

INCLIVA SCIENTIFIC REPORT 2024



INCLIVA | VLC
Biomedical Research Institute

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INCLIVA SCIENTIFIC REPORT 2024



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Introduction

We are pleased to once again present the INCLIVA Annual Scientific Report, which summarizes the extensive scientific activity and achievements in 2024 of the research groups of the Hospital Clínico Universitario de València and the INCLIVA-affiliated groups of scientific excellence of the Faculty of Medicine and Dentistry of the University of Valencia and the Carlos Simón Foundation.

In 2024, the joint effort of our staff has brought us further in establishing INCLIVA as one of the predominant health research institutes in the country, internationally acclaimed and with a prolific research output.

Our excellence in research activity is demonstrated through our R&D projects and scientific production carried out by 41 consolidated groups and 10 emerging groups. 2024 has seen the formal recognition of a new emerging researcher in metabolism, and the creation of the associated clinical group in nuclear medicine as well as three groups in metabolism, oncology and reproductive medicine.

INCLIVA has continued to strengthen its reputation for high-quality, competitive projects, confirming the upward trend of recent years by securing almost five million euros in funding for 47 new national and regional projects. Regarding the call for personnel funded by the Carlos III Health Institute, INCLIVA staff have received overall one *Juan Rodés* scholarships, one *Río Hortega* scholarships, one Miguel Servet contract, one IIS management contract and four PFIS scholarships. Another important accomplishment in 2024 was the Integra-DP project, which gives continuity to the Integra Cloud platform (initiated in 2023) through the creation of a health data space promoted by INCLIVA, positioning the institute in line with the European trend of the European Health Data Space.

Our researchers have achieved notable success in highly competitive calls from the European Commission, securing more than six million euros in funding for projects active as of March 2025. These initiatives span diverse fields, including big data and artificial intelligence, oncology, nephrology, hypertension, and digital innovation. Among them, AIDA (An Artificially Intelligent Diagnostic Assistant for Gastric Inflammation), coordinated by INCLIVA over a four-year period, has obtained total funding exceeding seven million euros.

INCLIVA has also participated as a partner in several major European research projects, such as BigMedilytics (Lighthouse project), *BigData@Heart (IMI2 project)*, WELLBASED and BodyPass (H2020), Meliora (Cancer Mission), and JACARDI, JADE, and JARED (Joint Actions, EU4Health).

Furthermore, INCLIVA is an active member of INNDIH, the European Digital Innovation Hub (EDIH) for the Valencia region. Another significant milestone has been our engagement in prominent international networks, including the Big Data Value Association (BDVA/DAIRO), the European Infrastructure for Translational Medicine (EATRIS), the European High-Capacity Screening Network (EU-OPENSREEN), the Worldwide Innovative Networking (WIN) Consortium in personalized cancer medicine, and the Spanish Gaia-X Hub.

Regarding scientific output, our research staff published 697 articles in 2024 (303 with prime authorship), with a cumulative impact factor of over 5744.118 points (193 publications have an impact factor over 7). Of these, 69.72% are from the first quartile and 30.99% from the first decile. Furthermore, 44.33% of our scientific output involved international collaboration. A total of 45 doctoral theses were also defended in 2024.

Turning to clinical trials, our Drug Research Ethics Committee (CEIm) at the Hospital Clínico Universitario de València, the first in the Valencian Community and among the first nationally to receive this certification, has been a review board of reference in 182 clinical studies since the new legislation was approved in 2016. During 2024 INCLIVA has initiated 189 new clinical studies and has participated in 412 active studies.

The Innovation Unit has strengthened its presence both within INCLIVA and the business community. To foster translational research and innovation, the Unit has secured €484,557 to set up the Scientific Unit for Business Innovation (UCIE INCLIVA) and a sandbox for 'Innovation in Eco-Sustainable Hospital Processes for Value-Based Healthcare', both of which are driving collaboration with companies and R&D centres. We have also implemented an Innovation Training Program for researchers and a Collaborative Innovation Promotion Plan, resulting in five courses and seven workshops over the past year. Furthermore, a new collaboration program with the Polytechnic University of València has been launched to finance joint projects. These activities reinforce INCLIVA's role as a key player in fostering innovation, strengthening synergies between research and industry, and promoting sustainable and value-based healthcare solutions.

