicine Department, Hospital Universitario de La Princesa

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Pharmacy Department, Hospital Universitario de La Princesa

Blanca Vegas Villamanzo

Hematology Department, Hospital Universitario de La Princesa

ADMINISTRATIVE SECRETARY

Raquel Moguer González

Ángel Núñez Pagán

FOUNDATION FOR BIOMEDICAL RESEARCH (FIBHLPR)

Staff

DIRECTOR

Rosario Ortiz de Urbina Barba

HUMAN RESOURCES DEPARTMENT

María Mar Martín Cuenca

Silvia Duque Sanz

Iustina Magda

PROJECTS MANAGEMENT DEPARTMENT

María del Carmen Barrio Fuentes

María Joanne Dumanlag Reyes

ACCOUNTING DEPARTMENT

Gonzalo Alonso Caballero

CLINICAL TRIALS MANAGEMENT DEPARTMENT

Sara Cardenal Rodríguez

Alberto Sebastián Martínez-Cava

Raquel Ortega Bonilla

LEGAL

María Jesús Bono Sahuquillo

Verónica Grela Golpe

RESEARCH MANAGEMENT DEPARTMENT

Beatriz Ovejero Álvarez

Alba Mateos González

SECRETARY

Ana Aroca Martínez

WARD STAFF

José Corrochano de la Cruz

Financial Information

In 2025, the Institute maintained a balanced and sustainable financial position, with a positive annual balance and a level of income and expenditure broadly consistent with the previous year. The balance sheet reflects a solid financial structure, supported by a strong liquidity

position and sufficient resources to ensure the continuity of research activity. Overall, these results confirm the Institute’s capacity to manage its resources efficiently while continuing to support initiatives aligned with its strategic priorities.

	2025	2024
Income	12.524.056 €	12.424.498 €
Expenses	12.486.666 €	12.381.568 €

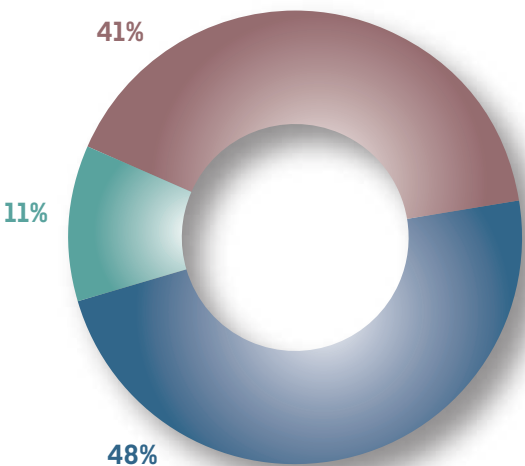
ACTIVE ASSETS 2025	
Non-current active assest	
Intangible fixed assets	13.803,65 €
Material fixed assets	1.134.583,12 €
Current active assets	
Debtors and Client to collect	2.274.860,63 €
Financial short term investments	0,00 €
Cash	24.267.837,94 €
Total Active Assets	27.691.085,34 €

PASSIVE ASSETS 2025	
Net Worth	
Own funds	2.554.836,00 €
Non-refundable grants	1.675.356,66 €
Non-current passive assest	
Long term debts	0,00 €
Current active assets	
Short term provisions	9.608.320,71 €
Refundable grants	13.349.722,63 €
Creditors to pay	502.849,34 €
Total Passive Assets	27.691.085,34 €

The income obtained by the Foundation for Biomedical Research in 2025 shows a diversified funding structure. Competitive grants remained the main source of income, accounting for **48%** of the total, followed by clinical trials and training, which represented **41%**. Donations and agreements contributed the remaining **11%**.

This distribution highlights the Institute’s strong capacity to attract competitive funding, while also reflecting the significant role of clinical research, training activities and collaborative agreements in supporting its biomedical research activity.

Clinical trials and training	5.168.020 €
Donations and agreements	1.414.804 €
Competitive grants	5.941.232 €



Scientific Platforms

ANIMAL FACILITY

The Veterinary Office of the Universidad Autónoma de Madrid offers its services to our Institute. It is a service whose purpose is to maintain, produce, and control animals for experimental research.

HEAD OF UNIT
David Muñoz Valverde

BIOBANK

The Biobank of Hospital Universitario de La Princesa (HUP) is a platform of the Health Research Institute of Hospital Universitario de La Princesa that facilitates coordination among donors, clinical professionals, and researchers, with the aim of ensuring the safe, ethical, and efficient use of biological samples and their associated data. The Biobank is authorized to operate by the General Directorate for Organization and Inspection of the Regional Ministry of Health of the Community of Madrid (13 June 2013) and is registered in the National Biobank Network of the Instituto de Salud Carlos III (B.0000763).

The Biobank aims to promote the availability of high-quality biological samples to support biomedical research. To this end, it facilitates the creation of new sample collections, ensures controlled access to samples and their associated data for the scientific community, safeguards the rights of donors, and provides guidance to researchers on the proper management and use of biological materials.

SCIENTIFIC COORDINATOR
Mara Ortega Gómez
TECHNICAL STAFF
Marina Invernón Monedero
Esther Rey Fernández

BIOLOGICAL AND TARGETED THERAPIES UNIT

Targeted biological and synthetic therapies are the result of the parallel breakthrough in the knowledge of the pathogenesis of several chronic inflammatory and autoimmune diseases and biotechnology. Their discovery and development constitute one of the most relevant changes that have occurred in the last two decades in several medical specialties. Their incorporation into the therapeutic arsenal has been a crucial milestone in the history of many immune-mediated inflammatory diseases, not only in terms of the availability of drugs with new mechanisms of action, but also for the development of strategies that improve outcomes and the efficient use of all drugs. Their great effectiveness means that there are a growing number of patients requiring access, and safety requires constant and meticulous risk management. In addition to their high cost, it is considered essential to increase rigor in the selection and follow-up of patients who need them, including cost-effectiveness criteria.

Another outstanding characteristic of biological therapies is their common use by different medical specialties, but with different degrees of experience in their use, particularly from the point of view of the way they are administered and the management of their adverse effects. This makes highly recommendable the possibility of sharing experiences that result in a more efficient and safer use of these drugs. In addition, the fact that these drugs must frequently be administered intravenously in outpatient clinics such as our Ambulatory Medicine Unit poses a common problem that undoubtedly benefits from an interdisciplinary approach.

This multidisciplinary Unit achieved the qualification of good practices of the SNS by the Interterritorial Health Council in 2016, in the call for the Strategy of rheumatic and musculoskeletal diseases of the SNS.

COORDINATOR

Ainhoa Aranguren Oyarzabal
Hospital Pharmacy Department

MULTIDISCIPLINAR TEAM

María José Casanova
Gastroenterology Department

María Chaparro Sánchez
Gastroenterology Department

Esteban Daudén Tello
Dermatology Department

Guillermo Fernández Jiménez
Information Systems

Rosario García de Vicuña
Rheumatology Department

María del Mar Llamas Velasco
Dermatology Department

Virginia Meca Lallana
Neurology Department

Rosario Ortiz de Urbina Barba
Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

Ainhoa Oyanguren Oyarzábal
Hospital Pharmacy Department

Francisco Javier Pérez Gisbert
Gastroenterology Department

Esther Ramírez Herraiz
Hospital Pharmacy Department

Gloria María Torralbo Caballero
Hospital Medical Direction

CLINICAL TRIALS UNIT

The Clinical Trials Unit was created with the primary objective of promoting clinical research as well as providing support to researchers. Clinical trials or observational studies promoted and/or led by researchers are considered independent clinical research.

SCIENTIFIC DIRECTOR

Francisco Abad Santos

DIRECTOR

Dolores Ochoa Mazarro

DEPUTY DIRECTOR

Manuel Román Martínez

COORDINATOR

Sergio Luquero Bueno

LAB MANAGER

Samuel Martín Vílchez

CLINICAL PHARMACOLOGYST

Antía Gómez Fernández

PHYSICIANS

Tamara Michelle Moreno Silva
Génesis Gabriela Saavedra Lizardi

QUALITY CONTROL

Jiahong Liang Shen

QUALITY ASSURANCE

Jaime Pérez Calvo

Jorge Toyos Argüelles

LAB TECHNICIAN

Alejandro de Miguel Cáceres

Ángel Lancho Sánchez

NURSE

Elena Caricol Morgado

Isabel Oteros Raimundo

STUDY COORDINATORS

Irene Perea Antón

Helena Vázquez Gámez

CLINICAL TRIAL ASSISTANT

Rebeca Manzanares López

María Luisa Fernández Mora

Andrés del Castillo Kaczmarek

NURSING TECHNICAL AREA RESPONSIBLE

Marisol Morgado Mazón

MEDICAL TECHNICAL AREA RESPONSIBLE

Izaskun Mahave Estévez

DATA ANALYSIS UNIT

The Data Analysis Unit (DAU) has the objective of supporting the research groups of the Institute. The main objective of the DAU is to implement and develop numerical algorithms for the analysis and visualization of biomedical data. The DAU collaborates actively with the groups that need this expertise and provides advice on specific issues in everything related to the analysis of data. It also carries out training activities related to data analysis tools.

HEAD OF UNIT

Guillermo J. Ortega Rabbione

ELECTRON MICROSCOPY SERVICE

The Electron Microscopy Service of UAM provides technical assistance and scientific support to research groups interested in using electron microscopy techniques for ultrastructural analysis of biological samples and immunodetection of antigens. It has a transmission electron microscope and the material needed for sample preparation.

HEAD OF UNIT

Martin Christoph Sachse

FLOW CYTOMETRY UNIT

The Flow Cytometry Unit is located at the Department of Immunology and Molecular Biology, University Hospital of La Princesa and has recently joined the Network of Laboratories of Public Research Organizations (REDLAB) of the Community of Madrid.

The unit provides instrumentation and technical assistance to the researchers to perform both immunophenotype analysis and cell sorting based on fluorescence parameters.

HEAD OF UNIT

Cecilia Muñoz Calleja

TECHNICAL COORDINATOR

Víctor López Huet

GENOMICS UNIT

The Genomics Unit is responsible for the development and implementation of technologies for molecular biology and genomics, equipment maintenance, and provision of technical advice on various technologies to research groups. It uses different technologies such as spectrophotometry, automated extraction of nucleic acids, RNA integrity determination, conventional PCR and RT-PCR, real time PCR and RT-PCR, software for search and integration of experimental data and, recently, massive sequencing.

HEAD OF UNIT

Laura Tabera Moreno

SCIENTIFIC COORDINATOR

Leonardo Beccari

HIGH-DEFINITION VIDEOMICROSCOPY

The Institute's Videomicroscopy Service provides the infrastructure and scientific expertise needed for studies of fluorescence, confocal and evanescent wave microscopy, with special emphasis on the observation of dynamic processes in living cell.

HEAD OF UNIT

Noa B. Martín Cofreces

SCIENTIFIC COORDINATOR

Francisca Molina Jiménez

INNOVATION UNIT

The Innovation Unit of the Hospital de La Princesa was born with the Foundation of the Research Institute, and is responsible, with the existing resources, for the analyse new technological trends and their implementation at the Institute.

The Innovation Unit of the Health Research Institute of the Hospital Universitario de La Princesa was consolidated when it joined the Platform for Innovation in Medical and Health Technologies (ITEMAS), getting access to the funding of the 2013 call for grants from the Strategic Action in Health, from Institute of Health Carlos III.

COORDINATOR

Rubén Eduardo Pacios Blanco

Radiology Department, Hospital Universitario de La Princesa

CO – COORDINATOR

Juan Vega Villar

Radiology Department, Hospital Universitario de La Princesa

INNOVATION MANAGER

Daniel Andronic

Fundación de Investigación Biomédica del Hospital Universitario de La Princesa

BIOINFORMATICS ENGINEER

Lydia Alba Herrera Gálvez

Fundación de Investigación Biomédica del Hospital Universitario de La Princesa

Celia Martínez Cabezalí

Hospital Universitario de La Princesa

METHODOLOGY UNIT

It aims to provide support to the Institute's research teams for the development and implementation of research projects to increase the excellence of the scientific activity of IIS-Princesa.

HEAD OF UNIT

Francisco Javier Aspa Marco

TECHNICAL STAFF

Nuria Montes Casado

MEDICAL WRITER

Manuel Gómez Gutiérrez

PROTEOMICS UNIT

The Proteomics Service's objectives are to provide research groups with support and scientific and technical advice in the identification and characterization of proteins by mass spectrometry (MS) techniques.

HEAD OF UNIT

Esperanza Morato López

SCIENTIFIC COORDINATOR

María Yáñez Mó

"WHITE" ROOM

The "white" room, located at the Hospital Infantil Universitario Niño Jesús, is a facility specialised to work in conditions with minimal or absent levels of contamination that meets the requirements of Good Manufacturing Practices (GMP). The "white" Room has Certification of Compliance with GMP since April 2010, both for Cell Therapy and Gene Therapy.

HEAD OF UNIT

Antonio Alarcón Míguez



QUALITY COMMITTEE

To achieve objective results of excellence and get continuous improvement, the Quality Commission not only elaborates, but also continuously monitors the implementation of quality procedures established in our Institute.

COORDINATOR

Mara Ortega Gómez

Biobank, Hospital Universitario de La Princesa

QUALITY COMMITTEE

Arantza Alfranca González

Immunology Department, Hospital Universitario de La Princesa

Jorge Mendoza Jiménez-Ridruejo

Gastroenterology Department, Hospital Universitario de La Princesa

Pablo Ruano Suárez

Nephrology Service, Hospital Universitario de La Princesa

María Mercedes Vinuesa Sebastián

Quality Coordinator, Hospital Universitario de La Princesa

SECRETARY

Beatriz Ovejero Álvarez

Alba Mateos González

Technical Secretariat, IIS-Princesa, Instituto de Investigación Biomédica del Hospital Universitario de La Princesa

TRAINING COMMITTEE

One of the priorities set by the IIS-Princesa is the promotion and development of training programs for professionals who are part of the Centre, with a focus on training for translational research to improve the competitiveness of institutions and the qualifications of the personnel that integrates them.

In this sense, all entities that are part of the Health Research Institute Hospital Universitario de La Princesa have an established training and teaching track and have a wide training offer at all levels (training of undergraduate, graduate, and Continuing Specialised Health).

COORDINATOR

Fernando Ramasco Rueda

Continuous Training Coordinator

MEMBERS

Elena Fernández Ruiz

Molecular Biology Department, Hospital Universitario de La Princesa

Isidoro González Álvaro

Scientific Director of Instituto de Investigación Sanitaria del Hospital Universitario de La Princesa

Alicia González Martínez

Neurology Department, Hospital Universitario de La Princesa

Elena Martín Pérez

Head of studies Resident Doctor, Hospital Universitario de La Princesa

José Luis Muñoz de Nova

General and Gastrointestinal Surgery, Hospital Universitario de La Princesa

Jesús Miguel Novalbos Reina

Clinical pharmacology department, Hospital Universitario de La Princesa

Mara Ortega Gómez

Biobank, Hospital Universitario de La Princesa

Pablo Rodríguez Carnero

Radiodiagnosis department, Hospital Universitario de La Princesa

Manuel Román Martínez

Clinical pharmacology department, Hospital Universitario de La Princesa

SECRETARY

Beatriz Ovejero Álvarez

Alba Mateos González

Technical Secretariat, IIS-Princesa, Instituto de Investigación Biomédica del Hospital Universitario de La Princesa

HUMAN RESOURCES COMMITTEE

COORDINATOR

María del Mar Martín Cuenca

Human Resources Department, Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

MEMBERS

Alberto Sebastián Martínez-Cava

Clinical Trial Department, Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

María Chaparro Sánchez

Gastroenterology Department, Hospital Universitario de La Princesa

Sergio Luquero Bueno

Clinical Trial Unit, Hospital Universitario de La Princesa

Noa B. Martín Cofreces

Immunology Department, Hospital Universitario de La Princesa

SECRETARY

Beatriz Ovejero Álvarez

Technical Secretariat, IIS-Princesa, Instituto de Investigación Biomédica del Hospital Universitario de La Princesa

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Elena Español Pueyo

PR Department, Hospital Universitario de La Princesa

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Nursing Processes and R + D + i, Hospital Universitario de La Princesa

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Immunology Department, Hospital Universitario de La Princesa

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PR Department, Hospital Universitario de La Princesa

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Pharmacy Service, Hospital Universitario de La Princesa

SECRETARY

Beatriz Ovejero Álvarez

Alba Mateos González

Technical Secretariat, IIS-Princesa, Instituto de Investigación Biomédica del Hospital Universitario de La Princesa

COMMITTEE FOR EQUAL OPPORTUNITIES AND DIVERSITY MANAGEMENT

The Committee for Equal Opportunities acts as the main body responsible for promoting and coordinating the Institute's gender equality policies.

COORDINATOR

María del Mar Martín Cuenca

Human Resources Department, Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

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SECRETARY

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Technical Secretariat, IIS-Princesa, Instituto de Investigación Biomédica del Hospital Universitario de La Princesa

FACILITIES MANAGEMENT COMMITTEE

The purpose of the IIS-Princesa Facilities Management Committee is to ensure effective, equitable, transparent, and sustainable management of the Institute's facilities and infrastructure.

COORDINATOR

Isidoro González Álvaro

Scientific Director of Instituto de Investigación Sanitaria del Hospital Universitario de La Princesa

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Immunology Department, Hospital Universitario de La Princesa

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Research Unit at Hospital Universitario de Santa Cristina, Universidad Autónoma de Madrid

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Researcher associated to Dermatology Department, Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

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Research Unit at Hospital Universitario de Santa Cristina, Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

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Department of Neurology, Hospital Universitario de La Princesa

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África González Murillo

Oncology Research Laboratory – Advanced Therapies Unit, Hospital Infantil Universitario Niño Jesús

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Jesús Novalbos Reina

Clinical Pharmacology Department, Hospital Universitario de La Princesa

María Yáñez Mó

Professor, Department of Molecular Biology, Universidad Autónoma de Madrid

SECRETARY

Beatriz Ovejero Álvarez

Technical Secretariat, IIS-Princesa, Instituto de Investigación Biomédica del Hospital Universitario de La Princesa

OPEN SCIENCE COMMITTEE

The Open Science Committee will act as the main body responsible for promoting and coordinating Open Science policies within the framework of the IIS Princesa.

COORDINATOR

Noa B. Martín Cófreces

Researcher associated to Immunology Department, Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

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Enrique Martín Gayo

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Oncology Department, Hospital Universitario de La Princesa

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Researcher associated to Immunology Department, Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

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Beatriz Ovejero Álvarez

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Technical Secretariat, IIS-Princesa, Instituto de Investigación Biomédica del Hospital Universitario de La Princesa

INNOVATION COMMITTEE

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Rubén Eduardo Pacios Blanco

Radiology Department, Hospital Universitario de La Princesa

Juan Vega Villar

Radiology Department, Hospital Universitario de La Princesa

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Cardiology Service, Cardiac Imaging Unit, Hospital Universitario de La Princesa

María Begoña Ballesteros Escolar

Radiology Service, Hospital Universitario de La Princesa

Enrique Alday Muñoz

Anesthesiology and Resuscitation Service, Hospital Universitario de La Princesa

Julián del Río Hortelano

Traumatology Service, Hospital Universitario de La Princesa

María Teresa Hernández Criado

Rehabilitation Service, Physiotherapy Unit, Hospital Universitario de La Princesa

Rebeca Martínez

Endocrinology, Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa

Saida Alonso Marrero

Internal Medicine Department, Hospital Universitario de La Princesa

Silvia Cañas Sierra

Nursing Service, Hospital Universitario de La Princesa

SECRETARY

Daniel Andronic

Innovation Support Unit, IIS-Princesa, Instituto de Investigación Biomédica del Hospital Universitario de La Princesa



Research Areas

AREAS 5 + Cross-functional Platform for Pharmacology and Clinical Trials Unit



RESEARCH LINES 19



RESEARCH GROUPS 42



PERSONNEL DEDICATED TO RESEARCH 640



WOMEN 427



MEN 213



Area 1

Immune-mediated diseases

María Chaparro Sánchez
Coordinator



Strategic objectives

- The study of immune-regulatory molecules (whether membrane-bound or soluble) that are involved in immune-mediated diseases, which will also provide a better understanding of the mechanisms of action of immune-mediated therapy in oncological diseases. This objective may also lead to the development of new liquid biopsy techniques based on extracellular vesicles, surface molecules such as CD69 or PSGL1, signaling pathways such as GRK2, or other -omics profiles that enable the early identification of different patient profiles.
- In the field of response to hypoxia and immunometabolism studies, our understanding is improving on how modifying the metabolic response to hypoxia, inflammatory conditions, or anti-tumor responses can enhance patient outcomes through nutraceuticals or therapies involving dietary modifications.
- Finally, to promote the development of technological platforms (such as synthetic exosomes) or advanced preclinical models that foster synergies between basic and clinical research, facilitating studies to validate preclinical results.



Five most relevant publications of the area

Group 26 - *Jesús Argente Oliver*

Argente J, Verge CF, Okorie U, Fennoy I, Kelsey MM, Cokkinias C, Scimia C, Lee HM, Farooqi IS. **Setmelanotide in patients aged 2-5 years with rare MC4R pathway-associated obesity (VENTURE): a 1 year, open-label, multicenter, phase 3 trial.** Lancet Diabetes Endocrinol. 13(1). 2025. PMID:39549719. DOI:10.1016/S2213-8587(24)00273-0. THE LANCET DIABETES & ENDOCRINOLOGY. IF: 36.3. Citations: 34.

Group 38 - *Javier Pérez Gisbert*

Gisbert JP, Donday MG, Riestra S, Lucendo AJ, Benítez JM, Navarro Llavat M, Barrio J, Morales Alvarado VJ, Rivero M, Busquets D, Leo Carnerero E, Merino O, Nantes Castillejo Ó, Navarro P, Van Domselaar M, Gutiérrez A, Alonso Abreu I, Mejuto R, Fernández Salazar

L, Iborra M, Martín Arranz MD, Pineda JR, Sampedro MJ, Serra Nilsson K, Bouhmid A, Batista L, Muñoz Villafraña C, Rodríguez Lago I, Ceballos D, Guerra I et al. **Withdrawal of antitumour necrosis factor in inflammatory bowel disease patients in remission: a randomised placebo-controlled clinical trial of GETECCU.** Gut. 74. (3). 2025. PMID:39794921. DOI:10.1136/gut-jnl-2024-333385. Gut. IF: 25.8. Citations: 19.

Group 3 - *María Yáñez Mó*

Palma Cobo M, Toribio V, Morales J, López Martín S, Enrich C, Lu A, Yáñez Mó M. **Genome-Wide CRISPR/Cas9 Screening Identifies the COMMANDER Recycling Complex as a Key Player in EV Uptake.** J. Extracell. Vesicles. 14. (9). 2025. PMID:40985903. DOI:10.1002/jev2.70166. Journal of extracellular vesicles. IF: 14.50. Citations: 0.

Group 38 - *Javier Pérez Gisbert*

Palomino L, Velasco Rodríguez Belvís M, Casanova MJ, Leo Carnerero E, Calviño Suárez C, Rivero M, Calvo M, Arroyo MT, Fernández Clotet A, Pérez Martínez I, Masedo González Á, Hernández V, Ruiz Cerulla A, López Serrano P, Vega P, Rodríguez Lago I, Lidón RV, De Jorge MÁ, Guerra I, García LA, Molina Arriero G, Hervías Cruz D, Busquets D, Gutiérrez Casbas A, Van Domselaar M, Valldosera Gomis G, Vázquez Morón JM, Piqueras Cano M, Lucendo AJ, Martín Arranz MD et al. **Psychomotor Development in Infants Following Maternal Exposure to Biologics: Results From the DUMBO Registry.** Clin. Gastroenterol. Hepatol. 2025. PMID:40518059. DOI:10.1016/j.cgh.2025.05.012. Clinical Gastroenterology and Hepatology. IF: 12. Citations: 2

Group 36 - *Javier Pérez Gisbert*

Gómez León N, Vicuña Andrés I, Aguado Bueno B, Garrido Enjamio F, Galán González I, Castillo Morales V, Alegre Amor A, Delgado Bolton RC. **Whole-body MRI Versus [18 F] FDG PET/CT in Diagnosing and Monitoring Plasmacytomas: A Comparative Study.** Clin. Nucl. Med. 50. (8). 2025. PMID:40375446. DOI:10.1097/RLU.0000000000005954. CLINICAL NUCLEAR MEDICINE. IF: 9.60. Citations: 1.



Pathogenic Mechanisms Sub-area

Line 1. Intercellular communication in the inflammatory response.

G1: Molecular dynamics and metabolic signals of immune cell-cell contacts.

IP: Francisco Sánchez Madrid / **Co-IP:** Noa Beatriz Martín Cofreces

G3: Tetraspanin-rich membrane microdomains in extracellular vesicles and cell adhesion and migration.

IP: María Yáñez Mo

G56: The PSGL1 axis and ligands in the development of autoimmune disease.

IP: Ana Carmen Urzainqui Mayayo

Line 2. Cellular and molecular responses to hypoxia.

G9: Cellular and molecular responses to hypoxia.

IP: Julián Aragonés López / **Co-IP:** Andrés Urrutia Elorduy

Line 3. Integrative models of tissue remodelling in tumour and inflammatory pathology.

G11: Signalling networks and mechanisms of inflammatory processes.

IP: Federico Mayor Menéndez / **Co-IP:** Catalina Ribas

G13: Cellular signalling networks and tissue remodelling in cancer.

IP: Petronila Penela Márquez



Sub-area of Biomarkers and Treatment

Line 4. Cellular and molecular mechanisms in allergic diseases.

G15: Paediatric allergology.

IP: María Dolores Ibáñez Sandín / **Co-IP:** Pablo Rodríguez del Río

G20: Type 2 Immunity and allergic diseases.

IP: Carlos Blanco Guerra / **Co-IP:** Rodrigo Jiménez Saiz

G24: Esophageal-gastric disorders and intestinal motility.

IP: Pedro L. Majano Rodríguez / **Co-IP:** Cecilio Santander Vaquero

Line 5. Immune-mediated inflammatory diseases.

G36: Biomarkers in immune-mediated rheumatic diseases.

IP: Isidoro González Álvaro / **Co-IP:** Esther Vicente Rabaneda

G37: Prognostic biomarkers and predictors of treatment response in dermatological diseases.

IP: Hortensia de la Fuente / Mar Llamas Velasco

G38: Inflammatory bowel diseases.

IP: Javier P. Gisbert / **Co-IP:** María Chaparro Sánchez

GA11: Autoimmune and viral liver diseases.

IP: M^a Luisa García Buey

Line 6. Endocrine and developmental disorders.

G25: Mechanisms and mediators of inflammation in endocrine diseases.

IP: Mónica Marazuela Azpiroz / **Co-IP:** Rebeca Martínez Hernández

G26: Developmental disorders and paediatric endocrinology.

IP: Jesús Argente Oliver

Line 7. Infectious diseases.

G12: Immune response to infections.

IP: Núria Gironès Pujol / **Co-IP:** Concepción Abrusci Bernal

G50: Infections in immunocompromised patients.

IP: Ignacio de los Santos Gil / **Co-IP:** Carmen Sáez Béjar

GA12: Clinical microbiology and epidemiology of infectious diseases.

IP: Teresa Alarcón Cavero



Area 2

Translational neuroscience and mental health

Antonio Martínez Ruiz
Coordinator



Strategic objectives

- To promote translational research through multidisciplinary collaboration, aiming to cover all stages of the translation process: discovery, validation, preclinical trials, clinical trials, implementation in clinical practice, and real-world validation.
- Identify and validate new therapeutic targets in preclinical models, aiming to progress to early-phase clinical trials.
- Support clinical groups to improve preclinical development of validation strategies with a view to enhancing their translational potential and applicability.
- Consolidate internal synergies by fostering multidisciplinary cooperation through joint projects between basic, clinical and technological groups (including external collaborators) with complementary research lines.



Five most relevant publications of the area

Group 41 - Francisco Javier Egea Maiquez

Valencia I, Pastor Martínez A, Decouty Pérez C, Lopez Rodríguez AB, Álvarez Rubal M, Ramos E, Calzaferri F, Zamorano Fernández J, Giner García J, Palpán Flores AJ, Rodríguez Domínguez V, Rodríguez de Cía J, Hernández García BJ, Romero A, de Los Ríos C, Egea J. **Pharmacological evaluation of non-nucleotide purine derivatives as P2X7 antagonists for the treatment of neuroinflammation in traumatic brain injury.** Br. J. Pharmacol. 182. (19). 2025. PMID:40533073. DOI:10.1111/bph.70108. BRITISH JOURNAL OF PHARMACOLOGY.

IF: 7.7. Citations: 1.

Group 33 - José Luis Ayuso Mateos

Pérez V, Puigdemont D, de Diego Adeliño J, Elices M, Leal I, Cabello M, Rodríguez Jimenez R, Álvarez Mon MÁ,

García Fernández L, Aguilar García Iturraspe EJ, Escartí MJ, Montejo AL, Montes JM, Usall J, Gallego Noguera A, Lujan E, López Carrilero R, González Pinto A, Ortiz Jauregui A, Blanch J, Urretavizcaya M, Colom F, García Campayo J, Ayuso Mateos JL. **The DEPRE'S study: pragmatic, multicentre, five-arm, parallel-group randomised controlled trial with blinded assessment to compare treatment strategies in major depression after a failed selective serotonin reuptake inhibitor treatment.** Br. J. Psychiatry. 227. (5). 2025. PMID:40530754. DOI:10.1192/bjp.2025.13. BRITISH JOURNAL OF PSYCHIATRY

IF: 7.6. Citations: 2.

Group 41 - Francisco Javier Egea Maiquez

Marañón P, Isaza SC, Rey E, Rada P, García Y, Dear JW, García Monzón C, Valverde ÁM, Egea J, González Rodríguez Á. **BMP6 participates in the molecular mechanisms involved in APAP hepatotoxicity.** Arch. Toxicol. 99. (3). 2025. PMID:39827450. DOI:10.1007/s00204-024-03954-5. ARCHIVES OF TOXICOLOGY.

IF: 10.9. Citations: 3.

Group 33 - José Luis Ayuso Mateos

Higuera Lozano I, Uusimäki V, Pitkänen T, Denayer E, Dewaele A, Felvinczi K, Goossens L, Kaló Z, Rényi M, Cabello M. **Exploring the Characteristics of Online Counseling Chat Services for Youth in Europe: Web Search Study.** JMIR Ment. Heal. 12. 2025. PMID:40835376. DOI:10.2196/67949. JMIR Mental Health.

IF: 5.8. Citations: 2.

Group 35 - José Luis Ayuso Mateos

Gonzalez Martinez A, Wei DY, Karsan N, Nagaraj K, Gosalia H, Goadsby PJ. **Evaluation of premonitory spontaneous and nitroglycerin triggered symptoms among patients with cluster headache and migraine.** CEPHALALGIA. 45. (4). 2025. PMID:40302046. DOI:10.1177/03331024251331554. CEPHALALGIA

IF: 4.6. Citations: 3

Line 8. Neuropharmacology and Neuroprotection.

G16: Neuropharmacology and Neuroprotection.
IP: Manuela García López

Line 9. Diagnostic and therapeutic advances in affective disorders.

G33: Diagnostic and therapeutic advances in affective disorders.
IP: José Luis Ayuso Mateos

Line 10. Mechanisms and biomarkers in neurological diseases.

G7: Mitochondrial mechanisms and redox metabolism in hypoxia, inflammation and neurological diseases.

IP: Antonio Martínez Ruiz

G34: Neurosurgery and Neurophysiology.

IP: Jesús Pastor Gómez / Co-IP: Cristina Torres Díaz

G35: Cerebrovascular and neurological disorders.

IP: José A. Vivancos Mora / Co-IP: Ana B. Gago Veiga

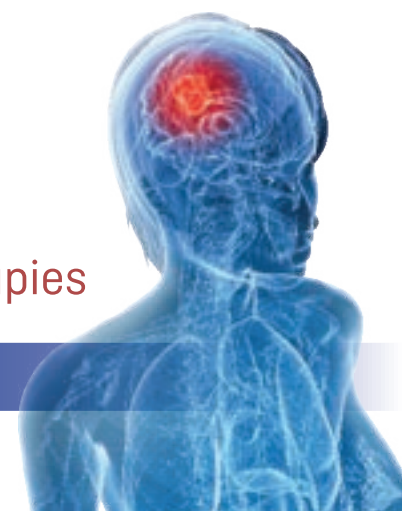
G41: Pathophysiology of cerebrovascular and neurological diseases.

IP: Javier Egea Máiquez



Personalised oncology and haematology, and advanced therapies

Manuel Ramírez Orellana
Coordinator



Strategic objectives

- To foster synergies between groups within the department and with other departments at the Institute, promoting the development of joint and interdisciplinary projects that integrate clinical, translational and basic research capabilities.
- To drive the consolidation of strategic lines of research in advanced therapies, such as proprietary immunotherapy strategies (tumour-infiltrating lymphocytes -TILs-, the Alocelyvir strategy, anti-CCR7 targeted therapy), haematopoietic transplantation and the development of personalised medicines, in both adults and the paediatric population.
- To strengthen the training of new researchers, ensuring generational renewal through PhD programmes, placements at leading centres, the recruitment of pre- and postdoctoral staff, and training in new technological tools (computational biology, artificial intelligence, "next generation" flow cytometry).
- Expand the area's international reach through participation in European consortia (Horizon Europe, Cancer Mission, ITCC), applications for competitive

international funding, and the development of projects with foreign centres of excellence.

- Promote innovation and knowledge transfer, for example, by developing new biomarkers such as CD21 and CCR7, identifying findings with potential clinical applicability, promoting their protection and exploitation, and establishing strategic alliances with industry and public and private entities.

Five most relevant publications of the area

Group 39 - Manuel Ramírez Orellana

Tirado N, Fidyk K, Mansilla MJ, Garcia Perez A, Martinez Moreno A, Vinyoles M, Alcain J, García Peydró M, Roca Ho H, Fernandez Fuentes N, Guerrero Murillo M, Falgàs A, Velasco Hernandez T, Bueno C, Panelli P, Mulens Arias V, Apostolov A, Engel P, González EA, Vick B, Jeremias I, Caye Eude A, Baruchel A, Cavé H, Genesca E, Ribera J, Díaz Beyá M, Martínez Sánchez MV, Fuster JL, López AE et al. **CAR-T cells targeting CCR9 and CD1a for the treatment of T cell acute lymphoblastic leuke-**

mia. J. Hematol. Oncol. 18. [1]. 2025. PMID:40598348. DOI:10.1186/s13045-025-01715-0. Journal of Hematology & Oncology.
IF: 40.4. Citations: 8.

Group 39 - Manuel Ramírez Orellana

González Novo R, Armesto M, González Murillo A, Dreger M, Hurlstone AFL, Benito A, Samaniego R, Ramírez Orellana M, Redondo Muñoz J. **Dual effect of targeting LSD1 on the invasiveness and the mechanical response of acute lymphoblastic leukemia cells.** Biomed Pharmacother. 183. 2025. PMID:39818101. DOI:10.1016/j.biopha.2025.117830. BIOMEDICINE & PHARMACOTHERAPY.
IF: 7.5. Citations: 0.

Group 40 - Nuria Romero Laorden

Albers Acosta E, Pelari Mici L, Güemez CM, Velasco Balanza C, Saavedra Centeno M, Pérez M, Celada Luis G, Quicios Dorado C, Subiela JD, España Navarro R, Toquero Díez P, Laorden NR, Manso LSJ. **Beyond Visualization: Advanced Imaging, Theragnostics and Biomarker Integration in Urothelial Bladder Cancer.** Cancers. 17. [19]. 2025. PMID:41097787. DOI:10.3390/cancers17193261. Cancers.
IF: 4.4. Citations: 2.

Line 1. Intercellular communication in the inflammatory response.

G1: Molecular dynamics and metabolic signals of immune cell-cell contacts.
IP: Francisco Sánchez Madrid / Co-IP: Noa Beatriz Martín Cofreces

Line 11. Oncohaematological diseases.

G39. Paediatric cancer and advanced therapies.

IP: Manuel Ramírez Orellana

G45: Molecular monitoring in oncohematology.

IP: Elena Fernández Ruiz

G46: Biological and cellular monitoring in oncohematology.

IP: Cecilia Muñoz Calleja

GA10: Advanced therapies for hematological diseases.

IP: Adrián Alegre Amor / Co-IP: Javier Loscertales Pueyo

Group 40 - Patricia Toquero Díez

Dorado CQ, Ramírez AS, Pérez MP, Centeno MS, Mici LP, Güemez CM, Albers Acosta E, Luis GC, Costal M, Díez PT, Laorden NR, Díaz RJ, Velasco Balanza C, Manso LSJ. **Redefining Prostate Cancer Precision: Radiogenomics, Theragnostics, and AI-Driven Biomarkers.** Cancers. 17. [23]. 2025. PMID:41374949. DOI:10.3390/cancers17233747. Cancers.
IF: 4.4. Citations: 4.

Associated group 10 - Adrián Alegre Amor

Perruccio K, Ward KN, Tridello G, Knelange N, Zeiser R, Franke GN, Sirvent A, Einsele H, Vicent MG, Navarro JMF, Contentin N, Collin M, Martino R, Gambella M, Senge- loev H, Passweg J, Snowden J, Nagler A, Kulagin A, Gabriel M, Kröger N, Cascon MJP, Yeshurun M, Güngör T, Robin C, Clark A, Duarte ML, Amor AA, Itala Remes M, Mikulska M et al. **Clinical characteristic and outcome of HHV-6 encephalitis after allogeneic hematopoietic cell transplantation: A study of Infectious Disease Working Party of EBMT.** Bone Marrow Transplant. 60. [9]. 2025. PMID:40461849. DOI:10.1038/s41409-025-02638-7. BONE MARROW TRANSPLANTATION.
IF: 5.1. Citations: 1.

Line 12. Personalized medicine for solid tumors.

G40: Personalized medicine for solid tumors.
IP: Ramón Colomer Bosch / Co-IP: Nuria Romero Laorden

G51: Diagnostic methods and treatments for lung cancer.

IP: Javier Aspa Marco / Co-IP: José María Galván Román

Line 19. Basic mechanisms associated with oncological diseases.

G61: Mechanisms of the anti-tumour immune response.
IP: Arantza Alfranca González

Area 4 Cardiovascular and Respiratory Diseases

Fernando Alfonso Manterola
Coordinator



Strategic objectives

- To investigate the shared pathophysiological mechanisms in the heart-lung-kidney axis and their systemic comorbidities, with the aim of identifying biomarkers that can help stratify patients and prevent comorbidities.
- Early detection of heart disease through multimodal analysis of biomarkers, imaging, or “big data” from smartwatches or electrocardiography.
- Increase collaboration between groups to improve understanding of pathogenic mechanisms in different types of pulmonary hypertension.
- Genetics of kidney and heart diseases.

Five most relevant publications of the area

Group 8 - María J. Calzada García

Andreu Martínez R, Munar Rubert O, Rodríguez Pérez J, López N, Barreira B, Sánchez Carretero L, Cardeñosa A, Marcos Jiménez A, Gandía L, Moreno Balsalobre R, Milián H, Pérez Vizcaíno F, Fernández Malavé E, Peces Barba G, Muñoz Calleja C, Cogolludo Á, Calzada MJ. **Uncovering a novel role of nAChRs in oxidative stress-mediated vascular dysfunction in COPD.** Redox Biol. 86. 2025. PMID:40925126. DOI:10.1016/j.redox.2025.103838. Redox biology.

IF: 11.90. Citations: 1.

Group 58 - Fernando Alfonso Manterola

Byrne RA, Hahn JY, O’Kane P, Sabaté M, Toelg R, Copt S, Fitzgerald S, Morice MC, Trevelyan J, Mylotte D, Ortiz AF, Rai H, Durand R, Wöhrle J, Kleber FX, Stefanini G, Alfonso F. **Randomized Trial of Biolimus DCB for In-Stent**

Restenosis: The Primary Results of the REFORM Study.

JACC-Cardiovasc. Interv. 18. [5]. 2025. PMID:39918494. DOI:10.1016/j.jcin.2024.11.026. JACC-CARDIOVASCULAR INTERVENTIONS

IF: 11.40. Citations: 16.

Group 57 - Fernando Moldenhauer Díaz

Sánchez Moreno B, Zhang LD, Salaberry AC, Rozalem Aranha M, Moldenhauer F, Brudfors M, Ashburner J, Nachev P, de Asúa DR, Strange BA. **Performance of computed tomography and magnetic resonance morphometry in evaluating brain atrophy in Down syndrome.** Alzheimers. Dement. 21. [8]. 2025. PMID:40762120. DOI:10.1002/alz.70296. Alzheimers & Dementia.

IF: 11.1. Citations: 0.

Group 58 - Fernando Alfonso Manterola

Alfonso F, Marschall A, Del Val D. **Inorganic nitrates to prevent in-stent restenosis. Is nitric oxide the Philosopher’s stone?** EClinicalMedicine. 79. 2025. PMID: 39810937. DOI: 10.1016/j.eclinm.2024.103015. EClinicalMedicine.

IF: 12.8. Citations: 1.

Group 22 - Pedro Landete Rodríguez

Hernández García MA, Aldave Orzáiz B, Fernández García CE, Fuertes Yebra E, Rey E, Berlana A, Farré R, García Monzón C, Almendros I, Landete P, González Rodríguez A. **Normalization of Oxygen Levels Induces a Metabolic Reprogramming in Livers Exposed to Intermittent Hypoxia Mimicking Obstructive Sleep Apnea.** Antioxidants. 14. [8]. 2025. PMID:40867867. DOI:10.3390/antiox14080971. Antioxidants.

IF: 6.6. Citations: 4.

Cardiovascular Diseases Sub-area

Line 13. Diseases associated with cardiovascular risk.

G21: Kidney diseases.

IP: Auxiliadora Bajo Rubio / **Co-IP:** Borja Quiroga Gili

G57: Cardiovascular health.

IP: Diego Real de Asúa Cruzat

G58: New advances in diagnosis and treatment of cardiovascular diseases.

IP: Fernando Alfonso Manterola / **Co-IP:** Fernando Rivero Crespo

Lung Diseases Sub-area

Line 15. Airway diseases.

G22: Respiratory diseases and their relationship to metabolic and vascular comorbidities.

IP: Julio Ancochea Bermúdez / **Co-IP:** Pedro Landete Rodríguez

Line 14. Non-invasive techniques in cardiovascular diseases.

G48: Cardiovascular prognosis based on non-invasive techniques and artificial intelligence.

IP: Jesús Jiménez Borreguero / **Co-IP:** Guillermo J. Ortega Rabbione

Line 16. Mechanisms involved in pulmonary hypertension.

G8: Cellular and molecular mechanisms underlying cardiovascular comorbidities associated with hypoxemic respiratory diseases.

IP: María José Calzada García

Area 5 Public Health, Epidemiology and Healthcare Research

Blanca Novella Arribas
Coordinator



Strategic objectives

- Strengthen translational research in healthcare by translating scientific findings into protocols applicable to clinical practice—such as guidelines for managing chronic patients or AI-based predictive algorithms—and by validating technological tools (mobile

apps, telemedicine platforms) in real-world settings to improve the efficiency of care.

- Promote intergroup and interdisciplinary collaborations. To this end, multicenter projects on continuity of care between primary and hospital care will be proposed, with an emphasis on coordination across care

levels. Partnerships with technology start-ups will also be developed to co-develop AI solutions applied to critical care and chronic conditions. Likewise, we will seek integration into national/international networks and European consortia for epidemiological studies.