Mr. Andrés Cervantes Ruipérez, INCLIVA Scientific Director





2 ORIGIN AND STRUCTURE

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2.1. History

The Hospital Clínico Universitario of Valencia Research Foundation was constituted in the year 2000 as the first Valencian research foundation affiliated to a public hospital. Ten years later, various centers of excellence in biomedical research from the University of Valencia and Carlos Simón Foundation joined the Foundation through the establishment of specific agreements, and thus INCLIVA Biomedical Research Institute was created.

INCLIVA’s main aims are to manage the biomedical research carried out by the Hospital Clínico Universitario de Valencia and its Health Department, and to encourage teaching and scientific activities, thus improving patient treatment and knowledge sharing.

In 2011 INCLIVA was accredited as a Biomedical Research Institute by the Ministry of Science and Innovation (Ministerio de Ciencia e Innovación) thus obtaining preferential treatment from the Carlos III Health Institute (Instituto de Salud Carlos III), in recognition of its excellence in research.

In 2021 INCLIVA received the official notification of renewal of its accreditation as Biomedical Research Institute for the next five years.

2.2. Organizational Structure

- 2.2.1. Government structure
 - 2.2.1.1. Board of Trustees
 - 2.2.1.2. Board of Governors
 - 2.2.1.3. Managing Director
 - 2.2.1.4. Scientific Director
 - 2.2.1.5. External Scientific Committee
 - 2.2.1.6. Internal Scientific Committee
 - Research Commission
 - Innovation Commission
 - 2.2.1.7. Ethical Committee For Investigation with Medical Products
- 2.2.2. Management Structure

2.2.1. Government structure

The highest government body in the Foundation, the Board of Trustees is headed by the Regional Minister for Health of the Valencian Government. This body appoints a Board of Governors – headed by the Chief Executive Officer of the Health Department –, the Managing Director and the Scientific Director. These are guided by two Research Committees: the External Scientific Committee and the Internal Scientific Committee.

2.2.1.1. Board of Trustees

President: Mr. Marciano Gómez Honorable Counselor of the High Sanitary Inspection of the <i>Conselleria de Sanidad</i> (Autonomous Public Health Department) of the Valencian Government	Mr. Juan Viña President of Cañada Blanch Foundation	Mr. Carlos Simón Scientific Director of the Carlos Simón Foundation
Vice-president: Mr. Álvaro Bonet Chief Executive Officer of the <i>Hospital Clínico Universitario of Valencia</i> and of the Valencia Clínico – Malvarrosa Health Department	Mr. Rafael Alcón Traver President of Bancaja Foundation	Mr. Rubén Ventura Fero Foundation
Board members: Mrs. María Vicenta Mestre Distinguished Dean of the University of Valencia	Mr. José Bernardo Noblejas Pérez Valencia Chamber of Commerce, Industry and Navigation	Mrs. Almudena Amaya FEDER (Spanish Federation of Rare Diseases) representative
Mrs. Amparo Ruíz Distinguished Dean of the Faculty of Medicine of the University of Valencia	Mr. Bernardo Valdivieso Autonomous Secretary of Efficiency and Health Technology of the <i>Conselleria de Sanidad</i> (Autonomous Public Health Department) of the Valencian Government	Board members under own name: Mr. Carlos Pascual de Miguel Mr. Joaquín Ortega Serrano Mr. Tomás Trénor Puig Mrs. Ana Lluch Hernández Mrs. Ángela Nieto Toledano
Mrs. Ángela Pérez President of the Social Council of the University of Valencia	Mrs. Mariola Penadés General Director of Research and High Sanitary Inspection of the <i>Conselleria de Sanidad Universal y Salud Pública</i> (Autonomous Public Health Department) of the Valencian Government	
	Mrs. Núria Vizcarro Boix Valencian Council of Culture	

2.2.1.2. Board of Governors

President: Mr. Álvaro Bonet Pla Chief Executive Officer of the <i>Hospital Clínico Universitario of Valencia</i> and of the Valencia Clínico – Malvarrosa Health Department	Mr. Jon Alguacil Medical Director of the <i>Hospital Clínico Universitario of Valencia</i> and of the Valencia Clínico – Malvarrosa Health Department	Mrs. Marisa Luisa Calabuig President of Ethic Committee for Investigation with medicinal products
Vice-president: Mrs. Amparo Ruíz Distinguished Dean of the Faculty of Medicine of University of Valencia	Mrs. Mariola Penadés Director of Research and High Sanitary Inspection of the <i>Conselleria de Sanidad Universal y Salud Pública</i> (Autonomous Public Health Department) of the Valencian Government	Mr. Federico Pallardó Professor of the Department of Physiology of the University of Valencia
Vocals: Mr. Andrés Cervantes Ruipérez INCLIVA Scientific Director	Mr. Pascual Medina Besó Coordinator of Central Medical Research Unit of the Faculty of Medicine of University of Valencia	Mr. Carlos Simón Scientific Director of the Carlos Simón Foundation
Mr. Vicente de Juan Martín Managing Director		Mrs. Maite Sáenz Secretary General
Mrs. Ana Sanmartín Almenar Primary Care Director of the <i>Hospital Clínico Universitario of Valencia</i> and of the Valencia Clínico – Malvarrosa Health Department	Mr. Manuel Alós Head of the Pharmacy Service of <i>Hospital Clínico Universitario of Valencia</i> and of the Valencia Clínico – Malvarrosa Health Department	

2.2.1.3. Managing Director

INCLIVA IIS Managing Director from 2016 to 2022, this year he has been appointed managing director of the institution by the Board of Trustees, at the proposal of the Governing Board. His functions are included in article 20 of the Statutes dated 3 May 2022. He is an ex officio member of the Governing Board and advisory member of the Board of Trustees. He is the designated representative of the Foundation in the absence of the President and Vice Presidents, and directs the Foundation's economic policy, following the decisions of the governing bodies of the Foundation. He formulates the entity's Action Plan and Annual Accounts for approval by the Board of Trustees, holding the position of chief of staff.

2.2.1.4. Scientific Director

Professor Andrés Cervantes Ruipérez is Full Professor of Medicine at the University of Valencia, Head of the Oncology Service of the *Hospital Clínico Universitario of Valencia* and Director of the Cancer Area at the INCLIVA Biomedical Research Institute.

His training as a resident medical intern took place at the *Hospital Clínico Universitario of Valencia*. After completing this residency, he obtained a predoctoral fellowship at the Free University Hospital in Amsterdam, where he obtained his Doctorate in the laboratory of cellular pharmacology, with work on multidrug resistance.

His areas of interest and research are gastrointestinal and gynecological cancer, as well as phase I trials and new drugs development.

As a clinical researcher in rectal cancer, he has published several papers on the quality of multidisciplinary work as well as on evaluating the quality of mesorectal surgery, how to optimize initial therapy choices and especially, how to treat cancer of the upper third of the rectum.

He is the President of the European Society of Medical Oncology (ESMO) since July 2019.

2.2.1.5. External Scientific Committee

President: Mr. Josép Tabernero Caturla Head of the Medical Oncology Service. Vall d'Hebrón Hospital.	Mr. Juan Carlos Lacal Sanjuán Research Professor at the CSIC. Institute of Biomedical Research, Madrid	Mrs. Laura Saucek Group leader at VHIO (Oncology Institute of the Vall d'Hebron Hospital). Head of Modeling of Anti-tumor Therapies in mice. Founder executive director (CEO) at Peptomycs SL
Vocals: Mr. Antonio Vidal-Puig Professor of Molecular Nutrition and Metabolism, University of Cambridge. Honorary consultant in metabolic medicine. Metabolic research laboratories. Addenbrooke's Hospital, Cambridge, United Kingdom	Mr. Manuel Tena Sempere Professor of University. Department of Cell Biology, Physiology and Immunology. University of Cordoba	Mrs. Pura Muñoz Cánoves Professor of Medicine, Department of Experimental and Health Sciences at Pompeu Fabra University. ICREA Research Professor
	Mr. M Roser Torra Balcells Nephrologist, Fundació Puigvert. Research line in the study of Hereditary Kidney Diseases	