- Develop innovations in digital health. Through the implementation of virtual consultations and two-way communication systems to optimize follow-ups, and through the design of predictive algorithms for risk stratification in frail patients, using machine learning and population data.
- Promote equity and a gender perspective. To this end, gender variables will be incorporated into study design and results analysis, ensuring stratified samples and sensitive approaches. Enhance training in gender equality through workshops and methodological reviews to prevent bias in technological innovations.
- Improve scientific visibility and fundraising efforts. Increase the number of publications in Q1 journals through joint projects and mentorship for emerging research groups, which would help optimize participation in competitive calls for proposals from the ISCIII, Horizon Europe, and programs such as Healthstart to fund technological developments.
- Optimize training and generational transition by designing interdisciplinary courses in translational methodology, AI applied to health, and the humanization of care. Develop mentoring programs for emerging groups, facilitating their integration into research networks.

Five most relevant publications of the area

Associated Group 8 - María Dolores Rodríguez Huerta

Huerta MDR, Giralt JAS, Díez Fernández A, Alonso MJR, Montes N, Suárez Sipmann F. **Effects of routine postural repositioning on the distribution of lung ventilation and perfusion in mechanically ventilated patients.** Intensive Crit. Care Nurs. 87. 2025. PMID:39864264. DOI:10.1016/j.iccn.2025.103952. Intensive and Critical Care Nursing. IF: 4.7. Citations: 5.

Line 17. Research in Primary Care.

G49: Research in Primary Care.

IP: Blanca Novella Arribas

Line 18. Research in Healthcare.

GA7: Research on chronic care, physical therapy, and quality of life.

IP: Amelia Rodríguez Nogueiras / **Co-IP:** Graciela Álvarez García

Associated Group 8 - Blanca Collado González

Collado González B, Urtubia Herrera V, Navarta Sánchez MV, Sanz García A, Palmar Santos AM, Paediatric Emergency Safety Culture Group. **Safety culture in paediatric emergency departments: a cross-sectional study among healthcare professionals.** BMJ OPEN. 15. (10). 2025. PMID:41120138. DOI:10.1136/bmjopen-2025-105434. BMJ OPEN.

IF: 2.3. Citations: 0.

Group 49 - Luis María Sánchez Gómez

Sanchez Piedra C, Rodríguez Salazar B, Roca O, Prado Galbarro FJ, Perestelo Perez L, Sanchez Gomez LM. **Electrical impedance tomography for PEEP titration in ARDS patients: a systematic review and meta-analysis.** J. Clin. Monitor. Comp. 39. (5). 2025. PMID:40011398. DOI:10.1007/s10877-025-01266-2. JOURNAL OF CLINICAL MONITORING AND COMPUTING.

IF: 2.2. Citations: 6.

Group 49 - Julia Martínez Alfonso

Martínez Alfonso, J, Sebastian Valles, F, Martínez Vizcaino, V, Jimenez Olivas, N, Cabrera Majada, A, De los Mozos Hernando, I, Cekrezi, S, Martínez, H, Mesas, AE. **Social Determinants of Health Screening Tools for Adults in Primary Care: Protocol for a Scoping Review.** JMIR Res. Prot.14. 2025. PMID: 39969980. DOI: 10.2196/68668.

IF: 2.1. Citations: 1.

Associated Group 9 - Alexandra González Aguña

Condor Camara DF, Pio Aguila C, Bendezu Quispe G, González Aguña A, Santamaría García JM. **Characterization of Nursing Informatics Courses in Latin America and the Caribbean.** Healthc. Informatics Res. 31. (3). 2025. DOI:10.4258/hir.2025.31.3.253. Healthcare Informatics Research.

IF: 2.10. Citations: 1

GA8: Innovation and research in critical care and the integration of AI.

IP: Tania Tineo Drove

GA9: Research in Hospital Care.

IP: Alexandra González Aguña / **Co-IP:** José María Santamaría García

Cross-disciplinary Pharmacogenetics Platform and Clinical Trials Unit

Francisco Abad Santos
Jesús Novalbos Reina
Coordinators



Strategic objectives

- Identify biomarkers of drug response.
- Evaluate the effect of mutations in genes encoding metabolic enzymes and transporters on pharmacokinetic variables.
- Demonstrate the utility of pharmacogenetic biomarkers in daily clinical practice.
- Develop a computer application to generate therapeutic recommendation reports based on genotyping results and other patient characteristics.
- Demonstrate the efficiency of pharmacogenetic biomarkers.



Five most relevant publications of the area

Group 32 - María Dolores Ochoa Mazarro

González Iglesias E, Ochoa D, Abbes H, Villapalos García G, Román M, Luquero S, Martín Vilchez S, Novalbos J, Abad Santos YF. **Apixaban kinetics could be influenced by sex, cytochrome P450 enzymes and SLC6A2 transporter.** Biomed. Pharmacother. 193. 2025. PMID: 41187610. DOI: 10.1016/j.biopha.2025.118732. BIOMEDICINE & PHARMACOTHERAPY.

IF: 7.5. Citations: 0.

Group 32 - Manuel Román Martínez

Hernández Jiménez M, Martín Vilchez S, Mejía Abril G, Roman M, Luquero Bueno S, Piñeiro D, Ribó M, Abad Santos F, Ochoa D. **Clinical trial to compare safety and tolerability between intravenous infusion and bolus intravenous injection of ApTOLL in healthy volunteers.** Mol. Ther. Nucl. Acids. 36. (1). 2025. PMID:39897575.

DOI:10.1016/j.omtn.2024.102435. MOLECULAR THERAPY NUCLEIC ACIDS.

IF: 6.1. Citations: 1.

Group 32 - María Dolores Ochoa Mazarro

Calleja S, Rodríguez López A, Ochoa D, Luquero S, Navares Gómez M, Román M, Mejía Abril G, Martín Vilchez S, Abad Santos F, Zubiaur P. **Impact of Genetic Variants on Pregabalin Pharmacokinetics and Safety.** Pharmaceuticals. 18. (2). 2025. PMID:40005966. DOI:10.3390/ph18020151. Pharmaceuticals.

IF: 4.8. Citations: 0.

Group 32 - María Dolores Ochoa Mazarro

González Iglesias E, Méndez Ponce C, Ochoa D, Román M, Mejía Abril G, Martín Vilchez S, de Miguel A, Gómez Fernández A, Rodríguez Lopez A, Soria Chacartegui P, Abad Santos F, Novalbos J. **Effect of Genetic Variants on Rosuvastatin Pharmacokinetics in Healthy Volunteers: Involvement of ABCG2, SLC01B1 and NAT2.** Int. J. Mol. Sci. 26. (1). 2025. PMID:39796117. DOI:10.3390/ijms26010260. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES.

IF: 4.9. Citations: 3.

Group 32 - Francisco Abad Santos

Rodríguez Lopez A, Martínez Sendino M, Prieto Pérez R, Soria Chacartegui P, González Iglesias E, Aparicio Domínguez M, Berenguer Ruiz S, Daudén E, Abad Santos F. **Ten-Year Persistence of Biologic Drugs in Psoriasis and Its Relationship with Pharmacogenetic Biomarkers.** Biomedicines. 13. (1). 2025. PMID:39857589. DOI:10.3390/biomedicines13010005. Biomedicines.

IF: 3.9. Citations: 2.



In 2025, the scientific output of the Health Research Institute reached 448 publications, considering original articles, reviews and editorial material for the purposes of the overall analysis. This figure confirms the consolidation of the Institute’s research activity at a high and sustained level. This stability reflects not only the continuity of scientific output, but also the strength, maturity and thematic breadth of its research groups.

In line with the structure adopted in previous reports, these document types have been selected because of their relevance as key indicators of scientific contribution and visibility within the research community.

At the same time, the Institute’s overall output includes additional types of publications that, while not analysed in detail in this section, also contribute to disseminating knowledge and reinforcing the institution’s role in biomedical research.

GLOBAL ANALYSIS

	Total	Cumulative Impact Factor	Mean Impact Factor	% D1	%Q1	% IF>10	% International collaborations	% Open Access	% Leadership
Publications	372	2480,72	6,66	31,18	68,45	13,97	49,19	67,74	44,62
Articles	334	2228,92	6,67	32,03	69,46	17,66	47,9	67,96	41,01
Editorial Material	17	88,3	5,19	29,41	52,94	11,76	52,94	41,17	94,11
Review	21	163,5	7,78	19,04	66,66	19,04	14,28	85,71	61,9

New Grants:
New Research grants in 2025: **18**.
New Human Resources grants in 2025: **17**.

Clinical Trials:
Ongoing Clinical Trials during the year 2025: **405**.
Clinical Trial agreements signed in 2025: **103**.

Clinical Practice Guidelines:
Number of Clinical Practice Guidelines: **12**.

Patents:
Number of patent applications: **1**.
Number of utility model applications: **1**.

Number of innovations generated by IIS (2025):
5 projects enrolled in the year and **15** in development phase.

Number of patents or useful models during 2025:
2 applications, **1** granted.

Total number of patents or useful models:
2 applications, **10** granted and **2** licensed/transferred.

Theses:
Number of theses defended: **12**.
Number of theses with International Mention: **3**.

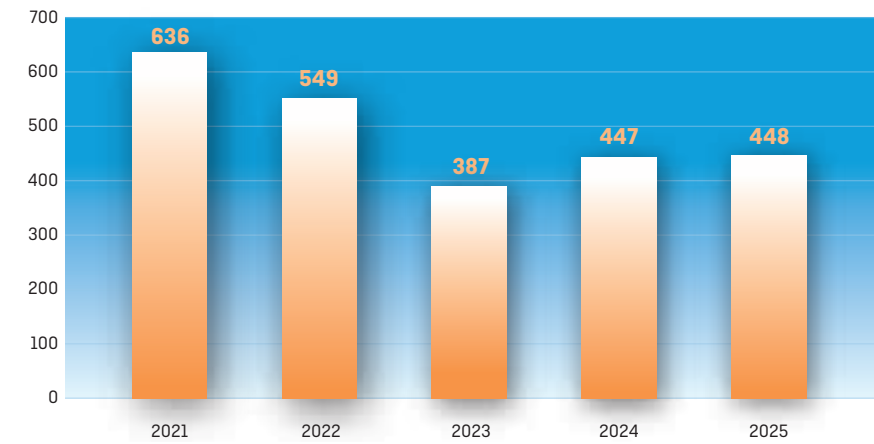
Communication:
Number of news published in printed press: **9**.
News in other audiovisual media (TV / Radio): **38**.
Number of news in specialised and non-specialised digital media: **142**.
Number of Research Bulletin “Factor de Impacto” with the last scientific news with wide dissemination among patients, researchers and media: **4**.

PUBLICATIONS

The analysis of the last five years shows a period of adjustment in the Institute’s scientific output, followed by a clear recovery and subsequent stabilisation. After reaching 387 publications in 2023, the Institute recorded a significant increase in 2024, with 447 publications, marking a renewed level of activity. This positive evolution was consolidated in 2025, with 448 publications,

confirming the Institute’s capacity to sustain a strong and stable scientific output. Although the current figures remain below those observed at the beginning of the study period, those earlier values were largely driven by the unprecedented global increase in publications related to the COVID-19 pandemic.

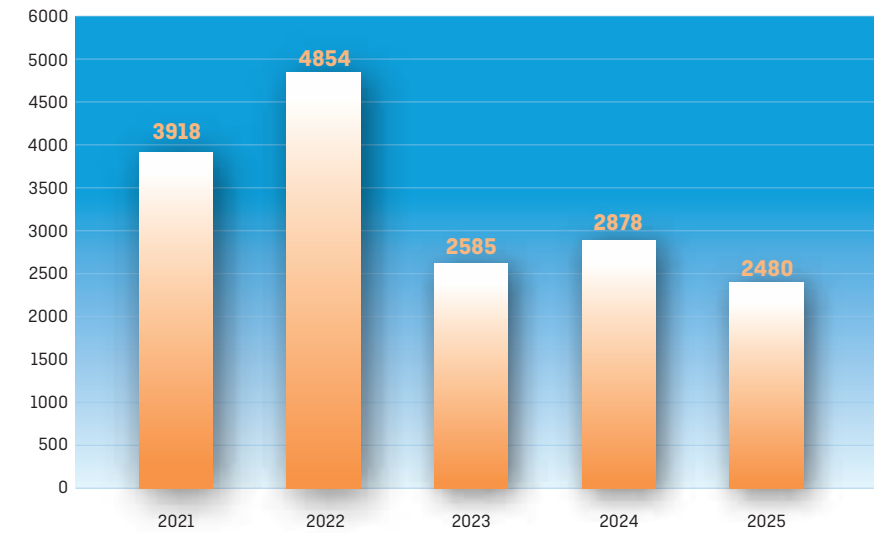
Evolution of publications per year 2021-2025



The cumulative impact factor over the last five years shows a period of marked variation, with the highest value recorded in 2022, followed by a subsequent adjustment and a more stable pattern in recent years. Following the peak recorded in 2022, the indicator stood at 2,585 in 2023 and increased to 2,878 in 2024, reflecting a positive recovery in the overall impact of the Institute’s scientific output. In 2025, the cumulative impact factor

reached 2,480.72, slightly below the previous year but broadly in line with the levels observed in the most recent period. This evolution confirms that, despite annual fluctuations, IIS-Princesa continues to maintain a significant cumulative impact factor, supported by a consolidated volume of publications and by the presence of its research groups in journals with recognised scientific relevance.

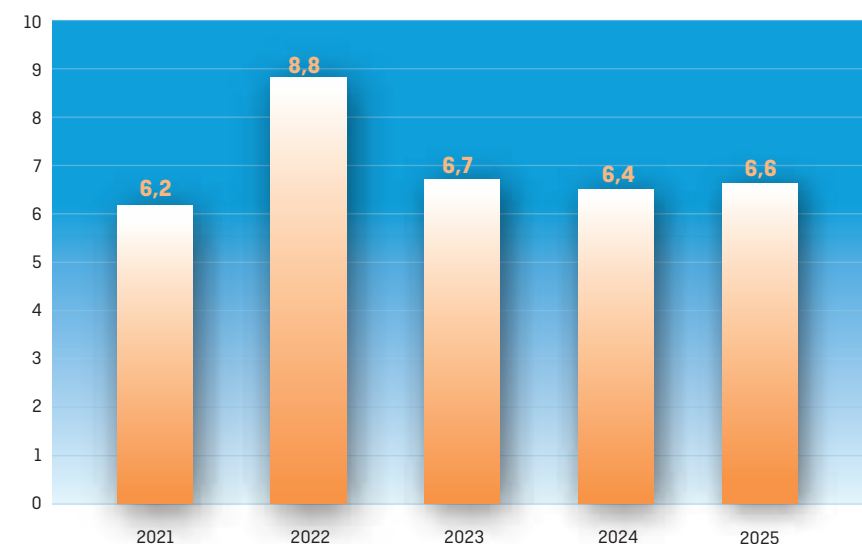
Cumulative Impact Factor 2021-2025



The mean impact factor per publication over the last five years shows a consistently strong performance, with values remaining above 6 throughout the period. After the highest value recorded in 2022, the indicator returned to a more stable range, standing at 6.7 in 2023 and 6.4 in 2024. In 2025, the mean impact factor increased to 6.66, reinforcing the positive evolution of

this indicator and confirming the Institute's capacity to maintain a high average level of scientific impact. This result is particularly relevant when considered alongside the stable volume of publications recorded in recent years, as it reflects not only sustained research activity but also the continued publication of scientific work in journals with recognised impact and visibility.

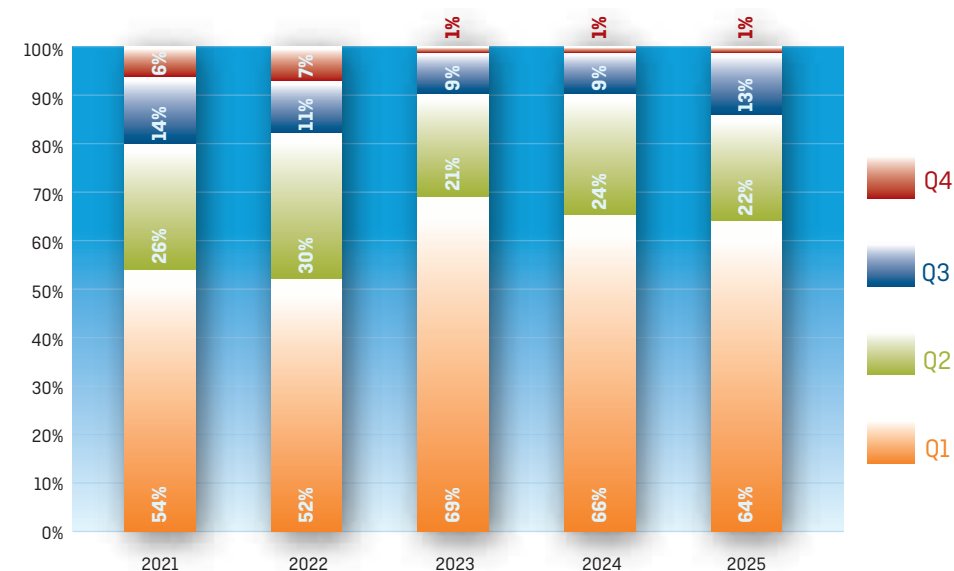
Mean Impact Factor 2021-2025



One approach to mitigating widespread fluctuations in journal impact factor values due to COVID-19 is to normalize publications according to journal quartiles. In this regard, the distribution of publications by quartiles over the last five years confirms the strong quality profile of IIS-Princesa scientific output. In 2025, 64% of publications were published in Q1 journals, maintaining the high level observed in recent years and consolidating the Institute's presence in journals with the

test scientific visibility. In addition, 22% of publications were published in Q2 journals, meaning that 86% of the Institute's indexed output was concentrated in the first two quartiles. This distribution reflects a consistently favourable positioning of IIS-Princesa publications within internationally recognised journals and reinforces the sustained quality of the research activity carried out by its groups.

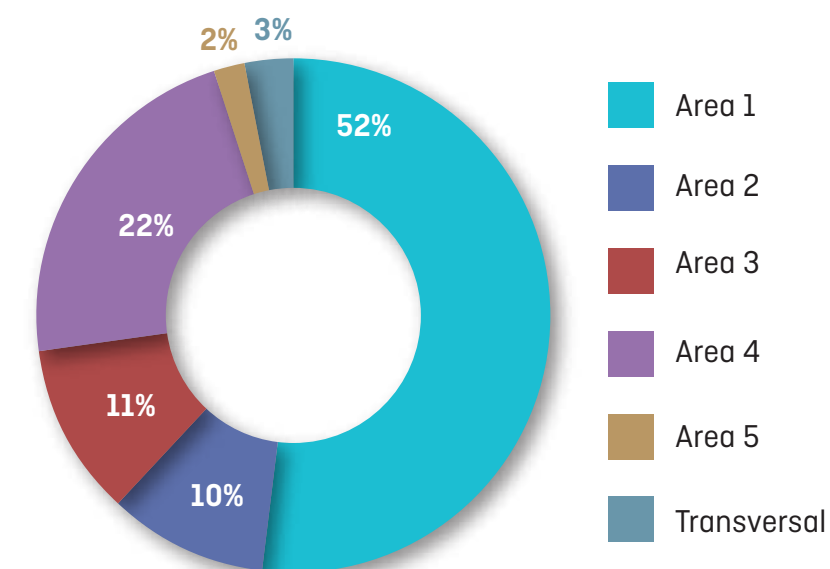
Publications by quartiles 2021-2025



The distribution of publications by research area in 2025 should be interpreted in the context of the Institute's updated scientific structure. Unlike the previous year, when scientific output was organised into three research areas, the 2025 analysis reflects the new configuration of five research areas and one transversal area. Within this framework, Area 1 accounts for the largest share of publications, representing 52% of the Institute's total output, followed by Area 4 with 22%. Areas 3 and 2 contribute 11% and 10%, respectively, while Area 5 and the Transversal area represent smaller but relevant proportions, with 2% and 3%.

This distribution is consistent with the organisational profile of Area 1, which is the largest area and brings together the highest number of research groups, and therefore has a particularly strong capacity to generate scientific output. At the same time, the results also reflect a broader and more diversified organisational structure, allowing the Institute's scientific activity to be represented with greater specificity across its different research lines.

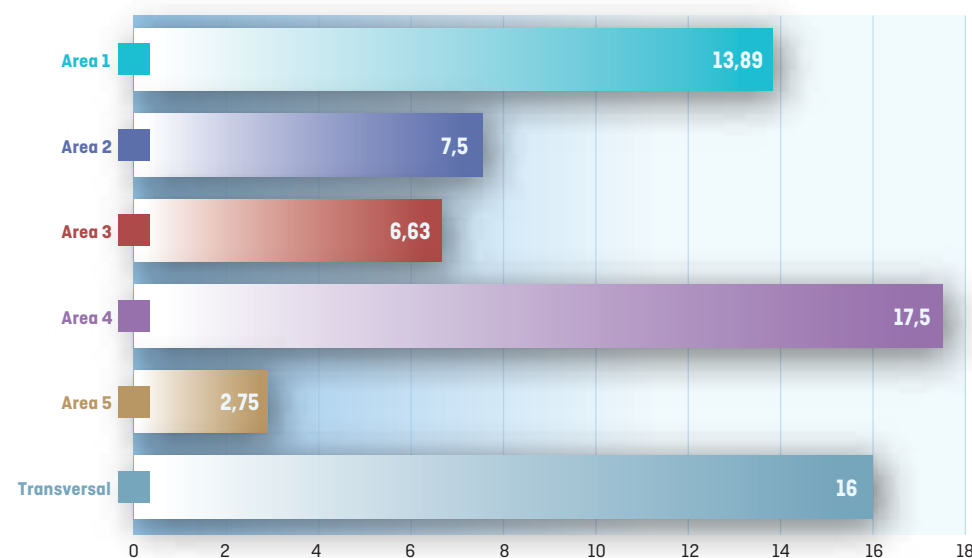
Publications by Research Area 2025



To complement the absolute distribution of publications by research area, scientific output was also analysed in relation to the number of research groups in each area. This adjusted indicator provides a more balanced view of publication activity across areas of different sizes. In 2025, Area 4 showed the highest average output, with 17.5 publications per research group, followed by the Transversal area with 16 publications per group. This latter result should be interpreted with caution, as the Transversal area is represented by a single group. Area

1, which is the largest area and brings together the highest number of research groups, also maintained a strong level of productivity, with 13.89 publications per group. Areas 2 and 3 recorded intermediate values, with 7.5 and 6.63 publications per group, respectively, while Area 5 reached 2.75. Overall, this analysis helps to contextualise the absolute number of publications and offers a more nuanced interpretation of scientific productivity across the Institute's updated research structure.

Average number of publications per research group by area, 2025



Note: This indicator is calculated as the number of publications assigned to each research area divided by the number of research groups in that area. Publications involving authors from more than one area are counted in each corresponding area.

The cumulative impact factor by research area in 2025 reflects the Institute's updated scientific structure, organised into five research areas and one transversal area. Within this new framework, Area 1 shows the highest cumulative impact factor, reaching 2,547.42, in line with its predominant contribution to the total number of publications. Area 4 also makes a notable contribution, with a cumulative impact factor of 687, followed by Area 3 with 561.8 and Area 2 with 381.4.

Although Area 5 and the Transversal area show lower absolute values, with 30.1 and 95.1 respectively, their presence reflects the broader and more specific representation of research lines within the Institute.

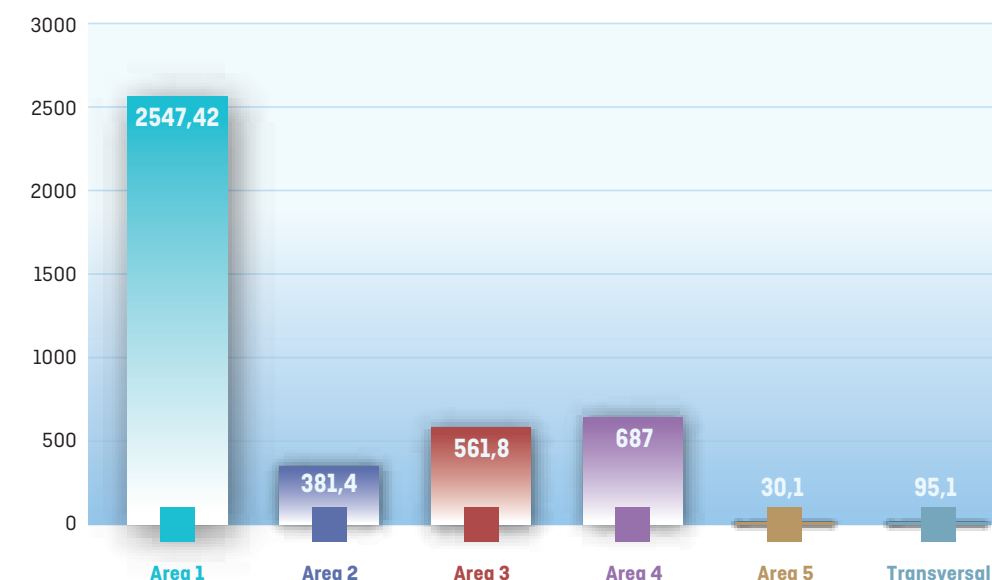
Overall, this distribution should be interpreted as an absolute measure of impact, closely linked to the volume of publications assigned to each area and to the size and scientific profile of each research structure. In this regard, the leading position of Area 1 is consistent with its role as the largest area in the Institute and the one bringing together the highest number of research groups.

At the same time, the results show the complementary contribution of the remaining areas to the Institute's overall scientific visibility. To provide a more balanced perspective, this analysis is complemented by an adjusted indicator based on the average number of publications per research group by area.

This absolute distribution should be interpreted together with the previous adjusted indicator, which relates publication output to the number of research

groups in each area and provides a more balanced view of productivity across the Institute's scientific structure.

Cumulative Impact Factor by Area 2025

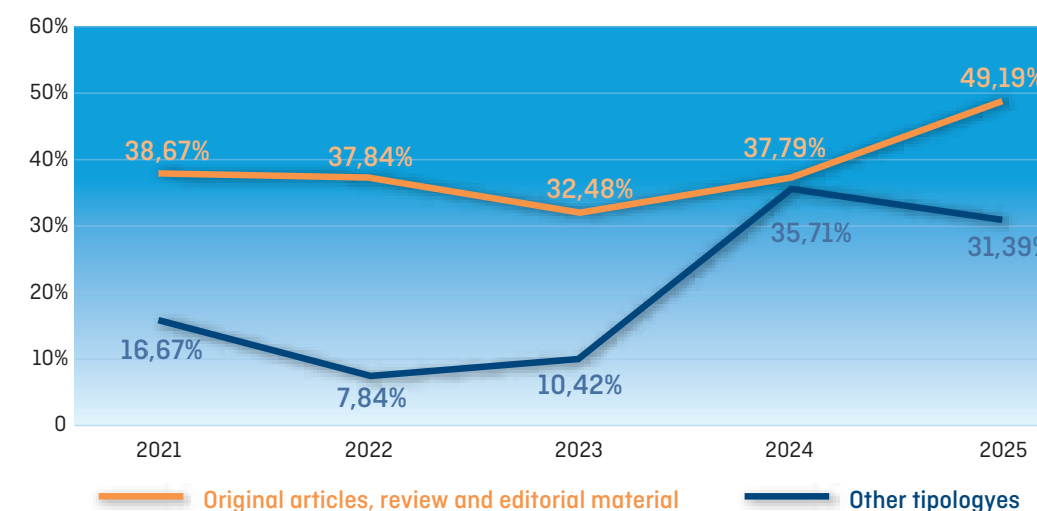


Note: Publications involving more than one research area are counted in each corresponding area; therefore, area-based cumulative impact factor values are not mutually exclusive.

The analysis of international collaboration over the last five years shows a consistently higher proportion of internationally co-authored publications among original articles, reviews and editorial material compared with other document typologies. In this main group of scientific outputs, international collaboration remained at substantial levels between 2021 and 2024, with values of 38.67% in 2021, 37.84% in 2022, 32.48% in 2023 and 37.79% in 2024. In 2025, this indicator increased markedly to 49.19%, meaning that

almost one in two original articles, reviews or editorial materials were produced within international collaboration. By contrast, other document typologies showed a more variable pattern, from 16.67% in 2021 to 7.84% in 2022 and 10.42% in 2023, before rising to 35.71% in 2024 and reaching 31.39% in 2025. Overall, these data highlight the growing international dimension of IIS-Princesa scientific activity, particularly in the publication types with the greatest relevance for the Institute's research output.

International Collaboration 2025



DISTRIBUTION OF SCIENTIFIC OUTPUT BY JOURNALS

Journal	Number of Publications	Impact Factor	Cumulative IF
ACTA PAEDIATRICA	1	2.10	2.10
ACTAS Dermo-SIFILOGRAFICAS	1	2.80	2.80
ACTAS UROLOGICAS ESPANOLAS	2	1.70	2.90
ADVANCES IN NUTRITION	1	9.20	9.20
AGING AND DISEASE	1	6.90	6.90
ALIMENTARY PHARMACOLOGY & THERAPEUTICS	5	6.70	33.50
ALLERGY	2	12.00	24.00
ALZHEIMERS & DEMENTIA	1	11.10	11.10
ALZHEIMER'S & DEMENTIA: DIAGNOSIS, ASSESSMENT & DISEASE MONITORING	1	4.40	4.40
AMERICAN JOURNAL OF CARDIOLOGY	3	2.10	6.30
AMERICAN JOURNAL OF CLINICAL DERMATOLOGY	1	11.40	11.40
AMERICAN JOURNAL OF GASTROENTEROLOGY	7	8.50	57.10
AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE	1	19.40	19.40
ANAESTHESIA CRITICAL CARE & PAIN MEDICINE	1	4.70	4.70
ANESTHESIOLOGY	1	9.20	9.20
ANNALS OF THE AMERICAN THORACIC SOCIETY	1	5.40	5.40
ANNALS OF THE RHEUMATIC DISEASES	2	20.60	41.20
ANTIBIOTICS-BASEL	1	4.60	4.60
ANTIOXIDANTS	3	6.60	19.80
APPLIED SCIENCES-BASEL	1	2.90	2.90
ARCHIVES OF DISEASE IN CHILDHOOD	2	3.20	6.40
ARCHIVES OF ENDOCRINOLOGY METABOLISM	1	2.30	2.30
ARCHIVES OF OSTEOPOROSIS	1	2.80	2.80
ARCHIVES OF TOXICOLOGY	1	6.90	6.90
ARCHIVOS DE BRONCONEUMOLOGIA	3	9.20	27.60
ARTHRITIS RESEARCH & THERAPY	1	4.60	4.60
ATHEROSCLEROSIS	1	5.70	5.70
BASIC & CLINICAL PHARMACOLOGY & TOXICOLOGY	1	3.30	3.30
BIODATA MINING	1	6.10	6.10
BIOMEDICINE & PHARMACOTHERAPY	4	7.50	30.00
BIOMEDICINES	2	3.90	7.80
BJS OPEN	1	4.50	4.50
BJU INTERNATIONAL	1	4.50	4.50
BMC MEDICINE	1	8.70	8.70
BMC PUBLIC HEALTH	1	3.60	3.60
BMC PULMONARY MEDICINE	1	2.80	2.80
BMC SURGERY	1	1.80	1.80
BMJ HEALTH & CARE INFORMATICS	1	4.40	4.40
BMJ OPEN	1	2.30	2.30
BMJ OPEN GASTROENTEROLOGY	1	2.90	2.90
BONE MARROW TRANSPLANTATION	1	5.20	5.20
BRITISH JOURNAL OF PHARMACOLOGY	1	7.70	7.70
BRITISH JOURNAL OF PSYCHIATRY	1	7.60	7.60

Journal	Number of Publications	Impact Factor	Cumulative IF
CANADIAN JOURNAL OF CARDIOLOGY	3	5.30	15.90
CANCERS	2	4.40	8.80
CARDIOLOGY RESEARCH	1	1.40	1.40
CARDIOVASCULAR DIAGNOSIS AND THERAPY	1	2.10	2.10
CARDIOVASCULAR REVASCLARIZATION MEDICINE	2	2.30	4.40
CATHETERIZATION AND CARDIOVASCULAR INTERVENTIONS	2	1.90	3.80
CELLULAR ONCOLOGY	1	4.80	4.80
CIRCULATION-CARDIOVASCULAR INTERVENTIONS	3	7.40	22.20
CLINICAL AND EXPERIMENTAL ALLERGY	2	6.40	12.80
CLINICAL AND EXPERIMENTAL RHEUMATOLOGY	7	3.30	22.90
CLINICAL AND TRANSLATIONAL ALLERGY	1	4.00	4.00
CLINICAL GASTROENTEROLOGY AND HEPATOLOGY	4	12.20	48.80
CLINICAL INFECTIOUS DISEASES	1	7.30	7.30
CLINICAL MICROBIOLOGY AND INFECTION	1	8.50	8.50
CLINICAL NUCLEAR MEDICINE	1	9.60	9.60
CLINICAL OBESITY	1	2.10	2.10
CLINICAL PHARMACOLOGY & THERAPEUTICS	1	4.90	4.90
COMMUNICATIONS MEDICINE	1	6.30	6.30
COMPUTERS IN BIOLOGY AND MEDICINE	1	6.30	6.30
CORONARY ARTERY DISEASE	1	2.00	2.00
CURRENT ONCOLOGY	1	3.40	3.40
CURRENT PROTOCOLS	1	2.20	2.20
DERMATOLOGY AND THERAPY	1	4.20	4.20
DIABETES TECHNOLOGY & THERAPEUTICS	1	6.30	6.30
DIAGNOSTICS	1	3.30	3.30
ECLINICALMEDICINE	1	10.00	10.00
EMBO MOLECULAR MEDICINE	2	8.30	16.60
EMERGENCIAS	1	6.30	6.30
ENDOCRINE	2	2.90	5.80
ENDOCRINE PATHOLOGY	1	4.60	4.60
ENDOCRINE PRACTICE	1	4.60	4.60
ENDOCRINES	1	2.20	2.20
ENDOCRINOLOGY DIABETES & METABOLISM	2	2.60	5.20
ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA	1	2.50	2.50
EUROINTERVENTION	6	9.50	57.00
EUROPEAN GERIATRIC MEDICINE	1	3.60	3.60
EUROPEAN HEART JOURNAL	3	35.70	107.10
EUROPEAN HEART JOURNAL-CARDIOVASCULAR IMAGING	2	6.60	13.20
EUROPEAN HEART JOURNAL-QUALITY OF CARE AND CLINICAL OUTCOMES	1	5.60	5.60
EUROPEAN JOURNAL OF CELL BIOLOGY	1	4.30	4.30
EUROPEAN JOURNAL OF CLINICAL INVESTIGATION	2	3.60	7.20
EUROPEAN JOURNAL OF ENDOCRINOLOGY	2	5.20	10.40
EUROPEAN JOURNAL OF HEALTH ECONOMICS	1	3.00	3.00
EUROPEAN JOURNAL OF IMMUNOLOGY	1	3.70	3.70
EUROPEAN JOURNAL OF INTERNAL MEDICINE	1	6.10	6.10
EUROPEAN JOURNAL OF PHARMACOLOGY	2	4.70	9.40
EUROPEAN JOURNAL OF PSYCHIATRY	2	1.50	3.00

Journal	Number of Publications	Impact Factor	Cumulative IF
EUROPEAN JOURNAL OF PSYCHOTRAUMATOLOGY	1	4.20	4.20
EUROPEAN JOURNAL OF RADIOLOGY	1	3.30	3.30
EUROPEAN UROLOGY	1	25.20	25.20
EXPERT REVIEW OF CARDIOVASCULAR THERAPY	1	2.10	2.10
EXPERT REVIEW OF CLINICAL IMMUNOLOGY	1	3.70	3.70
EXPERT REVIEW OF ENDOCRINOLOGY & METABOLISM	1	2.80	2.80
EXTRACELLULAR VESICLES AND CIRCULATING NUCLEIC ACIDS	1	4.80	4.80
FRONTIERS IN CARDIOVASCULAR MEDICINE	1	2.90	2.90
FRONTIERS IN CELL AND DEVELOPMENTAL BIOLOGY	1	4.30	4.30
FRONTIERS IN CELLULAR AND INFECTION MICROBIOLOGY	1	4.80	4.80
FRONTIERS IN IMMUNOLOGY	3	7.00	18.80
FRONTIERS IN MEDICINE	1	3.00	3.00
FRONTIERS IN MICROBIOLOGY	1	4.50	4.50
FRONTIERS IN NEUROLOGY	1	2.80	2.80
FRONTIERS IN PUBLIC HEALTH	1	3.40	3.40
FUTURE PHARMACOLOGY	1	2.70	2.70
GASTROENTEROLOGIA Y HEPATOLOGIA	4	1.90	7.60
GENES	1	2.80	2.80
GUT	3	26.20	78.60
HEALTHCARE INFORMATICS RESEARCH	1	2.10	2.10
HELICOBACTER	4	4.30	17.20
HORMONE RESEARCH IN PAEDIATRICS	2	2.70	5.40
HORMONES-INTERNATIONAL JOURNAL OF ENDOCRINOLOGY AND METABOLISM	1	2.50	2.50
HUMAN VACCINES & IMMUNOTHERAPEUTICS	1	4.20	4.20
IJC HEART & VASCULATURE	1	2.50	2.50
INFLAMMATORY BOWEL DISEASES	3	5.50	14.10
INTENSIVE AND CRITICAL CARE NURSING	1	4.70	4.70
INTERNAL AND EMERGENCY MEDICINE	2	3.80	7.60
INTERNATIONAL JOURNAL OF CARDIOLOGY	4	3.20	12.80
INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES	4	4.90	19.60
INTERNATIONAL OPHTHALMOLOGY	1	1.40	1.40
INTERNATIONAL REVIEW OF CELL AND MOLECULAR BIOLOGY	1	6.42	6.42
JACC-CARDIOVASCULAR IMAGING	1	15.20	15.20
JACC-CARDIOVASCULAR INTERVENTIONS	4	11.40	45.60
JAMA NETWORK OPEN	1	9.70	9.70
JAMA ONCOLOGY	1	20.10	20.10
JBMR PLUS	1	2.40	2.40
JMIR MENTAL HEALTH	1	5.80	5.80
JMIR RESEARCH PROTOCOLS	1	1.50	1.50
JOURNAL OF AFFECTIVE DISORDERS	2	4.90	9.80
JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY-IN PRACTICE	2	6.60	13.20
JOURNAL OF ASTHMA	1	1.30	1.30
JOURNAL OF CARDIOVASCULAR TRANSLATIONAL RESEARCH	1	2.50	2.50
JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM	4	5.40	20.70
JOURNAL OF CLINICAL INVESTIGATION	1	13.60	13.60
JOURNAL OF CLINICAL MEDICINE	12	2.90	34.80
JOURNAL OF CLINICAL MONITORING AND COMPUTING	2	2.20	4.40

Journal	Number of Publications	Impact Factor	Cumulative IF
JOURNAL OF CLINICAL PERIODONTOLOGY	1	6.80	6.80
JOURNAL OF CROHNS & COLITIS	7	10.30	62.50
JOURNAL OF DIABETES AND ITS COMPLICATIONS	1	3.10	3.10
JOURNAL OF DIABETES RESEARCH	1	3.40	3.40
JOURNAL OF ELECTROCARDIOLOGY	1	1.20	1.20
JOURNAL OF EXPERIMENTAL MEDICINE	1	10.60	10.60
JOURNAL OF EXTRACELLULAR VESICLES	1	14.50	14.50
JOURNAL OF HEADACHE AND PAIN	1	7.90	7.90
JOURNAL OF HEMATOLOGY & ONCOLOGY	1	40.40	40.40
JOURNAL OF INFECTION	1	11.90	11.90
JOURNAL OF INFECTIOUS DISEASES	1	4.50	4.50
JOURNAL OF INVESTIGATIONAL ALLERGOLOGY AND CLINICAL IMMUNOLOGY	2	6.70	13.40
JOURNAL OF INVESTIGATIVE DERMATOLOGY	1	5.70	5.70
JOURNAL OF MEDICAL GENETICS	1	3.70	3.70
JOURNAL OF NEURAL TRANSMISSION	1	4.40	4.40
JOURNAL OF NEUROINTERVENTIONAL SURGERY	1	4.40	4.40
JOURNAL OF NEUROLOGY	2	4.60	9.20
JOURNAL OF PAIN RESEARCH	1	3.10	3.10
JOURNAL OF PATIENT-REPORTED OUTCOMES	2	2.90	5.80
JOURNAL OF PSYCHIATRIC RESEARCH	1	3.20	3.20
JOURNAL OF RHEUMATOLOGY	2	3.70	7.10
JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY	1	22.30	22.30
JOURNAL OF THE AMERICAN HEART ASSOCIATION	2	5.30	10.60
JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY	2	8.00	16.00
JOURNAL OF THORACIC DISEASE	2	1.90	3.80
KIDNEY INTERNATIONAL	1	12.60	12.60
LABORATORY INVESTIGATION	1	4.20	4.20
LANCET CHILD & ADOLESCENT HEALTH	1	15.50	15.50
LANCET DIABETES & ENDOCRINOLOGY	2	41.80	83.60
LANCET HIV	1	13.00	13.00
LANCET ONCOLOGY	1	35.90	35.90
LANGENBECKS ARCHIVES OF SURGERY	1	1.80	1.80
LIFE-BASEL	1	3.40	3.40
LUPUS SCIENCE & MEDICINE	1	4.00	4.00
MAGNETIC RESONANCE IMAGING	1	2.00	2.00
MEDICINA CLINICA	5	2.10	10.50
MEDICINA-LITHUANIA	2	2.40	4.80
MENTAL HEALTH AND PHYSICAL ACTIVITY	1	2.60	2.60
METABOLISM-CLINICAL AND EXPERIMENTAL	1	11.90	11.90
MOLECULAR MEDICINE	2	6.40	12.80
MOLECULAR THERAPY-NUCLEIC ACIDS	1	6.10	6.10
NATURE	1	48.50	48.50
NATURE COMMUNICATIONS	4	18.10	65.20
NATURE MENTAL HEALTH	1	8.70	8.70
NATURE REVIEWS ENDOCRINOLOGY	1	42.30	42.30
NEFROLOGIA	2	2.60	5.20

Journal	Number of Publications	Impact Factor	Cumulative IF
NEPHRON	1	1.80	1.80
NEUROGASTROENTEROLOGY AND MOTILITY	1	2.90	2.90
NEUROLOGIA	2	3.10	6.20
NEUROLOGIA I NEUROCHIRURGIA POLSKA	1	2.60	2.60
NEUROLOGICAL SCIENCES	1	2.40	2.40
NEW PHYTOLOGIST	1	8.10	8.10
NPJ DIGITAL MEDICINE	1	15.10	15.10
NUTRIENTS	1	5.00	5.00
ONCOLOGY REVIEWS	1	5.20	5.20
OPEN FORUM INFECTIOUS DISEASES	1	3.80	3.80
OPEN HEART	1	2.80	2.80
PAIN MANAGEMENT	1	1.50	1.50
PATHOGENS	3	3.30	9.90
PEDIATRIC PULMONOLOGY	1	2.30	2.30
PERITONEAL DIALYSIS INTERNATIONAL	1	3.70	3.70
PHARMACEUTICALS	4	4.80	19.20
PHARMACEUTICS	1	5.50	5.50
PHARMACOEPIDEMIOLOGY AND DRUG SAFETY	1	2.40	2.40
PHARMACOGENOMICS	1	1.90	1.90
PLOS ONE	1	2.60	2.60
PNEUMONIA	1	6.20	6.20
PSORIASIS-TARGETS AND THERAPY	1	5.70	5.70
PSYCHIATRY RESEARCH	1	3.90	3.90
PULMONOLOGY	1	6.40	6.40
PURINERGIC SIGNALLING	1	2.40	2.40
RADIATION ONCOLOGY	1	3.20	3.20
REC-INTERVENTIONAL CARDIOLOGY	3	1.30	3.90
REDOX BIOLOGY	3	11.90	35.70
RESPIRATORY PHYSIOLOGY & NEUROBIOLOGY	1	1.60	1.60
REVISTA CLÍNICA ESPAÑOLA	1	1.70	1.70
REVISTA ESPAÑOLA DE CARDIOLOGIA	4	4.90	19.60
RHEUMATOLOGY	5	4.40	22.00
RMD OPEN	1	4.80	4.80
SCIENCE TRANSLATIONAL MEDICINE	1	14.70	14.70
SCIENTIFIC REPORTS	2	3.90	7.80
SEMINARS IN ARTHRITIS AND RHEUMATISM	5	4.40	22.00
SEMINARS IN IMMUNOLOGY	1	7.80	7.80
SURGERY	1	2.70	2.70
SWISS MEDICAL WEEKLY	1	1.90	1.90
THERAPEUTIC ADVANCES IN GASTROENTEROLOGY	1	3.40	3.40
THORACIC AND CARDIOVASCULAR SURGEON	1	1.40	1.40
ULTRASONIC IMAGING	1	2.50	2.50
UNITED EUROPEAN GASTROENTEROLOGY JOURNAL	2	6.70	13.10
WORLD JOURNAL OF GASTROENTEROLOGY	1	5.40	5.40
WORLD PSYCHIATRY	1	65.80	65.80
Total general	372	65.80	2480.72

PATENTS

Innovation plays a key role in improving citizens' quality of life by advancing healthcare and enabling the development of new products and services. In this context, IIS-Princesa maintains a strong commitment to inno-

vation and to the transfer of scientific and technological advances to industry. As evidence of this commitment, researchers from our institute, in collaboration with other institutions, have developed the patents listed below.