2.2.1.6. Internal Scientific Committee

Mr. Andrés Cervantes Ruipérez INCLIVA Scientific Director	Mr. Julio Núñez Associate Professor of the Department of Medicine of the University of Valencia, attached to the Scientific Direction	Mrs. María Jesús Sanz Ferrando Full Professor of the Department of Pharmacology at the University of Valencia
Mrs. Ana Sanmartín Almenar Primary Care Director of the <i>Hospital Clínico Universitario of Valencia</i> and of the Valencia Clínico – Malvarrosa Health Department	Mr. Vicente Bodí Full Professor of the Department of Medicine of the University of Valencia	Mrs. Ana Lluch Hernández Emeritus Professor of the Department of Medicine of the University of Valencia
Mrs. Ana Isabel Arizón Medical Director of the <i>Hospital Clínico Universitario of Valencia</i> and of the Valencia Clínico – Malvarrosa Health Department	Mr. Josép Redón INCLIVA Emeritus Researcher Mr. Federico Pallardó, Full Professor of the Department of Physiology of the University of Valencia	Mrs. María del Mar Tormo Díaz Hematologist of the Valencia Clínico - Malvarrosa Health Department

Research Commission

President: Mr. Luis Sabater Ortí Section Head of the General Surgery	Mrs. Rosa Zaragoza Colom researcher at INCLIVA	Mr. Felipe Vilella Mitjana, researcher at INCLIVA
Vocals: Mrs. Raquel Llorens Chiralt Head of projects unit at INCLIVA	Mr. Vicente José Bodí Peris Professor of the Department of Medicine of the University of Valencia	Mrs. Isabel Gabaldón Sánchez Valencia Clínico - Malvarrosa Health Department
Mr. Julio Núñez Villota Cardiology Associate Physician	Mrs. Mª José Terol Castera Hematology and Hemotherapy Associated Physician	Mr. David Moro Valdezate General Sugery Associate Physician
Mr. Jaime Signes-Costa Neumology Service Head	Mrs. Gema Miñana Escrivá Cardiology Associate Physician	Mrs. Laura Piqueras Ruiz researcher at INCLIVA

Mrs. Patricia Roselló Millet Pediatrics Associated Physician	Mr. F. Javier Chaves Martínez researcher at INCLIVA	Mr. José Luis Górriz Teruel Head of the Nephrology Service
Mr. Sergio Martínez Hervás Endocrinology and Nutrition Associated Physician	Mr. Daniel Monleón Salvado Full Professor and Head of Department, Dept Pathology, University of Valencia	Mr. Antonio Martínez Sabater general supervisor at the <i>Hospital Clínico Universitario de Valencia</i>
Mrs. Herminia González Navarro researcher at INCLIVA	Mrs. Desamparados Roda Pérez Oncology Associate Physician	Mr. César Ríos Navarro researcher at INCLIVA
Mrs. Pilar Eroles Asensio researcher at INCLIVA	Mr. Carlos Tornero Tornero Head of the Anesthesia/ Reanimation Service	Mrs. Lorena Peiró Chova Biobank coordinator
Mrs. M^a Cruz González Villaescusa Neumology Associate Physician	Mrs. Nuria Cabedo Escrig researcher at INCLIVA	Commission Management Unit: Mrs. María Domínguez Machín
Mrs. Carmina Montoliu Félix researcher at INCLIVA	Mrs. Pilar Rentero Garrido coordinator of Precision Medicine Unit	
Mr. Raúl Gómez Gallego researcher at INCLIVA		

Innovation Commission

President: Mr. Andrés Cervantes Ruipérez INCLIVA Scientific Director	Mr. José Luis García Basic researcher with experience in the field of innovation	Mrs. Carmina Montoliu Clinical researcher with experience in the field of innovation
Commission Management: Ms. Elena Carrió Argos Head of UAI	Mr. Rubén Artero Allepuz Basic researcher with experience in the field of innovation	Mr. Jorge Navarro Pérez Clinical researcher with experience in the field of innovation (April to December)
Mr. Vicente de Juan Martín Managing Director	Mrs. Consuelo Borrás Blasco Basic researcher with experience in the field of innovation	Ms. Marta Viciano UAI manager
Ms. Ana Isabel Arizón Medical Director of the <i>Hospital Clínico Universitario of Valencia</i> and of the Valencia Clínico – Malvarrosa Health Department (January to September)	Mr. Felip Vilella Mitjana Basic researcher with experience in the field of innovation	Ms. Mariana Reina UAI manager
Mrs. Patricia Fernández Saiz Scientific Subdirector at INCLIVA	Mrs. Carolina Mir Sánchez Clinical researcher with experience in the field of innovation (January to March)	
Mrs. Maite Sáenz González Secretary General at INCLIVA		
Mr. Miguel Puche Torres Clinical researcher with experience in the field of innovation	Mrs. María Teresa Sánchez Clinical researcher with experience in the field of innovation	

2.2.1.7. Ethics Committee for Investigation with Medicinal Products

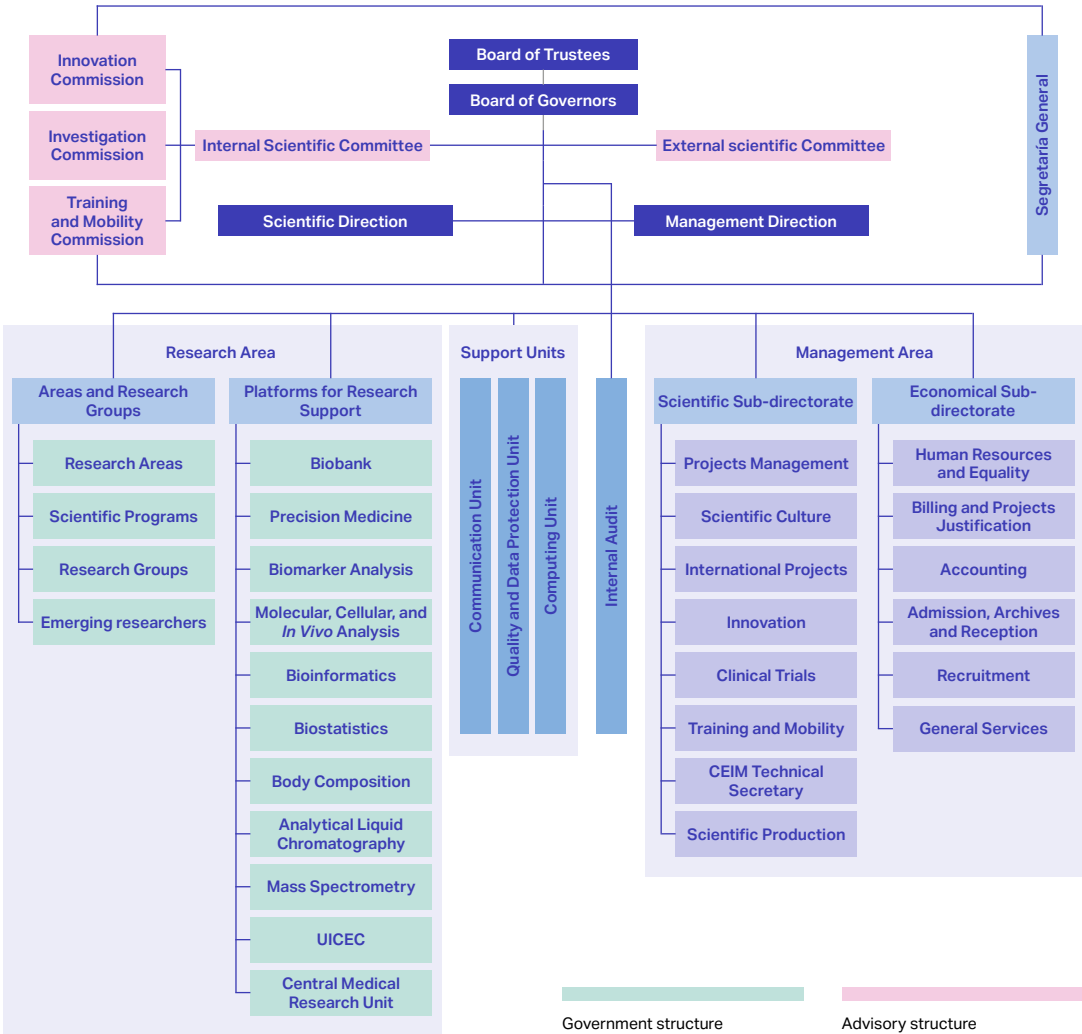
President: Mrs. M^a Luisa Calabuig Muñoz Specialist of the Hematology Department	Mrs. Patricia Roselló Millet Specialist of the Pediatrics Department	Mrs. Carolina Mir Sánchez Primary Care Team Family Physician
Vicepresident: Mr. Esteban Morcillo Sánchez Clinical pharmacologist	Mrs. M^a Jesús Puchades Montesa Specialist of the Nephrology Department	Mr. Antonio Ordóñez Sardaña lay member.
Technical Secretary: Mr. Manuel Alós Almiñana Head of the Pharmacy Department	Mr. José Alejandro Pérez Fidalgo Specialist of the Oncology Department	Mr. Rafael Barajas Cenobio Responsible for Quality and Data Protection INCLIVA
Vocals: Mr. Diego V. Cano Blanquer Hospital Pharmacist	Mrs. Tania Fleitas Kanonnikoff Specialist of the Oncology Department	Mrs. Laura Carbonell López specialist in Gynecology and Obstetrics
Mr. José Luis Trillo Mata Primary Care Pharmacist	Mr. Antonio Peláez Hernández, Allergy Specialist	Mrs. Berta Monleón López anesthesiology specialist
Mr. David Juan López Ortega Law Degree	Mr. Francisco Dasí Fernández Stabilized Miguel Servet Researcher	Mrs. M^a José Galindo Puerto Head of the Infectious Diseases Unit
Mrs. Carmen Celda Ortega Nurse	Mr. Ángel Martínez Brotons Assistant Physician of Cardiostimulation of Cardiology Department	Mr. Jorge Navarro Pérez Primary Care specialist
Mrs. Stephanie García Botello general surgery specialist.		Administrative: Mrs. Maialen Llopis Mrs. Ester Penadés