NATIONAL UTILITY MODEL APPLICATIONS

Title: Dispositivo de inmovilización personalizada para radioterapia
Number: U202532329
Date of application: 20/11/2025
Owners: Fundación de Investigación Hospital Universitario de La Princesa (55%); Asociación "HullProject - Impresión 3D biomédica" (45%)
Inventors: Pablo Castro Tejero, David Hernández González, Miguel Ángel Muñoz Torrijos, Carlos Izquierdo Rodríguez

NATIONAL PATENT APPLICATIONS

Title: Biomarcadores de Enfermedades Inflamatorias Intestinales.
Number: P202531231
Date of application: 22/12/2025
Owners: Instituto de Investigación Imas12 (77.5%), Instituto Murciano de Investigación Biomédica (IMIB) (12.5%) Fundación de Investigación Hospital Universitario de La Princesa (5%), Instituto de Investigación de la Paz (5%).
Inventors: Alberto Luis Pérez Gómez, Gema Ruiz Hurtado, Laura González Lafuente, Santiago Cuevas González, Fco. Javier Egea Maíquez, María Fernández Velasco, Pablo Pelegrín Vivancos, Carolina Alquezar Trujillo, Fernando Bartolomé Robledo.

COMPETITIVE GRANTS

GRANTS

FUNDING INSTITUTION	CALL TITLE	CALLS GRANTED
Agencia Estatal de Investigación	Proyectos de Generación de Conocimiento	1
	Proyectos en colaboración público-privada	3
Instituto de Salud Carlos III (ISCIII)	Proyectos de I+D+i en Salud (PI)	12
	Proyectos de Desarrollo Tecnológico en Salud (DTS)	1
Ministerio para la Transformación Digital y de la Función Pública	Demostradores y casos de uso de Espacios de Datos	1

RESEARCH STAFF FULLY OR PARTIALLY FUNDED THROUGH COMPETITIVE CALLS IN 2025

FUNDING INSTITUTION	CALL TITLE	CALLS GRANTED
Instituto de Salud Carlos III (ISCIII)	Movilidad de personal investigador contratado en el marco de la AES (M-AES)	3
	Contratos de gestión en investigación en salud en los IIS (GIS)	1
	Contratos para la Intensificación de la actividad investigadora en el SNS (INT)	2
	Contratos Predoctorales de Formación en investigación en salud	3
	Contratos Río Hortega	4
	Contratos Sara Borrell	3
	Contratos de personal investigador predoctoral en formación	1
Comunidad de Madrid		

INTRAMURAL PROJECTS

PRINCIPAL INVESTIGATOR	TITLE	RESEARCH LINE
Ruben Eduardo Pacios	Espacio de datos sobre una infraestructura interregional digital de imágenes relacionadas con el cáncer de páncreas - EDS-IRCP	Innovación. Tecnologías Innovadoras aplicadas a la Salud
Juan Vega Villar	Unidad de Impresión 3D Hospitalaria y Visualización Avanzada	Innovación. Impresión 3D
Graciela Álvarez García	Efectividad de una intervención multidisciplinar en pacientes con Diabetes tipo 2 mal controlada: estudio de cohorte prospectivo	Cuidados de Enfermería
Alexandra González Aguña	Monitorización de la fragilidad a través de indicadores hospitalarios: Estudio de asociación basado en un modelo centrado en la persona y Triangulación Taxonómica del Cuidado.	Cuidados de Enfermería
Blanca Novella Arribas	Evaluando la percepción del paciente con Insuficiencia Cardíaca en la transición del ingreso hospitalario a domicilio	Atención Primaria
Ana Marcos Jiménez	Evaluación del receptor del complemento CR2/CD21 como biomarcador pronóstico en la neumonía adquirida en la comunidad	Investigadores pre emergentes
Inés Valencia Fernández	Senescencia celular en la Barrera Hematoencefálica como biomarcador de pronóstico de ictus en el síndrome metabólico (SEBHEYOND)	Investigadores pre emergentes
Emilio Núñez Borque	Caracterización de las especies de triglicéridos aumentadas durante la inflamación alérgica y análisis de su impacto funcional en las diferentes células implicadas en la aterosclerosis	Investigadores pre emergentes
Dolores Ochoa Mazarro	INFLUENCIA DE LOS ESTÍMULOS EMOCIONALES Y LA REALIDAD VIRTUAL EN LA PERCEPCIÓN DEL DOLOR DURANTE LA CANALIZACIÓN DE VÍA VENOSA PERIFÉRICA: ESTUDIO CONTROLADO INTRASUJETO	Unidad de Ensayos Clínicos

DEFENDED DOCTORAL THESES

Group 26 – Jesús Argente Oliver

Pappalisin y estaniocalcinas: nuevos elementos en la regulación periférica del eje hormona de crecimiento - factor de crecimiento similar a la insulina.

Álvaro Martín Rivada

Director: Dr. Jesús Argente
Codirector: Dr. Vicente Barrios
Facultad de Medicina. Departamento de Pediatría. Universidad Autónoma.
Madrid, 31 de octubre de 2025
Calificación: *Sobresaliente Cum Laude por unanimidad.*

Estudio de las bases clínicas y moleculares de la talla baja en la Anemia de Fanconi: Impacto de las papalisin y las estaniocalcinas en la biodisponibilidad de IGF-I.

Dña. Beatriz Corredor Andrés

Director: Dr. Jesús Argente
Codirector: Dr. Julián Sevilla
Facultad de Medicina. Departamento de Pediatría. Universidad Autónoma.
Madrid, 9 de diciembre de 2025
Calificación: *Sobresaliente Cum Laude por unanimidad.*

Group 24 – Pedro Majano y Cecilio Santander

Francisca Molina Jiménez

Búsqueda de Biomarcadores Mínimamente Invasivos en Esofagitis Eosinofílica

Director: Dr. Cecilio Santander Vaquero
Facultad de Biología. Universidad Complutense de Madrid
Madrid, 17 de septiembre de 2025
Calificación: *Sobresaliente Cum Laude*

Group 25 – Mónica Marazuela Azpiroz

Pablo Sacristán Gómez

Arquitectura molecular en enfermedades tiroideas autoinmunes: papel de las histonas deacetilasas y del microambiente celular

Directora: Dra. Rebeca Martínez Hernández
Facultad de Medicina. Universidad Autónoma de Madrid
Madrid, 17 de junio de 2025
Calificación: *Sobresaliente Cum Laude*

Fernando Sebastián Valles

La monitorización de glucosa como pilar de la medicina personalizada en la diabetes tipo 1

Directora: Dra. Mónica Marazuela Azpiroz
Codirector: Miguel Antonio Sampedro Núñez
Facultad de Medicina. Universidad Autónoma de Madrid
Madrid, 11 de noviembre de 2025
Calificación: *Sobresaliente Cum Laude*

Carolina Knott Torcal

Investigating the regulatory immune response and the impact of COVID-19 lockdown on lifestyle habits considering the level of disease progression in patients with type 2 diabetes mellitus.

Doctorado Internacional
Directora: Mónica Marazuela Azpiroz
Codirectora: Rebeca Martínez Hernández
Facultad de Farmacia (UCM). Universidad Complutense de Madrid
Madrid, 8 de mayo de 2025
Calificación: *Sobresaliente Cum Laude*

Group 38 – Javier P. Gisbert y María Chaparro

Celia Gómez Labrador

Tendencias a largo plazo en el uso de terapias dirigidas en la enfermedad inflamatoria intestinal: estudio TRENDY de ENEIDA.

Director: Dr. Javier P. Gisbert y Dra. María Chaparro
Facultad de Medicina. Universidad Autónoma de Madrid
Madrid, 12 de febrero de 2025
Calificación: *Sobresaliente Cum Laude*

Group 46 – Cecilia Muñoz Calleja

Paula Díaz Fernández

Influence of Graft Immune Cell Composition and Immune Reconstitution on the Outcome of Allogeneic Hematopoietic Stem Cell Transplantation.

Directoras: Dra. Cecilia Muñoz Calleja y Dra. Valle Gómez García de Soria
Facultad de Medicina. Universidad Autónoma de Madrid
Madrid, 7 de febrero de 2025
Calificación: *Sobresaliente Cum Laude*
Mención Internacional

Group 7 – Antonio Martínez Ruiz

Susana Delgado Martín

Daño oxidativo en reperfusión tras ictus: ferroptosis y el papel del intercambiador mitocondrial de sodio/calcio NCLX // Oxidative damage in reperfusion after stroke: ferroptosis and the role of the mitochondrial sodium/calcium exchanger NCLX.

Director: Antonio Martínez Ruiz
Facultad de Farmacia. Universidad Complutense de Madrid
Madrid, 21 de noviembre de 2025
Calificación: *Sobresaliente Cum Laude*
Mención Internacional

Associated Group 12 – Teresa Alarcón Caverro

Belén Fernández Caso

Análisis genómico de Helicobacter pylori: factores de virulencia, bombas de expulsión y resistencia antimicrobiana.

Directora: Teresa Alarcón Caverro
Facultad de Medicina. Universidad Autónoma de Madrid
Madrid, 26 de septiembre de 2025
Calificación: *Sobresaliente Cum Laude por unanimidad*

Group 1 – Francisco Sánchez Madrid y Noa Martín Cofreces

Sara García Dosil

Control de la respuesta de linfocitos T por miRNAs específicos de NK-EVs y la exorribonucleasa ISG20L2

Directores: Francisco Sánchez Madrid y Lola María Fernández Messina
Facultad de Ciencias. Universidad Autónoma de Madrid
Madrid, 11 de abril de 2025
Calificación: *Suma Cum Laude*
Mención Internacional

Grupo 58 – Fernando Alfonso Manterola y Fernando Rivero Crespo

Pablo Martínez Vives

Valor del análisis del strain miocárdico mediante resonancia magnética cardíaca en el pronóstico y evolución de lamiocardiopatía hipertrófica

Directores: Fernando Alfonso Manterola y Alberto Ceconi

Facultad de Medicina. Universidad Autónoma de Madrid

Madrid, 28 de enero de 2025

Calificación: *Sobresaliente Cum Laude*

to sobre manejo de la infección oculta por virus B de la hepatitis (obi) y anti-HBc + EN unidades de hemodiálisis. Nefrología. 45. [10]. 2025. IF:2,60. DOI:10.1016/j.nefro.2025.501355. NEFROLOGIA.

• Díaz González Á, Molera C, Gómez Domínguez E, Muñoz Bartolo G, Ampuero J, Fernández Rodríguez C, Quintero J, Molina E, Salcedo M, Oliveira A, Morillas R, Díez MA, Casado M, García Buey L, Rodríguez Tajés S,

Jorquera F, Berenguer M, Montero JL, Londoño MC. **SPANISH CLINICAL PRACTICE GUIDELINES FOR THE DIAGNOSIS AND MANAGEMENT OF CHOLESTATIC LIVER DISEASES IN ADULT AND PEDIATRIC POPULATION: JOINT REPORT FROM AEEH AND SEGHP.** Gastroenterol. Hepatol. PMID:41232665. DOI:10.1016/j.gastrohep.2025.502629. Gastroenterología y Hepatología.

CLINICAL GUIDELINES

Group 38

- Mahadevan U, Seow CH, Barnes EL, Chaparro M, Flanagan E, Friedman S, Julsgaard M, Kane S, NgS, Torres J, Watermeyer G, Yamamoto Furusho J, Robinson C, Fisher S, Anderson P, Gearry R, Duricova D, Dubinsky M, Long M, **Global Consensus Group for Pregnancy and IBD. Global Consensus Statement on the Management of Pregnancy in Inflammatory Bowel Disease.** Aliment. Pharmacol. Ther. 62. [11-12]. 2025. PMID:40874657. IF:6,70. DOI:10.1111/apt.70290. ALIMENTARY PHARMACOLOGY & THERAPEUTICS.
- Friedman S, Julsgaard M, Kane S, NgS, Torres J, Watermeyer G, Yamamoto Furusho J, Robinson C, Fisher S, Anderson P, Gearry R, Duricova D, Dubinsky M, Long M, **Global Consensus Group for Pregnancy and IBD. Global Consensus Statement on the Management of Pregnancy in Inflammatory Bowel Disease.** Clin. Gastroenterol. Hepatol. 23. [11S]. 2025. PMID:40874901. IF:12,00. DOI:10.1016/j.cgh.2025.04.005. Clinical Gastroenterology and Hepatology.
- Mahadevan U, Seow CH, Barnes EL, Chaparro M, Flanagan E, Friedman S, Julsgaard M, Kane S, NgS, Torres J, Watermeyer G, Yamamoto Furusho J, Robinson C, Fisher S, Anderson P, Gearry R, Duricova D, Dubinsky M, Long M, **Global Consensus Group for Pregnancy and IBD. Global Consensus Statement on the Management of Pregnancy in Inflammatory Bowel Disease.** Inflammatory Bowel Dis. 31. [10]. 2025. PMID:40874613. IF:4,30. DOI:10.1093/ibd/izaf171. INFLAMMATORY BOWEL DISEASES
- Mahadevan U, Seow CH, Barnes EL, Chaparro M, Flanagan E, Friedman S, Julsgaard M, Kane S, NgS, Torres J, Watermeyer G, Yamamoto Furusho J, Robinson C, Fisher S, Anderson P, Gearry R, Duricova D, Dubinsky M, Long M, **Global Consensus Group for Pregnancy and IBD. Global Consensus Statement on the Management of Pregnancy in Inflammatory Bowel Disease.**

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Associated Group 10

- Alegre A, Aguado B et al. **Guía de Mieloma Múltiple - Grupo Español de Mieloma.** GUIA_PETHEMA_MM_2025.ww.fundacionpethema.es
- Medina Á, Muntañola A, Crespo M, Ramírez Á, Hernández-Rivas JÁ, Abrisqueta P, Alcoceba M, Delgado J, de la Serna J, Espinet B, González M, Loscertales J, Serrano A, Terol MJ, Yáñez L, Bosch F; en nombre del Grupo Español de Leucemia Linfocítica Crónica
- **Guidelines for the diagnosis and treatment of chronic lymphocytic leukemia and small lymphocytic lymphoma from Chronic Lymphocytic Leukemia Spanish Group (GELLC).**
- Med Clin [Barc]. 2025 Mar 28;164(6):305-305.e17. doi: 10.1016/j.medcli.2024.10.018. Epub 2025 Jan 10. PMID: 39799061
- Cesaro S, Ljungman P, Mikulska M, Hirsch HH, Navarro D, Cordonnier C, Mehra V, Styczynski J, Marchesi F, Pinana JL, Beutel G, Einsele H, Maertens J, Ecil, de la Camara R. **Post-pandemic recommendations for the management of COVID-19 in patients with haematological malignancies or undergoing cellular therapy, from the European Conference on Infections in Leukaemia (ECIL-10).**
- Leukemia. 2025;60(11):1480-6. DOI: 10.1038/s41375-025-02649-9

Associated Group 11

- Cuadrado GB, Calvo AA, Vibora EJ, Buey LG, Cendrero RMR-C, García AC, López JI, Fernandez CG, García FG, Alcázar Arroyo RA. **Position on the management of occult infection by hepatitis B virus (OBI) and anti-HBc + in hemodialysis units; Posicionamien-**

CLINICAL TRIALS

Clinical Trials represent an indication of being at the forefront of R+D in the health sector. They provide a benefit to society based on the most innovative treatments and the most advanced techniques, with the special aim of improving the health and well-being of citizens. During 2025, 103 new agreements have been signed for clinical trials led by IIS members.

Maria de Toledo: "Registro de pacientes tratados con Fintepila" - ZOGENIX INTERNATIONAL, LTD ZX008-2101

María Luisa Martos: Estudio de fase III, aleatorizado, doble ciego, controlado con placebo y multicéntrico para evaluar la eficacia y la seguridad de anifrolumab en adultos con lupus eritematoso cutáneo subagudo o crónico que son resistentes o intolerantes al tratamiento antipalúdico D - AstraZeneca AB, D346BC00001

Carmen Ramos: USO DE ESTATINAS EN PACIENTES CON HEMORRAGIA INTRACEREBRAL BETH - ISRAEL DEACONESS MEDICAL CENTER, SATURN

Ignacio de los Santos: Estudio de fase 3b, abierto, aleatorizado, controlado con tratamiento estándar, multicéntrico, de superioridad para evaluar la eficacia, la seguridad y la tolerabilidad de CAB AP + RPV AP inyectable en participantes virémicos que viven con VIH-1 (CROWN) - ViiV Healthcare (GSK), 221611

Virginia Meca: Estudio observacional prospectivo para evaluar la efectividad y el perfil de seguridad de los comprimidos de cladribina en una cohorte de pacientes con esclerosis múltiple recurrente mayores y menores de 50 años: MAVENAGE - Fundación Universitaria San Antonio, MAVENAGE

Guillermo Reyes: ESTUDIO DE FASE II, ALEATORIZADO, DOBLE CIEGO Y CONTROLADO CON PLACEBO SOBRE LA EFICACIA Y LA SEGURIDAD DE GDC-8264 EN LA PREVENCIÓN DE LA LESIÓN RENAL AGUDA Y LOS ACONTECIMIENTOS RENALES ADVERSOS GRAVES ASOCIADOS A LA CIRUGÍA CARDIACA - Genentech, Inc., GC45428

Lucio Garcia Fraile: "Evaluación de la eficacia y la seguridad del cambio de un inhibidor de la proteasa potenciado a fostemsavir en personas que viven con VIH

(PLWH) con opciones terapéuticas limitadas (FOST switch)" - NEAT ID Foundation: NEAT808

Fernando Alfonso: Registro ATTRACKING - D. Alberto Sanz Belmar CNIC, Attracking CNIC

Lucio Garcia Fraile: Estudio Fase 1/2, observador ciego, aleatorizado, controlado con placebo y multicéntrico para evaluar la seguridad e inmunogenicidad de una vacuna frente las infecciones del tracto urinario (ITU) en adultos de 18 a 64 años, así como su eficacia clínica cuando se administra a mujeres de 18 a 64 años - GlaxoSmithKline, S.A., 219685 (EXPEC RP-001 STG)

Lydia Lopez Manzanares: Ensayo intervencionista, aleatorizado, con enmascaramiento doble, controlado con placebo y con extensión sin enmascaramiento opcional, de Lu AF82422 en participantes con atrofia multisistémica H. - Lundbeck A/S, 20432A (MASCOT)

María de Toledo las Heras: Un ensayo multicéntrico, aleatorizado y doble ciego para evaluar la eficacia y la seguridad de PRAX-628 en adultos con convulsiones focales (POWER 1) - Praxis Precision Medicines, Inc., PRAX-628-321

Mar Llamas: PSO-CHALLENGE: Análisis transversal del impacto clínico de terapias sistémicas en pacientes con psoriasis en áreas difíciles de tratar - NOVARTIS FARMACÉUTICA S.A. CAIN457AES16

Ana Isabel Ballesteros: Estudio no intervencionista (ENI) prospectivo de trastuzumab deruxtecán para pacientes con cáncer de mama irresecable y/o metastásico con expresión baja de HER2, junto a un registro de pacientes tratados con quimioterapia convencional (DESTINY Breast Respond HER2-low Europe) - Daiichi Sankyo Europe GmbH, DS8201-0005-NIS-MA

Javier Loscertales: "RETROSPECTIVE OBSERVATIONAL STUDY TO CHARACTERISE PATIENTS WITH CHRONICLYMPHOCYTIC LEUKAEMIA TREATED WITH ZANUBRUTINIB IN ROUTINE CLINICAL PRACTICE IN SPAIN. ReaLLCZaStudy" - BeiGene ES S.L.U., ReaLLCZa(BGB-3111-MA-SP-401)

Dolores Ochoa Mazarro: ENSAYO CLÍNICO CRUZADO, ALEATORIZADO DE BIOEQUIVALENCIA DE VORTIOXETI-

NA 20 mg COMPRIMIDOS RECUBIERTOS CON PELÍCULA, TRAS SU ADMINISTRACIÓN ORAL EN DOSIS ÚNICA A VOLUNTARIOS SANOS EN AYUNAS - Laboratorios Normon; N-VOT-24-292

Dolores Ochoa Mazarro: "Ensayo clínico cruzado y aleatorizado de bioequivalencia de vortioxetina 20 mg comprimidos recubiertos con película, tras su administración oral en dosis única a voluntarios sanos en ayunas" - Laboratorios Alter, UECHUP-VOR/24-5

Adrian Alegre Amor: Estudio no intervencionista de melfalán flufenamida (melflufen, Pepaxti®) en combinación con dexametasona en pacientes con mieloma múltiple recidivante y/o refractario (MMRR) en España, de acuerdo con la indicación aprobada - Oncopeptides AB, OP-115

Gemma Reig Roselló: Registro clínico de pacientes con ictus hemorrágico de la Comunidad de Madrid - Ricardo Jaime y Rigual Bobillo, Mad-RICH

Javier Loscertales: Estudio descriptivo prospectivo no intervencionista para evaluar el impacto en el bienestar del paciente de los regímenes orales de duración fija (FTD) y continuos para la leucemia linfocítica crónica en primera línea de tratamiento y en recaída/refractariedad (R/R) en la práctica clínica habitual en España (PROVIDENCE) - Abbvie Spain, P24-280

Borja Quiroga: Eficacia de la colchicina en prevención secundaria de eventos vasculares y progresión renal en pacientes con enfermedad renal crónica moderada (estudio ColchiRen). - FUNDACION INVESTIGACION BIOMEDICA H. GREGORIO MARAÑÓN, FIBHGM-ECNC002-2022

Dolores Ochoa Mazarro: ENSAYO CLÍNICO ALEATORIZADO DE BIOEQUIVALENCIA DE ZETIMIBA/ATORVASTATINA 10 mg/80 mg COMPRIMIDOS VERSUS EZETIMIBA/ATORVASTATINA 10 mg/80 mg COMPRIMIDOS RECUBIERTOS CON PELÍCULA, TRAS SU ADMINISTRACIÓN ORAL EN DOSIS ÚNICA A VOLUNTARIOS SANOS EN AYUNAS CON DISEÑO CRUZADO REPLICADO" - Laboratorios Normon, N-EZEAT0-24-293

Pablo Díez Villanueva: "Estudio observacional retrospectivo para describir los patrones de tratamiento en el mundo real y el perfil clínico de los pacientes con insuficiencia cardíaca crónica y fracción de eyección reducida tratados con vericiguat en la práctica clínica habitual en España: Estudio VERIPRACT - BAYER HISPANIA S.L.U., 22774

Dolores Ochoa Mazarro: "Ensayo clínico cruzado y aleatorizado de bioequivalencia de escitalopram 20 mg cápsulas versus escitalopram 20 mg comprimidos recubiertos con película, tras su administración oral en dosis única a voluntarios sanos en ayunas" - Laboratorios Alter: UECHUP-ESC/25-1

García de Vicuña: "Estudio prospectivo de varios países, de la vida real, de varios grupos sobre la persistencia del tratamiento con risankizumab en la artritis psoriásica (PERIS)" - Abbvie, P24-390

Pablo Díez Villanueva: Estudio no intervencionista sobre el tratamiento con ácido bempedoico y/o su combinación de dosis fija con ezetimiba en la práctica clínica habitual en pacientes con hipercolesterolemia primaria o dislipidemia mixta - Daiichi Sankyo Europe GmbH, DSE-BMP-01-20-EU

Mar Llamas: "Estudio de fase III, multicéntrico, aleatorizado, doble ciego, controlado con placebo y comparador activo para evaluar la eficacia y la seguridad de ESK-001 en pacientes con psoriasis en placas de moderada a grave" - Alumis Inc, ESK-001-017

Ignacio de los Santos: Un ensayo clínico fase IV adaptativo, multicéntrico, controlado, aleatorizado y simple ciego para evaluar la eficacia, seguridad y coste eficacia de una estrategia de genotipado anticipado en una población en riesgo de enfermedad cardiovascular y susceptible de recibir de estatinas de alta o moderada intensidad - FIB Hospital Universitario La Paz, PREVESTATGx

Mar Llamas: Estudio de fase 3, multicéntrico, aleatorizado, doble ciego, controlado con placebo y comparador activo de ustekinumab para evaluar la eficacia y seguridad de JNJ-77242113 en el tratamiento de participantes con psoriasis en placas de moderada a grave- JANSSEN-CILAG S.A., 77242113PSO3006 (ICONIC-ASCEND)

Mar Llamas: Un estudio de fase 2b, multicéntrico, aleatorizado, doble ciego, controlado con placebo y activo, de dosis variable, para evaluar la eficacia y seguridad de JNJ-95475939 en el tratamiento de participantes con dermatitis atópica de moderada a grave - JANSSEN-CILAG S.A., 95475939ADM2001 (DUPLEX-AD)

Adrián Alegre: Ensayo clínico abierto de fase I/IIa para evaluar la seguridad y eficacia de CCS1477 en monoterapia y en combinación en pacientes con neoplasias hematológicas avanzadas - CellCentric Ltd, CCS1477-02

Virginia Meca: "Estudio de Prevalencia de Fenotipos de Esclerosis Múltiple en pacientes adultos diagnosticados con Esclerosis Múltiple en España (EFE-EME)": SANOFI, EFE-EME-2024-01

Monica Marazuela: "Estudio en fase IIb, aleatorizado, doble ciego, controlado con placebo para evaluar la eficacia, seguridad y tolerabilidad de IMVT-1402 como tratamiento para pacientes adultos con enfermedad de Graves" - Immunovant Sciences GmbH, IMVT-1402-2502

Isidoro Gonzalez: Eficacia, seguridad y coste-efectividad de un modelo predictivo de remisión persistente basado en biomarcadores en pacientes con artritis reumatoide sometidos a optimización de terapia biológica (REMRABIT-plus) - Francisco J. Blanco García (Hospital Universitario La Coruña), REMRABIT-plus

Adrián Alegre: Estudio retrospectivo y multicéntrico de los resultados clínicos en pacientes con mieloma múltiple en recaída/refractario tratados con redirigidores de células T fuera de ensayos clínicos. - JANSSEN PHARMACEUTICA N.V., 64007957MMY4004

Carmen Ramos: Estudio de fase III, aleatorizado, doble ciego, controlado con placebo y de grupos paralelos para demostrar la eficacia y la seguridad de milvexán, un inhibidor oral del factor XIa, para la prevención de accidentes cerebrovasculares después de un accidente cerebrovascular isquémico agudo o un accidente isquémico transitorio de alto riesgo - Janssen Research & Development LLC, 70033093STR3001 STROKE

Virginia Meca: Estudio europeo observacional, prospectivo y multicéntrico para valorar la satisfacción con el tratamiento, la preferencia de tratamiento, la calidad de vida y la tolerabilidad al tratamiento con Briumvi® para diferentes formas de esclerosis múltiple recurrente (EMR) con enfermedad activa en la práctica clínica habitual (estudio BRILL-EU) - Neuraxpharm Pharmaceuticals, BRILL-EU

Ana García-Noblejas: Estudio fase II, multicéntrico, abierto y de un brazo de acalabrutinib, en combinación con el estándar de tratamiento R-CHOP, para el linfoma de células del manto no tratado previamente en España. - AstraZeneca, SOUND (D8220L00087)

Virginia Meca: Estudio de fase 3, doble ciego, aleatorizado, comparando la eficacia y seguridad de frexalimab (SAR441344) con placebo en participantes adultos con Esclerosis Múltiple Secundaria Progresiva sin recaídas. - SANOFI, EFC17504

Dolores Ochoa Mazarro: ENSAYO CLÍNICO CRUZADO Y ALEATORIZADO DE BIOEQUIVALENCIA DE DAPAGLIFLOZINA/METFORMINA 5 MG/850 MG COMPRIMIDOS RECUBIERTOS CON PELÍCULA, TRAS SU ADMINISTRACIÓN ORAL EN DOSIS ÚNICA A VOLUNTARIOS SANOS EN PRESENCIA DE ALIMENTOS - Laboratorio Normon, N-DAPMET-24-286

Javier Perez Gisbert: Validación de biomarcadores multiómicos predictores de respuesta terapéutica en pacientes con enfermedad inflamatoria intestinal: un paso hacia la medicina personalizada - Fundación para la Investigación Biomédica del Hospital Universitario de La Princesa, GIS-2024-BiolBD-2

Esther Ramirez: Registro de pacientes en tratamiento con más de una terapia biológica o molécula sintética dirigida para la misma o distinta patología (PROYECTO BIBIOL) - Fundación Española de Farmacia Hospitalaria, FEF-BIBIOL-2024

Dolores Ochoa Mazarro: "Estudio clínico y traslacional fase I, aleatorizado, doble ciego, controlado con placebo, unicéntrico, para investigar la seguridad, tolerabilidad y farmacocinética de plitidepsina administrada por vía intravenosa (i.v.) en dosis única a voluntarios sanos." - Pharmamar, HV-APL-A-001-24

Dolores Ochoa Mazarro: Ensayo clínico cruzado y aleatorizado de bioequivalencia de edoxabán 60 mg comprimidos versus edoxabán 60 mg comprimidos recubiertos con película, tras su administración oral en dosis única a voluntarios sanos en ayunas. - Laboratorios Alter, UECHUP-EDO/25-2

Fernando Alfonso: Comparación Entre toMografía de coherencia óptica y Ecografía inTRAvascular para lesiones intermedias de TRonco coronario IZquierdo (Estudio EMPERATRIZ) - Fundación EPIC, EPIC36

Fernando Alfonso: "BIOTRONIK - Seguridad y rendimiento clínico del scaffold de magnesio coronario reabsorbible y farmacoactivo (Freesolve®) en el tratamiento de pacientes con lesiones de novo en arterias coronarias nativas: Un estudio controlado aleatorizado (BIO-MAG-II)" - Biotronik AG, C1801

Dolores Ochoa Mazarro: A Phase I, randomized, consecutive dose, double blind, parallel study comparing the PK, PD, immunogenicity, safety and tolerability of LB-0702 and Nplate® in healthy volunteers - LABORATORIO REIG JOFRE, S.A., RJ-ROM02

Diego de Argila Fernández-Durán: Estudio exploratorio aleatorizado, doble ciego (participante e investigador), controlado con placebo, de 12 semanas para evaluar la eficacia y la seguridad y explorar el mecanismo de acción de remibrutinib (LOU064) en pacientes adultos con urticaria crónica - NOVARTIS FARMACÉUTICA S.A., CLOU064M12101

Dolores Ochoa Mazarro: Ensayo clínico cruzado y aleatorizado de bioequivalencia de escitalopram 10 mg cápsulas versus escitalopram 10 mg comprimidos recubiertos con película, tras su administración oral en dosis única a voluntarios sanos en ayunas - Normon, N-LOP-25-296

Luisa García Buey: Proof-of-concept Phase II study to evaluate the efficacy and safety of prednisone in the treatment of idiosyncratic hepatotoxicity and its mechanistic pathways through an integrative analysis: the DILI-CORT clinical trial - Fundación Pública Andaluza para la Investigación de Málaga en Biomedicina y Salud (FIMABIS), DILICORT-2024

Fernando Ramasco: Estudio prospectivo, aleatorizado y simple ciego comparando el laringoscopia directa y el videolaringoscopia para la intubación orotraqueal realizada por residentes de anestesia en pacientes quirúrgicos - M^o José Bermúdez López (Fundación Galega de Investigación Sanitaria IDIS), VILARE-Study

Lydia Lopez Manzanares: Estudio en fase II, multicéntrico, aleatorizado, doble ciego, de grupos paralelos y controlado con placebo para evaluar la eficacia y la seguridad de IPN10200 como tratamiento para la distonía cervical en participantes adultos - IPSEN, CLIN-10200-457

Carlos Blanco: Estudio Retrospectivo de Valoración de la Efectividad y Seguridad de Clustoid - INMUNOTEK, S.L., ITK-CLU-2024-04

Lydia Lopez Manzanares: Estudio de fase II, multicéntrico, con doble enmascaramiento, aleatorizado, controlado con placebo y con grupos paralelos de TEV-56286 para el tratamiento de pacientes con atrofia multisistémica - Teva Branded Pharmaceutical Products R&D LLC, TV56286-NDG-20039

Lydia Lopez Manzanares: Estudio en fase III, multicéntrico, aleatorizado, con doble enmascaramiento y controlado con placebo de CVN424 en pacientes con enfermedad de Parkinson con complicaciones motoras - Cerevance Beta, Inc., CVN424-301

Fernando Alfonso: Estudio del Registro PMCF Catéter con balón liberador de paclitaxel Support C - Orbus-Neich, DVAL-PLAN-063

Claudia Alvargonzález: UTILIZACIÓN DE VASOPRESINA EN EL SHOCK SÉPTICO - Jamil Cedeño Mora, VASO-2024

Javier Perez Gisbert: Programa de fase 3, aleatorizado, doble ciego y controlado con placebo para evaluar la eficacia y la seguridad de MK-7240 en participantes con colitis ulcerosa activa moderada o grave"- Estudio 2 - Merck Sharp and Dohme, MK-7240-001

María Chaparro y Javier Perez Gisbert Safety of IBD drugs during pregnancy and breastfeeding: mothers and babies' outcomes (DUMBO 2 registry) D. Javier Pérez Gisbert /María Chaparro GIS-DUMBO 2-2024

Sara Jimenez Blanco Manejo nutricional del paciente con DMT2 en riesgo nutricional o desnutrición, en la práctica clínica. Estudio STARLIGHT. OUTCOMES'10 Nes-252

Ramón Colomer: ESTUDIO DE FASE III MULTICÉNTRICO, ALEATORIZADO, DOBLE CIEGO, CONTROLADO CON PLACEBO PARA EVALUAR LA EFICACIA Y SEGURIDAD DE INAVOLISIB MÁS UN INHIBIDOR DE CDK4/6 Y LETROZOL COMPARADO CON PLACEBO MÁS UN INHIBIDOR DE CDK4/6 Y LETROZOL EN PACIENTES CON CÁNCER DE MAMA AVANZADO HORMONODEPENDIENTE CON MUTACIÓN DE PIK3CA, POSITIVO PARA RECEPTORES HORMONALES Y HER2 NEGATIVO - Roche, W045654

Dolores Ochoa Mazarro: Ensayo clínico cruzado y aleatorizado de bioequivalencia de escitalopram 10 mg cápsulas versus escitalopram 10 mg comprimidos recubiertos con película, tras su administración oral en dosis única a voluntarios sanos en ayunas. - Laboratorios Alter, S.A., UECHUP-ESC/25-3

Esther Ramírez: "Evaluación de los resultados reportados por el paciente con un modelo asistencia sanitaria basada en valor de los pacientes en tratamiento con medicamentos hospitalarios de dispensación ambulatoria (MHDA) y de Hospital de día." - Farmacéuticos Unidades de Pacientes Externos Illes Balears (FARUPEIB), Teleprom-Naveta

Berta Hernández Marín: "Estudio de fase 3, abierto y aleatorizado de MK-2870 combinado con pembrolizumab en comparación con pembrolizumab en monoterapia en el tratamiento de primera línea de participantes con cáncer de pulmón no microcítico metastásico con una TPS de PD-L1 superior o igual al 50% (TroFuse-007)" - Merck, Sharp & Dohme España, S.A., MK-2870-007

Rosario García de Vicuña: Ensayo de fase IIa, doble ciego, aleatorizado, de grupos paralelos y controlado con placebo para investigar los efectos de tres niveles de

dosis de CIT-013 en la actividad de la enfermedad en pacientes con artritis reumatoide moderadamente activa. - Citryll, Citydream

Dolores Ochoa Mazarro: ENSAYO CLÍNICO CRUZADO, ALEATORIZADO DE BIOEQUIVALENCIA DE LINAGLIPTINA 5 mg COMPRIMIDOS RECUBIERTOS CON PELÍCULA, TRAS SU ADMINISTRACIÓN ORAL EN DOSIS ÚNICA A VOLUNTARIOS SANOS EN AYUNAS - Laboratorio NORMON, N-LIA-25-297

María del Valle Gomez Garcia de Soria: A Global Multi-center, Open Label, Randomized, Phase 3 registration Study of Olverembatinib (HQP1351) in Patients with Chronic Phase Chronic Myeloid Leukemia - Ascentage Pharma Group Inc, POLARIS-2

Javier Loscertales: estudio de fase 3 aleatorizado, abierto y multicéntrico de Sonrotoclast más anticuerpos anti-CD20 frente a venetoclax más rituximab en pacientes con leucemia linfocítica crónica/pequeña leucemia linfocítica crónica recidivante/refractaria. - Beigene LTD, BGB-11417-303/CLL-RR1

María Aguilera García: Evaluación del impacto en la vida real del cambio de TAR oral diaria a CAB LA + RPV LA en la satisfacción, aceptación del tratamiento y calidad de vida relacionada con la salud" - Fundación SEISIDA, SEISIDA 01/2024 (PROLA Study)

Dolores Ochoa Mazarro: Ensayo clínico cruzado y aleatorizado de bioequivalencia de memantina 20 mg cápsulas versus memantina 20 mg comprimidos recubiertos con película, tras su administración oral en dosis única a voluntarios sanos en ayunas. - Alter, UECHUP-MEM/25-6

María de Toledo Heras: Ensayo clínico de extensión abierto de vormatrigina en pacientes adultos con epilepsia - Praxis Precision Medicines, Inc, PRAX-628-323

Aris Pérez Lucendo: Sedación Inhalada en el Enfermo Crítico: Ensayo Clínico Multicéntrico y Aleatorizado - FIB Hospital Universitario La Paz, SI-CRITIC

Maite Carreras: ESTUDIO DE FASE III, MULTICÉNTRICO, ALEATORIZADO, DOBLE CIEGO, CONTROLADO CON PLACEBO Y DE GRUPOS PARALELOS PARA EVALUAR LA EFICACIA Y LA SEGURIDAD DE TRONTINEMAB EN PARTICIPANTES CON ENFERMEDAD DE ALZHEIMER (EA) SINTOMÁTICA TEMPRANA (DE DETERIORO COGNITIVO LEVE A DEMENCIA LEVE POR EA) - Roche, WN45443

Noemí Gilabert González: Ensayo de superioridad de fase III, doble ciego, aleatorizado y con grupos paralelos para evaluar la eficacia y la seguridad del uso combinado de vicadrostal (BI 690517) y de empagliflozina por vía oral en comparación con placebo y empagliflozina en participantes con diabetes tipo 2, hipertensión y enfermedad cardiovascular establecida - BOEHRINGER INGELHEIM ESPAÑA, S.A, 1378-0041

Ana Beatriz Gago Veiga: AN INTERVENTIONAL EFFICACY AND SAFETY, PHASE 3, DOUBLE-BLIND, PARALLEL

GROUP STUDY TO INVESTIGATE INTERMITTENT PREVENTION OF MENSTRUAL MIGRAINE WITH RIMEGEPANT COMPARED WITH PLACEBO IN WOMEN PARTICIPANTS 18 TO 45 YEARS OF AGE- Pfizer, C491063

Dolores Ochoa Mazarro: Ensayo clínico cruzado, aleatorizado de bioequivalencia de loperamida 2 mg cápsulas duras, tras su administración oral en dosis única a voluntarios sanos en presencia de alimentos. - Laboratorios Normon, N-LOP-25-298

Javier Loscertales: Preferencias de pacientes y hematólogos respecto al tratamiento de la LLC tras BTKi: un experimento de elección discreta en España. - Lilly SAU, 2024-14015

Ana Isabel Ballesteros García: Estudio fase III, aleatorizado, multicéntrico y controlado con placebo para evaluar la eficacia y la seguridad del péptido HER2/neu GLSI-100 (GP2 + GM-CSF) en sujetos con enfermedad residual o RCp de alto riesgo HER2/neu positivo tras tratamiento neoadyuvante y terapia adyuvante basada en trastuzumab - Greenwich LifeSciences, Inc, GLSI-21-01

Lydia López: "Estudio de fase II, aleatorizado, con doble ciego, controlado con placebo para evaluar la seguridad y eficacia de NEU-411 en participantes en etapa temprana de la enfermedad de Parkinson con prueba diagnóstica complementaria positiva (NEULARK)" - Neuron23, Inc, NEU-411-PD201

Carlos Blanco: "Ensayo clínico de eficacia y seguridad, prospectivo, multicéntrico, aleatorizado, doble ciego controlado con placebo, con inmunoterapia subcutánea en pacientes con rinitis/rinoconjuntivitis con o sin asma de leve a moderada sensibilizados a gramíneas y cupresáceas." - INMUNOTEK, S.L., DMV02-SIT-026

Pablo Chicharro Manso: Estudio plataforma de fase II, multicéntrico, aleatorizado, doble ciego y controlado con placebo para evaluar la eficacia y la seguridad de los compuestos en investigación en pacientes con dermatitis atópica de moderada a grave - Novartis, CADP-T17A12201

Virginia Meca: Estudio abierto, de un solo grupo, para evaluar la farmacocinética, los efectos farmacodinámicos, la seguridad y la tolerabilidad de fenebrutinib en niños y adolescentes con esclerosis múltiple recurrente - Roche, CN45847

Javier Perez Gisbert: "Ensayo de Fase 2b/3 aleatorizado, doble Ciego, controlado con Placebo, de grupos paralelos, multicéntrico para evaluar la eficacia y seguridad de icotrokinra en pacientes con enfermedad de crohn activa de moderada a grave."- Janssen, 77242113CRD3001

Javier Perez Gisbert: "Ensayo de fase 3 aleatorizado, doble ciego, controlado con placebo, de grupos paralelos, multicéntrico en adultos con un estudio abierto en adolescentes para evaluar la eficacia y seguridad de la terapia de inducción y de mantenimiento con icotrokinra en pacientes con colitis ulcerosa activa moderada a grave" - Janssen: 77242113UC03001

Ignacio de los Santos Gil: Estudio de fase 2b, aleatorizado, abierto y controlado con tratamiento activo que evalúa la seguridad y la eficacia de regímenes de dos medicamentos, con VH4524184 más Rilpivirina inyectable y con VH4524184 más Emtricitabina y Tenofovir Alafenamida oral, en personas con VIH-1 vírémicas que no han recibido tratamiento previo. [Estudio INNOVATE]"- Viiv Healthcare UK Limited; 222638 INNOVATE

Rybel Wix: "Retrospective, non-interventional multicenter study on the effect of QUVIVIQ in patients with insomnia disorder with comorbid anxiety and/or depression disorders" - Idorsia Pharmaceuticals Germany GmbH, ID-078A407

Marcos Lahera: Características de los pacientes, patrones de tratamiento, efectividad y seguridad de tirzepatida en el tratamiento de la obesidad en la práctica clínica real en España. Estudio AVANZ-O. - Lilly S.A, AVANZ-O study

Alicia Justel Enríquez: Estudio de fase III, aleatorizado, doble ciego y comparativo con placebo para investigar el efecto de la muvalaplina en la disminución de los episodios cardiovasculares adversos graves en adultos con lipoproteína (a) elevada que han tenido un episodio cardiovascular aterosclerótico previo o que están en riesgo de presentar un primer episodio cardiovascular aterosclerótico - MOVE-Lp(a) - Lilly S.A., J20-MC-EKGB

Lydia Lopez Manzanares: Estudio observacional que evalúa la efectividad de la solución para perfusión subcutánea de pLD/pCD en las alteraciones del sueño en la enfermedad de Parkinson avanzado - Estudio ONIROS - Abbvie, P25-423 (ONIROS)

Lydia Lopez Manzanares: ESTUDIO DE FASE III, MULTICÉNTRICO, ALEATORIZADO, CON DOBLE ENMASCARAMIENTO Y COMPARATIVO CON PLACEBO PARA EVALUAR LA EFICACIA Y LA SEGURIDAD DE PRASINEZUMAB INTRAVENOSO EN PARTICIPANTES CON ENFERMEDAD DE PARKINSON INCIPIENTE - Roche, BN44715

Barbara Baladín Moreno: DISEÑO DE UN MODELO PREDICTIVO DE MORTALIDAD EN PACIENTES CRÍTICOS COLONIZADOS POR BACTERIAS GRAM NEGATIVAS MULTIRRESISTENTES. ESTUDIO MR-GEIPC" - FUNDACIÓN SEIMC-GESIDA

Dolores Ochoa Mazarro: Estudio clínico de fase I, aleatorizado, abierto y cruzado, para evaluar la biodisponibilidad de una formulación de liberación prolongada que combina melatonina (1,98 mg) y extracto de Valeriana officinalis (500 mg, equivalente a 4 mg de ácido valerénico) [Oniria Plus®], y una melatonina de liberación inmediata (1,98 mg), tras administración oral en dosis única en voluntarios sanos - ITF RESEARCH PHARMA, S.L.U, RES-6176-C1

Miguel Antonio Sampedro Núñez: "ESTUDIO FINE. Función tras Intervención Nutricional Específica con FOEH. Impacto en el estado nutricional (valoración morfofuncional) en el paciente con malabsorción/maldigestión:

efecto de las fórmulas extensamente hidrolizadas"" - DANONE NUTRICIA, S.R.L, FINE

Fernando Alfonso: Estudio global de fase 3, aleatorizado, doble ciego y controlado con placebo para evaluar la eficacia y la seguridad del zilebesirán añadido al tratamiento habitual, para reducir los acontecimientos adversos cardiovasculares graves en pacientes adultos con hipertensión arterial no controlada de forma adecuada y con enfermedad cardiovascular establecida o alto riesgo de enfermedad cardiovascular - European Cardiovascular Research Institute (ECRI-16), ZEPHYR

Lydia Lopez Manzanares: Ensayo en fase II, de prolongación sin enmascaramiento y multicéntrico, para describir la seguridad y la eficacia de TEV-56286 (Emrusolmin) en participantes con atrofia multisistémica - TEVA, TV56286-NDG-20041

Patricia Toquero: Estudio en fase III, abierto, aleatorizado y controlado de disitamab vedotina en combinación con pembrolizumab frente a quimioterapia en pacientes con carcinoma urotelial localmente avanzado o metastásico sin tratamiento previo que expresa HER2 (IHQ 1+ y superior) - Pfizer, SGNDV-001

Violeta Samperiz: COHORTE AMBISPECTIVA GESIDA PARA ESTUDIO DE PACIENTES MIGRANTES QUE VIVEN CON VIH Y REALIZAN TRATAMIENTO Y SEGUIMIENTO EN ESPAÑA - GESIDA, GESIDA 12625

Dolores Ochoa: Estudio clínico fase I, doble ciego, aleatorizado, controlado por placebo para investigar la seguridad, tolerabilidad, farmacocinética y el efecto de alimentos en la administración única y en dosis múltiple de AP-2 en voluntarios sanos. - Molefy Pharma, MOLEFY-AP-2-2025-PHASE I

Mayte Carreras: PRESELECCIÓN DE BIOMARCADORES EN SANGRE CON EL INMUNOENSAYO ELECSYS® PHOSPHO-TAU (217P) EN PLASMA PARA EL ESTUDIO TRAVELLER (WP45722). - ROCHE FARMA, S.A, WP45722

Fernando Alfonso: Estudio prospectivo, aleatorizado, multicéntrico, abierto, guiado por eventos, para evaluar la no inferioridad de una estrategia personalizada de precisión para la prevención de la muerte súbita en pacientes con miocardiopatía dilatada no isquémica - CIBER, SPANISH-I

Mar Llamas Velasco: Estudio observacional, ambispectivo y exploratorio sobre las características de los pacientes que influyen en las decisiones de los médicos con respecto al tratamiento con tildrakizumab - GESIDA, TIL-SHAPE

Maria Auxiliadora Bajo: "A Phase 2b / 3, Multicenter, Randomized, Double-Blind, Placebo-Controlled, Combined Dose-Finding and Cardiovascular Outcome Study to Investigate the Efficacy and Safety of CSL300 (Clazakizumab) in Subjects with End Stage Kidney Disease Undergoing Dialysis (POSIBIL6ESKD)" - CSL Innovation GmbH, CSL-300-2301

Virginia Meca: Estudio en Fase II, Metacéntrico, Aleatorizado, Abierto y de Grupos Paralelos para Evaluar la Bioequivalencia de dos Formulaciones Subcutáneas de Ocrelizumab En Pacientes con Esclerosis Múltiple - ROCHE FARMA, S.A, CN45320

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The Institute is firmly committed to strengthening the societal impact of its activities through effective scientific communication and meaningful public engagement. For the first time, this Scientific Report includes an overview dedicated to selected initiatives developed in these areas. This marks the beginning of an ongoing

effort to explore new ways of bringing science beyond the “four walls” of research institutions and communicating it clearly and appropriately to citizens, whose perspectives and participation are essential to the research process.