2.2.2. Management Structure

The organizational chart, approved at the Board of Trustees, is comprised of two sub-directorates, economical and scientific.

The first sub-directorate is in charge of the administrative area, which deals with the financial and administrative matters as well as with human resource management.

The second sub-directorate is in the charge of scientific activity management and innovation. It is responsible for integral scientific management that includes controlling and monitoring clinical trials and research projects, organizing courses, conferences and seminars, and several tasks related to general administration. Furthermore, it acts as an administrative support to the different affiliated scientific committees and to the Medical Research Central Unit. It comprises the innovation area in charge of quality and planning, innovation management, international programs and scientific and innovative culture promotion (UCCI).



Administrative Area:

Managing Director:
Vicente de Juan

Budget Control and Economic Management:
Consuelo López
Human Resources and Equality

Human Resources and Equality Unit:
Rut Cano
Anabel Gil
Mar Chanza
Javier López
Carlos Samper

Invoicing and Project Justify:
Vera Marín
Lorena Munuera

Accounting:
M^a José Rosalén
M^a Pilar Boix

Purchasing Unit:
Isabel Gomis
Karen Iglesias
Ana María Martín
Irene Collado

General Services Unit:
Cristina García

Receptionists:
Inmaculada Montalt
Alicia Gumiel
Angela Saiz

Scientific Management Area:

Scientific Subdirector
Patricia Fernández

Scientific Culture Unit:

Arantxa Martín
Alexandra Martín
Natividad Paz
Maite Saenz

International Projects Unit:
Ana Ferrer
Eugenia Flores
Elvira del Pozo
Miriam Gamero
Mercedes Poveda
Irene Sánchez

National Projects Unit:
Raquel Llorens
María Dominguez
Jorge Martínez
Alejandro Alejos

Innovation Management Unit:
Elena Carrió
Marta Viciano
Maríana Reina
Ana Pérez
Irene Cañigal

Clinical Trials Management Unit:
M^a Carmen Román
Rafael Roig
Patricia Manuela Erasum
Esther Penades

Clinical Trials Platform:
Ana Portolés
Mercedes Peris
Sofía Galant
Marta Martínez

Training and Events Unit:
Cristina García
Natividad Paz.

CEIm Administrative Management:
Maialen Llopis

Data Quality and Protection:
Rafael Barajas
María Domínguez.

Scientific Production Unit:
María Revenga

Communication:
Alexandra Muñoz
Arantxa Martín
Tomás Camarasa

Computing Unit:

Head of Information Systems and High Performance Computing:
Miguel Herreros

Software engineer and IT system administrator:
Enrique Herreras

Computer technicians:
Antonio Macías
Francisco Sánchez,

Secretary General:

Head:
Maite Saenz

Technician:
Alejandro José Francisco

2.3. Core Facilities

Research support platforms

Genomics and Epigenetics Unit
Personal Autonomy, Dependencies and Serious Mental Disorders Unit
Cytometry and Cultures Unit
Stabling and Experimental Operating Theatres Unit
Microscopy Unit
Medical Genetics and Genomics Section
Biomedical Imaging and Metabolomics Section

INCLIVA Platforms

Biobank
Precision Medicine Unit
Biomarker Analysis Unit
Molecular, Cellular and in vivo Analysis Unit
Biostatistics Unit
Bioinformatics Unit
Body Composition Unit
Analytical Liquid Chromatography Unit
Mass Spectrometry Unit
Clinical Research and Clinical Trials Unit



3 GLOBAL ANALYSIS

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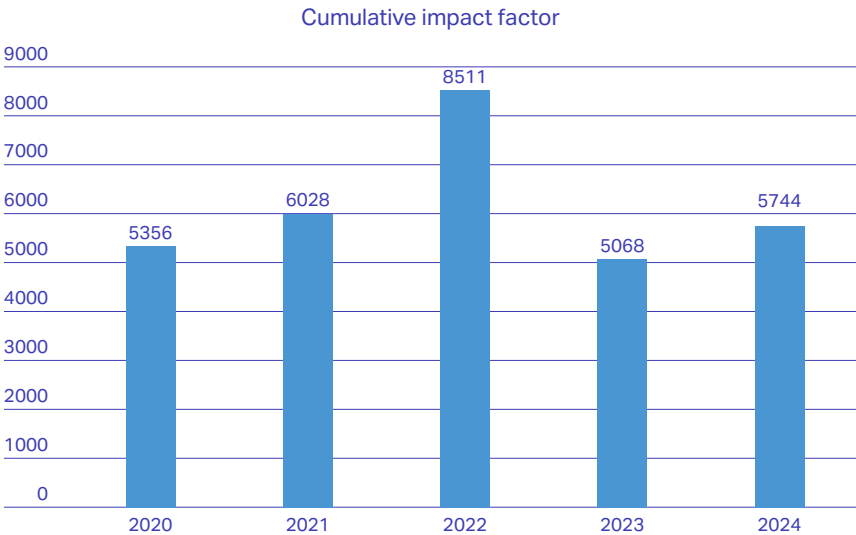
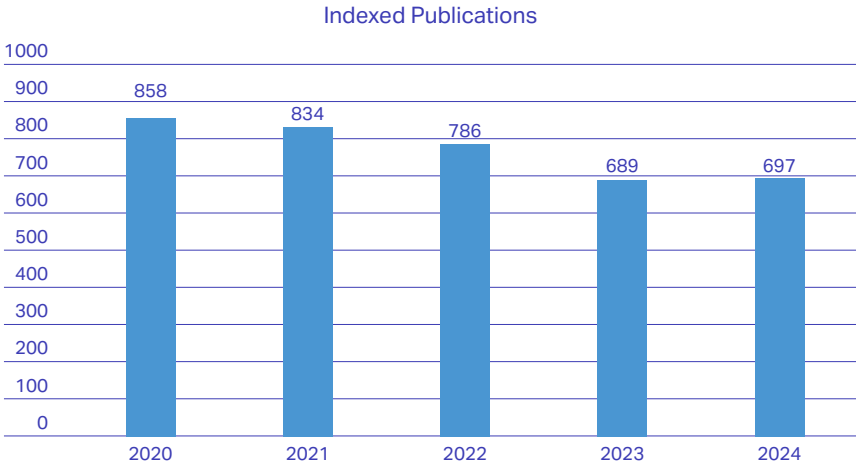
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3.1 Scientific production global analysis