TRANSLATION INTO CLINICAL PRACTICE

The research groups of IIS-Princesa have carried out a broad range of actions aimed at facilitating the transfer of scientific knowledge into clinical practice. These initiatives reflect the Institute’s commitment to ensuring that research activity contributes directly to the improvement of diagnosis, treatment, clinical decision-making, patient monitoring and healthcare organization.

Medical and digital health devices

Several groups have promoted the incorporation of technological and digital health solutions into clinical care. In **Area 1**, Group 25 contributed to the implementation of a smart cap connected to an insulin pen, following an investigator-initiated randomised clinical trial conducted without funding from the industry. The results of this study supported the translation of this device into routine clinical practice in the Endocrinology Department.

In **Area 4**, Group 48 developed the DESCAFIB project, in collaboration with Primary Care, to evaluate the use of artificial intelligence applied to conventional ECG, together with follow-up through a smart watch, for the early identification of individuals at increased risk of silent atrial fibrillation. This approach is intended to improve early detection and reduce complications such as cardioembolic stroke.

In **Area 2**, Group 35 advanced the use of virtual reality-based rehabilitation in patients with multiple sclerosis, contributing to the incorporation of innovative digital tools into neurological rehabilitation.

Translation of clinical trial results

The translation of clinical trial results into care pathways has also been a significant area of activity. In **Area 1**, Group 38 applied the results of the EXIT clinical trial to the management of inflammatory bowel disease, particularly regarding the withdrawal or de-escalation of anti-TNF therapy in patients in deep remission. This work supports candidate selection, shared decision-making, close monitoring, and early treatment reintroduction in the event of disease reactivation.

Also in **Area 1**, Group 15 transferred the core elements of the ILO Study protocol, focused on the treatment of children with severe cow milk allergy, to real-life clinical practice. Although the trial has not yet been completed, preliminary positive results enabled its successful application in patients outside the clinical trial setting.

In **Area 2**, Group 35 contributed to the incorporation of new therapeutic options in headache and multiple sclerosis care. The GEMA Study supported the use of atogepant and rimegepant in highly refractory patients with previous treatment failures with monoclonal antibodies. In multiple sclerosis, evidence from clinical trials

contributed to the implementation of treatments such as ozanimod, ponesimod, ocrelizumab, ofatumumab, tolebrutinib and fingolimod in patients under 18 years of age, expanding the therapeutic options available for specific patient populations.

Clinical practice guidelines, consensus documents, registries and harmonised recommendations

Participation in clinical practice guidelines, consensus documents, clinical registries and harmonised recommendations represents an important pathway for translating research into clinical practice. Through these activities, IIS-Princesa research groups contribute to the standardisation of care, the incorporation of scientific evidence into clinical decision-making, and the dissemination of specialised knowledge at national and international level.

In **Area 1**, Group 38 contributed to the optimisation of *Helicobacter pylori* treatment through consensus documents and the Hp-EuReg registry. This work has supported the use of effective quadruple therapies, rational rescue treatments, improved adherence and systematic confirmation of eradication, with potential transferability to Primary Care and other European clinical environments.

The same group contributed to the implementation of ECCO and GETECCU recommendations in inflammatory bowel disease, particularly in relation to advanced therapies, safety and vaccination. These recommendations support infectious screening, vaccination, risk stratification, individualised therapeutic selection and treat-to-target monitoring in a unit caring for more than 2,500 patients. Group 38 also participated in the clinical management of pregnancy, breastfeeding, and in utero exposure in inflammatory bowel disease, incorporating the 2025 Global Consensus Statement into clinical care. This work supports preconception counselling, coordination between Digestive Diseases and Obstetrics, therapeutic planning and neonatal vaccination strategies.

In **Area 1**, Group 15 contributed to an international clinical guideline on the diagnosis of anaphylaxis, reinforcing the transfer of specialised allergy research into harmonised international recommendations.

In **Area 2**, Group 35 participated in a consensus document on the use of biomarkers in clinical practice and contributed to the Spanish Headache Guidelines of the Spanish Society of Neurology. These actions support the incorporation of specialised neurological knowledge into routine care and national clinical recommendations.

Group 35 also played an active role in the standardisation of headache and epilepsy care. Its contributions included the authorship and coordination of the *Manual*

de práctica clínica en cefaleas. Recomendaciones diagnóstico-terapéuticas de la SEN, the Guía de práctica enfermera en migraña. SEDENE, a transition protocol for patients with epilepsy moving from paediatric to adult care, and a protocol for crisis code and urgent care in severe epileptic seizures.

In the field of infectious diseases, **Area 1**, Group 50 participated in the update of several GESIDA clinical practice guidelines, including post-exposure prophylaxis against HIV, antiretroviral treatment and immunisation in people living with HIV. These contributions are linked to the group’s clinical research in HIV prevention, treatment, vaccination, national cohorts and clinical trials, and have an impact across HIV units in the Spanish National Health System.

Research-derived clinical programmes and care structures

Several actions led to the consolidation of clinical programmes and care structures directly derived from research activity. In **Area 1**, Group 50 consolidated the hospital care programme for pre-exposure prophylaxis against HIV. This programme is linked to prospective cohorts of PrEP users, research projects, doctoral work, implementation studies, and national scientific communications. Its integration into clinical practice enables continuous monitoring of safety, effectiveness, persistence, and quality of care, while supporting individualised follow-up strategies.

The same group consolidated the screening programme for HPV-associated anal preneoplastic lesions in people living with HIV. Connected to the ENCAARNA registry, research projects and national consensus work on sexually transmitted infections, this programme has strengthened screening through anal cytology and high-resolution anoscopy, while incorporating clinical research to optimize risk stratification and follow-up.

Group 50 also launched a monographic clinic for Imported Pathology and Emerging Diseases. This structure integrates care, research and epidemiological surveillance, improving specialised clinical attention, early detection, patient inclusion in clinical studies and coordination with Public Health and other specialties.

In addition, the group implemented an institutional protocol for the study of vaccine response and IgG subclass determination in immunocompromised patients, together with a multidisciplinary immunoglobulin committee. This action provides a structured pathway for clinical assessment and supports homogeneous, evidence-based decision-making regarding immunoglobulin replacement therapy.

Research-derived institutional protocols

Research activity has also informed the development and update of institutional clinical protocols. In **Area 1**, Group 50 implemented a protocol for the treatment of infections caused by Gram-negative bacilli with limited therapeutic options. This protocol derives from the group's work on antimicrobial resistance and antibiotic treatment optimisation, including PROA activity and multicentre research projects, and provides a therapeutic algorithm adapted to local epidemiology.

The same group updated the institutional protocol for post-exposure prophylaxis against HIV, incorporating current scientific evidence into the management of occupational and non-occupational exposures. It also implemented a protocol for ophthalmological screening in patients with candidemia, standardising the indication for fundus examination in patients treated at Hospital Universitario de La Princesa.

SCIENTIFIC COMMUNICATION AND CITIZEN PARTICIPATION

Committees with non-scientific members: 3

Initiatives Involving Citizen Participation

Participation in project teams or structures

- Representatives of ACCU España have actively participated in the design of project PI25-00971, led by Dr María Chaparro, as members of its Scientific Advisory Committee. Their involvement will continue throughout the study through the interpretation and dissemination of results, review of patient information materials, and participation in focus groups.

Citizen consultation on clinical applicability

- On 4 December 2025, the EUPATI event "Innovation vs Novelty: When Do Changes Really Occur?" brought together patients, healthcare professionals and experts to discuss how the patient voice can be incorporated into healthcare and therapeutic innovation. The initiative promoted active and informed patient participation in the development and evaluation of new treatments.

National consensus and knowledge transfer documents

Finally, Group 50 participated in the preparation and implementation of the national Consensus Document on the Diagnosis and Treatment of Sexually Transmitted Infections, promoted by the Ministry of Health and SEIMC. Based on systematic evidence review and multidisciplinary consensus, this document serves as a national reference for the diagnosis, treatment, prevention and control of sexually transmitted infections.

The group also contributed to the English translation and international dissemination of this consensus document, facilitating the transfer of knowledge generated in the Spanish context to broader clinical and scientific communities.



Communication and dissemination

Scientific communication through specialized journals and conferences remains a cornerstone of biomedical research. Nevertheless, there is increasing recognition among researchers of the importance of engaging with society, particularly given the key role that public funding plays in sustaining research activity. Bringing biomedical research closer to the public not only promotes a better understanding of scientific advances with current or potential applications in human health, but also strengthens transparency, social responsibility, and the development of a more informed and health-conscious society.

At IIS-Princesa, this mission is carried out through the Communications Department of La Princesa University Hospital, in coordination with the Technical Secretariat of IIS-Princesa and in accordance with the guidelines established in the current Communication Plan.

Within this framework, the Communications Committee is responsible for promoting and supporting external communication initiatives aimed at disseminating IIS-Princesa's research activity to society.

Scientific news and institutional updates are disseminated mainly through two channels: the institutional website and the Factor de Impacto newsletter. The Institute's website (<https://www.iis-princesa.org>), redesigned in late 2024 to improve accessibility and user experience,

provides up-to-date information on the activities of research groups, as well as relevant news, training opportunities, conferences, job openings, and other resources. It also offers practical services for the research community, including an alert system for national and international funding opportunities.

In parallel, the Factor de Impacto newsletter, published since 2011 in both print and digital formats, highlights the main scientific achievements, institutional developments, and successes of IIS-Princesa researchers. These dissemination activities are further reinforced by the Institute's active participation in Madrid's Science and Innovation Week, where research is presented to the public through accessible and engaging talks designed to make advanced biomedical science understandable and relevant.

Additional communication initiatives are also implemented to bring research closer to citizens. One example is the creation of science-related content for digital signage at both La Princesa University Hospital and the Hermanos García Noblejas Specialty Center.

Finally, interviews with researchers in both general-interest and specialized media, together with thematic reports promoted by the Communications Unit, further complement IIS-Princesa's efforts to disseminate its scientific output and strengthen its connection with society.

SCIENCE WEEK WORKSHOPS

DATE	TITLE	PROFESSOR / DIRECTOR
11 nov	¿Cómo es la vida de un medicamento? Etapas del desarrollo clínico	Farmacología Clínica
11 nov	Investigación traslacional: línea directa entre el laboratorio y el paciente	Unidad de Investigación (HU Santa Cristina)
11 nov	Taller práctico de alergia: qué es la alergia, las pruebas cutáneas y los autoinyectores	Servicio de Alergología

DATE	TITLE	PROFESSOR / DIRECTOR
11 nov	Desmontando las 50 sombras del sexo en dolor crónico	Unidad del Dolor
12 nov	Cerebros y bisturíes en neurocirugía: del quirófano al laboratorio	Servicio de Neurocirugía
12 nov	Biobanco en acción: cómo las muestras impulsan la investigación	Biobanco-HUP
12 nov	Prevención de adicciones de Madrid Salud. Ayuntamiento de Madrid	Departamento de Prevención de Adicciones del IAMS
13 nov	Diagnóstico microbiológico de las enfermedades infecciosas	Servicio de Microbiología
13 nov	Simulación clínica hospital de la princesa abróchense los cinturones	Servicio de Anestesiología y Reanimación
14 nov	¿Cómo es la vida de un medicamento? Etapas del desarrollo clínico	Farmacología Clínica
14 nov	Investigación traslacional en la enfermedad inflamatoria intestinal	Unidad de Enfermedad Inflamatoria Intestinal
17 nov	Cerebros y bisturíes en neurocirugía: del quirófano al laboratorio	Servicio de Neurocirugía
17 nov	Enfermería y ciencia: de la investigación en cuidados al diseño de gemelos digitales	Dirección de Enfermería (HUSC)
17 nov	Cirugía mínimamente invasiva. Cirugía del siglo XXI	Servicio de Cirugía Torácica
18 nov	Cirugía mínimamente invasiva. Cirugía del siglo XXI	Servicio de Cirugía Torácica
18 nov	Tatuajes, piercings y enfermedades de transmisión sexual. Mitos y realidades	Servicio de Dermatología
19 nov	Tatuajes, piercings y enfermedades de transmisión sexual. Mitos y realidades	Servicio de Dermatología
19 nov	Simulación clínica hospital de la princesa abróchense los cinturones	Servicio de Anestesiología y Reanimación
19 nov	Presente y futuro en enfermería, fisioterapia y técnicos superiores especialistas: nuevos roles al servicio de todos	Dirección de Enfermería
20 nov	Diagnóstico microbiológico de las enfermedades infecciosas	Servicio de Microbiología
20 nov	Investigación biomédica traslacional. De la investigación básica a la búsqueda de la aplicación clínica	Unidad de Biología Molecular y Servicio de Aparato Digestivo
21 nov	¿Qué significa respirar? Se explica para que usamos los pulmones y como se alteran con el uso del tabaco	Servicio de Neumología
21 nov	Protocolos convencionales de un laboratorio de biología molecular: extracción de adn, frotis de sangre y conteo celular	Laboratorio de Endocrinología

SEMINARS – IIS-Princesa

DATE	TITLE	PROFESSOR / DIRECTOR
15 jan	La Unidad de Videomicroscopía de Alta Resolución en el IIS-Princesa: Visualización de estructuras.	Dra. Noa Martín-Cófreces
29 jan	Predimigraine: Reimaginando el futuro de la migraña	Dra. Ana Beatriz Gago Veiga / Dra. Iris Fernández Lázaro
5 feb	Convocatorias AES 2025	Dr. Isidoro González Álvaro / Dña. Beatriz Ovejero
12 feb	El factor de transcripción TCFL5 : implicación en leucemias y sistema inmune	Dr. Manuel Fresno Escudero
26 feb	Biobancos: claves para la investigación	Dra. Mara Ortega Gómez

DATE	TITLE	PROFESSOR / DIRECTOR
26 mar	Innovación y colaboración en la lucha frente a las resistencias a antimicrobianos	Dra. Carmen Sáez Béjar
30 may	Nuestros proyectos de inteligencia artificial en la investigación cardiovascular	Dr. Jesús Jiménez Borreguero
12 nov	Hypoxia and Metabolism in health and disease.	Dr. Andrés A. Urrutia Elorduy
17 dic	Estrategias anti-inflamatorias para la protección de la unidad neurovascular en modelos de lesión cerebral aguda.	Dr. Francisco Javier Egea Máiquez

TRAINING PROVIDED AT HOSPITAL UNIVERSITARIO DE LA PRINCESA

DATE	TITLE	PROFESSOR / DIRECTOR
09 jan	Efectos del tabaco sobre la arteria pulmonar: el rol de los receptores nicotínicos	Onofre Munar
16 jan	Response of resident macrophages to peritoneal colorectal tumour metastasis	Margarita Ferriz Salcedo
23 jan	Influence of Graft Immune Cell Composition and Immune Reconstitution on the Outcome of Allogeneic Haematopoietic Stem Cell Transplantation	Paula Díaz Fernández
30 jan	Alteraciones en la expresión de PSGL-1, ADAM8 y L-selectina en el sistema inmune de pacientes con Síndrome de Sjögren primario	Alejandra Ramos Manzano
06 feb	What the cell am I using here? Avances y retos en el análisis transcriptómico: bulk, vs single cell vs spatial RNAseq	Nuria Sánchez de la Blanca
13 feb	Cytosolic translation regulates the asymmetry of activated human CD8 T cells	Dra. Noa Martín Cófreces
20 feb	Modulation and Mechanisms of activation of adaptive NK cells in lung from severe COVID-19 patients	Nicholas Holmes Antón
27 feb	Implicación de las células foliculares tiroideas en la patogénesis de las enfermedades tiroideas autoinmunes: Papel de CD74 y la ferroptosis	Pablo Sacristán
06 mar	Functional, metabolic and transcriptional profiles of distinct memory NK cell subpopulations in people with HIV	María Agudo Lera
13 mar	Novedades y Desafíos: Terapia de Células CAR-T	Melissa Liriano
20 mar	Control of T cell responses by NK-EV specific miRNAs and the exoribonuclease ISG20L2	Sara Dosil
03 apr	Association of Galectin 1 circulating levels with hepatic function and inflammatory markers after liver ischemia-reperfusion	Dra. Danay Cibrián Vera
10 apr	Mapa de modificaciones post-traduccionales presentes en el centrosoma de linfocitos T	Marta Lozano Prieto
24 apr	Estudio del efecto de la terapia combinada anti-TNFα, anti-integrina α4β7 y anti-IL23p19 en modelos in vivo e in vitro de enfermedad inflamatoria intestinal	Fabio Suárez Trujillo
08 may	Descifrando el interactoma de CD69 mediante biotinilación de la enzima APEX2	María Jiménez Fernández
29 may	Microbial metabolism of food allergens determines the severity of IgE-mediated anaphylaxis	Elisa Sánchez Martínez

DATE	TITLE	PROFESSOR / DIRECTOR
05 jun	Arquitectura molecular en enfermedades tiroideas autoinmunes: papel de las histonas deacetilasas y el microambiente celular	Pablo Sacristán
12 jun	Flavanoles de alto peso molecular de la dieta como agentes cardioprotectores en la diabetes tipo 2. Mecanismos moleculares y efectos pre-clínicos y clínicos	Dra. Esther García Díez
19 jun	Identification of new therapeutic targets for Down syndrome; the role of H2s signaling during neurodevelopment.	Rafaela Agostinho
26 jun	How crosstalk at the immune synapse shapes T cell and dendritic cell biology	Dr. Francisco Sánchez-Madrid
03 jul	Impacto de las Proteínas Morfogenéticas Óseas en la progresión de comorbilidades asociadas al Síndrome Metabólico	Stephanía Isaza Chávez
11 sep	Búsqueda de biomarcadores mínimamente invasivos en la esofagitis eosinofílica	Francisca Molina Jiménez
25 sep	Función de c-Myc en las subpoblaciones de linfocitos Tγδ secretores de IL-17 en homeostasis y en un modelo de psoriasis	Inés Espeleta García
02 oct	Estudio y modulación de redes bidireccionales entre inmunidad innata y adaptativa en infección viral e inflamación para el desarrollo de nuevas inmunoterapias	Dr. Enrique Martín Gayo
09 oct	Modelos murinos de lupus y esclerodermia: adecuación a la enfermedad autoinmune	Dra. Esther San Antonio
16 oct	Mecanismos sensores de oxígeno en la biología del epitelio bronquial	Lucía Fernández-Arroyo Camacho
23 oct	Estudio de la Regulación de las Células Natural Killer en Autoinmunidad e Infección Viral Mediada por Células Mieloides, su Impacto en la Respuesta Inmunitaria y en el Desarrollo de Inmunoterapias	Ildefonso Sánchez Cerrillo
30 oct	Transición Mesotelio-Mesénquima como diana terapéutica en diferentes patologías que afectan al peritoneo.	Dr. Manuel López Cabrera
06 nov	El camino de la investigación	Dra. Arantza Alfranca
27 nov	CD4 T cell metabolism is regulated by Slingshot-1 phosphatase via cytoskeletal reorganization and LFA-1 integrin activation	Álvaro Gómez Morón
04 dic	Efectos del humo del tabaco sobre las vías aéreas y la arteria pulmonar. En busca de nuevas dianas para el tratamiento de la EPOC	Jorge Rodríguez Pérez



COURSES ON THE “CONOCIMIENTO PRINCESA” ONLINE PLATFORM

DATE	TITLE	PROFESSOR / DIRECTOR
17 jan - 4 apr	3ED Lectura crítica de artículos científicos (2025)	Alicia González Martínez María Apellániz Ruiz Jesús Novalbos Reina María del Mar Ortega Gómez Miguel Antonio Sampredro Nuria Sánchez de la Blanca Carrero
4 mar - 21 mar	3ED Metodología en investigación Hospital Universitario de la Princesa (2025)	Alicia González Martínez María Apellániz Ruiz Victor Fanjul Mariana Hernández González Sara Jorquera Jesus Novalbos Reina Miguel Antonio Sampredro Nuria Sánchez de la Blanca Carrero Álvaro Sánchez Ferro Ancor Sanz García
12 mar - 4 apr	Actualización en Cáncer Colorrectal: Prevención, Cribado y Diagnóstico (EDICIÓN 02) (2025)	Pablo Miranda Mirella Jiménez Fernando Ramasco Rueda Eukene Rojo
14 apr - 14 may	Actualización en cuidados de enfermería del paciente crítico: UCI, REA y UCC 2025 (2025)	Natalia González García Sonia Teresa Almero Barriga Elena Espíritu Raquel Fernández Leal David Jiménez Jiménez Leticia Martínez Ferreiro Nuria Oliva Illescas José Enrique Partida Márquez María del Mar Puente Cepeda María Jesús Rodríguez Alonso Susana Rodríguez Domínguez María Dolores Rodríguez Huerta Tania Tineo Drove Pablo Villamayor Tirado Rosa María Zamorano Antonio
21 apr - 26 may	BUENAS PRÁCTICAS CLÍNICAS EN LOS ENSAYOS CLÍNICOS ICH E6 (R3) (2025)	Manuel Román Martínez Sergio Luquero Bueno María Dolores Ochoa Mazarro
28 apr - 10 jun	Código Sepsis Princesa (EDICIÓN 12) (2025)	Sara Navarro Ausere Azucena Bautista Hernández Marta Chicot Llano Marianela Ciudad Sañudo Íñigo García Sanz Rosa Méndez Hernández Natalia Pascual Gómez Rafael Peinado Peinado Alberto Pizarro Portillo María del Mar Puente Cepeda Fernando Ramasco Rueda Rueda María José Rubio Pérez Carmen Saez Bejar María del Pilar Sanz Martí María Semiglia Andres Von Wernitz Teleki Nelly Zurita Cruz

DATE	TITLE	PROFESSOR / DIRECTOR
29 apr - 30 jun	Código Sepsis Princesa (EDICIÓN 13) (2025)	Sara Navarro Ausere María Aguilera García Bárbara Balandín Romero Marianela Ciudad Sañudo Íñigo García Sanz Rosa Méndez Hernández Natalia Pascual Gómez Rafael Peinado Peinado Alberto Pizarro Portillo María del Mar Puente Cepeda María José Rubio Pérez María del Pilar Sanz Martín María Semiglia Andres Von Wernitz Teleki Nelly Zurita Cruz
3 may - 12 jun	Cómo dirigir y ayudar para hacer un trabajo de fin de grado 2025	Miguel Antonio Sampedro Núñez María José Calzada García María Candelas Gil Alicia González Martínez Fernando Ramasco Rueda Rueda Nuria Sánchez de la Blanca Carrero
6 may - 20 may	Cómo presentar un proyecto de investigación a un CEIm 3ED (2025)	María del Mar Ortega Gómez Francisco Abad Santos José Luis Muñoz de la Nova Rafael Peinado Peinado Fernando Ramasco Rueda Rueda
6 may - 11 jun	Competencias en Ecografía Clínica para Atención Primaria: Edición XI (2025)	Andrés Von Wernitz Teleki Juan Mariano Aguilar Mulet Fernando Alfageme Roldán Jose Ignacio Alonso González Sonia González Del Val Íñigo Guerra Molina Ana María Martínez Molina Jorge Sorando Ortín Javier Val De Santos
6 may - 3 rd week of September	Competencias en Ecografía Clínica para Atención Primaria: Edición XII (2025)	Andrés Von Wernitz Teleki Juan Mariano Aguilar Mulet Fernando Alfageme Roldán Jose Ignacio Alonso González Sonia González Del Val Íñigo Guerra Molina Ana María Martínez Molina Jorge Sorando Ortín Javier Val De Santos
6 may - 3 rd week of September	Competencias en Ecografía perioperatoria (ECOPRIN) - 2ª Edición 2025	Jesús Manuel Nieves Alonso Carlos Figueroa Yusta Fernando Garca-Montoto Pérez Raquel García Álvarez Beatriz Nacarino Alcorta Fernando Ramasco Rueda Alejandro Suárez de la Rica

DATE	TITLE	PROFESSOR / DIRECTOR
6 may - 11 jun	Curso de Manejo de Recursos en Crisis Clínicas mediante Simulación Clínica y Debriefing con buen juicio - EDICION 02 (2025)	Ana Carmona Bonet Sonia Expósito Carazo Luis Aníbal Gómez Arredondo Julia Hernando Santos Paula Maestre Serantes Natalia Martos Gisbert Esperanza Mata mena Rosa Menéndez Hernández Amadea Mjertan José Navarro Jesús Manuel Nieves Alonso Mar Orts Rodríguez Diana Parrado Fernando Ramasco Rueda Carlos Román Guerrero Sara Ruiz Monaci Alejandro Suárez de la Rica Jara Torrente Pérez
12 may - 28 may	Curso de Soporte Vital Básico para personal sanitario 2025	Diana Parrado Juan Mariano Aguilar Mulet Noemí Díaz Velasco Luis Aníbal Gómez Arredondo Fernando Ramasco Rueda María Cristina Santiago Poveda Jara Torrente Pérez Javier Val de Santos
13 may - 26 may	Curso de Soporte Vital Inmediato para personal sanitario 2025	Diana Parrado Juan Mariano Aguilar Mulet Noemí Díaz Velasco Sonia Expósito Carazo Luis Aníbal Gómez Arredondo Julia Hernando Santos Natalia Marcos Gisbert Fernando Ramasco Rueda María Cristina Santiago Poveda Jara Torrente Pérez Javier Val de Santos
22 may - 24 jun	Curso transversal de urgencias neurológicas para no neurólogos (2025)	Jaime Alonso Maroto Fernando Ramasco Rueda
27 may - 30 jun	Ecografía Clínica en Pacientes Con Patología Aguda: Formación Inicial. Ed 2 (2025)	Andrés Von Wernitz Teleki Juan Mariano Aguilar Mulet Sonia González Del Val Íñigo Guerra Molina Ana María Martínez Molina Fernando Ramasco Rueda Jorge Sorando Ortín Javier Val De Santos
30 may - 27 jun	Entrenamiento Técnico Avanzado para Equipos en Situaciones de Alta Complejidad Clínica Crítica (2025)	Fernando Ramasco Rueda Juan Mariano Aguilar Mulet Ana Carmona Bonet Sonia Expósito Carazo Luis Aníbal Gómez Arredondo Julia Hernando Santos Paula Maestre Serantes Natalia Martos Gisbert Esperanza Mata Tena Rosa Méndez Hernández Mar Orts Rodríguez Alejandro Suárez de La Rica Jara Torrent Pérez María Vinues Martínez Andrés Von Wernitz Teleki

DATE	TITLE	PROFESSOR / DIRECTOR
2 jun - 24 jun	Estrategias de optimización del tratamiento antimicrobiano (Curso PROA Básico 1ª Edición) (2025)	Carmen Sáez Béjar Alberto Calvo García María Díez Aguilar M. Angels Figuerola Tejerina Leticia Fontán García Rodrigo Alberto Pizarro Portillo María Semiglia
9 jun - 3 rd week of September	Gestión de la Información Clínica, innovación y liderazgo (2025)	Fernando Ramasco Rueda Guillermo Fernández Jiménez Elena Fernández Martínez
10 jun - n.d.	IA Generativa en Medicina: Aplicaciones Prácticas y Éticas para el Profesional de la Salud (2025)	Julio Mayol Martínez Juan Mariano Aguilar Mulet
15 sep - 30 oct	Identificación temprana y atención inicial del paciente en riesgo vital - 2ª edición (2025)	Judit Iglesias Franco Claudia Alvargonzález Riera Paula Carrapiso Galán Elena Espiritu Elena Aurea Keough Delgado Isabel Magaña Bru Andrea Mejías Heras María Mendoza Prieto Beatriz Muñoz Molina Arís Pérez Lucendo María Robles Patricia Rodríguez Carrillo Emilia Rosas Carvajal Marta Sánchez Galindo Rebeca Sánchez Piris
16 sep - 10 nov	Inteligencia Artificial, oportunidades y proyectos de aplicación en el Hospital Universitario de La Princesa (2025)	Alfonso Canabal Berlanga Claudia Alvargonzález Riera Beatriz Muñoz Molina Fernando Ramasco Rueda
16 sep - 28 oct	Manejo inicial del paciente crítico fuera de la UCI (2025)	Judit Iglesias Franco Claudia Alvargonzález Riera Paula Carrapiso Galán Yelco Chicote Carasa Elena Aurea Keough Delgado Isabel Magaña Bru Beatriz Muñoz Molina Arís Pérez Lucendo Fernando Ramasco Rueda Emilia Rosas Carvajal Marta Sánchez Galindo



DATE	TITLE	PROFESSOR / DIRECTOR
19 sep - 12 dic	PROGRAMA DE FORMACION CONTINUADA (PRIMER CUATRIMESTRE 2025): ACTUALIZANDO DESDE LA TRANSVERSALIDAD	Juan Mariano Aguilar Mulet Fernando Ramasco Rueda Lucía Asué Mbomio Rubio Sofía Cuenca Vanessa Escribano Hernández Araceli Boraita Andrés Santiago Sáez Rosa Méndez Hernández Andrés Von Wernitz Teleki Mª Auxiliadora Semiglia Sara Lasarte Martín Miriam Alonso Osuna Lara Álvaro Gil Nelly Daniela Zurita Cruz Arantza Alfranca González Pedro Landete Rodríguez Fernando Suárez Sipmann Emilia Roy Vallejo Diego Real de Asúa Ángela Gutiérrez Liarte Marianela Ciudad Sañudo Yolanda Real Irene Llorente Íñigo García Lidia Cartillo Celia Martínez Carmen Puerta García Antonio Sáez Maldonado
22 sep - 29 sep	SESIONES GENERALES: ACTUALIZANDO DESDE LA TRANSVERSALIDAD (SEGUNDO CUATRIMESTRE 2025)	Juan Mariano Aguilar Mulet Fernando Ramasco Rueda Joan B. Soriano María Caldas Pablo Fernández Rodríguez Pablo Rodríguez Cantero Eduardo Palacios Blanco Diego Enjuto Martínez Rebeca Modéjar Pedro Manonelles Marqueta
22 sep - 26 oct	SESIONES GENERALES: ACTUALIZANDO DESDE LA TRANSVERSALIDAD (TERCER CUATRIMESTRE 2025)	Juan Mariano Aguilar Mulet Fernando Ramasco Rueda Mercedes Vinuesa Sebastián María José Rubio Pérez Verónica Martín Domínguez Antonio Planas Roca Aránzazu Dñuaz Testillano Marta Izquierdo Cuenca Raquel Cutillas Ruiz Aránzazu Vázquez Doce Noelia Mosquera Morales Mª Antonia Rodríguez Castejón Isabel Salmerón Béliz Ana García-Noblejas Moya Javier García Septiem María de Toro Carmena Diego Cobo González Sara Jiménez Blanco Álvaro Gancedo Quintana Celia Arranz Morillo Judit Iglesias Franco Fernando Casals Seoane Alicia Alamillos Alicia Dean

DATE	TITLE	PROFESSOR / DIRECTOR
22 sep - 29 oct	Simulación en el manejo de la vía aérea [2025]	Noemí Díaz Velasco Luis Aníbal Gómez Arredondo Ricardo Moreno González Jesús Manuel Nieves Alonso Diana Parrado Fernando Ramasco Rueda Sheila olga Santidrián Bernal Meritxell Sierra Silvestre
25 sep - 21 oct	Soporte Mecánico Cardiopulmonar 2025	Marta Sánchez Galindo Bea Abad Santamaría Río Jorge Aguilar Torres Begoña Bernal Gallego Nieves de Antonio Pablo Díez Villanueva Carlos Figueroa Yusta Judit Iglesias Franco María José López Manuel Emilio Monguío Santín Nuria Oliva Illescas Mar Orts Rodríguez José Enrique Partida Márquez Guillermo Reyes Copa Fernando Rivero Emilia Rosas Carvajal Jorge Salamanca Viloria Juan Antonio Sánchez Giral Fernando Suárez Spipmann Tania Tineo Drove Olinda Gladys Tupac Yupanqui Laura Varela Barca Pablo Villamayor Tirado
29 sep - 26 oct	T1 Liderazgo Médico Avanzado: Habilidades de Gestión para Entornos Hospitalarios [2025]	Jaime G. Morato-Miguel Richante Cristina Cuevas Olga Cañizares Elena Mendoza Gema Campos (vídeo) Miguel Richante (vídeo) Susana Hidalgo (vídeo) Belén Fuentes (vídeo) Julio Somoano (vídeo) Juan Diego Salinas (vídeo)
1 oct - 22 oct	T2 Excelencia en la Gestión Clínica: Estrategias para Potenciar el Rendimiento y la Colaboración [2025]	Jaime G. Morato-Miguel Richante Olga Cañizares Elena Mendoza Alfredo Urrutia Juan Diego Salinas (vídeo) Mercedes Cano (vídeo) Pilar Alfaro (vídeo) Cristina Cuevas (vídeo)
1 oct - 6 nov	T3 Claves para Liderar Equipos Médicos y Optimizar el Cuidado del Paciente [2025]	Jaime G. Morato-Miguel Richante Miguel Ibáñez Olga Cañizares Marisa Elizundia (vídeo)

DATE	TITLE	PROFESSOR / DIRECTOR
3 oct - 6 nov	Tutoría profesional en Sanidad - Edición III [2025]	Fernando Ramasco Rueda Juan Mariano Aguilar Mulet Javier P. Gisbert María Isabel González Anglada Jorge Mendoza Jiménez-Ridruejo
6 oct - 5 nov	Tutoría profesional en Sanidad (Mentoring) - Edición 04 [2025]	Fernando Ramasco Rueda Juan Mariano Aguilar Mulet Javier P. Gisbert María Isabel González Anglada Jorge Mendoza Jiménez-Ridruejo
6 oct - 3 nov	Cirugía para nuevos Residentes - 2025	Juan Mariano Aguilar Mulet Íñigo García Sanz María José Venegas de L'Hotellerie
13 oct - 3 nov	Curso de Bienvenida a los nuevos Residentes 2025	Juan Mariano Aguilar Mulet Fernando Ramasco Rueda
13 oct - 13 nov	Curso de Historia Clínica Electrónica - 2025	Juan Mariano Aguilar Mulet
13 oct - 9 nov	Curso de interpretación básica de radiología simple - 2025	Juan Mariano Aguilar Mulet Dr. Galán D. Muñoz
20 oct - 3 nov	Curso de Traumatología para nuevos residentes - 2025	Juan Mariano Aguilar Mulet Dr. Carbonell Escobar
20 oct - 7 nov	ELECTROCARDIOGRAFÍA - 2025	Juan Mariano Aguilar Mulet Amparo Benedicto Buendía
22 oct - 13 nov	Servicio de urgencias. Aproximación a los principales motivos de consulta - 2025	Juan Mariano Aguilar Mulet
23 oct - 4 nov	Soporte Vital Inmediato para Residentes 2025	Juan Mariano Aguilar Mulet María Cruzate Aparicio Ana María Martínez Molina Diana Parrado Belén Rodríguez Miranda Blanca Ruata Laclaustra Miriam Sánchez Vicente María Cristina Santiago Poveda Javier Val de Santos Almudena Villa Martí
3 nov - 3 dic	CÓMO SUTURAR UNA HERIDA. TALLER TEÓRICO-PRÁCTICO 2025	Mar de Castro Marinas Pablo Cereceda Barbero María del Mar Castro Marinas Libertad Martín Pietro Sonia Morales Artero
12 nov - 17 dic	Curso de Oftalmología de Urgencias para Medicina 2025	María Luisa Luque Valentín-Fernández María del Mar Castro Marinas Laura Paisan Maestro Belén Sirvent López
9 dic - 16 jan	Protección Radiológica en Medicina Nuclear [Edición 2025]	Carlos Prieto Martín Juan Miguel Becerro Morgado Paula García Castañón
n.d. - 10 nov	Protección Radiológica en Radioterapia y Protección Física de Fuentes Radiactivas [Edición 2025]	Juan Miguel Becerro Morgado Carlos Prieto Martín Paula García Castañón

Area 1

Immune-mediated diseases

María Chaparro Sánchez
Coordinator

Pathogenic Mechanisms Sub-area

- Line 1** Intercellular communication in the inflammatory response
- Line 2** Cellular and molecular responses to hypoxia
- Line 3** Integrative models of tissue remodelling in tumour and inflammatory pathology

Biomarkers and Treatment Sub-area

- Line 4** Cellular and molecular mechanisms in allergic diseases
- Line 5** Immune-mediated inflammatory diseases
- Line 6** Endocrine and developmental disorders
- Line 7** Infectious diseases

Pathogenic Mechanisms Sub-area

Line 1 Intercellular communication in the inflammatory response

GROUP 1



Francisco Sánchez Madrid
Head of group



Noa Martín Cofreces
Co-IP



GROUP MEMBERS

Calzada Fraile, Diego
Cibrián Vera, Danay
Fernández Delgado, Irene
Fernández-Gallego Anaya, Nieves
Fernández Messina, Lola
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Lozano Prieto, Marta

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Requena Galindo, Silvia
Rojas Gómez, Amelia
Sánchez Alonso, Santiago
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Vallejo Rodríguez, María Ángeles
Vara Vega, Alicia
Vera Tomé, Paula



RESEARCH INTEREST

Activation of the adaptive immune response requires the formation of intimate contacts between antigen-bearing cells (e.g. dendritic cells, DC) and T lymphocytes. These contacts ('immune synapses') act as hubs that transmit activating signals from the DC to the T cell, driving its differentiation and proliferation. However, information also travels in reverse, from the T cell to the DC.

The dynamics of the actin and tubulin skeletons are critical to organize the IS, facilitating the architecture of this biological platform that allows transient, actin-dependent cell adhesion, and a radial array of microtubules, allowing intracellular transport in the T cell for secretion and sensing of extracellular clues. Those processes allow reverse transmission of information through receptor-dependent adhesive contacts, soluble factors, and vesicles, e.g. exosomes. Exosomes are small extracellular vesicles biosynthesized from multi-vesicular bodies (MVB) and released towards the DC through MVB fusion with the plasma membrane.

This group aims to determine the extent, nature and function of the information transferred from T cells to DCs and backwards through synaptic contacts. The regulation of T cell ability to activate in response of stimuli

will be assessed from the point of view of cytoskeleton regulators, as well as their capacity to interact with DCs to respond to these challenges. This will be studied in the context of responses to different challenges, including viral and bacterial injuries, as well as tumoral processes. Their metabolic changes and post-translational modifications to specific proteins will be studied in this context. These studies will open new avenues for vaccination strategies and novel therapies to treat immune-related processes.



MAJOR GRANTS

Martín Cofreces, Noa Beatriz. Proteostasis como regulador del citoesqueleto de tubulina, la distribución de orgánulos y del metabolismo de linfocitos T CD4 a lo largo de la vida// Proteostasis as a regulator of tubulin cytoskeleton dynamics, organelle distribution and metabolic fate for CD4 T cell fitness across the lifespan. PID2022-1418950B-I00. AGENCIA ESTATAL DE INVESTIGACION. 2023-2026

Cibrián Vera, Danay; Llamas Velasco, María del Mar. "Proteínas transportadoras de amino ácidos como nuevas dianas terapéuticas en las enfermedades inflamatorias de la piel". PI22/01842. Instituto Salud Carlos III. 2023-2025

Martín Córrecs, Noa Beatriz. Sistemas celulares y moleculares integrados en fisiopatología inmuneinflamatoria. INTEGRAMUNECM -S2022/BMD7209. Comunidad de Madrid. 2023-2026.

Sánchez Madrid, Francisco. "Reposicionamiento de compuestos citotóxicos de organismos marinos para inmunoterapia intratumoral (RECYTSEA). Líneas estratégicas. PLEC2022-009298. Agencia Estatal de Investigación. 2022-2025.

Sánchez Madrid, Francisco. La sinapsis inmune como mecanismo educativo de linfocitos y células innatas para la regulación de procesos infecciosos e inflamatorios (ISEDINF). PID2020-120412RB-I00. Agencia Estatal de Investigación. 2021-2025.

Sánchez Madrid, Francisco. Centro de Investigación Biomédica en Red Carciovascular [CIBERCV CB16/11/00272]. 2017-

PUBLICATIONS

Deciphering the landscape of post-translational modifications in the centrosome upon T cell activation. Eur. J. Cell Biol. 104. (4). 2025. PMID:41046742. DOI:10.1016/j.ejcb.2025.151521.

Comprehensive proteomic profile in newly diagnosed patients with inflammatory bowel disease: identification of potential biomarkers. J. Crohns Colitis. 19. (10). 2025. PMID:41063386. DOI:10.1093/ecco-jcc/jjaf177.

Deciphering the role of $\gamma\delta$ T cells in skin inflammatory diseases: Insights from psoriasis, atopic dermatitis, and alopecia areata. Int Rev Cell Mol Biol. 398. 2025. PMID:41161893. DOI:10.1016/bs.ircmb.2025.08.010.

Imidazole propionate is a driver and therapeutic tar-

get in atherosclerosis. NATURE. 645. (8079). 2025. PMID:40670786. DOI:10.1038/s41586-025-09263-w.

Exploring How Cytoskeleton Dynamics Tunes T Cell Activation at the Immunological Synapse. Eur. J. Immunol. 55. (8). 2025. PMID:40770849. DOI:10.1002/eji.70028.

Restricting SLC7A5-mediated Leucine uptake in T cells prevents acute GVHD and maintains GVT response. EMBO Mol. Med. 17. (7). 2025. PMID:40399490. DOI:10.1038/s44321-025-00250-2.

Combined dendritic cell and anti-TIGIT immunotherapy potentiates adaptive NK cells against HIV-1. EMBO Mol. Med. 17. (7). 2025. PMID:40473838. DOI:10.1038/s44321-025-00255-x.

The OT-II model reveals dual in vitro and in vivo immunomodulatory properties of CD6 in T cell activation. Front. Immunol. 16. 2025. PMID:40642095. DOI:10.3389/fimmu.2025.1571590.

Isolation and Characterization of Extracellular Vesicles from Natural Killer Cells. Curr. Protoc. 5. (4). 2025. PMID:40219984. DOI:10.1002/cpz1.70125. Current Protocols.

T cells in cardiac health and disease. J. Clin. Invest. 135. (2). 2025. PMID:39817455. DOI:10.1172/JCI185218.

Clinical Profiles, Survival, and Lung Function Outcomes in ANCA-Associated Interstitial Lung Disease: An Observational Study. J. Clin. Med. 14. (1). 2025. PMID:39797313. DOI:10.3390/jcm14010229.

Lambert-Eaton myasthenic syndrome associated with anti-hu and anti-sox1 antibodies in small-cell lung cancer: a challenging neuroimmuno-oncological management. Neuro-Oncology27. 2025. DOI: 10.1093/neuonc/noaf193.643.

GROUP 3



María Yáñez Mó
Head of group



GROUP MEMBERS

Bravo de Medina, Joaquín Morales
López Martín, Soraya
Palma Cobo, Miguel



RESEARCH INTEREST

Our research team is dedicated to deepening our understanding of tetraspanin-enriched nanodomains, specialised membrane structures that play a fundamental role in cell adhesion and migration processes. Furthermore, tetraspanin proteins are highly abundant in extracellular vesicles (EVs), which serve as transport vehicles for bioactive proteins, lipids, and RNA, and reveal new pathways of intercellular communication. Our research aims to unravel the complex mechanisms underlying EV biogenesis and their subsequent uptake by recipient cells. Within our group, we also develop innovative approaches for the isolation, detection, and quantification of EVs with the aim of applying them to liquid biopsy in the context of personalized medicine. Furthermore, we are at the forefront of engineering synthetic exosome mimetics, leveraging tetraspanin-based tools as therapeutic instruments to replicate and enhance natural cellular processes.



PUBLICATIONS

Palma Cobo M, Toribio V, Morales J, López Martín S, Enrich C, Lu A, Yáñez Mó M. **Genome-Wide CRISPR/Cas9 Screening Identifies the COMMANDER Recycling Complex as a Key Player in EV Uptake.** J. Extracell. Vesicles.

14. (9). 2025. PMID:40985903. IF: 14,50. DOI:10.1002/jev2.70166. Journal of extracellular vesicles.

Adamo G, Amarantos I, Arzimanoglou I, Bergese P, Bongiovanni A, Bussolati B, Cauda V, Chiari M, Garinis GA, Giebel B, Guazzi P, Jurga M, Neri C, Ohlsson P, Rohde E, Sales G, Trapani I, Vader P, Vainio S, Wauben MHM, Yáñez Mó M, Zarovni N. **Spotlight on innovation: key insights from the extracellular vesicle cluster meeting at the European Innovation Council.** CYTOTHERAPY. PMID:41137847. DOI:10.1016/j.jcyt.2025.08.008. CYTOTHERAPY.

Benayas B, Sánchez Herrero E, Robado de Lope L, Morales J, López Martín S, Provencio M, Valés Gómez M, Romero A, Yáñez Mó M. **Optimized size exclusion chromatography demonstrates that extracellular vesicles are the key RNA carriers of ALK translocations in non-small cell lung cancer cell line secretome and patient plasma.** Extracell. Vesicles Circ. Nucleic Acids. 6. (2). 2025. PMID:40852597. DOI:10.20517/evc-na.2025.14. Extracellular Vesicles And Circulating Nucleic Acids.

Rodríguez Baili MC, Palma Cobo M, Prucca CG, Yáñez Mó M, Gil GA. **Intercellular communication between extracellular vesicles from conditioned macrophages and breast cancer cells drives endocrine therapy resistance.** Front. Cell Dev. Biol. 13. 2025. PMID:40567500. IF: 4,30. DOI:10.3389/fcell.2025.1548724. Frontiers in cell and developmental biology.

GROUP 56



Ana C. Urzainqui Mayayo
 Head of group



GROUP MEMBERS

Ramos Manzano, Alejandra Isabel
 San Antonio Sánchez, María Esther
 Sanchez Abad, Inés



RESEARCH INTEREST

P-selectin glycoprotein ligand 1 (PSGL-1) is a leukocyte receptor that interacts with P-, E-, and L-selectins and is responsible for the initial steps of leukocyte extravasation to sites of inflammation. Our laboratory has shown that PSGL-1 acts as an immunoregulatory receptor involved in the generation of regulatory T cells (Tregs) and contributes to the maintenance of peripheral tolerance in mice. We have demonstrated that PSGL-1 knockout (KO) mice develop a progressive autoimmune disease similar to systemic sclerosis (SSc) [Pérez-Frías et al., Arthritis and Rheumatology, 2014]. Furthermore, we observed that the absence of P-selectin, the primary ligand of PSGL-1, causes an autoimmune syndrome similar to systemic lupus erythematosus (SLE), with the generation of anti-dsDNA autoantibodies, immune complex deposits in the skin and kidneys, and hypersensitivity to ultraviolet light—features that could correspond to SLE [González-Tajuelo et al., Scientific Reports, 2017]. Interestingly, we recently reported that aged P-selectin and PSGL-1 knockout (KO) females develop pulmonary arterial hypertension (PAH)—the most severe form of connective tissue-related autoimmune diseases—due to increased angiotensin II levels and endothelial dysfunction, with low nitric oxide production (NO) [González-Tajuelo et al., Arthritis and Rheumatology, 2019]. Notably, clinical studies in patients indicate that the expression of PSGL-1 and

P-selectin is altered in both diseases. Patients with SSc exhibit reduced PSGL-1 expression in B lymphocytes and increased expression in monocytes, dendritic cells, and T lymphocytes. Furthermore, our data show an association between elevated PSGL-1 expression and the presence of diffuse interstitial lung disease (ILD) in patients with SSc, and that presence of more than 75% of circulating plasmacytoid dendritic cells (pDCs) expressing ADAM8 are associated with the presence of SSc [Silván J et al., J Invest Dermatol, 2018]. In patients with lupus, a reduction in P-selectin expression in cutaneous vessels and a decrease in PSGL-1 expression in neutrophils and monocytes have been observed, correlating with disease activity. Importantly, recent research has demonstrated the role of PSGL-1/P-selectin in regulating apoptosis in neutrophils and monocytes, as well as in the generation of NETs and METs, and its dysregulation in patients with SLE [Muñoz-Callejas et al., IJMS, 2023; Muñoz-Callejas et al., Translational Research, 2024]. Furthermore, we have identified biomarkers for the differential diagnosis of SSc and SLE [San Antonio et al., Front Immunol, 2024]. In light of these findings, our primary objective is to study the molecular and cellular alterations underlying the pathology of these diseases.

Main lines of research

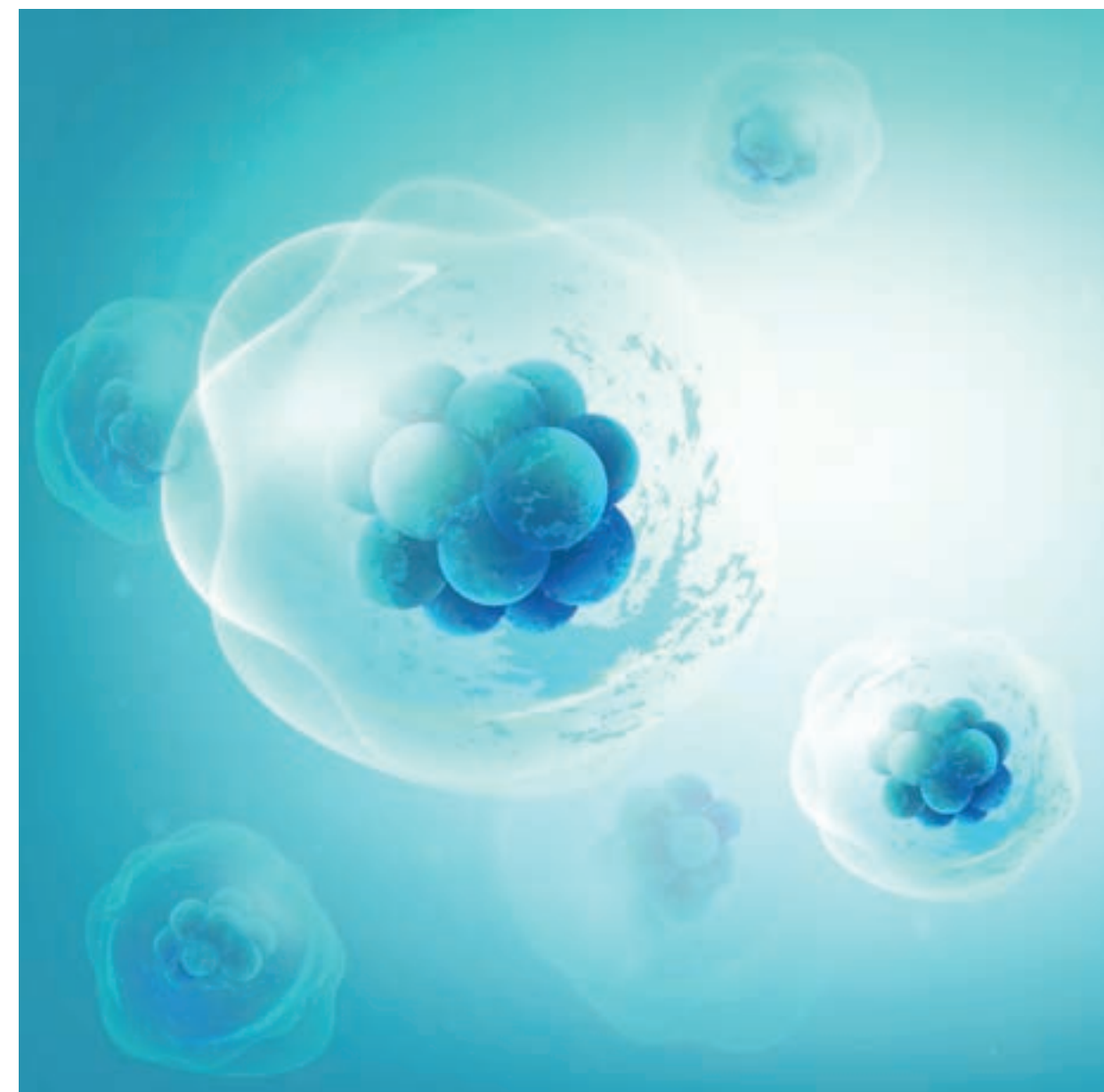
Study of interstitial pneumonia associated with scleroderma (SSc-ILD) and lupus (SLE-ILD), one of the leading causes of mortality in these diseases. Analysis of cells

and molecular components involved in the development of ILD, with the aim of identifying molecular alterations that may serve as potential diagnostic biomarkers or therapeutic targets. Validation of biomarkers identified in our laboratory for the differential diagnosis of systemic sclerosis, systemic lupus erythematosus, and primary Sjögren's syndrome and evaluation of these biomarkers to help in the early diagnosis. Analysis of PSGL-1 as a potential regulator of cellular proteostasis and its contribution to the pathology of scleroderma and SLE.



MAJOR GRANTS

Urzainqui Mayayo, Ana Carmen. Implicación del eje PSGL-1/P-selectin en la patogénesis del lupus y la esclerodermia y posible contribución de PSGL-1 y sus ligandos al desarrollo de neumonía intersticial e hipertensión pulmonar asociadas a ellas. PI24/01865. INSTITUTO SALUD CARLOS III. 2025-

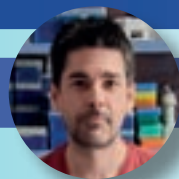


Line 2 Cellular and molecular responses to hypoxia

GROUP 9



Julián Aragonés López
Head of group



Andrés A. Urrutia Elorduy
Co-IP



GROUP MEMBERS

Aguilar Trujillo, María
Bouthelier de Pedro, Antonio
del Coral Meléndez Rodríguez, Florinda
Fernández-Arroyo Camacho, Lucía
Fernández de Lamadrid Yagüe, María Eugenia

Fernández Medina, Olivia
Fuertes Yebra, Esther
Guajardo Grence, Andrea
Mesa Ciller, Claudia
Stancu, Carmen Silvia



RESEARCH INTEREST

Insufficient oxygen supply (hypoxia) is a hallmark of numerous life-threatening conditions with unmet medical needs, such as solid tumor growth, chronic obstructive pulmonary disease (COPD), ischemic diseases, and obesity. Cells are equipped with oxygen-sensing systems to mount a programmed response when oxygen becomes limited. Hypoxia-inducible factors (HIF1, HIF2, and HIF3) are central regulators of this cellular response to oxygen fluctuations. Our current research focus is on the role of HIF oxygen-sensing pathways in cancer, lung diseases, liver regeneration, anemia, and pericyte biology. In particular, we are primarily interested in cellular metabolic reprogramming, which is one

of the central biological functions carried out by HIF factors. 1) HIF factors and renal cell carcinoma: clear cell renal cell carcinoma (ccRCC), the most common type of kidney cancer, is characterized by the constitutive activation of HIF factors.

We have identified new metabolic responses (mitochondrial rewiring and amino acid metabolism) mediated by HIF1 or HIF2, which are essential for understanding the progression of these tumors and may also be relevant in other tumor types (Elorza et al. *Molecular Cell* 2012; Meléndez Rodríguez et al. *Cell Reports* 2019; Urrutia et al. *Cell Reports* 2024). We are currently investigating new mitochondria-dependent signals, not only in ccRCC but also in other hypoxic settings. 2) HIF factors and airway dysfunction in lung diseases: Lung diseases, such as chronic obstructive pulmonary di-

sease (COPD) and sleep apnea-hypopnea syndrome (SAHS), are the most common respiratory diseases causing morbidity and mortality, and are projected to be the third leading cause of death worldwide by 2020. They are characterized by insufficient oxygen levels in the blood (hypoxemia)—continuous in COPD and intermittent in SAHS—and are associated with pulmonary oxidative damage and an exaggerated inflammatory response in the lung and throughout the body. Surprisingly, the bronchial epithelium is the first group of cells to encounter oxygen, yet the role of HIF factors remains surprisingly largely unknown.

We have previously demonstrated that the HIF2 isoform plays a central role in the bronchial epithelium's response to hypoxia (Elorza et al. *Molecular Cell* 2012; Torres-Capelli et al. *Scientific Reports* 2016). More recently, we have generated gain-of-function and loss-of-function models of HIF factors in the bronchial epithelium to study their role in lung pathology. 3) The role of HIF factors in liver regeneration and insulin sensitivity considering the role of HIF factors (HIF2a) in the metabolism of essential and non-essential amino acids. 4) Furthermore, we are interested in kidney diseases and anemia, a pathological scenario in which hypoxia and HIF factors are activated as a compensatory response to increase erythropoietin (EPO) production in renal cells. In this vein, the group has previously published on the biology of EPO (Bouthelier et al. *iScience* 2023; Urrutia et al. *Acta Physiologica* 2021). The group is interested in the molecular and epigenetic mechanisms that may compromise EPO production, the primary cause of anemia associated with chronic kidney disease. 5).

Finally, the group is interested in the role of HIF and its impact on metabolism in pericyte and vascular dysfunction. In this context, the group has recently identified the mitochondrial regulator NDUFA4L2 (an HIF target) as a marker for pericytes (Mesa Ciller et al. *J Cereb Blood Flow Metab.* 2022).



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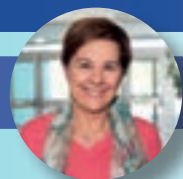
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Line 3 Integrative models of tissue remodelling in tumour and inflammatory pathology

GROUP 11



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Catalina Ribas Núñez
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GROUP MEMBERS

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RESEARCH INTEREST

An integrated knowledge of the complex functioning of cellular signalling networks and of their alterations or maladaptive rewiring in pathological conditions is key for understanding the molecular basis of disease and for the design of targeted therapeutic strategies. Regulatory nodes or hubs within these signalling networks are particularly relevant since these proteins display a complex interactome and thus integrate multiple upstream inputs and trigger pleiotropic downstream outputs. The main aim of our group is to better understand the role of the G protein-coupled receptor kinase 2 (GRK2) hub in the onset or progression

of prevalent diseases and the molecular mechanisms involved. GRK2 is a versatile protein that modulates signalling mediated by many members of the large G protein-coupled receptor (GPCR) superfamily and also via phosphorylation or scaffolding interactions with a growing array of non-GPCR cellular partners. From a pathophysiological perspective, GRK2 is emerging as an oncomodulator, functionally interacting with signalling networks related to the hallmarks of cancer in a tumour and cell type-dependent way. On the other hand, GRK2 levels and activity are convergently upregulated in the heart and in tissues that are key for metabolic control during cardiovascular pathologies and in obesity and insulin resistance-related contexts, which are frequent clinical co-morbidities, pointing

to this protein as a potentially relevant “synergic” therapeutic target. The group pursues the following lines of investigation: 1) Integrative role of GRK2 in the crosstalk of signalling cascades acting within the breast tumour microenvironment 2) GRK2 in epidermal homeostasis and in keratinocyte-immune cells crosstalk and potential pathological implications in skin inflammatory diseases and in squamous cell carcinomas. 3) GRK2 in obesity and insulin resistance-related contexts: participation of GRK2 in determining the pro-inflammatory profile of macrophages and impact of myeloid GRK2 in inter-organ crosstalk in cardiometabolic disease. 4) Explore the functional implications of the Galphaq interactome on autophagy and nutrient sensing and on oxidative stress processes and its impact on endothelial cell function and cardiovascular disease.



MAJOR GRANTS

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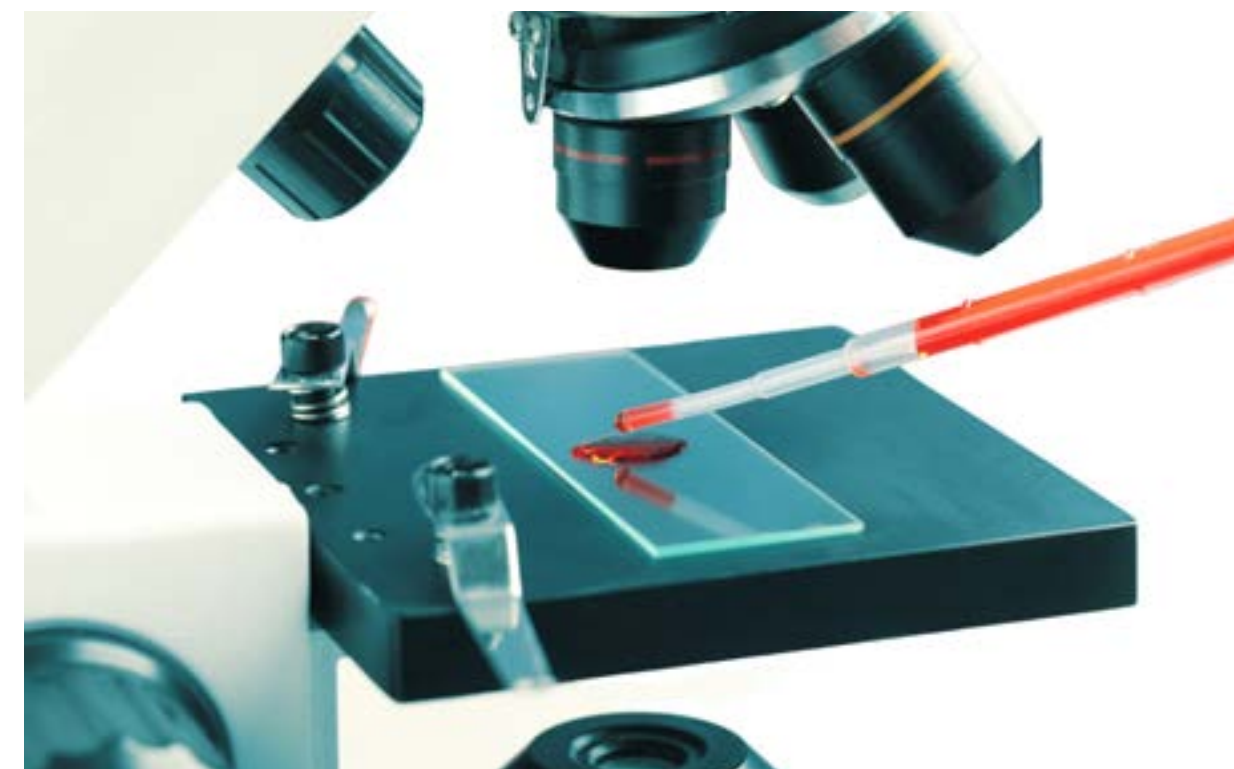


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GROUP 13



Petronila Penela Márquez
Head of group



Laura Nogués Vera
Co-IP



GROUP MEMBERS

González Muñoz, M^a Teresa
Moyano Jimeno, Clara



RESEARCH INTEREST

P-selectin glycoprotein ligand 1 (PSGL-1) is a leukocyte rBreast cancer is a heterogeneous disease at both the molecular and histopathological levels, with diverse clinical outcomes, which complicates the development of targeted therapies. Its higher incidence in the developed world suggests that the Western lifestyle—characterized by unhealthy dietary patterns (excessive caloric intake, unbalanced diets, obesity) and chronic stress (adrenergic overstimulation)—may contribute to the onset and progression of the disease by progressively impairing genomic stability mechanisms. The histopathological diversity and molecular heterogeneity of breast tumours make it difficult to achieve effective treatments, and targeted drug therapies remain elusive for most aggressive forms of the disease. Another significant challenge is the emergence of resistance across all breast cancer subtypes. These limitations in current therapies highlight the urgent need for a deeper understanding of the complex pathways involved in breast cancer development and progression.

Our group seeks to identify regulatory nodes that integrate multiple cellular inputs and environmental cues to modulate tumor hallmarks such as genomic instability, cellular dissemination, and chemoresistance.

Understanding how adaptable and dynamic signalling networks interact with breast cancer susceptibility genes will pave the way for better therapeutic approaches. We focus on interconnected alterations in the serine–threonine kinase GRK2 and associated ligases and deacetylases that function as oncomodulators in breast cancer, influencing both cell-autonomous transformation and interactions with the tumor microenvironment and the patient's systemic state. Our results indicate that these proteins modulate each other differently in normal epithelial cells and in tumor cells, rewiring the signaling downstream G-protein coupled receptors (GPCR) or growth factor tyrosine kinase receptors (RTK).

We aim to understand how post-translational modifications controlled by the GRK2–Mdm2 ubiquitin axis and the HDAC6-dependent acetylome regulate a range of cellular processes including cell cycle control and cell division, differentiation, energy metabolism and senescence, which are key in maintaining a normal cell behavior. We also aim to gain insight into the connection of these molecules with hormonal (adrenergic, estrogenic) and metabolic stress, by analyzing its impact on proteins related to genomic stability (BRCA1 and others), as well as on stromal remodeling processes such as tumor angiogenesis, which together will promote tumor progression.



MAJOR GRANTS

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Penela Márquez, Petronila. PAPEL DE GRK2 EN LA DIS-FUNCIÓN DE BRCA1 Y EN LA RESISTENCIA A INHIBIDORES PARP EN MODELOS TUMORALES DE MAMA MÁS ALLÁ DEL ESTATUS DE BRCA. PI21/01834. INSTITUTO SALUD CARLOS III. 2022-2025.

Biomarkers and Treatment Sub-area

Line 4 Cellular and molecular mechanisms in allergic diseases

GROUP 15



María Dolores Ibáñez Sandín
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GROUP MEMBERS

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Peñalver Cabello, Cristina
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RESEARCH INTEREST

The department has several lines of research. Below are past, current, and future projects:

1. Food immunotherapy:

- 1.1. Safety: Ongoing ILO clinical trial. Sponsor: HNJ. Eudra CT 2023-503958-12-00.
- 1.2. Efficacy: ComplITO clinical trial, starting in 2025.

Sponsor: HNJ, FIS PI24_01770. Clinical trials: NCT06976775

- 1.3. Efficacy: AlerITO longitudinal cohorts study. Sponsor: Hospital de la Princesa and HNJ. Clinical trials: NCT07419243
- 1.4. Mechanisms of peanut immunotherapy: study of the oral microbiota. Sponsor: La Princesa Hospital and McMaster University, Canada.
- 1.5. In peanut allergy: Phase III clinical trial VITESSE clinical trial, and COMFORT clinical trial. Sponsor: DBV (industry).

2. Study on anaphylaxis:

- 2.2. Participants in the BANA study, a branch of contract FIS PI21/00158, analysis phase.
- 2.3. Participants in the study on anaphylaxis versus non-anaphylactic allergy: contract PI24/00360, ongoing.

3. Microbiota, metabolomics, and allergy:

- 3.1. Microbiota and food immunotherapy (milk and egg allergy). PI25/00477. Sponsor: Hospital de la Princesa and HNJ.

3.2. BIOPAL study, PI20/01366; principal investigator: Dr. Ibáñez. Currently under analysis.

3.3. Design of a new diagnostic strategy to identify endotypes of food protein-induced enterocolitis syndrome (FPIES), based on systems biology: Grant application submitted to AES2025, PI25/01583.

4.- Respiratory allergy:

- 4.1. NAVIGAIT project: multicenter interventional adherence trial. clinical trials: NCT07419230. Sponsor: HNJ
- 4.2. International CHOICE project: currently under analysis. Key group members.
- 4.3. Artificial Intelligence database analysis for the Severe Asthma Unit.
- 4.4. Clinical trial on severe asthma and biologic therapy (tezepelumab): Horizon trial.
- 4.5. Clinical trial on severe asthma and biologic therapy (dupilumab).





MAJOR GRANTS

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GROUP 20



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Vega de la Osada, Francisco Félix



RESEARCH INTEREST

Immunological and microbiological changes associated with allergen immunotherapy. The initial phase of immu-notherapy can cause adverse reactions that compromise both the safety and adherence to treatment. This phase is characterized by the rapid desensitization of mast cells and basophils, whose mechanisms we recently reviewed (López-Sanz et al. Front Allergy. 2022;16;3:898494) and are currently studying in vitro using a mast cell desensi-tization protocol (López-Sanz, Sánchez-Martínez & Jimé-nez-Saiz. STAR Protoc. 2022;16;3(4):101755) to identify therapeutic targets. In this context, our group conducted a two-year placebo-controlled clinical trial investigating the immunological changes induced by grass pollen im-munotherapy in respiratory allergy, as part of the doctoral thesis of Dr. Raphaëlle Bazire (Barker-Tejeda & Bazire et al. Allergy. 2021;76(4):1199-1212). This research line has been funded by the Spanish Society of Allergy and Clinical Immunology (SEAIC) and by the Agencia Estatal de Inves-tigación (AEI).

In food allergen immunotherapy, adverse reactions are usually mediated by IgE, but a disconnect is often

observed between IgE levels and clinical reactivity. We reviewed the role of the microbiota in food sensitivities (Caminero et al. Semin Immunol. 2025 Sep;79:101982) and we have recently shown that the human microbiota metabolize certain antigens, modifying their structure, absorption, and IgE recognition (Sánchez-Martínez et al. Cell Host Microbe. 2026 Apr 8;34(4):600-619.e9). In this regard, we have identified human bacterial stra-ins capable of metabolizing food allergens that could be used in the prevention and immunomodulation of anaphylaxis and serve as biomarkers during immuno-therapy. This work has been published in Cell Host & Microbe and featured by Nature, Nature Reviews Micro-biology and by several media outlets (El Mundo, Cadena SER, and Diario Médico, among others). This line of re-search is being carried out in collaboration with Dr. Al-berto Caminero (McMaster University, Canada) and has been funded by several programs, including the New Frontiers in Research Fund, the Weston Family Foun-dation, the Canadian Asthma, Allergy and Immunology Foundation (CAAIF), as well as by The Nutricia Research Foundation (Netherlands), the European Food Safety Authority (EFSA), the Instituto de Salud Carlos III (ISCIII) and the Comunidad de Madrid.

Hypersensitivity reactions to radiodiagnostic contrast media. Drug allergies are also a growing concern, due to both the potentially severe nature of reactions and their significant impact on patients' quality of life. In recent decades, the use of contrast media for radiological imaging has become a valuable tool to enhance X-ray and MRI studies. A downside of this increased use is the rise in hypersensitivity reactions to both iodinated and gadolinium-based contrast media. In this context, our group studies adverse reactions to contrast media, evaluates tolerance to alternative agents through a rapid full-dose challenge protocol, and investigates the underlying immunological mechanisms [Ruiz de Azcárate et al. *Allergy*. 2023 [12]:3255-3258; Vega et al. *Allergy*. 2022;77(10):3151-3153; Lopez-Raigada et al. *J Investig Allergol Clin Immunol*. 2022;32(2):163-164].

Allergic inflammation and its association with cardiovascular risk. Several observational clinical studies suggest that having an allergic disease—particularly asthma, atopic dermatitis, allergic rhinitis, or food allergy—may increase the risk of cardiovascular disease. Cardiovascular disease is the leading cause of global mortality and morbidity, and its prevalence continues to rise. In this line of work, our group has reviewed the clinical association between allergic inflammation and cardiovascular disease, as well as the potentially involved immunological mechanisms, through a collaborative effort with allergists, immunologists, and cardiologists from various institutions [Fernández-Gallego et al. *Allergy*. 2022;77(11):3249-3266]. Moreover, we recently identified that allergic inflammation induces a harmful lipid signature characterized by increased serum triglycerides, which was validated in 59 patients after an allergic reaction [Fernández-Gallego et al. *Allergy*. 2024;79(10):2680-2699]. Both studies were funded by the Spanish State Health Agency, and the latter was selected for the "Editor's Choice" list [October 2024] and awarded the "Best Scientific Publication by Young Researchers 2024" by the Hospital Universitario de La Princesa.

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GROUP 24



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RESEARCH INTEREST

MAIN: Eosinophilic esophagitis (EoE) is a chronic inflammatory disease of the esophagus with an immunallergic basis. Clinically, it is characterized by symptoms of esophageal dysfunction and, histologically, by a predominantly eosinophilic inflammatory infiltrate. In the absence of treatment, the natural history of EoE involves progressive fibrotic remodeling of the organ, leading to the formation of strictures, which reduce the esophageal diameter and worsen symptoms. Currently, endoscopic biopsies are the only reliable method for diagnosing the disease and monitoring response to treatment. In this project, we aim to analyze changes in gene and protein expression in esophageal biopsies from adult patients with EoE who have been treated in accordance with European clinical guidelines, and to compare these findings with those from healthy subjects. We will evaluate changes in mRNA expression (mRNA-seq), proteins (proteomics), and secreted proteins (multiplex ELISA), as well as characterize lymphocyte populations in both esophageal tissue and peripheral blood from patients with EoE (flow cytome-

try). The data obtained through these high-throughput analysis techniques, together with markers of esophageal fibrosis progression and altered esophageal distensibility (determined by EndoFLIP), will allow us to select a set of candidate markers related to the presence of the disease, its inflammatory activity, and fibrotic changes, as well as to predict treatment response. As a final objective, we will attempt to define a set of biomarkers to be studied subsequently in a larger cohort (validation). **SECONDARY:** Gastroesophageal reflux disease (GERD) is the most prevalent gastrointestinal disorder in industrialized countries. Its main pathophysiological mechanisms include structural and functional abnormalities at the esophagogastric junction, as well as impaired esophageal clearance. Recent studies have challenged the traditional notion that reflux esophagitis develops only when epithelial cells on the esophageal surface are exposed to chemical injury caused by refluxed acid. In this context, we aim to characterize lymphocyte populations in both esophageal tissue and peripheral blood from patients with GERD using multiplex flow cytometry. The data obtained using these techniques will be correlated with the presence of the disease and its inflammatory activity.



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Line 5 Immune-mediated inflammatory diseases

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RESEARCH INTEREST

The primary goal of our group is to advance personalized medicine in the field of autoimmune/inflammatory rheumatic diseases (primarily rheumatoid arthritis, spondyloarthritis—including psoriatic arthritis, systemic lupus erythematosus, giant cell arteritis, and systemic sclerosis). Our efforts focus on generating new knowledge regarding two unmet needs for rheumatologists: the identification of biomarkers of disease severity and predictors of response to disease-modifying

antirheumatic drugs, both synthetic and biologic. To achieve these objectives, we are developing various strategies: a) Strengthening our collaborations at the local, national, and international levels. In this regard, we maintain our commitment to the BioIMID collection at the IIS-IP Biobank, in close collaboration with Dermatology and other departments. This collection enables us to maintain close collaboration with groups in the Inflammatory Diseases Network (REI; RD24/0007), which is part of the ISCIII's RICORS program. In addition, our early arthritis cohorts (rheumatoid, psoriatic, and axial spondyloarthritis) form the basis of our own re-

search and of collaborations with other rheumatology groups and specialties within the REI. Furthermore, we participate in systemic sclerosis research with national (ESCLEROSER) and international (EUSTAR) research groups, as well as with groups from the REI network. Locally, we have been conducting joint research for years with the Immunology department on the etiopathogenesis of this disease in a murine model, with the aim of translating these findings to patients. Finally, we participate in the European SPIDERR project, focused on developing tools to identify patients who may benefit most from rapid access to personalized rheumatological treatment. b) Incorporate gender and the social determinants of health into biomarker research, including intersectionality, in order to better understand their clinical utility. c) Encourage patient participation in research projects, aligning them with public needs and including efforts to improve treatment adherence. d) Move beyond the discovery of new biomarkers toward the validation of previously identified ones, conducting in-depth studies of their clinical utility for implementation in the National Health System. As a result of the group's intense activity, several of its members have been invited to participate in the development of consensus documents on the rational use of biological therapies or imaging techniques, in which the assessment of the appropriate cost-benefit ratio is of great relevance in the current economic situation. Although five years have passed since the onset of the COVID-19 pandemic, our group continues to work on two priority lines of research: a) A line focused on genetic variants of immunoregulatory molecules that may explain the variability in the clinical response to SARS-CoV-2 infection, with potential application to other respiratory viruses. b) The development of strategies to improve the response to COVID-19 vaccination in patients treated with immunomodulatory drugs, who typically exhibit a lower response to vaccines. We are now able to apply the knowledge gained from the COVID-19 vaccination program to other viral vaccines. In the coming years, our efforts will continue to focus on the discovery and validation of biomarkers that will enable more effective treatment of patients with immune-mediated inflammatory diseases.



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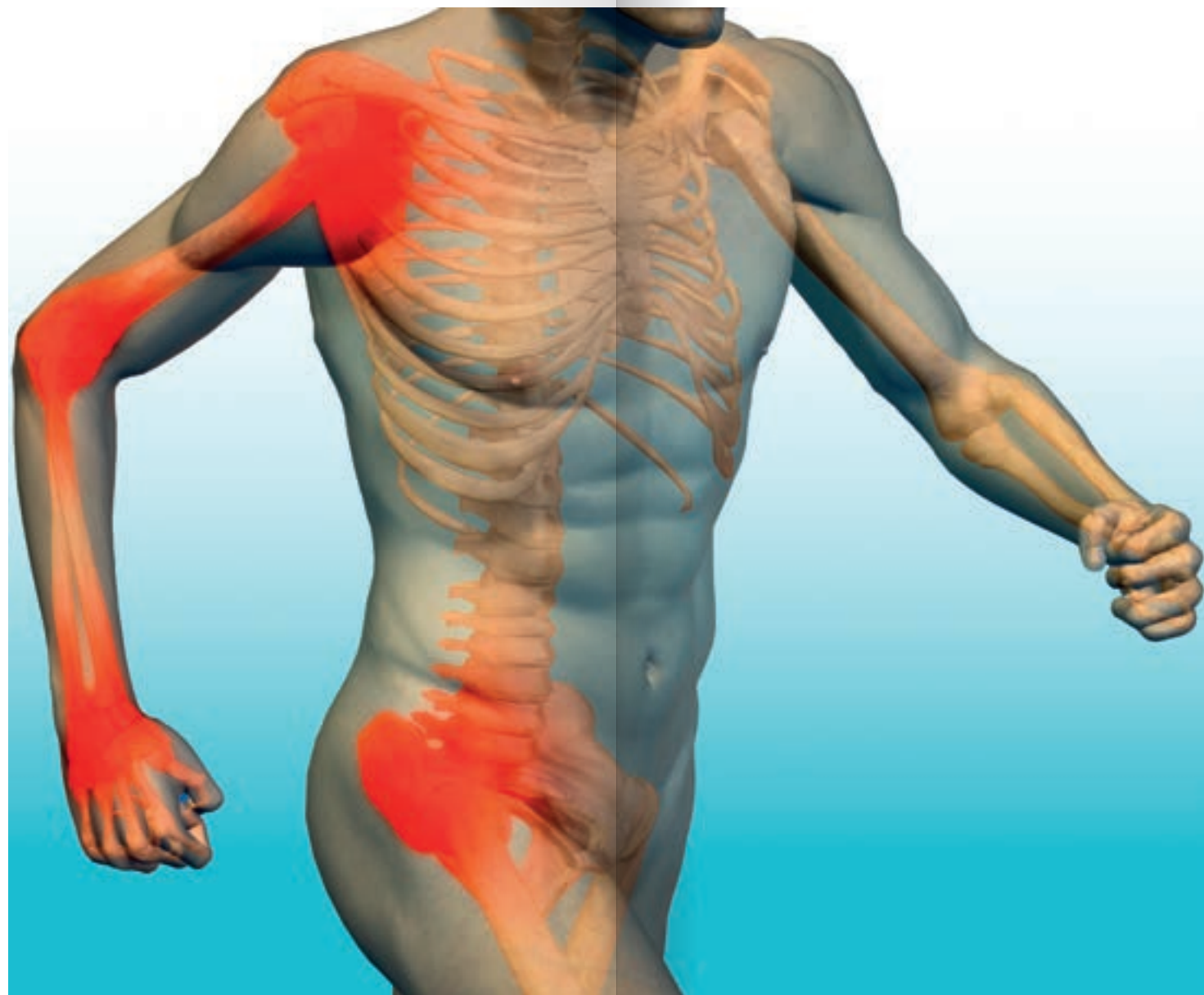
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GROUP 37



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RESEARCH INTEREST

The Group's current research activities, as well as those planned for the coming years, focus on: 1) Immune-mediated inflammatory diseases (IMIDs), particularly psoriasis, atopic dermatitis, and hidradenitis suppurativa. The main lines of research are: a) Immunoregulatory molecules as biomarkers for predicting response to biologic therapies and the severity of IMIDs. This is a group of diseases in which inflammation constitutes the primary pathogenic mechanism. Their long-term impact has been mitigated thanks to the implementation of biologic therapy. However, despite growing knowledge about the etiopathogenesis of these diseases and marked improvements in their management, there is still a lack of markers that can predict disease severity or identify patients who will be refractory to treatment. We are searching for new biomarkers predictive of IMID severity and response to biologics. b) Gene expression profiles in patients with IMID. c) Epigenetic biomarkers as predictors of therapeutic response to biologics in psoriasis. d) Immunoregulatory molecules and their therapeutic potential. We

are investigating the role of GCLC in keratinocytes in vitro models of inflammatory skin diseases. e) Survival analysis of conventional systemic therapies and biologics in psoriasis. f) Identification of single nucleotide polymorphisms associated to treatment response in atopic dermatitis and psoriasis. g) Strategies for optimizing treatment (dose reduction, increasing the dosing interval) in the management of moderate-to-severe psoriasis with systemic agents. h) Circulating memory T cells in psoriasis, atopic dermatitis and hidradenitis suppurative and their association with treatment response. i) Comprehensive study of systemic inflammation in chronic inflammatory skin diseases and its association with cardiovascular disease. j) Association of immunosenescence markers with comorbidities in psoriasis and hidradenitis suppurative. 2) Eczematous dermatitis. Study of the prevalence of allergens responsible for allergic contact dermatitis in the Spanish population. 3) Connective tissue diseases. Determination of the association of myositis-specific autoantibodies and myositis-associated autoantibodies with clinically amyopathic dermatomyositis. 4) Photobiology. Studies on the epidemiology, clinical phenotypes, and photobiology of solar urticaria.



MAJOR GRANTS

Daudén Tello, Esteban; De la Fuente Flores, Hortensia. Estudio integrativo de la inflamación sistémica en Dermatitis Atópica e Hidradenitis Supurativa y su asociación con la enfermedad cardiovascular. PI21/01583. INSTITUTO SALUD CARLOS III. 2022-2025.

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GROUP 38



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RESEARCH INTEREST

The Group's research areas are organized as follows:

1. Inflammatory Bowel Disease (IBD)

1.1. Understanding the mechanisms underlying IBD, based on systems biology and supported by omics technologies

- Identification of new therapeutic targets in IBD.
- Identification of proteins (serum, extracellular serum vesicles, and urine) with potential as biomarkers in IBD.
- Determination of immunoregulatory molecules as predictors of IBD severity and prognosis.
- Characterization of biomarkers using proteomics at the time of diagnosis [PI16/01296, FI17/00143, PI19/01034].
- Analysis of the metabolome in serum and urine [PI16/01296, FI17/00143, PI19/01034].
- Metagenomic analysis of fecal microbiota [PI19/01034, CD19/00247].
- Analysis of the effect of immunomodulatory peptides secreted by the gut microbiota on mucosal dendritic cells in IBD.
- Transcriptomics of intestinal biopsies as biomarkers.

1.2. Epidemiology of IBD

- Assessment of the incidence of IBD in Spain [PI16/01296, FI17/00143].
- International collaborative efforts to describe the epidemiology of IBD and the costs associated with its treatment.

1.3. Real-world evidence studies to generate knowledge on the efficacy, safety, and use of therapeutic agents in IBD

- International and national leadership in real-world evidence studies.
- International collaborations in real-world evidence studies.

1.4. Strategies for patient selection and treatment optimisation in patients with IBD

- Switching to biosimilar medications.
- Identification of biomarkers of response to treatment with biologics and tofacitinib in IBD using a multi-omic and cytometric approach [PI18/00622, CIBEREHD intramural project, PI24/00159].
- Comparative study of the immunomodulatory effect of combination biologic therapy in inflammatory bowel disease [COMBINE] [PI22/01069, CD23/00075, FI23/00071].

1.5. Strategies for the advanced therapy cycle in IBD

- Withdrawal of anti-TNF drugs in patients with IBD

[PI15/00560, PI24/00141].

- Identification of biomarkers predictive of relapse following withdrawal of anti-TNF treatment in patients with IBD.
- Coordination of international initiatives on the treatment cycle.

1.6. Safety of IBD treatments

- Safety during pregnancy and breastfeeding (coordination of the national DUMBO registry [ICI19/0083]).
- Risk of thromboembolic events in patients treated with JAK inhibitors [PI21/01086].

2. Helicobacter pylori infection

- Science of clinical practice implementation and evaluation: evidence-based recommendations on actual routine practice.
- International coordination of the European Registry on Helicobacter pylori Treatment, a prospective study of clinical practice involving almost 100,000 patients from 300 hospitals in 40 European countries.
- International coordination of the Global Registry on Helicobacter pylori Treatment, which includes hundreds of hospitals across five continents.
- Primary care: surveys of healthcare professionals, evaluation of clinical registries, and development of outreach programs.
- Prevalence, transmission, resistance, and socio-health factors of the infection.



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ASSOCIATED GROUP 11



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RESEARCH INTEREST

In recent years, our research group has focused particularly on identifying non-invasive prognostic biomarkers for the progression of chronic liver disease (CLD) to cirrhosis and hepatocellular carcinoma (HCC). HCC is the second leading cause of cancer death worldwide and has a high mortality rate because it is often diagnosed at advanced stages, when available treatments are no longer effective. Therefore, new tools are needed to improve the diagnosis and treatment of patients with HCC. Alterations in the expression of factors related to angiogenesis and fibrogenesis during the progression of CLD to HCC may provide a valuable tool for the non-invasive assessment of liver fibrosis, a key aspect in clinical decision-making. Among other clinical and demographic variables, we found that peripheral levels of angiopoietins correlated significantly with liver fibrosis in patients with chronic hepatitis C (CHC). This finding allowed us to develop a new index for the non-invasive assessment of liver fibrosis, the AngioScore, which was subsequently validated in an independent cohort of patients. In addition, our group described a significant increase in TIE2-expressing monocytes (TEMs) in the peripheral blood of patients with CHC. Monocytes, essential precursors of antigen-presenting cells, play a significant role in the pathogenesis of chronic inflammatory diseases and cancer. We proposed that the chronic expansion of TEMs—characterized by their marked proangiogenic properties and significant immunosuppressive nature—could impair an adequate immune response and promote mechanisms

of liver damage. The expression of the angiopoietin receptor Tie2 on the surface of this monocyte subtype could serve as a useful marker for the non-invasive monitoring of HCC progression via a simple blood test. Furthermore, we believe that a deeper understanding of TEM regulation could lead to significant therapeutic advances. In fact, other authors have recently reported that TEMs could constitute a useful cellular biomarker for the diagnosis and prognosis of HCC. Furthermore, we have also characterized the relevance of certain genetic variants of HDACs and other angiogenic factors, receptors, and mediators in relation to the progression of fibrosis.

Therapeutic options and diagnostic procedures in hepatology have quickly advanced during the last decade, in particular, the management of viral hepatitis. Hepatitis C has become a curable disease with a sustained 99% response using direct-acting antiviral treatments.

With the increasing number of individuals with diabetes and obesity, non-alcoholic fatty liver disease (NAFLD) is becoming increasingly prevalent, affecting more than one-quarter of adults in the world.

In addition to liver cancer, we have other research lines:

- Actions for micro-elimination of HCV infection.
- Interaction between DAA for Chronic Hepatitis C infection and hepatocellular carcinoma
- Non invasive evaluation of non alcoholic fatty liver disease.
- Chronic cholestatic liver disease: Primary Sclerosing Cholangitis and Primary Biliary Cholangitis.

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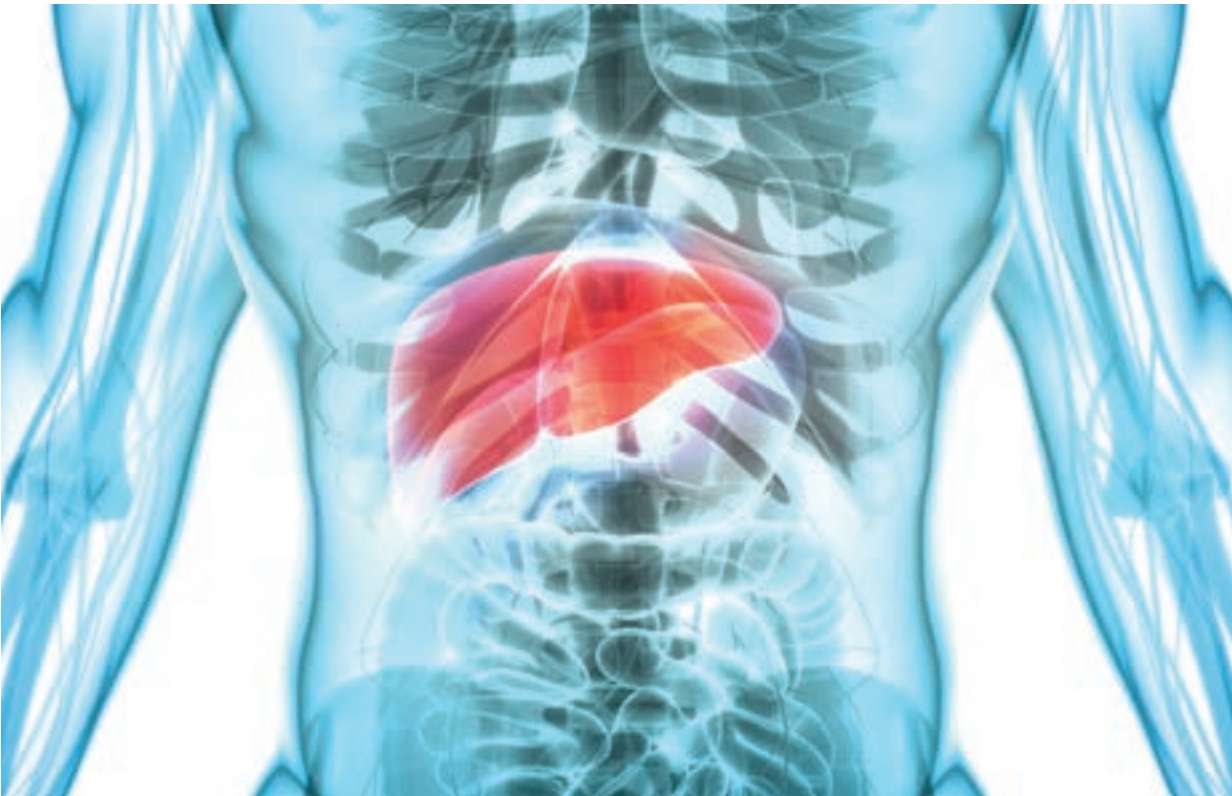
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Line 6

Endocrine and developmental disorders

GROUP 25



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RESEARCH INTEREST

Our research group is a well-established team with national and international recognition in the field of endocrinology, and a distinguished track record in the study of autoimmune thyroid diseases (AITDs). The group combines the extensive clinical expertise of Dr. Mónica Marazuela with the basic scientific perspective of Dr. Rebeca Martínez-Hernández.

Main research line: autoimmune thyroid diseases and thyroid eye disease

The group's main research focus is on autoimmune thyroid diseases (AITDs), such as Graves' disease (GD). Within this line, the group is a pioneer in the study of thyroid eye disease (TED), also known as Graves' orbi-

topathy, a secondary manifestation of GD. The primary objective of the group is to identify novel biomarkers and susceptibility pathways through the integration of multi-omics approaches. This big data-based strategy enables a deeper understanding of disease pathophysiology and the cellular microenvironment, facilitating the development of innovative and personalized therapies.

Between 2020 and 2025, the group has carried out 13 competitively funded projects from public and private sources, six of which have focused specifically on AITDs, including TED. Research in this area has gained particular momentum following the award of the 2023 Clinical Research Grant in General Endocrinology and Metabolism from the Spanish Society of Endocrinology and Nutrition (SEEN). This ongoing project involves professionals from eight hospitals organized into five

geographical nodes, thereby expanding the group's national and international collaborative network.

In this context, the group is supported by the Spanish Association of Patients with Thyroid Eye Disease (TEDSpain, <https://tedspain.org>), a non-profit organization established to improve diagnosis, treatment, and patient support, promote research, and raise awareness of TED in Spain. The involvement of TEDSpain strengthens connections with both patients and healthcare professionals, facilitates the identification of unmet clinical needs, and provides a valuable channel for the dissemination and translation of scientific results into improved clinical care and patient stratification. In parallel, active participation in the European Group on Graves' Orbitopathy (EUGOGO) further enhances the group's visibility and impact at the European level.

The group's work has led to significant contributions in this field, including the characterization of alterations in regulatory T cells (Treg), Th17 lymphocytes, and NK cells [J Clin Endocrinol Metab., 2020; Endocrine, 2024], as well as in other endocrine disorders, such as the identification of Tr1 lymphocytes in patients with type 2 diabetes [J Endocrinol Invest., 2024].

In this area, the group maintains strong collaborations with the Departments of Immunology, Rheumatology, and Dermatology at Hospital Universitario de La Princesa, as well as with leading research centers such as the Spanish National Cancer Research Centre (CNIO) [Dr. Mercedes Robledo and Fátima Al Yashour], Dr. Pilar Santisteban (Instituto de Investigaciones Biomédicas Alberto Sols, IIBM), and Dr. Pablo Valderrabano (Hospital Ramón y Cajal). Through these collaborations, predictive biomarkers for AITDs have been identified [Journal of Autoimmunity, 2020], and miRNA and mRNA data have been integrated, highlighting the role of HDAC9 in immune regulation [J Clin Endocrinol Metab., 2021; Int J Mol Sci., 2023].

More recently, the group has characterized thyroid tissue samples from AITD patients using spatial transcriptomics, enabling the identification of: CD74/MIF+ thyrocytes involved in chronic inflammation; Damaged thyrocytes in Hashimoto's thyroiditis; Inflammation-associated fibroblasts in Hashimoto's thyroiditis; Myofibroblasts with adipogenic features (ADIRF+) and diaphragmed fenestrated capillaries (PLVAP+) in GD [Nature Communications, 2024; Biomed Pharmacother., 2026].

At the international level, the group maintains strong collaborations with leading researchers and institutions, including Philippe Bertolino and G  rald Raverot (Centre de Recherche en Canc  rologie and   cole Normale Sup  rieure, Lyon, France), Franck Picard (  cole

Normale Sup  rieure, Lyon, France), Roberto Gonz  lez Amaro (CICSaB, Universidad Aut  noma de San Luis Potos  , Mexico), George J. Kahaly (Johannes Gutenberg University, Mainz, Germany), and Mario Salvi (Graves Orbitopathy Center, Milan, Italy).

The group has further strengthened its international collaborations in AITDs through its integration into EUGOGO and the Research Observership Program of the European Society of Endocrinology (ESE-EYES). In addition to advancing basic knowledge of AITDs and thyroid eye disease, the group has a strong translational component, participating in clinical trials with innovative therapies in collaboration with the pharmaceutical industry, demonstrating its capacity for knowledge transfer and patentable developments. These collaborations encompass basic and translational research, methodological validation, sample analysis, and PhD training.

Second research line: neuroendocrine tumors

The group also develops a second research line focused on the identification of biomarkers for the diagnosis and aggressiveness of neuroendocrine tumors, particularly those related to proliferation and metastatic potential. In this area, the group is part of the Spanish Network for Rare Diseases (CIBERER), forming group GC14/ER/12, and leads the Spanish Molecular Registry of Pituitary Adenomas (REMAH), which includes 1,400 registered patients.

This strategy enables comparative analyses between molecular profiles of different adenoma types and patient clinical phenotypes, promoting a deeper understanding of disease and facilitating personalized treatment selection. In this line, the group has received funding for a personalized medicine project within the PMP-ISCI program (ACROMICS PMP22/000021), in collaboration with Dr. Manel Puig (Trias i Pujol Institute).

This collaborative approach has advanced the understanding of the molecular landscape of GH-secreting tumors and fostered the development of innovative tools to improve diagnosis and treatment in acromegaly. Recently, the clinical-pathological spectrum of GH- and PRL-producing tumors in acromegaly has been characterized, providing new insights into their biological heterogeneity and clinical relevance [J Clin Endocrinol Metab., 2025].

Furthermore, the group has identified a novel diagnostic marker predicting aggressive behavior in pituitary neuroendocrine tumors, published in Modern Pathology [2024]. This discovery led to the institutional registration of a diagnostic method as a European patent (EP22382079; PCT/EP2023/052006), reinforcing the translational impact of the research.

Third research line: personalized medicine in type 1 diabetes

Since 2022, a third comprehensive research line has been established in the field of diabetes, addressing both basic and translational aspects. This project is led from our center in collaboration with Hospital Universitario Basurto (Bilbao) and Hospital Universitario Severo Ochoa (Legan  s), and examines clinical, technological, and molecular factors to better understand the impact of the disease.

This work has resulted in numerous scientific publications across high-impact journals (list retained as in original). This integrative approach aims to optimize therapeutic strategies tailored to individual patient characteristics, promoting more effective and equitable diabetes management.

Currently, the group is also participating in two clinical trials in the field of diabetes.

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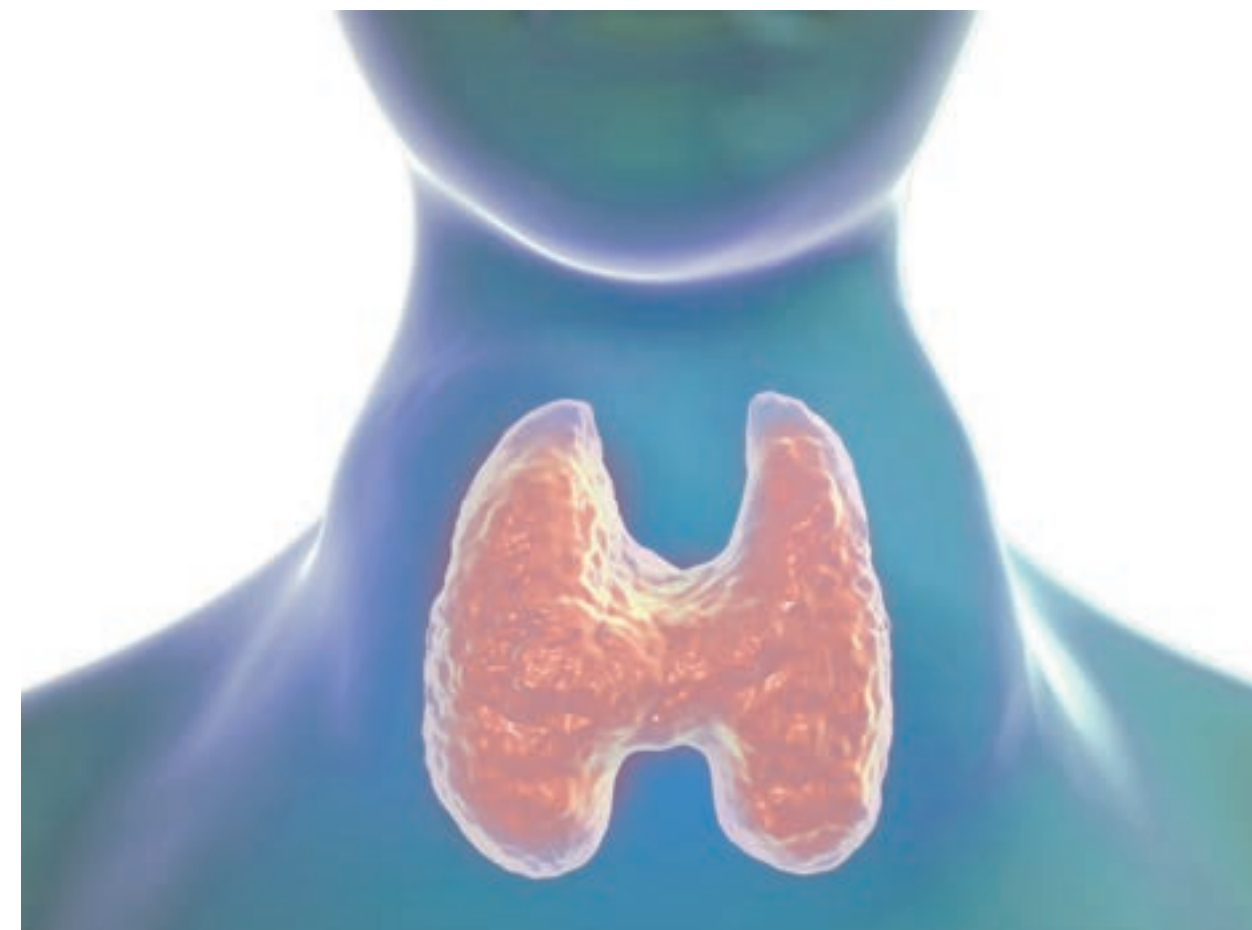
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GROUP 26



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RESEARCH INTEREST

How the genetic make-up of an individual interacts with the early maternal/neonatal and postnatal environments to culminate in obesity and its secondary complications, is being studied with both clinical and basic approaches. Genetic studies are performed to identify mutations in genes involved in monogenic obesity, to identify new candidate genes and to analyze polygenic and epigenetic causes of obesity. Diverse new candidate genes have been identified and are being further investigated, as well as the interaction genotype/phenotype and ethnic influences. Metabolomic studies are underway to better understand the processes involved in the development of insulin resistance and type 2 diabetes in obese children. Metabolites that may be involved in this process have been identified and will be further studied. In addition, it appears that this process may differ between males and females even prepubertally and this will be further explored. We have recently identified a new monogenic cause of pathological human growth that courses with skeletal abnormalities. The underlying cause is due to affectation of the insulin-like growth factor (IGF) system and this new syndrome will be thoroughly analyzed and

new concepts of the physiological functioning of the IGF system pursued.

Animal models are employed to analyze how poor maternal and/or neonatal nutrition, stress or changes in specific hormones during neonatal life affect adult metabolism, with special attention focused on the differential responses of males and females. Studies analyzing the effect of increased central leptin levels on insulin signaling in the CNS and adipose tissue demonstrate a relationship between insulin resistance, hypothalamic inflammation and energy homeostasis. Hypothalamic glial cells are a main focus of investigation for their newly recognized role in metabolic control. We have shown them to respond to weight gain and metabolic hormones such as leptin. Current interest includes analysis of glial responses to specific nutrients and how this could influence the metabolic outcome to weight gain. The implications of weight gain and abnormal circulating levels of leptin and insulin have also been implicated in increased susceptibility to neurodegenerative diseases, with this susceptibility being different between males and females. Future studies are planned to determine the role of astrocytes in mediating the protective and/or detrimental responses to high fat diet intake on neurodegeneration.



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Line 7 Infectious diseases

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RESEARCH INTEREST

During 2025, Group 12 focused on advancing the understanding of host-parasite interactions in *Trypanosoma cruzi* infection, with particular emphasis on immune receptor signaling, iron metabolism, and the regulatory role of microRNAs.

One of the objectives was to dissect the molecular and functional interaction between SLAMF1 and trans-sialidase SLAMF1 ligands (TS-SLs), and to determine the consequences of this interaction on receptor signaling and parasite replication. The initial hypothesis arose from the observation that measles virus hemagglutinin, a natural ligand of SLAMF1, shares structural similarities with *T. cruzi* trans-sialidases (TSs). To experimentally address this possibility, SLAMF1 immunoprecipitation and co-immunoprecipitation assays

were performed. Proteomic analysis of the co-immunoprecipitated proteins identified several TSs as candidate SLAMF1-binding proteins, providing strong evidence that TSs act as SLAMF1 ligands. These findings support the existence of a previously unrecognized host-parasite interaction with potential consequences for SLAMF1-mediated signaling and parasite replication. Given that TSs are established therapeutic and vaccine targets, these results are particularly relevant. In this context, a computational drug repurposing study predicting inhibitors against TSs was identified, opening promising perspectives for future research aimed at interfering with TS activity and SLAMF1-TS interactions. In parallel, transcriptomic analyses highlighted the relevance of iron metabolism in SLAMF1-mediated signaling. Notably, this work identified for the first time a potential role for lipocalin-2 in regulating iron availability during *T. cruzi* infection, suggesting that modu-

lation of iron homeostasis is an important component of SLAMF1-dependent pathways and may contribute to the control of parasite proliferation. Moreover, the effects of host microRNAs on host gene expression and *T. cruzi* replication, as well as on the characterization of parasite-derived microRNAs and their impact on host responses and parasite biology were evaluated. Although *T. cruzi* is not expected to produce microRNAs due to the absence of canonical processing enzymes, parasite-derived microRNAs were detected in cultures of epimastigotes and purified trypomastigotes, suggesting the existence of an alternative and still unknown processing machinery. Functional studies showed that *T. cruzi* microRNAs enhance the production of pro-inflammatory cytokines following stimulation with LPS and parasites, demonstrating their capacity to modulate the host immune response. The project resulted in several peer-reviewed publications in high-quality international journals. The inclusion of Dr. Concepción Abrusci Bernal as co-responsible of the group strengthened its multidisciplinary profile in biotechnology. Moreover, collaborations in periodontitis research, including work with Dr. Julien Santi-Rocca, were consolidated and resulted in joint publications. Taken together, these activities reinforced interdisciplinary links, enhanced the overall impact of the research, and enabled the joint submission of competitive research proposals currently under evaluation. The group also benefited from the continued scientific contribution of Dr. Manuel Fresno as an emeritus researcher, reinforcing expertise and continuity.



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GROUP 50



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Head of group



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Co-IP



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García-Fraile Fraile, Lucio Jesús
Gutiérrez Liarte, Ángela
Sampériz Rubio, Violeta



RESEARCH INTEREST

Our research group focuses on the study of infectious diseases, with a particular emphasis on HIV infection and its associated comorbidities. Building on more than two decades of experience in HIV research, we participate in multicentre national and international cohorts and clinical trials aimed at evaluating new antiretroviral therapies including long-acting treatments, therapeutic vaccines, and strategies to improve treatment adherence and quality of life. We are also actively involved in epidemiological and translational studies on low-level viremia, immune response, inflammation, and HIV-related comorbidities, including liver and metabolic disease. Another major area of interest is the study of viral hepatitis co-infections (HBV, HCV, and HDV), particularly the long-term impact of viral eradication on liver disease progression, regeneration, and oncological outcomes. In parallel, the group conducts research on COVID-19, including immune response, host genetic factors, therapeutic strategies, vaccines, and prognostic determinants. Our broader research activity in infectious diseases and clinical microbiology includes infective endocarditis, mycobacterial infections, antimicrobial resistance, pharmacogenetics,

and immune regulation in infectious diseases. Finally, we are committed to the development of preventive strategies, including bacterial and viral vaccines, multidisciplinary approaches for the prevention of HIV and other sexually transmitted infections, and infection prevention in immunocompromised patients.



MAJOR GRANTS

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ASSOCIATED GROUP 12



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GROUP MEMBERS

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Sevillano Tripero, Laura
Vargas Durán, María Paula
Zurita Cruz, Nelly Daniela



RESEARCH INTEREST

There is considerable interest in the role of the human microbiome in health and disease, driven by the increasing accessibility of high-throughput sequencing techniques. Several studies indicate that the human microbiome may contribute to the regulation of multiple neurochemical and neurometabolic pathways through a complex, highly interactive, and symbiotic host-microbiome signaling system that mechanistically interconnects the gastrointestinal tract, skin, liver, and other organs with the central nervous system. Some studies suggest that the stomach harbors unexpected microbial diversity, although its relationship with *Helicobacter pylori* and other human diseases is not yet well established. *H. pylori* infects 50% of the world's population and colonizes the gastric mucosa, causing numerous gastrointestinal diseases such as severe gastritis, peptic ulcer, gastric cancer, and gastric MALT (mucosa-associated lymphoid tissue) lymphoma. It has been classified as a Group 1 carcinogen by the International Agency for Research on Cancer of the World Health Organization. Various therapeutic regimens have been used to eradicate this microorganism, with antibiotic resistance being the primary cause of treatment failure. Since the onset of the SARS-CoV-2

[Severe Acute Respiratory Syndrome Coronavirus 2] pandemic, numerous studies have been conducted to develop and validate real-time PCR (RT-PCR) techniques capable of providing an accurate diagnosis in respiratory samples. However, the virus has also been detected in other types of samples, such as blood. The evaluation of commercial RT-PCR techniques in serum and plasma samples has been one of our group's objectives, yielding satisfactory results. Additionally, we are conducting a multidisciplinary study to evaluate the detection of SARS-CoV-2 viremia as a predictive marker for patients at risk of developing severe COVID-19 and mortality. The detection of antimicrobial resistance in various clinically relevant bacteria has been another area of focus for us over the years, as we have participated in national and international studies and applied new molecular methods for its identification. This group is composed of members of the Microbiology Service who are interested in the diagnosis and treatment of various infectious diseases caused by pathogens such as fungi, *Mycobacterium* spp., or CMV, as well as in the study of infections in patients with cystic fibrosis. Several of its members actively participate in hospital working groups such as the sepsis protocol, the PROA program, and various committees. Main Areas of Research: Study of the human microbiome in different parts of the body (gastric, esophageal, respiratory,

or intestinal) and its relationship to *H. pylori* infection and other human diseases, with potential therapeutic applications. Detection of antimicrobial resistance in various clinically important bacteria (including *H. pylori*) through national and international studies and the application of molecular methods. Study of the in vitro activity of wine phenolic compounds against *H. pylori*. Determination of the role of nontuberculous mycobacteria in the development of various diseases. Detection of SARS-CoV-2 viremia as a marker to identify patients at risk of developing severe COVID-19 and mortality.

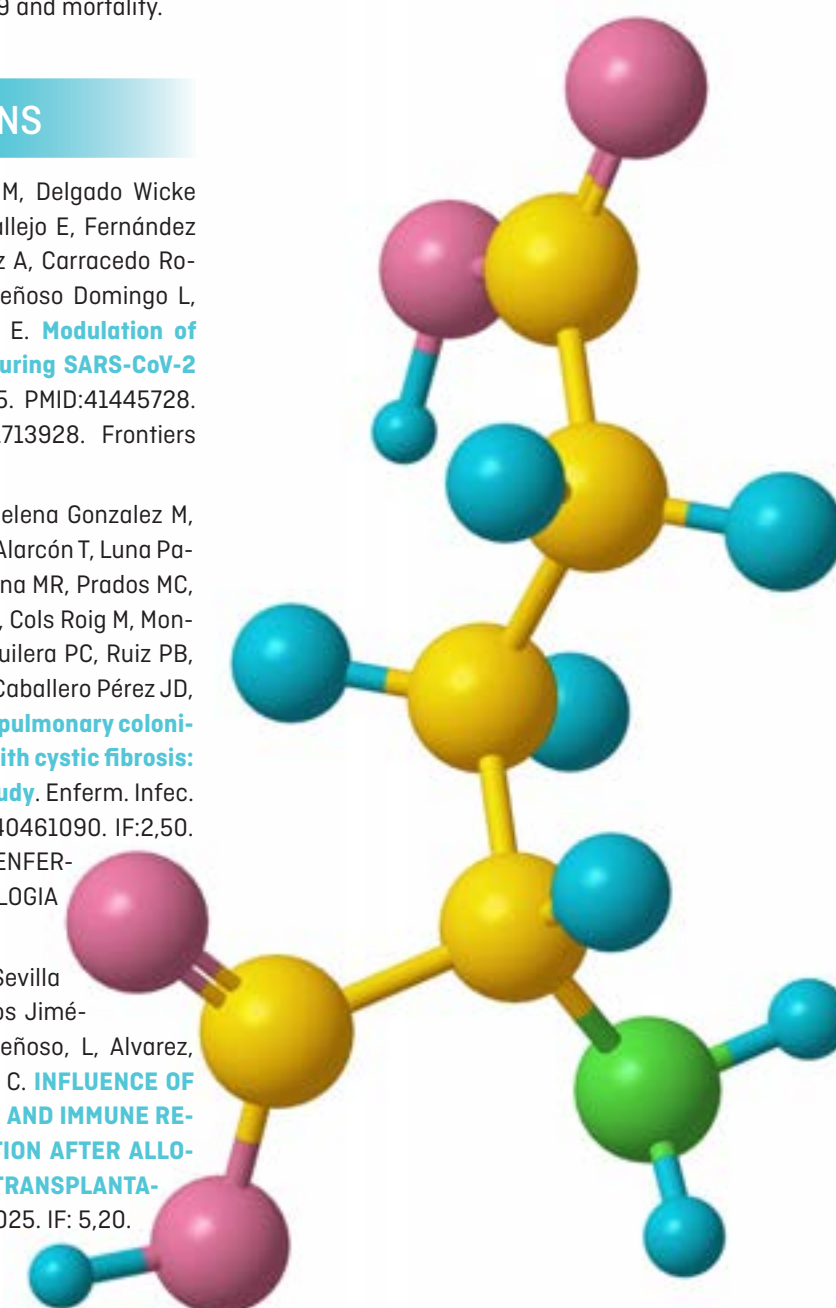


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Area 2

Translational neuroscience and mental health

Antonio Martínez Ruiz
Coordinator

- Line 8** Neuropharmacology and neuroprotection
- Line 9** Diagnostic and therapeutic advances in affective disorders
- Line 10** Mechanisms and biomarkers in neurological diseases



Line 8 Neuropharmacology and neuroprotection

GROUP 16



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Poza Viejo, Laura
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Serra López-Matencio, José María
Sigüero Gómez, Carlota
Tortosa Binacua, Elena
Viqueira Díaz-Alejo, Lucía



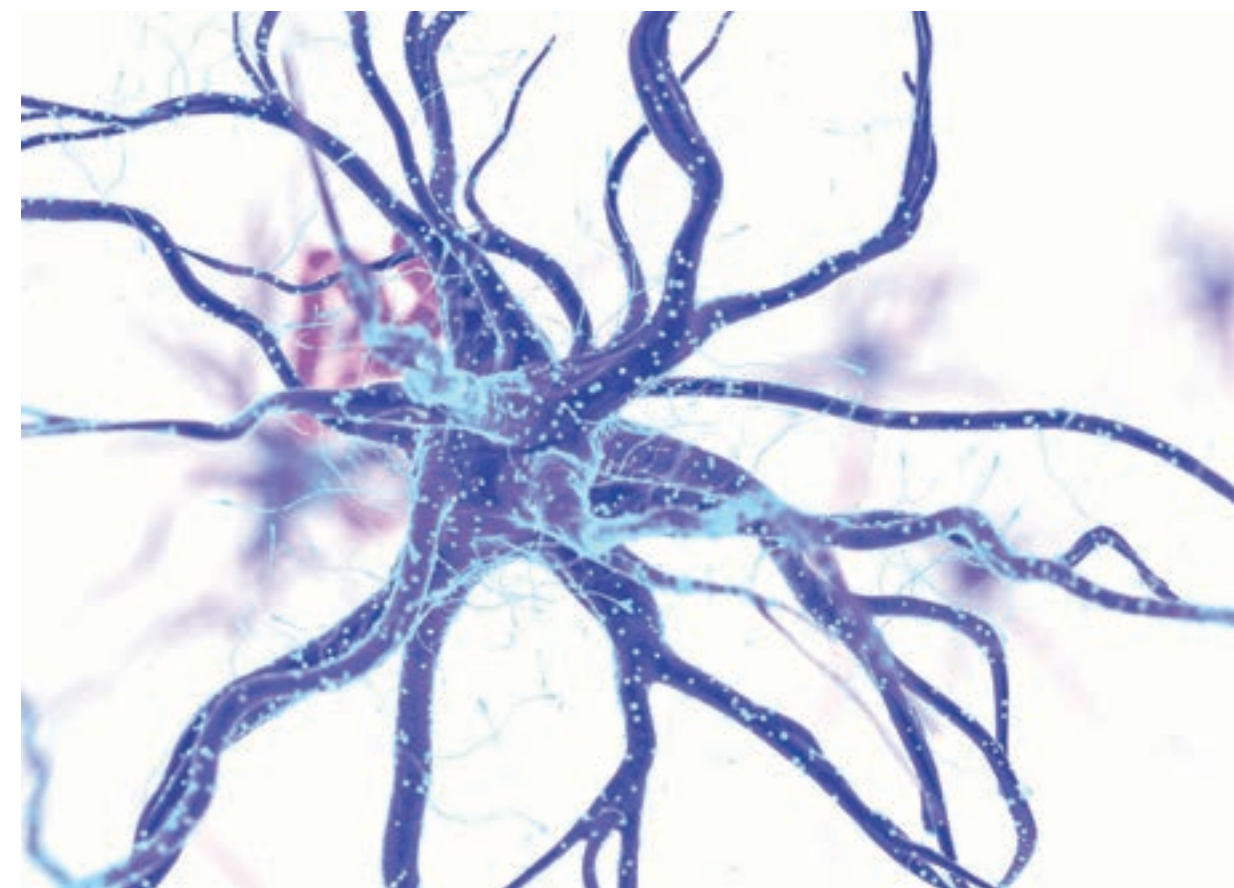
RESEARCH INTEREST

Neurodegenerative disorders like Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis and stroke represent an appalling cost, both in financial and human terms. Treatments for neurodegenerative diseases are destined to become the most significant health challenge for this generation. To date, no therapeutic strategy has proven effective and millions have been invested in therapeutic trials that have failed. There is therefore an urgent and pressing need to identify novel therapeutic strategies that might protect or rescue vulnerable neurons in these dreadful diseases. In this context, our main research lines are:

1. Identification of therapeutic targets to develop new drugs for neurodegeneration. We are particularly

interested in understanding how oxidative stress, neuroinflammation and changes in the autophagic flux participate in neurodegeneration, in order to develop pharmacological interventions to regulate these pathological conditions.

2. Development of in vitro and in vivo preclinical models that better mimic the human neurodegenerative disease. Availability of preclinical models that better represent the human disease will greatly improve translation of preclinical results to human disease.
3. Search of novel therapeutic strategies for neurodegeneration based on medicinal chemistry, combination therapy and drug repurposing. Since oxidative stress, neuroinflammation and impairment of autophagy have been implicated in neurodegeneration, impacting on several of these processes with multitarget compounds or combination of



drugs with complementary mechanisms of action is sought, to have better therapeutic profile than just impacting on a single target. For example, Nrf2 inducers combined with scavenger effect, the inhibition of several enzymes related to neurological disorders and agonist of the nicotinic acetylcholine receptors are currently being developed in our group.



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Line 9 Diagnostic and therapeutic advances in affective disorders

GROUP 33



José Luis Ayuso Mateos
Head of group



GROUP MEMBERS

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Izquierdo Zarzo, Ana
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Leal Leturia, Itziar

López García, María Pilar
Martínez Cano, Herminio
Ortiz-Tallo Moya, Ana
Rodríguez McGreevy, Kerry
Sánchez Carro, Yolanda
Torio Palmero, Iosune
Unzeta Conde, Belén
Vicente Morillo Cuadrado, Daniel
Vieira Campos, Alba



RESEARCH INTEREST

The group is composed of professionals from various disciplines (psychiatry, psychology, neurology, biotechnology, and social sciences) who work on a range of research projects funded through competitive public calls for proposals. In recent years, the group has focused its research on mental disorders, primarily on epidemiological, neurobiological, clinical, and therapeutic aspects. Other areas of research include suicidal behavior, well-being, and population aging within the theoretical framework of the International Classification of

Functioning, Disability, and Health (ICF). Among the current lines of research, the following stand out:

1. Nosology of mental disorders.
2. Affective disorders. Evaluation of the efficacy of different therapeutic strategies in patients with major depression and bipolar disorders. Identification of inflammatory biomarkers in patients with major depression. Assessment of the needs to increase the participation and work performance of people with chronic illnesses (including depression).
3. Psychosis. Analysis of the role of environmental and

biological factors and their interaction in the onset of psychotic disorders, as well as their progression over time. Study of the molecular basis of metabolic changes associated with antipsychotic treatment in patients with psychosis.

4. Epidemiology of mental disorders. Identification of patterns of healthy aging, their determinants, and critical points at which changes in the trajectory occur, as well as proposals for public health interventions to optimize the aging process.
- 5] Suicide. Study of the prevalence, progression, and determinants of mental disorders and suicide.
- 6] Well-being: Assessment of general health status, functioning, and well-being and their relationships with mortality and other socio-health indicators. Definition, epidemiology, and factors associated with psychological well-being in older adults. Monitoring of repeated assessments of affective experience and its context within the flow of daily life.
- 7] Prevention and Training: Prevention of mental disorders and suicide through training for non-mental health professionals. Definition of strategies to improve mental health care in developing countries.



MAJOR GRANTS

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Line 10 Mechanisms and biomarkers in neurological diseases

GROUP 7



Antonio Martínez Ruiz
Head of group



GROUP MEMBERS

Baixauli Martín, Júlia
Delgado Martín, Susana
Polo Fernández, Iciar

Prieto Martínez, Javier
Serrano Cuñarro, Laura



RESEARCH INTEREST

1. Role of the mitochondrial sodium/calcium exchanger NCLX in oxidative damage and ferroptotic cell death in stroke.

We discovered the mechanism by which mitochondrial Na⁺ import via NCLX disrupts the mitochondrial electron transport chain, inducing the production of superoxide and reactive oxygen species (ROS) during acute hypoxia. Our current work investigates the role of NCLX and the molecular mechanisms in which it participates in different pathophysiological settings, and we also evaluate the pharmacological application of new NCLX inhibitors in related diseases.

In this line of research, we focus on the role of NCLX in oxidative damage during stroke, using cell cultures and animal models of stroke, as well as observational clinical studies. We investigate various aspects of this role, including the mechanisms of

ROS generation and ferroptosis, a recently described form of cell death induced by iron dysregulation and oxidative lipid damage.

2. Role of the mitochondrial sodium/calcium exchanger NCLX in inflammation and immunity. Sodium dysregulation is implicated in various inflammatory pathways and immune system dysfunctions. In this line of research, we are currently studying the role of NCLX in the activation of the NLRP3 inflammasome, as well as the potential pharmacological use of NCLX inhibitors in diseases where this inflammatory pathway plays a significant role, particularly gout and stroke.
3. Protein sulfhydration in neurological development in Down syndrome.

We have previously studied the functional role of S-nitrosylation and developed redox proteomics methods for thiols to detect oxidative post-translational modifications of cysteine, which we have applied to the study of neurogenesis and other pathophysiological settings. In an international

collaborative project, we are currently studying the role of protein sulfhydration (an oxidative modification of cysteines induced by the gas transmitter hydrogen sulfide, H₂S) in neurogenesis in Down syndrome.



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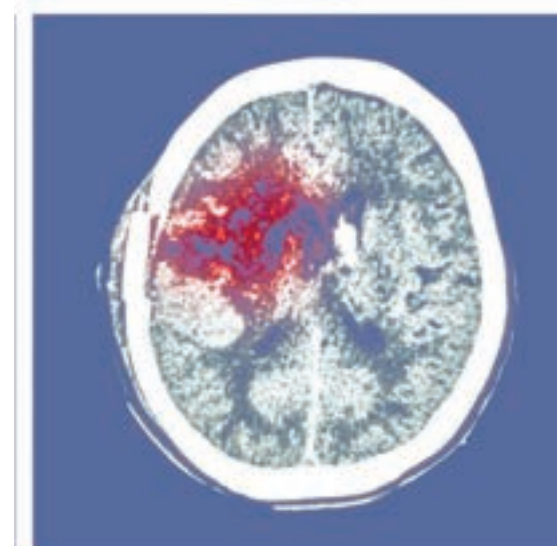
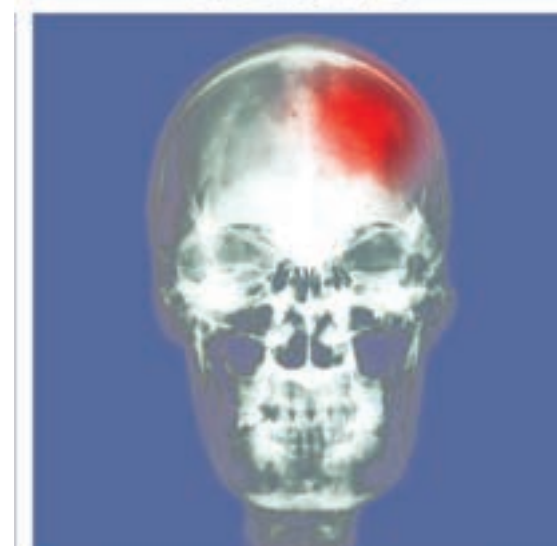
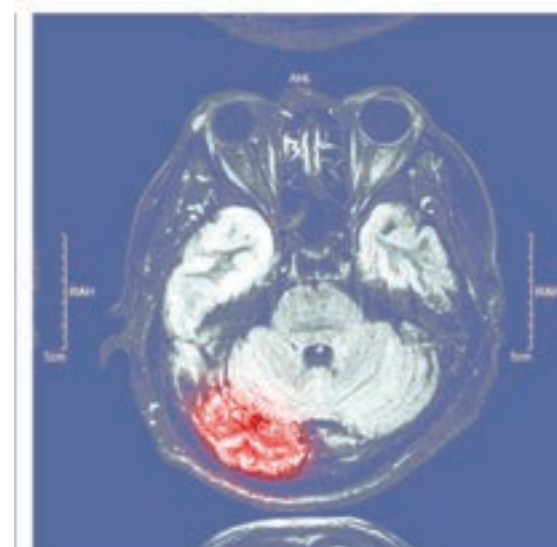
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GROUP 34



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Navas García, Marta

Pastor Gómez, Jesús
Pulido Rivas, Paloma
Rocío Martín, Esmeralda
Vega Zelaya, Lorena Carolina
Wix Ramos, Rybel



RESEARCH INTEREST

1. Oncological Neurosurgery and Advanced Therapies

- Application of Tumor Treating Fields (TTF) in glioblastoma.
- Personalized Medicine in Pituitary Tumors (in collaboration with Endocrinology).
- Biomechanical modeling and personalized surgical planning with UPM and IMDEA.

2. Neurotraumatology and Cerebral Hemorrhages

- Biomarkers and prognostic predictors in severe traumatic brain injury.
- Prognostic factors in spontaneous subarachnoid hemorrhage.
- New minimally invasive techniques for the treatment of spontaneous cerebral hemorrhage.
- Innovative approach to chronic subdural hematoma using less invasive strategies.

3. Functional Neurosurgery, Neuromodulation, and Psychosurgery

- Surgery for movement disorders (Parkinson's disease, essential tremor) – CSUR.
- Surgery for refractory epilepsy – CSUR.
- Neuromodulation for refractory neuropathic pain – CSUR.

- Psychosurgery for the treatment of OCD, aggression, anorexia, and major depression.
- Deep brain stimulation (DBS): surgical optimization, personalized programming, and development of the AdroIT project for remote monitoring and programming.

4. Spinal Surgery and Minimally Invasive Techniques

- Robotic surgery and advanced navigation in spinal and spinal cord disorders.
- Single-port and dual-port endoscopic surgery for spinal and spinal cord disorders.
- Technical innovations in MIS (minimally invasive surgery) approaches.

5. Vascular Neurosurgery and Interventional Neuro-radiology

- Interventional neuroradiology in acute ischemic stroke.
- Exploration of new endovascular and hybrid indications.
- Application of artificial intelligence and predictive analytics in vascular neuroimaging.

6. Intraoperative Neurophysiology and New Biomarkers

- Advanced neurophysiological monitoring during cranial and spinal surgery.
- Development of intraoperative biomarkers predictive of functional outcomes



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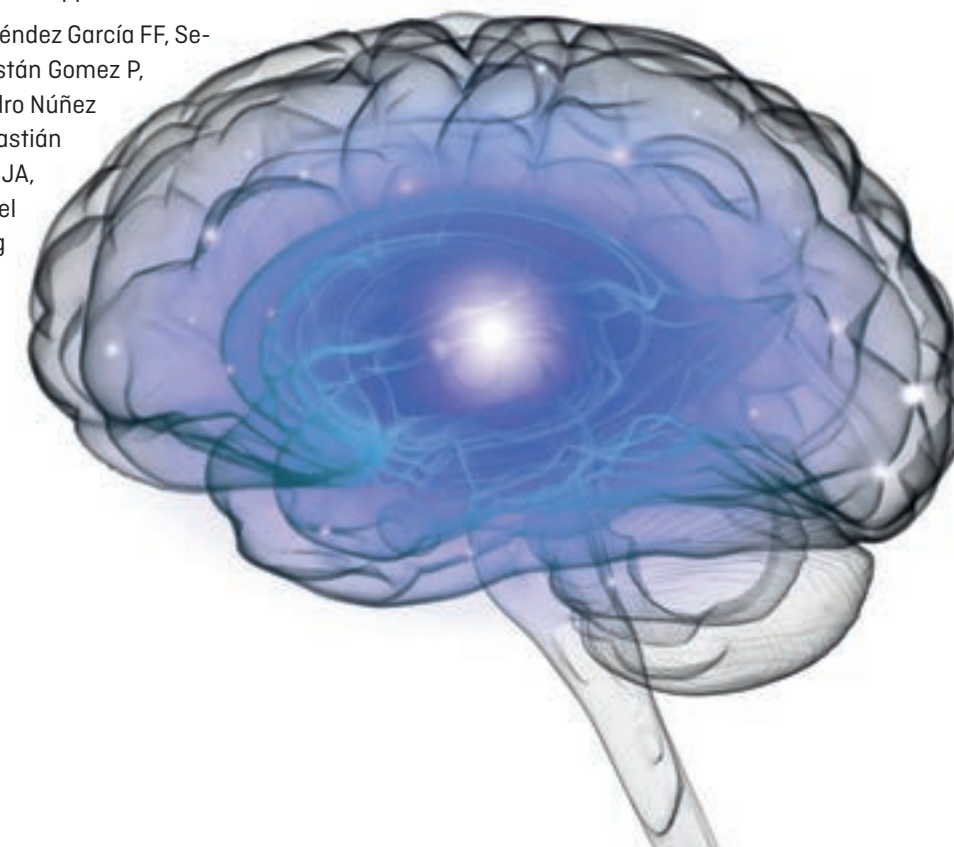
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GROUP 35



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Ana Beatriz Gago Veiga
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 López Rodríguez, Ana Belén
 Meca Lallana, Virginia

Mora Pérez, Noemí
 Nombela Merchán, Florentino
 Ramos Martín, Carmen
 Reig Roselló, Gemma
 Trillo Senin, Santiago
 Vázquez Doce, Aránzazu
 Vega Villar, Juan
 Vieira Campos, Alba
 Ximenez-Carrillo Rico, Álvaro
 Zapata Wainberg, Gustavo Enrique



RESEARCH INTEREST

Stroke and cerebrovascular diseases

- Predictive models in stroke for the identification of diagnostic and prognostic markers: application of machine learning techniques and the search for plasma biomarkers and clinical-scale markers.
- Acute-phase treatments: interventional neuroradiology and emerging therapies. Strategies to improve the selection of candidate patients.
- Neuroprotection: biomolecular biomarkers of ischemia and new therapeutic targets and strategies.
- Primary and secondary stroke prevention: detection of atrial fibrillation using a new ECG monitoring device based on biomedical textiles (wearables). Identification of risk profiles.
- Population-based healthcare organization / stroke code system.
- Telemedicine.

Movement disorders

- Parkinson's disease in young patients.

- Monitoring and management of Parkinson's disease using new technologies.

Headaches

- Noninvasive ambulatory monitoring of biometric and biophysical variables as a method for predicting migraine attacks.
- Predictive models of therapeutic response in migraine.
- Study of neuropeptides and neurotransmitters as diagnostic, prognostic, and therapeutic biomarkers in headache disorders.
- Study of the short- and long-term effectiveness and safety of anti-CGRP treatments in real-world clinical practice.
- Study of migraine comorbidities.
- Conducting clinical trials in migraine.

Cognitive Decline and Dementia

- Early detection of Alzheimer's disease and the search for new therapeutic targets.
- Language Disorders of Neurodegenerative Origin.
- Management of behavioral disturbances in patients with dementia.

Multiple sclerosis

- Prognostic markers and new therapies.
- Immunopathogenesis of multiple sclerosis and monoclonal antibody therapies.
- Therapeutic adherence to first-line disease-modifying treatments in patients with multiple sclerosis.

Epilepsy

- Drug-resistant epilepsy.
- Genetic abnormalities in refractory epilepsy.
- Non-convulsive status epilepticus.
- Neuroimaging in the epileptic patient in the emergency department.

Neuromuscular diseases

- Immunopathogenesis of myasthenia gravis.



MAJOR GRANTS

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GROUP 41



Francisco Javier Egea Máiquez
 Head of group



GROUP MEMBERS

Álvarez Rubal, María
 Decouty Pérez, Céline

Valencia Fernández, Inés



RESEARCH INTEREST

Acute brain injuries, such as stroke and traumatic brain injury, account for approximately 10% of deaths and are the leading cause of disability worldwide [GBD 2013 Mortality and Causes of Death Collaborators, 2015]. The pathophysiology of these injuries is complex and multifactorial, and currently, pharmacological treatment options are limited, representing an unmet clinical need. In recent years, inflammatory processes (which are pronounced in these types of conditions) have been identified as key factors contributing to the worsening of acute brain injuries and are therefore considered highly promising therapeutic targets. Our group focuses on studying the role of inflammation and immunity in the pathogenesis of these diseases. Specifically, we investigate the mechanisms that regulate the activation of the innate immune system and their application in the search for new therapeutic targets and new diagnostic/prognostic biomarkers in stroke, traumatic brain injury, and neurodegenerative diseases. Study of the mechanisms that control the activation of the innate immune system. Inflammasomes are multiprotein molecular complexes involved in the activation of caspase-1. Following the activation of this enzyme, the pro-IL-1 β and pro-IL-18 interleukins are processed and released to initiate the inflammatory process. The NLRP3 inflammasome is the only NOD receptor (NLR, NOD-like receptors) that responds to both damage-associated molecular patterns (DAMPs) and pathogen-associated molecular patterns (PAMPs). NLRP3 is activated in response to a wide variety of infectious or cellular stress

stimuli triggered by various non-infectious danger signals, such as high concentrations of extracellular ATP, oxidative stress, and β -amyloid aggregates. Our main work focuses on the study of signal transduction that activates inflammation and, in particular, on the role of mitochondria in this process. Search for new therapeutic targets for the treatment of acute brain injuries. The mechanisms described in line 1 are validated in in vitro and in vivo models of cerebral ischemia (transient middle cerebral artery occlusion, tMCAO; hemorrhagic stroke) and traumatic brain injury (closed-head injury model). Search for new diagnostic/prognostic biomarkers of inflammatory origin. We are studying the potential role of new biomarkers in samples from patients with traumatic brain injury and from patients with stroke (ischemic and hemorrhagic), seeking to validate them using the models described in line 2.



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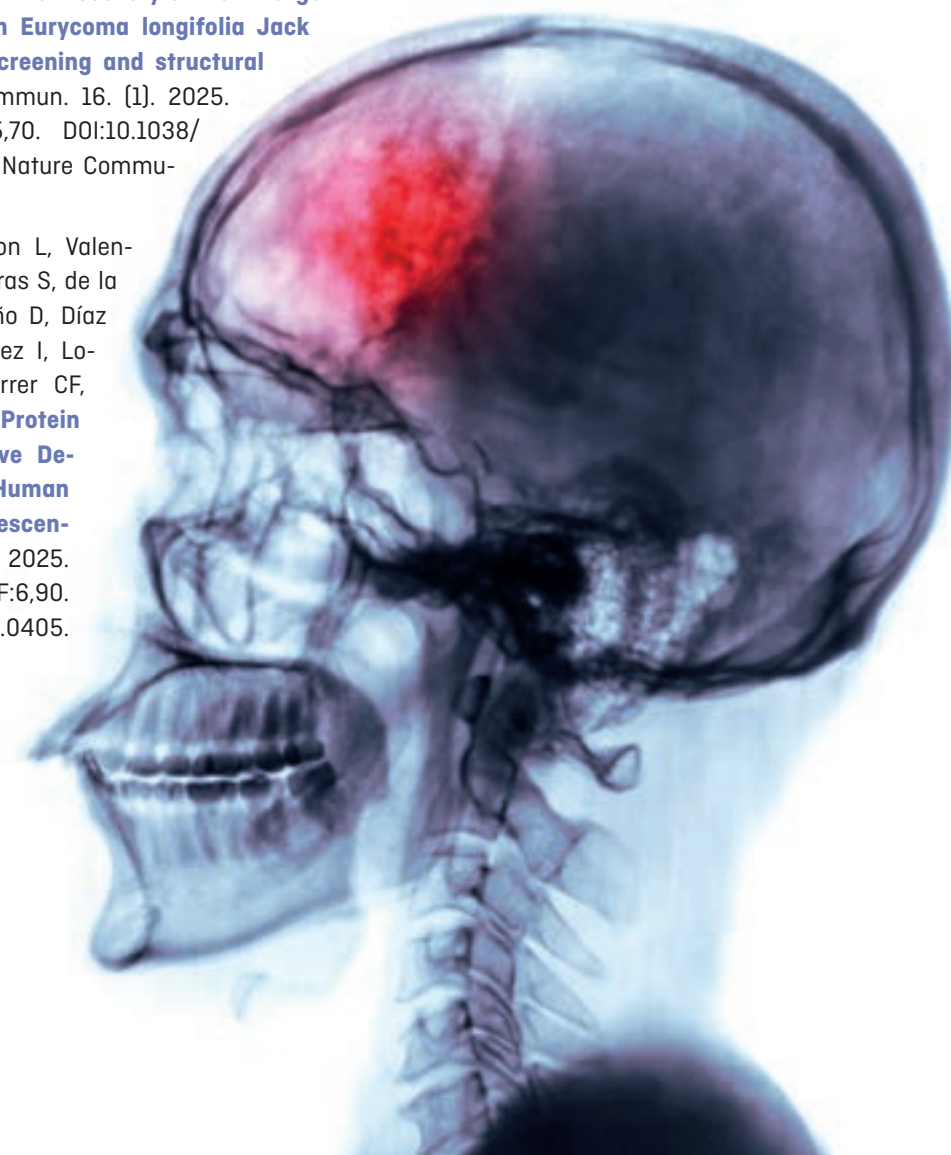
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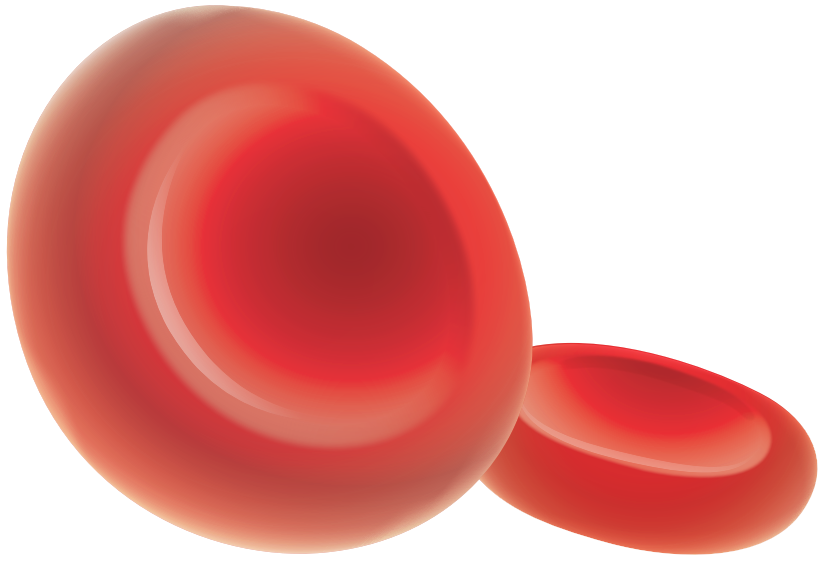


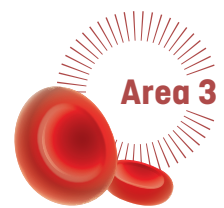
Area 3

Personalised
oncology and
haematology,
and advanced
therapies

Manuel Ramírez Orellana
Coordinator

- Line 11** Oncohematological diseases
- Line 12** Personalised medicine for solid tumours
- Line 19** Basic mechanisms associated with oncological diseases





Line 11 Oncohematological diseases

GROUP 39



Manuel Ramírez Orellana
Head of group



GROUP MEMBERS

Aguado Bueno, Beatriz
Alemán Arteaga, Silvia
Andion Catalán, Maitane
Benito Bernal, Ana Isabel
Cantarín Extremera, Verónica
de Unzueta Roch, José Luis
García Martínez, Jorge
García Salido, Alberto
García Sánchez, Elena

García Teresa, María de los Ángeles
Gómez García, Ana María
Herrero Velasco, Blanca
Molina Angulo, Blanca
Ruano Domínguez, David
Rubio San Simón, Alba
Saiz Ladera, Cristina
Vicuña Andrés, Isabel
González Murillo, África



RESEARCH INTEREST

Although more than half of children and adolescents diagnosed with cancer survive, cancer remains the leading cause of disease-related death in these patients. Those who develop metastases at any stage of their disease, who have genetic markers associated with a poor prognosis, or who have recurrent or refractory tumors, face a very poor prognosis. Our research group is convinced that translational research is the best strategy for providing solutions for these patients.

The team is a multidisciplinary group with proven experience in the diagnosis and treatment of childhood cancer, the development of research projects on advanced therapies applied to refractory pediatric cancer, and the implementation of clinical trials in pediatric oncology. In short, it possesses the knowledge and prior experience necessary to ensure the impact of newly developed advanced therapies and personalized medicine on any child or adolescent with cancer in Spain.

The team includes research groups with active and complementary lines of investigation, including basic,

translational, and clinical research in areas such as:

- genetic predisposition to pediatric leukemias,
- biomarkers and molecular diagnostics,
- next generation sequencing and single-cell approaches, including spectral cytometry
- pediatric neuro-oncology,
- clinical trials of new drugs,
- advanced therapies (including cellular immunotherapy and advanced therapy development).



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GROUP 45



Elena Fernández Ruiz
 Head of group



GROUP MEMBERS

Alegría Carrasco, Estíbaliz
 Jaén Castaño, Marta
 Carracedo Rodríguez, María Rosa



RESEARCH INTEREST

Chromosomal translocations and gene mutations are frequently associated with the etiology of hematologic malignancies. The JAK family of non-receptor tyrosine kinases comprises four members (JAK1, JAK2, JAK3, and TYK2), which are involved in cytokine signaling in

hematopoietic cells. These enzymes play a fundamental role in maintaining normal hematopoiesis by recruiting downstream effectors that regulate cell proliferation and survival. It has been reported that 10% of high-risk acute lymphoblastic leukemia (ALL) cases harbor activating mutations in JAK2, making them potential candidates for therapeutic interventions with JAK2 inhibitors. ALL is the most common childhood cancer, and

although most cases respond to treatment, up to 20% relapse, significantly reducing survival rates. Therefore, we analyzed high-risk B-cell ALL samples using next-generation sequencing to determine the prevalence of mutations in JAK family receptors in the Spanish population. We found that mutations in TP53 and JAK2 are independent prognostic biomarkers in B-cell ALL. Furthermore, we provide evidence of naturally occurring loss-of-function catalytic variants in TYK2, which affect the response to type I IFN and result in reduced TYK2 expression in patients with B-cell ALL. Furthermore, it has been reported that TYK2 deficiency in mice increases susceptibility to Abelson-induced B-cell leukemia/lymphoma, linked to a decrease in the cytotoxic capacity of CD8+ lymphocytes, NK cells, and NKT cells, due to reduced IFN- γ production. Taken together, these data suggest that TYK2 deficiency in humans is clinically silent but may predispose to tumor formation. Given the importance of maintaining an adequate immune response for proper tumor surveillance, the role of cytokine receptors, JAK proteins, and their target genes is highly relevant. Our group focuses on the role of TYK2 in infection and neoplasia: Studies in Tyk2-deficient mice have allowed us to understand the role of this protein and the IFN-I signaling pathway in B lymphocytes. This research has revealed a new interaction between TYK2 and Toll-like receptor 7 (TLR7), which is essential for the proper establishment of splenic marginal zone cells, which are fundamental in the detection of circulating pathogens.

Determining the contribution of genotype and gene expression involved in the IFN-I signaling pathway to predicting the severity of COVID-19.



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GROUP 46



Cecilia Muñoz Calleja
 Head of group



GROUP MEMBERS

Cuesta Mateos, Carlos
 Díaz Fernández, Paula

Marcos Jiménez, Ana María
 Sevilla Montero, Javier



RESEARCH INTEREST

1. Immune biomarkers of outcome in hematopoietic cell transplantation.
2. Immunotherapy for lymphoproliferative syndromes, graft-versus-host disease, and autoimmune diseases involving anti-CCR7 antibodies.
3. Characterization of the immunomodulatory effects of tyrosine kinase inhibitor dasatinib.



MAJOR GRANTS

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ASSOCIATED GROUP 10



Adrián Alegre Amor
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Javier Loscertales Pueyo
 Co-IP



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RESEARCH INTEREST

The Advanced Hematology Therapies Group at the Princess Hospital Research Institute is dedicated to promoting clinical, epidemiological, and translational research on benign and malignant hematological diseases, as well as the use of peripheral blood and bone marrow cells as a therapeutic source for treatments. The group's scope of activity is broad, reflecting the diverse interests of its members, and ranges from genetic and molecular studies to the development of new drugs for blood disorders and advanced therapeutic approaches, such as hematopoietic transplantation and cell therapies, including CAR-T cells. The group has a special interest in the following areas:

- Study of the efficacy and safety of new drugs with novel mechanisms of action in malignant hematologic neoplasms and benign blood disorders.
- Advanced therapies using CAR-T cells (chimeric antigen receptor T-cells) and other cellulartherapies.
- Immunological, molecular, and genetic studies in hematologic neoplasms.

- Analysis of new approaches to improve clinical outcomes of stem cell transplantation, including new donor sources, such as haploidentical or unrelated donors, and new strategies to prevent graft-versus-host disease.
- Analysis of infectious complications in immunocompromised hematology patients.
- Epidemiological studies of blood disorders, primarily neoplasms: incidence, prevalence, and mortality.
- Analysis of hypercoagulable states and the use of new anticoagulants for prevention and treatment.
- New strategies in apheresis and transfusion medicine.

Dr. Alegre Amor heads the Hematopoietic Transplantation, CAR-T, and Advanced Therapies Program at La Princesa Hospital. Dr. Alegre and his team have focused their clinical research on all the areas mentioned, participating over the past five years in numerous clinical trials on hematologic malignancies—primarily multiple myeloma, acute and chronic leukemias, lymphomas, and myelodysplastic syndromes—using new drugs. Over the next five years, the objectives are to continue these translational studies and also to participate in

competitive grant calls with innovative projects in all the aforementioned areas, which could encompass all hematologic malignancies treated by our group. As a reference center designated by the Ministry of Health for CAR-T therapies and a member of the CERTERA Consortium Network, the group will conduct CAR-T clinical trials for hematologic and non-hematologic disorders. Additionally, other plans include establishing studies on molecular genetics, immunotherapy, epidemiology, pharmacology, comorbidity, long-term follow-up, and quality of life for these complex diseases.

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Line 12 Personalised medicine for solid tumours

GROUP 40



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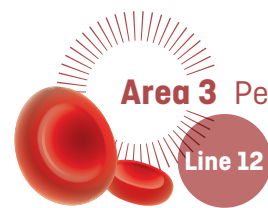
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RESEARCH INTEREST

The Research Group "Individualised Medicine in Solid Tumors" of the IIS-La Princesa (<https://www.iis-princesa.org/grupo/grupo-40/>) is integrated into the area

"Advanced Therapies and Individualised Medicine" coordinated by Dr. Manuel Ramírez Orellana, as part of the accredited Health Research Institute (IIS-Princesa). Group 40 is located at the University Hospital of La Princesa (Madrid), a high-complexity hospital, and a reference center in the Community of Madrid for different



surgical specialties and subspecialties, which has its own Ministry of Health-endorsed Biomedical Research Foundation, providing an advanced healthcare and research environment for translational research and clinical studies. It also includes research members from the Hospital Universitario Santa Cristina.

Group 40 has a consolidated track record and sustained competitive activity, oriented towards precision oncology, biomarkers and precision surgery, and with proven experience in the training and motivation of clinical-researcher profiles including predoctoral students, Rio Hortega and Juan Rodés contracts. The research group is associated with the UAM Chair of Personalized Precision Medicine (UAM- Instituto Roche) (https://www.institutoroche.es/catedra_de_medicina_personalizada_de_precision), directed by Dr. Ramon Colomer (Medical Oncology) and Dr. Sánchez Madrid (Immunology).

Group 40 focuses on clinical and translational research with the aim of identifying, validating and implementing biomarkers and precision therapeutic strategies in patients with solid tumours that optimise clinical decision-making and improve health outcomes, coinciding with one of the priority lines of research of the AES 2026 call. The results of our group have an impact on the optimisation of public resources, reducing side effects and increasing the probabilities of clinical benefit of the available strategies. Its work model is based on multidisciplinary hospital collaboration and stable external collaborations with national and international groups such as CNIO and EORTC.

The scientific group is led by Dr. Ramon Colomer and by Dr. Nuria Romero-Laorden as co-leader, guaranteeing scientific supervision and training support in translational and clinical research aimed at implementable results. Dr. Nuria Romero-Laorden joined the management of the group after a Juan Rodés contract (JR17/00007). The group's capacity is based on access to clinical cohorts and biological samples, experience in the design and execution of studies with a translational component, and institutional support for translational research and clinical trials. In recent years, the group has demonstrated its continued ability to attract competitive funding and to execute projects aimed at biomarkers in precision oncology, adding 6 projects granted by ISCIII since 2018: PI17/01865, PI17/00801, PI20/01458, PI21/01111, PMP22/00032 and PI25/01173.

The following is a summary of the current lines of research:

1. Biomarkers in precision oncology: discovery, validation and implementation.

The group is developing a priority line focused on biomarkers with clinical applicability in precision oncology, aimed at patient stratification, response prediction

and the identification of resistance mechanisms. The approach is translational, from discovery to validation in clinical cohorts and its possible implementation in care, and has been consolidated with competitive funding from the ISCIII. This is the context of PIE15/00068 ("Discovery, Validation and Implementation of Biomarkers for Precision Oncology"), a coordinated and multicentre platform promoted by oncologists and pathologists to improve the coordination of professionals involved in oncological biomarkers, integrating five hospitals (12 de Octubre, Ramón y Cajal, Valdecilla, IRB Lleida and La Princesa) and two collaborating centres (Vall d'Hebron and the Institute of Biomedicine of Seville).

In addition, the group has contributed to the conceptual standardisation of the clinical use of NGS with guidance publications for its indication, including rare tumors (Colomer R, Miranda J, Romero-Laorden N, et al., *EClinicalMedicine*, 2023). The incorporation of Nuria Romero-Laorden brought previous experience in a multicenter platform of biomarkers in prostate cancer with more than 900 patients in which 56 hospitals have participated, having achieved high-impact publications with FWCI>6 (PMIDs: 37838555, 30773204, 38417742, 40467032) in collaboration with CNIO and international researchers from the IRCSS in Italy, University College London, the University of Washington or British Columbia University in Canada. Finally, this line is reinforced with the promotion of emerging researchers betting on the transmission of leadership with the project coled by Jacobo Rogado together with Ramon Colomer (PI25/01173), focused on biomarkers of efficacy/toxicity of immunotherapy in non-small cell lung cancer, with preliminary results on immune trafficking/chemotaxis in peripheral blood and its relationship with body composition and leptin for prospective validation.

2. Actionable molecular alterations and therapeutic stratification in solid tumors.

Line aimed at the identification and characterization of molecular alterations with therapeutic relevance in solid tumors, evaluating their usefulness as actionable biomarkers and their correlation with clinical phenotypes and response to treatment. This included the project "Double amplification with therapeutic relevance in hormone-dependent breast cancer" (PI17/01865).

Dr. Romero-Laorden developed a Phase 2 trial as a PI to analyze the benefit of switching prednisone to dexamethasone in prostate cancer patients treated with abiraterone (SWITCH; Br J Cancer 2018), identifying a new therapeutic strategy that has been recognized and included in International Clinical Guidelines (NCCN guidelines 2021 DOI: 10.6004/jnccn.2021.0008), occupying the publication an outstanding 84th percentile of citations in its area and showing our ability to obtain results with a direct impact on care in the NHS.

This line is supported by the close connection with the

hospital's Clinical Trials Unit, which provides a stable research structure and contributes to the sustainability of the group. In addition, activity in clinical trials facilitates continuous contact with new drugs and therapeutic strategies, and allows molecular information to be transferred more quickly to stratification and treatment selection decisions.

3. Immunological biomarkers and immunophenotypic profile in advanced cancer.

Translational line aimed at the study of immunological determinants associated with therapeutic response, resistance or escape in advanced cancer, with the aim of identifying transferable biomarkers and supporting precision medicine strategies. As an example, the group has developed the project "Immunophenotype in metastatic prostate cancer" (PI21/01111), which reflects the group's ability to carry out immune biomarker studies in a highly complex clinical context.

Also, Dr. Jacobo Rogado has focused on biomarkers of efficacy and toxicity of immunotherapy, especially in non-small cell lung cancer, with more than 50 articles since 2018 (20 as first author or corresponding author) and a notable impact (more than 1200 citations since 2020 and more than 1300 accumulated; PMIDs: 30682533, 32363123, 35740564, 35870091, 29910159, 39708256). His work integrates clinical biomarkers and host variables (including immunorelated adverse events; PMID 30682533, and excess weight; PMIDs 32363123 and 35870091) with a translational approach based on immunophenotyping in peripheral blood. This line is prospectively validated in project PI25/01173.

The execution is supported by the stable collaboration with Immunology (Dr. Alfranca and Dr. Sánchez-Madrid), the support of IIS-Princesa platforms (flow cytometry, PCR and traceable sample circuit) and both national and international collaborations (EORTC-LCG, EORTC-H&N, GECP, TTCC). In addition, it is reinforced with competitive funding led by Dr. Nuria Romero-Laorden: AECC project in melanoma (PRYC0223002PEIN), Mutua Madrileña MUT02.2021 and projects in metastatic prostate cancer (PI17/00801; PI21/01111; CRIS Foundation Clinical Talent Program Against Cancer 2022).

4. Metabolic determinants and their connection with tumor processes (with translational projection).

Translational line aimed at exploring relevant metabolic processes in cancer and their application both in prevention and in the identification of useful biological determinants for individualised medicine. This is the framework of the project "A new metabolic strategy for the prevention of breast cancer" (PI14/00726), which exemplified the group's approach to metabolic targets with preventive potential.

In a complementary way, the line studies tumor lipid metabolism and its connection with the immune microenvironment, analyzing determinants linked to FASN and its relationship with the T cell compartment in the tumor, with interest in biomarkers and response/resistance mechanisms. This strand is structured around the project "A novel tumorigenic role of Fatty Acid Synthase related to the tumor T-cell compartment" (PI20/01458). The execution of this line is reinforced by stable external collaborations, including CNIO, which provide a complementary framework for the development and testing of hypotheses in tumour biology.

5. Clinical research in hepatobiliopancreatic surgery.

The Hepatobiliopancreatic Surgery Unit of the University Hospital of La Princesa is a clinical group made up of hepatobiliopancreatic surgeons, medical and radiation oncologists, radiologists, interventional radiologists, gastroenterologists, and pathologists who work together in a multidisciplinary way in the diagnosis and treatment of patients with hepatobiliopancreatic pathology.

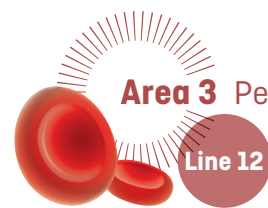
The unit's goal is to provide personalized cancer treatment, offering the best treatment available to each of our patients. We have extensive experience in the diagnostic and therapeutic approach to pancreatic pathology, such as pancreatic cancer, neuroendocrine tumors and cystic lesions, among others, as well as in the management of primary and metastatic benign and malignant liver lesions. Since the incorporation of the Da Vinci robot, research has focused on the minimally invasive/precision treatment of these pathologies to demonstrate their clinical and oncological benefits. In addition, we have presented a large number of communications to national and international conferences and publications, as well as participation in clinical research projects in collaboration with other groups.

The group's main areas of research are:

- Surgical treatment of pancreatic carcinoma and its complications.
- Robotic approach to hepatobiliopancreatic pathology.
- Identification of prognostic and predictive factors of response to chemotherapy treatment.
- Impact of exocrine pancreatic insufficiency in subjects with pancreatic cancer.
- Evaluation of quality of life in patients undergoing surgery for pancreatic cancer.

Within the participation in clinical trials, the collaborative projects with other centers granted by ISCIII stand out:

PI19/00250: Pancreatic anastomosis after cephalic duodenopancreatectomy: Pancreatogastrostomy versus Blumgart's anastomosis. Multicenter, prospective, randomized study.



PI16/01465: Impact of the spread of circulating tumor cells during cephalic duodenopancreatectomy in patients with pancreatic and periampullary tumors on the development of distant metastases and survival. Prospective, randomized, multicenter study.

PI15/00076: Cephalic duodenopancreatectomy in pancreatic and periampullary tumors: initial approach to the superior mesenteric artery versus the classic approach. Prospective, randomized, multicenter study

PI20/00047: Survival Analysis of Neoadjuvant Treatment in Resectable Pancreatic Carcinoma with Risk Factors

PI01/0264: Study and characterization of molecules involved in progression to metastatic phenotype. Assessment of its diagnostic potential and therapeutic use.

PI09/1336: Anti-tumor therapeutic potential of anti-CCR7 antibodies.

6. Study of biomarkers in cytological and tissue samples of small size.

This a practical issue is of special importance given the necessarily small size of many samples (tissue and cytological) resulting from minimally invasive diagnostic procedures, which aim to reduce the possible morbidity for the patient. This problem applies to the anatomopathological diagnosis of practically all neoplasms, with special relevance, due to its frequency and inaccessibility, to lung and pancreatic cancer. In this context, the diagnostic use of fine needle aspiration (FNA) (transbronchial and echoendoscopic) has multiplied in recent years. Their small size requires their rational use, as well as the extrapolation of molecular immunohistochemical techniques to cytological material. The study of this type of sample is the subject of preferential analysis in the Pathological Anatomy Service of the La Princesa University Hospital. Since 2012, numerous cytological studies have been published with special interest in the application of immunohistochemistry to this type of samples. As a result of this research, the Service is currently participating in the drafting of three of the monographic texts of the International Agency for Research on Cancer (IARC) of the World Health Organization (WHO) dedicated to diagnostic cytopathology, and proposed as diagnostic references for international use.

7. Clinical research in gynaecological and breast cancer.

The Gynaecological Oncology and Breast Cancer mixed Unit of the HU Santa Cristina-HU La Princesa is a multidisciplinary and inter-hospital unit made up of gynaecologists, medical oncologists, radiation oncologists, radiologists and pathologists, who work together in the diagnosis and treatment of patients with gynaecological and breast cancer.

The aim of the unit is to treat gynaecological and breast cancer in a personalised way. We have extensive experience in both surgical and systemic diagnostic and therapeutic approaches, including all available lines of treatment. In breast surgery, advanced oncoplastic surgery, risk-reducing surgeries and non-excisional treatments such as thermoablation or cryotherapy are performed. For the surgical treatment of gynecologic cancer, both minimally invasive approaches and maximum-effort debulking surgeries are performed for advanced ovarian cancer and gynecologic cancer recurrences.

The group's research focuses on clinical results of treatments, research work is regularly presented in the form of communications at national and international conferences and scientific publications, it also actively participates in clinical research projects in collaboration with other groups.

The group's main areas of research are:

- Anatomopathological results of different oncoplasty patterns in breast cancer.
- Surgical de-escalation in breast cancer patients treated with neoadjuvant therapy.
- Identification of prognostic and predictive factors of complete cytoreduction in advanced ovarian cancer.
- Evaluation of quality of life in patients undergoing surgery for gynecologic cancer.

MAJOR GRANTS

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GROUP 51



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 Rajas Naranjo, Olga
 Rodríguez Serrano, Diego Aníbal
 Rofso Raboso, Paloma
 Solís García, Marta



RESEARCH INTEREST

A study of diagnostic and prognostic biomarkers in lung cancer.



MAJOR GRANTS

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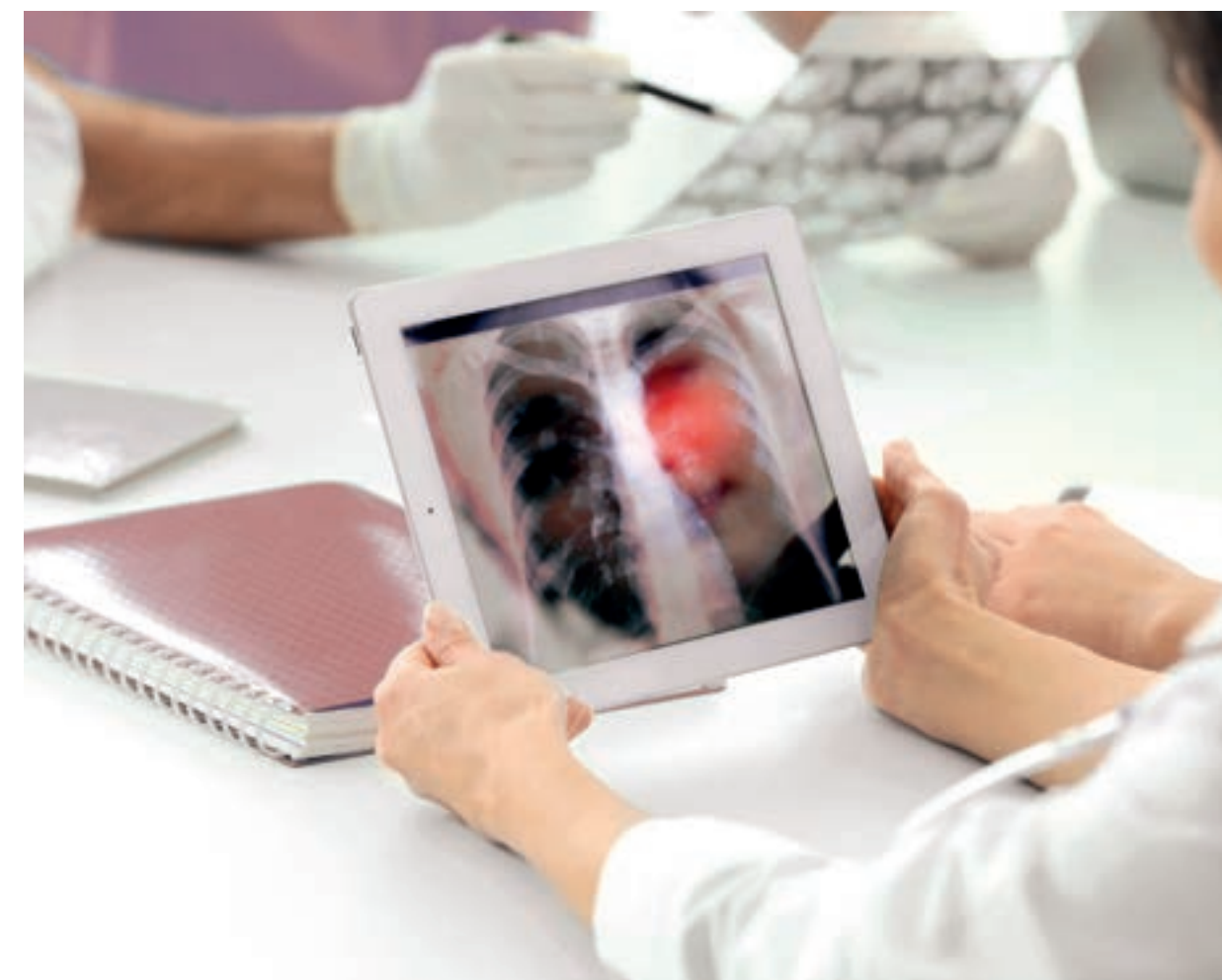
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ASSOCIATED GROUP 3

José Cordero Ampuero
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GROUP MEMBERS

Alday Muñoz, Enrique
Aragónés Maza, Paloma
Galán Olleros, María
González Guijarro, Juan Jacobo
Marín Aráez, Emilio

Orts Rodríguez, Mar
Planas Roca, Antonio
Ramasco Rueda, Fernando
Teba del Pino, Fernando



RESEARCH INTEREST

1. Prosthetic joint infection
2. Long-term results in total hip arthroplasty
3. Hip fracture



PUBLICATIONS

Sánchez C, Suarez Trujillo F, Ramírez C, Soletto I, Mercado J, Orejudo M, Martínez PJ, Rubio Collado C, Orts M, Rubio Franco MJ, Planas A, Acedo N, Butta N, Chaparro M, Gisbert JP, Baldán Martín M. **Effect of Tofacitinib on Hemostasis in Patients with Ulcerative Colitis: A Comparative Ex Vivo Study**. Pharmaceuticals. 18. (4). 2025. PMID: 40283992. IF: 4,80. DOI: 10.3390/ph18040557. Pharmaceuticals.

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Line 19 Basic mechanisms associated with oncological diseases

GROUP 61



Arantza Alfranca González
Head of group



GROUP MEMBERS

Baratas Álvarez, Lucía
Escudero Sánchez, Guillermo

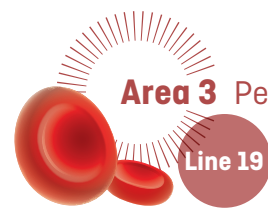
Gaspar Navarro, Jessica
Riutort Garvi, Maria Trinitat



RESEARCH INTEREST

1. Evaluation of the role of chemokine CCL21 in tumor development and response to anti-tumor immunotherapy in tumors with varying degrees of immune response, such as non-small cell lung cancer (NSCLC) and prostate cancer (PC). This line of research is being conducted in collaboration with Dr. Carlos Cuesta (Immed S.L.), Dr. Nuria Romero (IIS HULP), and Dr. Ramón Colomer (IIS HULP), and has been funded by projects PLEC2022-009312 and PI22/01542. The aim is to study the antitumor action of CCL21 from different perspectives:
 - 1) To decipher the specific contribution of CCL21 during tumor development and in the response to anti-PD-1 in preclinical models, using blocking antibodies against CCL21 and humanized animal models or models in which CCL21 expression has been eliminated in tumor cells;

- 2) Analyzing the mechanisms regulating CCL21 expression during tumor development and in response to anti-PD-1 antibodies; and
 - 3) Studying changes in serum CCL21 expression in response to therapy in patients with NSCLC and PC, to explore the potential of CCL21 as a response biomarker.
2. Development of new antitumor therapeutic tools based on the administration of CCL21. This line of research is being conducted in collaboration with Dr. Alejandro Baeza (UPM) and Dr. Nuria Romero. The aim is to design a versatile and innovative nanosystem that selectively modulates the tumor microenvironment by releasing CCL21 in a controlled manner, thereby promoting an effective antitumor immune response with greater efficacy in NSCLC and sensitizing tumors that do not respond adequately to immunotherapy, such as CP.
 3. Study of the immunological mechanisms of action of new anticancer drugs. This research is being



conducted in collaboration with Drs. Sánchez-Madrid and Noa Martín-Cofreces (IIS HULP), Dr. Ignacio Melero (CIMA), and the company Pharmamar, and is funded by project CPP2021-008385. The aim is to identify and study the mechanism of action of new small molecules capable of activating dendritic cells and/or reversing T-cell exhaustion, for their potential application as antitumor immunotherapy.

4. Study of the immune response following compassionate use treatment with mesenchymal stem cells (MSCs) in Rasmussen's encephalitis. This line of research is being conducted in collaboration with Drs. Sánchez Madrid and Ramírez Orellana (HUNJ, IIS HULP) and has been funded by the independent clinical research project ICI20/00120. It evaluates the effect of MSC administration on neurological symptoms and structural changes in patients with Rasmussen's autoimmune encephalitis, as well as on various parameters of the immune response at the cellular and molecular levels. The aim is for the results obtained to lay the groundwork for conducting a clinical trial that could contribute to the approval of a new cell therapy for this underrepresented patient group with a poor prognosis.



MAJOR GRANTS

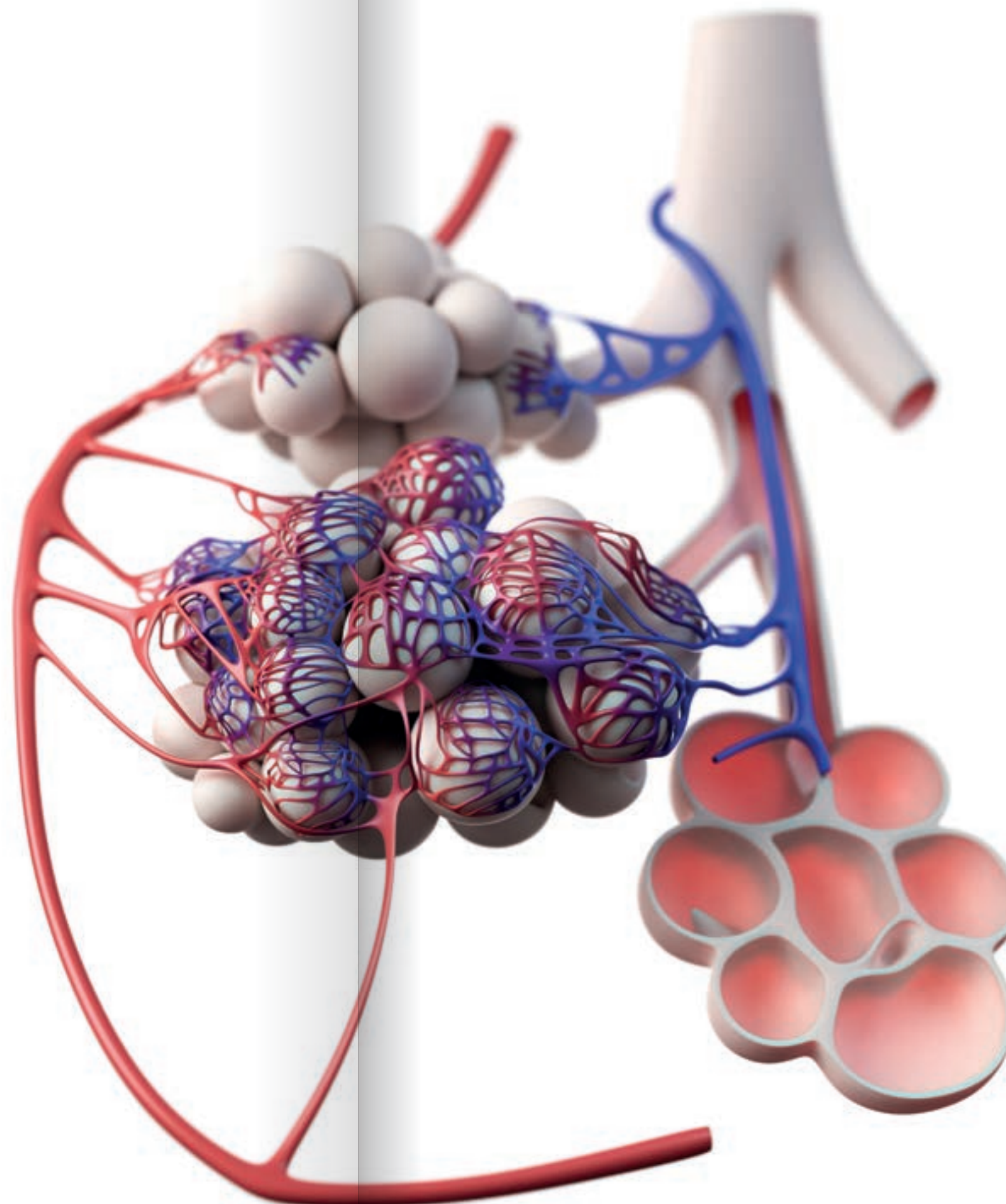
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Area 4

Cardiovascular and respiratory diseases



Fernando Alfonso Manterola
Coordinator

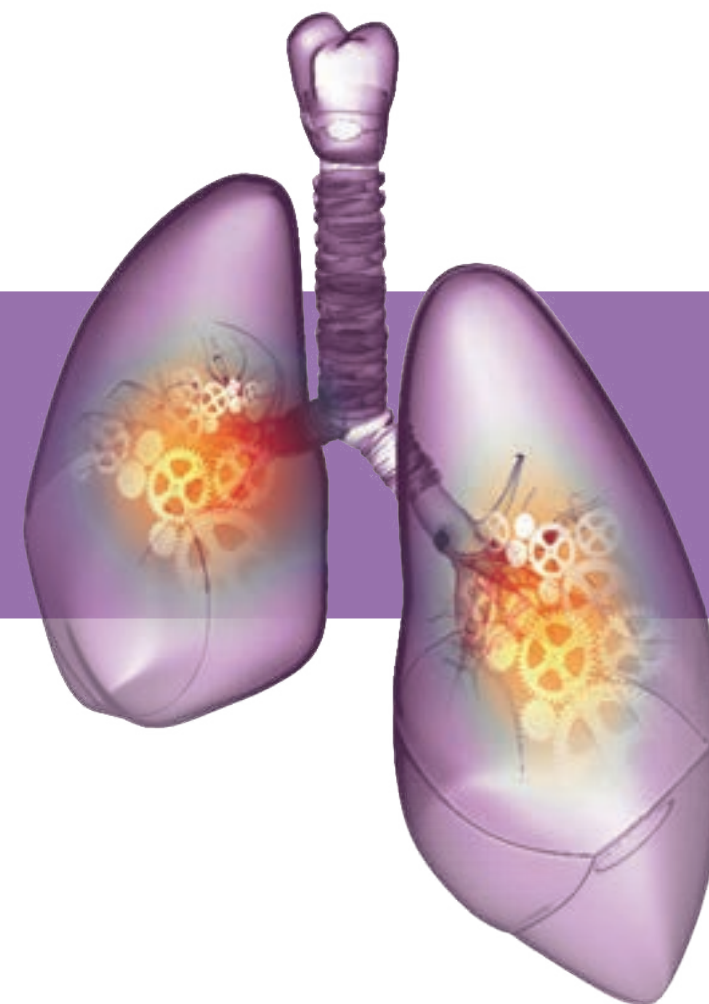
Cardiovascular Diseases Sub-area

- Line 13** Diseases associated with cardiovascular risk
- Line 14** Non-invasive techniques in cardiovascular diseases

Lung Diseases Sub-area

- Line 15** Respiratory tract diseases
- Line 16** Mechanisms involved in pulmonary hypertension





Pathogenic Mechanisms Sub-area

Line 13 Diseases associated with cardiovascular risk

GROUP 21



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Borja Quiroga Gili
Co-IP



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Barril Cuadrado, Guillermina
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Giorgi González, Martin Giovanni
Núñez Sánchez, Almudena
Ruano Suárez, Pablo

Salanova Villanueva, Laura
Sánchez González, María Carmen
Sánchez Horrillo, Ana
De Santos Wilhelmi, Antonio



RESEARCH INTEREST

The group's main areas of research worldwide:

- Nutrition in Chronic Kidney Disease.
- Cardiorenal disease.
- Home dialysis. Innovation in hemodialysis.
- Glomerular diseases.
- Diabetic kidney disease.
- Hereditary kidney diseases.
- The association between cardiovascular disease and the progression of kidney disease.



MAJOR GRANTS

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Bajo Rubio, María Auxiliadora. RD21/0005/0018 - RICORS. INSTITUTO SALUD CARLOS III. 2022-2025.



PUBLICATIONS

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Arriero País EM, Bajo Rubio MA, Arrojo García R, Sandoval P, González Mateo GT, Albar Vizcaino P, del Peso Gil-sanz G, Ossorio González M, Majano P, López Cabrera M, Redes Invest Cooperativa Orientadas Resultados Salud RICORS Renal 2040. **Biomarker and clinical data-based predictor tool (MAUXI) for ultrafiltration failure and cardiovascular outcome in peritoneal dialysis patients: a retrospective and longitudinal study.** BMJ Health Care Inform. 32. [1]. 2025. PMID: 40021191. DOI: 10.1136/bmjhci-2024-101138. Bmj Health & Care Informatics.

Cuadrado GB, Calvo AA, Vibora EJ, Buey LG, Cendrero RMR-C, García AC, López JI, Fernandez CG, García FG, Alcázar Arroyo RA. **Position on the management of occult infection by hepatitis B virus (OBI) and anti-HBc + in hemodialysis units; Posicionamiento sobre manejo de la infección oculta por virus B de la hepatitis (obi) y anti-HBc + EN unidades de hemodiálisis.** Nefrologia. 45. [10]. 2025. IF: 2,60. DOI:10.1016/j.nefro.2025.501355. NEFROLOGIA.

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GROUP 57



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 Head of group



GROUP MEMBERS

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 Ibáñez Sanz, Patricia
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 Ruiz-Giménez Arrieta, Nuria
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 Von Wernitz Teleki, Andrés Carlos



RESEARCH INTEREST

Cardiovascular diseases (CVD) are the leading cause of death in developed countries. Their prevalence and incidence have been rising decade after decade. There is a wide range of new cardiovascular drugs targeting dyslipidemia, arterial or venous thrombosis, and diabetes, which can alter the natural history of these diseases. Furthermore, age is a determining factor in the progression of arterial and venous events. However, research into routine clinical practice reveals a disproportionately low use of cardiovascular drugs in elderly patients who could benefit from them, while, on the other hand, there is likely to be excessive use in patients with cognitive impairment and/or a limited life expectancy. Overall, there is insufficient information on cardiovascular therapies in very elderly patients with multiple comorbidities/diseases, nor in other special populations (such as people with Down syndrome). In this context, our group's main lines of research are as follows: Evaluating and treating patients with high cardiovascular risk and/or special populations (such as elderly patients). Improving the treatment of patients with dyslipidemia and/or those with familial hypercholesterolemia. To deepen understanding of the underlying mechanisms of heart failure and its decompensations. To address and prevent venous thromboembolic

events. To understand the mechanisms of cardiovascular protection in adults with Down syndrome as a human model.



MAJOR GRANTS

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Idoate Ortueta C, del Campo Del Val L, Ruiz Giménez Arrieta N, Suárez Fernández C, Frieria Reyes A, Rodríguez Carnero P. **Utilidad de la ecografía abdominal en el estudio etiológico de la enfermedad tromboembólica venosa idiopática como método diagnóstico de la neoplasia oculta.** Med. Fam.-SEMERGEN. 51. (5). 2025. PMID:39919585. DOI:10.1016/j.semerg.2025.102449. MEDICINA DE FAMILIA-SEMERGEN.

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Sanz García A, Viliani D, Nogales Romo MT, Muñiz SH, Olivera MJ, Caballero P, Jiménez Borreguero LJ, Alfonso F. **Tissue tracking analysis and left ventricular outflow tract obstruction in patients with hypertrophic cardiomyopathy.** Magn. Reson. Imaging. 119. 2025. PMID:40021101. IF: 2,00. DOI:10.1016/j.mri.2025.110363. MAGNETIC RESONANCE IMAGING.

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García Alba J, Molanes López EM, Zuluaga P, Bell Fennellos C, Vaquero L, Alfayate E, García F, Mateo G, Modenhauer F, Galván Román JM, R, Fernández A. **Cognitive markers for the distinction between asymptomatic and prodromal Alzheimer's disease in Down syndrome: Correlations with volumetric brain changes.** Alzheimers Dement.-Diagn. Assess. Dis. Monit. 17. (1). 2025. PMID:39935889. IF: 4,40. DOI:10.1002/dad2.70084. Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring.

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GROUP 58



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RESEARCH INTEREST

Our group is pursuing several lines of research encompassing the entire spectrum of cardiovascular diseases, including medical clinical entities cardiovascular surgery and intensive care management of acute respiratory diseases. This provides a comprehensive and multidisciplinary perspective of many important research areas.

"Stent failure" is a main research focus. Stent failure includes both "intra-stent restenosis" and "stent thrombosis." It has recently been suggested that neoatherosclerosis may provide a link between these two conditions. Specifically, we seek to determine the value of the new generation of drug-eluting stents in the treatment of patients with different clinical and anatomical characteristics. We are also developing strategies to optimize stent implantation. In this regard, randomized "head-to-head" clinical trials comparing different therapeutic devices are of the utmost interest. Furthermore, we are deeply interested in the process of vascular healing and repair following stent implantation. To this end, a detailed assessment of the target coronary segment using sophisticated intracoronary imaging techniques [optical coherence tomography, intravascular ultrasound], and the functional evaluation of blood vessel wall physiology (wire pressure and reserve flow fraction) are also of great value.

Furthermore, new intracoronary diagnostic techniques offer new insights into "vulnerable plaque" and may

also help elucidate the mechanisms involved in the pathophysiology of acute coronary syndromes and in the progression and regression of coronary atherosclerosis. In this regard, our group is actively involved in research projects on disease progression and the establishment of additional criteria to define lesion severity. The diagnosis and clinical management of patients with acute coronary syndrome represent a significant workload in our daily clinical practice and, therefore, also drive many of our research projects. Different strategies are being evaluated in patients with ST-segment elevation acute myocardial infarction. This includes the evaluation of preventive strategies, diagnosis, and management approaches for these patients.

New and potent antiplatelet and antithrombotic drugs are currently available, and we are studying their value in various subgroups of patients with coronary artery disease who require coronary revascularization or medical follow-up alone. Last but not least, structural heart disease is another important and rapidly evolving field. We are deeply interested in determining the role of certain emerging interventional techniques, such as transcatheter aortic valve implantation in elderly patients with severe aortic stenosis, and the value of other new devices for correcting various structural heart conditions.

Other areas of clinical cardiology are also addressed. In this regard several projects focus in spontaneous coronary artery dissection, takotsubo syndrome, heart failure (from primary care to sophisticated left ventricle support devices) and frailty in the elderly. In addition,

several research areas are related to cardiac surgery including coronary revascularization, valvular replacement and mechanical support devices. Finally, several research projects are being developed in the field of intensive care with special emphasis in the respiratory distress syndrome.

1) Incidence, prevention, diagnosis, and treatment of coronary "stent failure"

Our group has led studies in our country analyzing stent failure. Stent failure may be secondary to thrombosis (a rare but very serious complication) or to stent restenosis (more common, but managed electively and with more established protocols).

A) Stent thrombosis.

We have conducted numerous studies, including those incorporating intracoronary imaging (intravascular ultrasound and optical coherence tomography) in patients with stent thrombosis. Our group was the only Spanish group to participate in the European PRESTIGE project (European Union's 7th Framework Program) on the diagnosis and treatment of stent thrombosis.

B) Stent restenosis.

Our group has led the RIBS (Intra-stent Restenosis, Balloon Angioplasty vs. Stent Implantation) program in our country (Dr. Alfonso, Dr. Cuesta). This program includes both randomized multicenter studies (4 randomized studies: RIBS I, II, IV, V) and prospective multicenter registries (4 studies: RIBS Acute, RIBS III, RIBS VI, RIBS VI Scoring, RIBS VII), dedicated to identifying the best treatment for patients with in-stent restenosis of a conventional metal stent or drug-eluting stent, led by the HULP. The therapeutic strategies evaluated to date have included conventional balloon, conventional metal stent, cutting balloon, various drug-eluting stents, drug-eluting balloon (paclitaxel or limus derivatives), bioresorbable vascular devices, and intracoronary lithotripsy. We have also participated in meta-analyses at the study level and in meta-analyses using patient-level data, as part of various international collaborations.

2. Drug-Eluting Balloons

Drug-eluting balloons represent a highly promising new therapeutic option in percutaneous coronary intervention. Our group has conducted extensive research on these balloons over the past decade, making us the leading national group in terms of scientific contributions in this field. Initially, as part of the RIBS studies, but subsequently in multiple new applications, including in de novo lesions. Interestingly, over the past 5 years, there has been an exponential increase in the use of these devices in clinical practice. Our group has led multiple projects on this therapeutic modality at the national and international levels.

3. Spontaneous Coronary Dissection

Our group has worked intensively over the past 15 years on the diagnosis and treatment of spontaneous coronary dissection. Dr Teresa Bastante and Dr Alfonso are

coordinating this research line in our center. It is a rare but increasingly well-diagnosed cause of acute myocardial infarction predominantly affecting young women (90% of patients). We are leading the first randomized clinical trial of spontaneous coronary artery dissection (60 sites in Spain) [Betablockers and Antiplatelet Treatment in Spontaneous Coronary Artery Dissection] and are also coordinating the official Spanish National Registry on Spontaneous Coronary artery dissection for the past 10 years.

4. Takotsubo Syndrome

Takotsubo syndrome (TS) is a clinical condition of unknown cause characterized by transient ventricular dyskinesia in the absence of significant coronary lesions that also occurs primarily in women (90% of cases), usually following an episode of stress (stress cardiomyopathy or transient apical dyskinesia). We are leading the first randomized clinical trial in this clinical entity [B-TAKO randomized clinical trial]. Dr Salamanca and Dr Alfonso are coordinating this area

5. Intracoronary Imaging Techniques

Our group has led the clinical application and research of intracoronary diagnostic techniques (intravascular ultrasound [IVUS] and optical coherence tomography [OCT]) in our country. Essentially, we have carried out numerous projects primarily aimed at identifying the presence of "vulnerable plaque" (a precursor to myocardial infarction) in the coronary arteries and at guiding and optimizing the placement of coronary stents.

6. Research in Coronary Physiology

Our research group has established itself as an international leader in the study of invasive functional assessment of epicardial coronary lesions and coronary microcirculation. Our group conducts its scientific work with a clear translational focus, integrating clinical research with technological development in the cardiovascular field. Our strategic vision is grounded in advancing toward a model of personalized medicine, based on functional and molecular diagnostic tools that allow for a more precise characterization of coronary artery disease in all its forms: obstructive, non-obstructive, and microvascular. This area is coordinated by Dr Fernando Rivero.

7. Research in Structural Interventional Cardiology

Our group has conducted various studies on the percutaneous treatment of structural heart disease. The Cardiology Department has established collaborations (Dr David Del Val) with internationally renowned research groups, such as the Institut Universitaire de Cardiologie et de Pneumologie de Québec at Laval University (Canada), thereby strengthening the IIS-HULP's international standing in the field of cardiovascular research

8. Research in Advanced Cardiac Imaging

Our group has conducted multiple in-house studies (HULP) on cardiac imaging, primarily based on echocardiography, CT, and cardiac MRI. These studies have focused primarily on cardiomyopathies (especially hyper-

trophic cardiomyopathy) and valvular heart disease. Dr. Jesús Jiménez Borreguero, also from the Cardiology Department, has coordinated all these studies.

9. Research in Clinical Cardiology (Heart Failure, Older Adults with Cardiovascular Disease, and the Impact of Frailty and Other Geriatric Syndromes)

Within the field of clinical cardiology, these three main lines of research stand out; they are coordinated and led by Dr. Pablo Díez Villanueva. This has enabled the group to promote multiple academic initiatives and lead various studies on heart failure and the consequences of frailty and other geriatric syndromes in patients with cardiovascular diseases.

10. Translational Research (Immunology / CNIC)

Our group maintains a formal collaboration with the Immunology Department (Professor Sanchez Madrid and Hortensia de la Fuente) and with the National Center for Cardiovascular Diseases (CNIC) (Dr. Pilar Martín) on various studies, funded through competitive grants, focusing on the development and pathophysiology of atherosclerotic coronary artery disease, inflammatory and molecular mechanisms of atherothrombotic complications and spontaneous coronary dissection, and, during the pandemic, inflammatory mechanisms in COVID-19.

The group is also collaborating in several lines of pharmacogenetic research with Dr Francisco Abad in the department of Clinical Pharmacology.

11. Research in Cardiovascular Surgery

Dr Guillermo Reyes is actively involved in different studies related to cardiac surgery. Research span from coronary interventions and valve replacement to advanced systems of cardiocirculatory support.

12. Intensive Care Medicine Group Research

The main line of research focuses on aspects related to mechanical ventilation and advanced cardiopulmonary monitoring. Several research projects are being developed in the field of intensive care with special emphasis in the respiratory distress syndrome. This research line has received major competitive grants. The main research is focused on mechanical ventilation and advanced cardiopulmonary monitoring. Currently active research projects include. 1. "Capnodynamic Project": use of CO₂ cynetic of expired gas. 2. Electric impedance tomography (EIT). 3. Projects on mechanical ventilation: new ventilatory strategies, artificial intelligence and new monitoring parameters. 4: Research on new drugs for the acute respiratory distress syndrome. (Dexa and MAIDEN studies within the respiratory CIBERES and in collaboration with CNIC).



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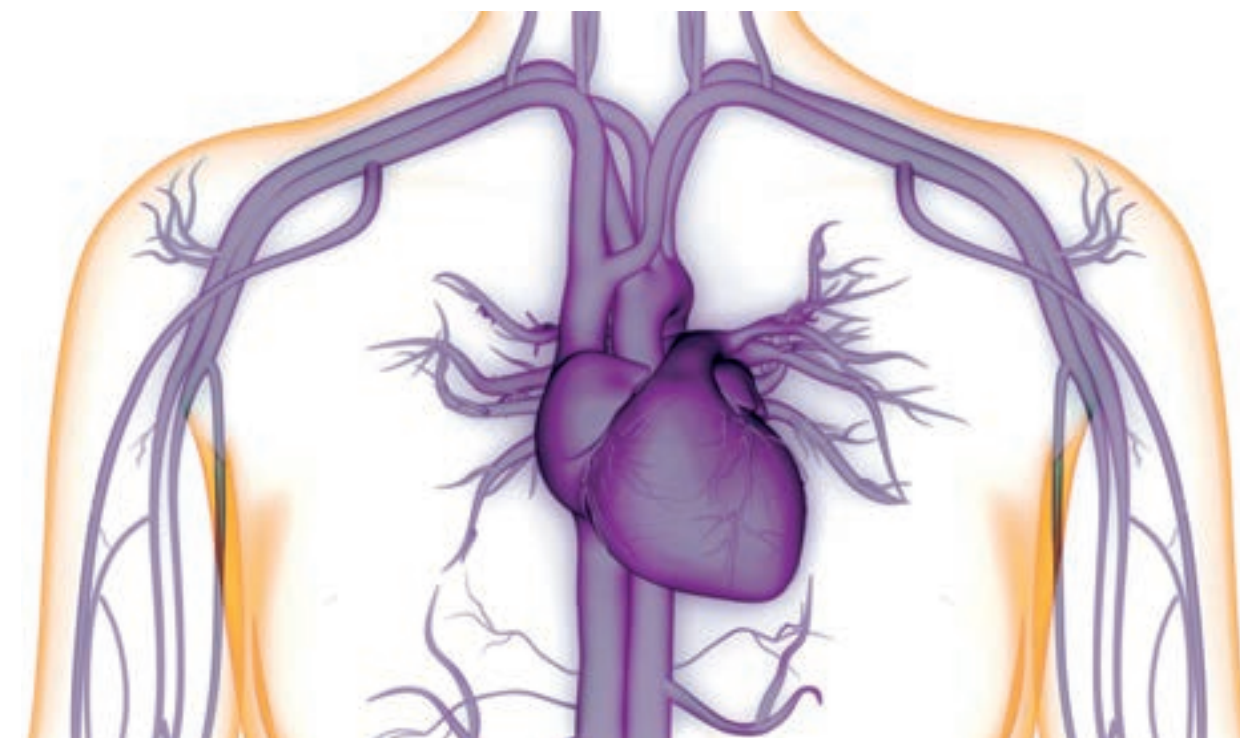
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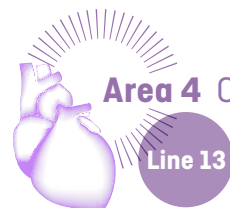
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Line 14 Non-invasive techniques in cardiovascular diseases

GROUP 48



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RESEARCH INTEREST

It is a multidisciplinary team composed of cardiologists, a physicist, a radiologist, a family physician, primary care nurses, and a resident physician. The group’s main research focus is the application of non-invasive diagnostic techniques and artificial intelligence in clinical cardiology to improve the diagnosis, phenotyping, and prognosis of patients with cardiovascular disease or cardiovascular risk.

The current research lines and projects include:

Artificial intelligence-based ECG analysis and prediction of atrial fibrillation (DESCAF).

This research line focuses on the identification of novel ECG markers using artificial intelligence and com-

puter-assisted ECG analysis to predict atrial fibrillation and atrial dysfunction. The group has developed machine-learning approaches based on automatically extracted ECG features and multimodal clinical integration.

The project received FIS funding from the Instituto de Salud Carlos III (ISCIII) for the period 2021–2023, later extended to 2025, as well as DTS funding from ISCIII for 2024–2026. The project has also generated a patent.

Additional work in this field includes the identification of ECG predictors of occult atrial fibrillation in patients with cryptogenic stroke using computer-assisted ECG analysis combined with echocardiographic and biochemical markers.

Identification of novel markers and phenotypes associated with early myocardial infarction (CAFEECOR).

This line uses innovative imaging techniques, artificial intelligence, metabolic profiling, and genomic approaches to identify new markers associated with early myocardial infarction. The project obtained ISCIII FIS funding for 2022–2025.

Artificial intelligence and machine-learning analysis of ECG and cardiac imaging in cardiomyopathies.

This research line focuses on the development of interpretable machine-learning models and computer-assisted ECG analysis to improve diagnosis and prognostic stratification in cardiomyopathies.

Current projects include:

Identification of ECG predictors of myocardial fibrosis in hypertrophic cardiomyopathy using machine-learning analysis of ECG and cardiac magnetic resonance imaging.

Development of interpretable ECG-based machine-learning models to differentiate cardiac amyloidosis from hypertrophic cardiomyopathy in patients with ventricular hypertrophy.

Detection of novel ECG prognostic markers using artificial intelligence in hypertrophic cardiomyopathy and ionic imbalance.

Subclinical atherosclerosis and systemic inflammatory diseases.

The group participates as collaborating researchers in a project investigating subclinical atherosclerosis associated with hidradenitis suppurativa and adult atopic dermatitis. This project is led by the Dermatology Department of our hospital and received ISCIII FIS funding for 2021–2024.

Artificial intelligence applied to advanced cardiovascular imaging in ischemic heart disease.

The group participates as collaborating researchers in a multicenter project led by the University Hospital of Salamanca aimed at identifying new prognostic markers in acute myocardial infarction using artificial intelligence applied to spectral computed tomography imaging. Funding has been requested through the ISCIII FIS 2025 call.

Subclinical atherosclerosis, microbiome, and obstructive sleep apnea.

The group collaborates in a project led by the Pulmonology Department investigating the relationship between subclinical atherosclerosis, microbiome alterations, and obstructive sleep apnea in order to identify novel prognostic markers. A grant application has been submitted to the ISCIII FIS 2025 call.

Extramural multidisciplinary collaborations in artificial intelligence applied to cardiovascular medicine.

The group maintains several multidisciplinary scientific collaborations focused on artificial intelligence, elec-

trocardiography, cardiovascular imaging, and predictive modeling. These collaborations include engineers from the Higher Polytechnic School of the Autonomous University of Madrid (UAM), physicists from the Faculty of Physics of the University of Santiago de Compostela, and physicists from the University of Buenos Aires.

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Lung Diseases Sub-area

Line 15 Respiratory tract diseases

GROUP 22



Julio Ancochea Bermúdez
Head of group



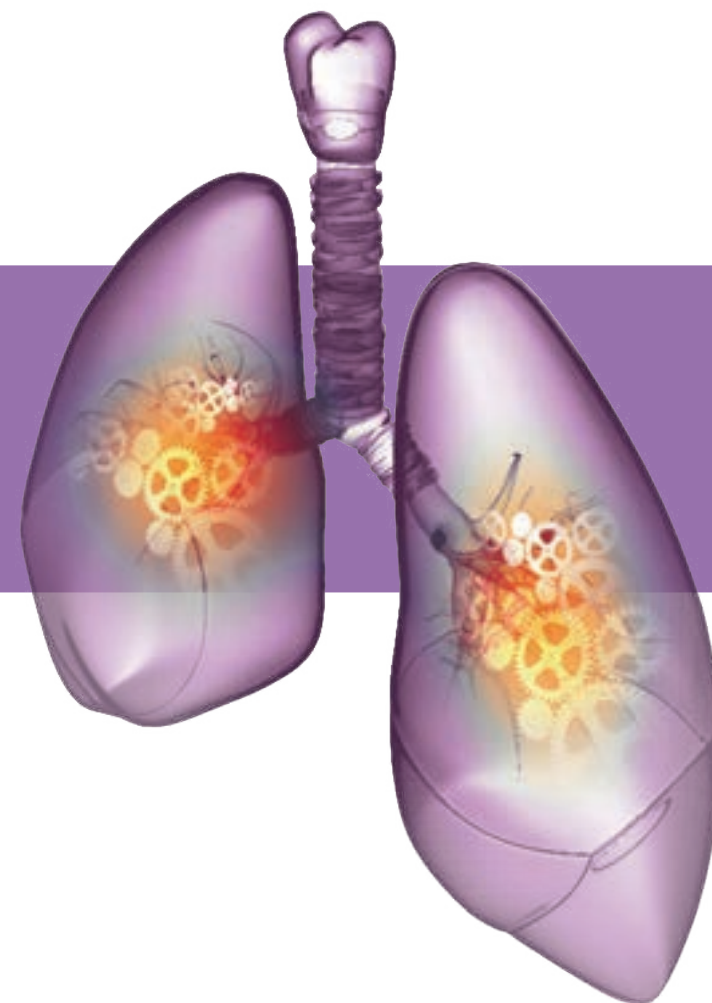
Pedro Landete Rodríguez
Co-IP



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RESEARCH INTEREST

Inflammation and reparative processes in lung diseases. Chronic Obstructive Pulmonary Disease (COPD). Obstructive Sleep Apnea (OSA). Asthma. Idiopathic Pulmonary Fibrosis (IPF), Chronic thromboembolic disease and pulmonary hypertension. Bronchiectasis not associated with cystic fibrosis and bronchiectasis associated with cystic fibrosis. Immunopathogenesis. Molecular diagnosis. Cellular diagnosis. New therapeutic approaches. New care models. COVID-19 and post-COVID-19. Lung diseases represent a significant health and social problem due to their high prevalence and associated morbidity and mortality. In recent years, our group has worked in various areas related to these pathologies, as reflected in our publications, which are the result of studies conducted in collaboration with other research groups. General Objectives To advance research on lung diseases. To promote quality of care in the therapeutic management of patients with chronic lung diseases. To foster the translation of research findings in the field of lung diseases. To generate new lines of research in coordination with other working groups.

Areas of Research Interest

The Pulmonology Department at La Princesa University Hospital is part of the Biomedical R&D Program. HUP ConSEPOC-CM: Inflammation and hypoxia: mechanisms underlying the development and progression of COPD and OSA. In the coming years, various active clinical trials will be conducted on different respiratory di-

seases (COPD, asthma, idiopathic pulmonary fibrosis, bronchiectasis, and cystic fibrosis). Additionally, long COVID has become a new disease with a significant impact on public health in Spanish society. In Spain, it is estimated that between 400,000 and 800,000 people suffer from or will suffer from long COVID, given that between 10% and 16% of patients continue to experience symptoms one year after overcoming the acute phase of the disease. For this reason, our team has also focused its efforts on studying the long-term sequelae of long COVID. Several of our projects have received funding from the Spanish Society of Pulmonology and Thoracic Surgery (SEPAR) and other funding agencies.

Action Plan 2025–2029

The strategic action plan of Group 22 is focused on consolidating a translational, multidisciplinary and patient-centred research programme in respiratory medicine, integrating mechanistic, clinical, technological and psychosocial approaches across chronic respiratory diseases.

A major priority for the coming years will be the development of the Instituto de Salud Carlos III-funded project PI25/01682: "Obstructive Sleep Apnea and Lung Microbiota: Pathophysiological Axis in Systemic Inflammation and its Impact on Cardiometabolic Health". This project will investigate the relationship between obstructive sleep apnea, intermittent hypoxia, lung microbiota alterations assessed through exhaled breath condensate, systemic inflammation, cardiometabolic dysfunction and subclinical atherosclerotic cardiovascular disease. The project aims to generate mechanistic evidence on the role of the respiratory microbiome

as a potential mediator between sleep-disordered breathing and cardiovascular risk, with potential implications for risk stratification, biomarker discovery and precision medicine in obstructive sleep apnea.

In parallel, the group will work on the development and validation of predictive tools based on analytical, anthropometric and clinical variables to estimate the probability of moderate-to-severe obstructive sleep apnea. This line of research aims to improve diagnostic efficiency, reduce waiting times, optimise the prioritisation of patients with higher clinical risk and facilitate earlier therapeutic decision-making in a disease with high prevalence and relevant cardiovascular and metabolic consequences.

The group maintains an active research line in bronchiectasis, focused on anti-infective treatment and the microbiological impact of long-term therapeutic strategies. The group is participating in a European multicentre study evaluating the effect of inhaled antibiotics and azithromycin in patients with bronchiectasis, with particular interest in clinical outcomes, exacerbations, microbiological burden, and control of chronic bronchial infection. In parallel, the group is conducting a descriptive study on resistant microorganisms isolated from respiratory samples from patients with bronchiectasis. This project aims to characterise the frequency and profile of antimicrobial resistance, antimicrobial susceptibility patterns, and the potential relationship with previous exposure to inhaled antibiotics, macrolides, or other antibiotic treatments.

The group will also continue strengthening its established research lines in chronic respiratory diseases, particularly cystic fibrosis, bronchiectasis, pulmonary fibrosis and COPD. These lines include multicentre observational studies, registry-based research, translational studies and participation in clinical trials aimed at improving early diagnosis, phenotyping, assessment of comorbidities, prediction of disease progression and therapeutic optimisation. Special emphasis will be placed on the impact of novel therapies, including CFTR modulators in cystic fibrosis, antifibrotic and emerging therapies in pulmonary fibrosis, and innovative approaches for COPD management and exacerbation prevention.

In the specialised severe asthma unit we carry out RCTs with new treatments for severe asthma as well as new molecules for the treatment of refractory chronic cough. We are starting an RCT that compares strategies of triple inhaled fixed therapy versus double at high doses, treatment in early phases of asthma evolution to avoid structural damage and an observational, prospective multicenter medical record review to describe the post-authorization clinical experience of dupilumab in the treatment of adult severe asthma. In addition, we carried out real-world evidence studies with biologics in both severe asthma and EGPA.

Another relevant strategic axis will be the study of pa-

tient-reported outcomes, quality of life, psychosocial burden and adherence to long-term respiratory treatments. The group will promote research focused on the psychological and behavioural dimensions of chronic respiratory disease, including interventions aimed at improving adaptation to disease, therapeutic adherence and self-management. Particular attention will be given to patients requiring non-invasive ventilatory support, such as BiPAP, or treatment with CPAP for obstructive sleep apnea, where adherence remains a key determinant of clinical effectiveness.

The group maintains an active research line in Clinical and biomarker characterization of patients with **group III pulmonary hypertension** secondary to **diffuse interstitial lung disease (ILD)** and treated with **inhaled treprostinil**. In collaboration with Immunology: the role of **P-selectin** in patients with **pulmonary arterial hypertension (PAH)** and in patients with ILD. Future lines of research Study of soluble factors, such as **adrenomedullin** or **resistin-like molecule alpha (RELM-α)**, in patients with both **PAH** and **pulmonary hypertension secondary to ILD**.

Overall, the action plan of Group 22 seeks to reinforce its position as a competitive respiratory research group within IIS-Princesa, combining clinical excellence, translational innovation and integrated care models to improve diagnosis, prognosis, treatment adherence, comorbidity management and quality of life in patients with respiratory diseases.

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Line 16 Mechanisms involved in pulmonary hypertension

GROUP 8



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Head of group



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Milián Goicoechea, Héctor

Rodríguez Pérez, Jorge
Pérez Sánchez, Leila



RESEARCH INTEREST

Chronic respiratory diseases represent one of the major global health burdens, affecting millions of people and placing a significant strain on healthcare systems. Among these, chronic obstructive pulmonary disease (COPD) stands out as a leading cause of reduced quality of life and premature mortality in patients who develop a vascular phenotype. This specific subgroup of patients with a vascular phenotype presents distinct prognostic and therapeutic implications, with a poor response to oxygen therapy and resistance to conventional treatments used for pulmonary hypertension of other etiologies. However, fundamental aspects such as its prevalence, natural history, and underlying molecular mechanisms remain insufficiently characterized.

In this context, our research aims to elucidate the molecular mechanisms responsible for vascular deterioration in chronic respiratory diseases associated with hypoxia. Our group has made pioneering contributions in this field by demonstrating that exposure to tobacco smoke can directly induce pulmonary vascular damage and by identifying key molecular mechanisms underlying COPD-associated pulmonary hypertension [Andreu-Martínez et al., 2025; Rodríguez-Pérez et al., 2025; Sevilla-Montero et al., 2022; Sevilla-Montero et al., 2021; Labrousse-Arias et al., 2017]. Understanding the synergistic interaction between tobacco smoke and hypoxia—conditions that commonly coexist in clinical COPD—is essential for advancing pathophysiological knowledge and promoting the development of specific therapeutic interventions targeting this high-risk patient subgroup.



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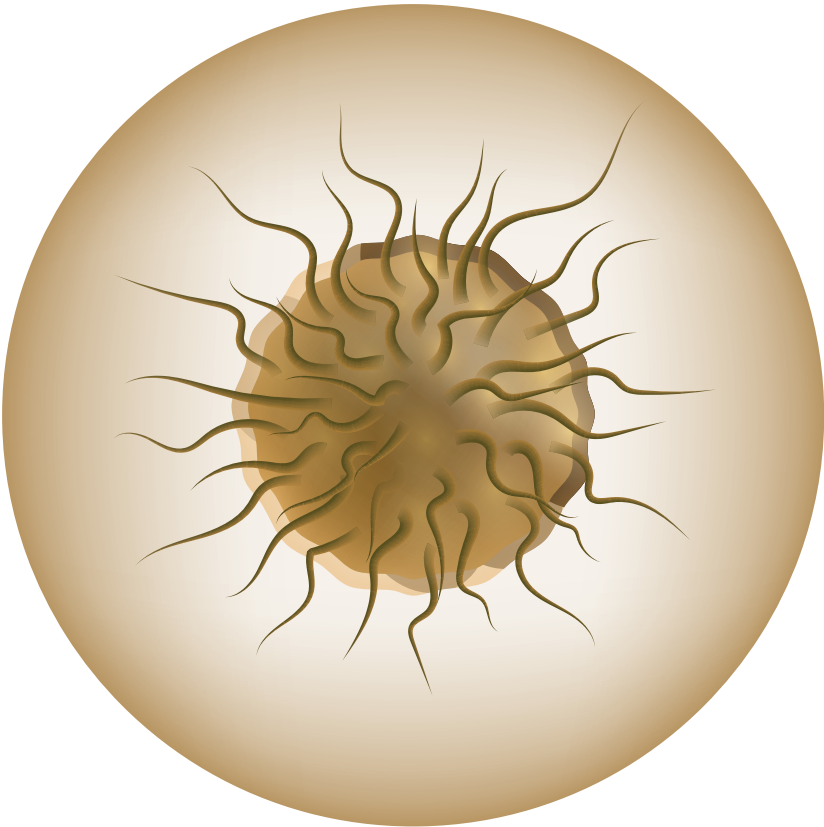
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Area 5

Public Health,
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Research

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Coordinator

- Line 17 Research in Primary Care
- Line 18 Healthcare Research



Line 17 Research in Primary Care

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Head of group



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González Gamarra, Amelia
Javierre Miranda, Ana Pilar

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Sánchez Gómez, Luis María
Sierra García, María Belén
Villanueva Sanz, Cristina
Zamarrón Fraile, Esther



RESEARCH INTEREST

Our research focuses on the development of scientific evidence regarding cardiovascular risk (CVR) in general and in specific populations, as well as on evaluating the translation of this evidence to both healthcare

professionals and the general public. Our research projects in this area include: "Development, implementation, and evaluation of a clinical practice guideline on overall cardiovascular risk"; "Evaluation of morbidity, mortality, and control of cardiovascular risk factors following the implementation of an adapted CVR clinical practice guideline"; and "A clinical trial on two educa-

tional strategies for cardiovascular health in children (SALVACORAZONES)." We collaborate with other groups at the Institute on the project "Effect of oral nitrites on pulse pressure and arterial elasticity in patients over 65 years of age with refractory isolated systolic hypertension," funded by the Ministry of Health under the call for non-commercial clinical trials. We also collaborate on CVD projects with other institutions: "Project Prevention of Early Complications of Diabetes in Europe. European Project e-PREDICT" with La Paz Hospital, as a member of the ISCIII Cardiovascular Diseases Network node, and with 12 de Octubre Hospital through the "CARDIO-RISK / Primary Care" project. Dr. Novella is a member of the international RISC group (research on insulin resistance). We promote research by other group members in these areas. In this way, we have participated in the project "Blood Pressure Control in Diabetic Patients: A comparative study between treatment based on blood pressure measurement in the doctor's office and treatment based on blood pressure measurement by patients themselves at home" and "Development from primary care of a risk stratification model in patients with heart failure for the prediction of disability and hospitalization" within the Chronic Diseases Network. Through the diabetes research network (GEDAtención PrimariaS) with the PREDIMERC and CHAMBS studies, and with the IASB in the FOCUS trial, which led to the development of a fixed-dose combination of medications for the secondary prevention of IHD. Over the next five years, drawing on the experience gained from these projects, we plan to launch a project to evaluate a tool that measures doctor-patient communication aimed at assessing and managing CVD risk. We also plan to analyze and publish the results of studies conducted in recent years and continue collaborating with other groups at the Institute.



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Line 18 Healthcare Research

ASSOCIATED GROUP 7



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Tisaire de Dios, Alexandra



RESEARCH INTEREST

Research on chronic care, physical therapy, and quality of life.



MAJOR GRANTS

Rodríguez Nogueiras, Amelia. Efectividad de una intervención multidisciplinar en pacientes con Diabetes tipo 2 mal controlada: estudio de cohorte prospectivo. PIM-IIS-Princesa25_004. 2025-



PUBLICATIONS

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ASSOCIATED GROUP 8



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Partida Márquez, José Enrique
Rodríguez Huerta, María Dolores



RESEARCH INTEREST

Innovation and Research in Critical Care and AI Integration.



PUBLICATIONS

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Monsalvo San Macario, Enrique
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Pérez Torres, Almudena
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Sierra Ortega, Andrea



RESEARCH INTEREST

Hospital Care Research Group [iCuHo].



MAJOR GRANTS

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Cross-disciplinary Pharmacogenetics Platform and Clinical Trials Unit

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Coordinators

GROUP 32



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Pérez Hernández, Concepción
Rodríguez López, Andrea
Román Martínez, Irene
Román Martínez, Manuel
Soria Chacartegui, Paula
Villapalos García, Gonzalo



RESEARCH INTEREST

The overarching goal of our research group is to advance pharmacogenetic, pharmacokinetic, and pharmacodynamic knowledge to better predict patient response in terms of both efficacy and safety. Our team has extensive experience conducting phase I, II, and III clinical trials. We operate a dedicated clinical trial unit (UECHUP) with capacity for 18 participants, located on the 7th floor of Hospital Universitario de La Princesa. Our portfolio includes phase I studies—such as bioequivalence and first-in-human trials—as well as patient-based studies evaluating the efficacy of new therapeutic agents, in close collaboration with hospital specialists and primary care teams. Each year, we conduct more than 20 clinical trials, a number expected to grow in response to increasing demand from the pharmaceutical industry. In recent years, our unit has hosted several COVID-19 vaccine trials and first-in-human studies of novel compounds. We also coordinate a Clinical Research Support Unit (UAIC), part of the SCREN platform, which provides methodological support for clinical trials conducted within our hospital and research institute.

Our research is primarily focused on the pharmacogenetics of drugs used across a wide range of thera-

peutic areas—including pain, oncology, endometriosis, cardiology, neuropsychiatry, dermatology, and inflammatory diseases—with the long-term aim of enabling truly personalized prescribing. In recent years, we have contributed to the translation of pharmacogenetic evidence into clinical practice, playing an active role in the development of the Pharmacogenetics Test Portfolio for the Spanish National Health System and, subsequently, for the Regional Ministry of Health of the Community of Madrid. This achievement has been key to consolidating pharmacogenetics within our institute and hospital and to supporting clinicians in evidence-based prescribing.

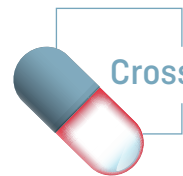
In 2025, nine publicly funded competitive research projects were active; four of them were initiated or awarded during that year, and one had been extended.

An additional major research line focuses on therapeutic drug monitoring, particularly for antipsychotics and tyrosine kinase inhibitors.



MAJOR GRANTS

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Sponsors

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