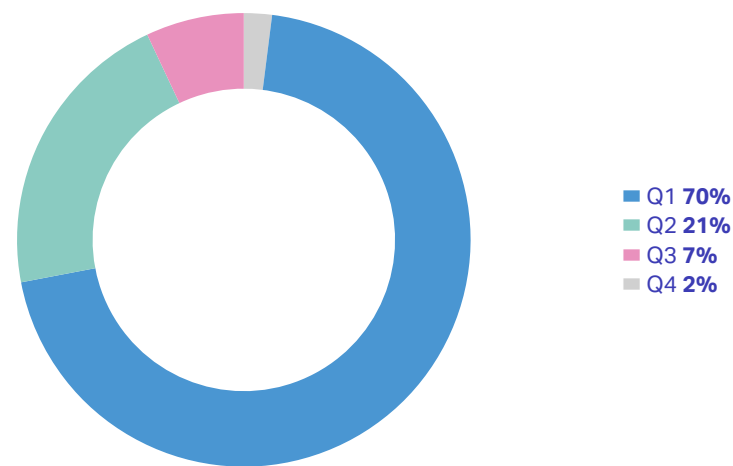
As in previous year, INCLIVA continued in 2024 with the upward trend in the quality of scientific production. For this year data was only extracted from certified groups. The number of publications this year is 697 with a cumulative impact factor of 5.744,11 which translates into an average impact factor 8,2412.

The following figures depict the number and quality of the published manuscripts expressed in terms of total and average impact factor.

Cumulative impact factor	5744,11
Average impact factor	8,2412
Publications with IF>7	193
Publications	697

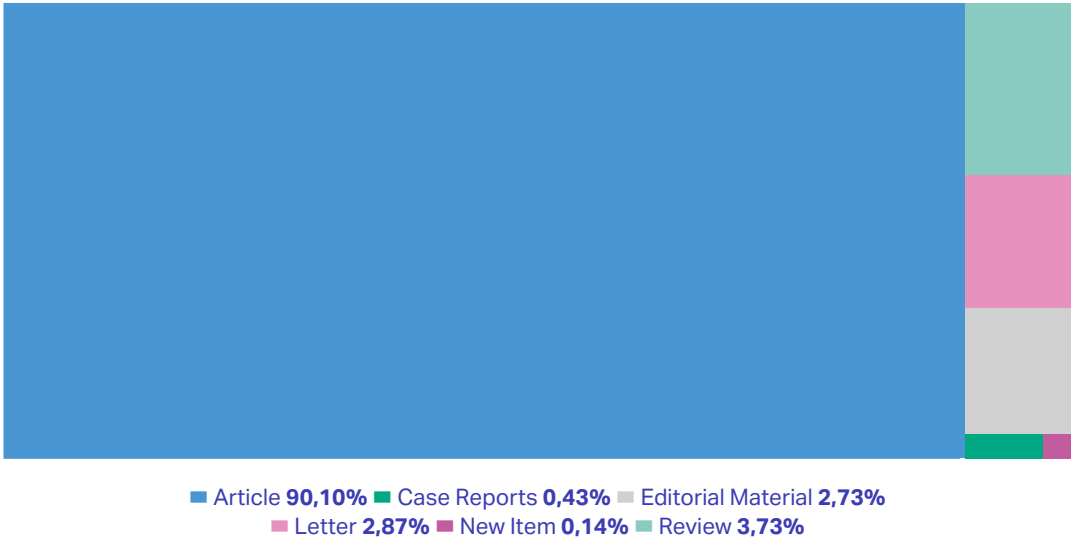


The distribution by quartiles within their thematic categories is shown below. In 2024, about 91% of the papers that were published in indexed journals belong to the first and second quartiles of their corresponding thematic categories:

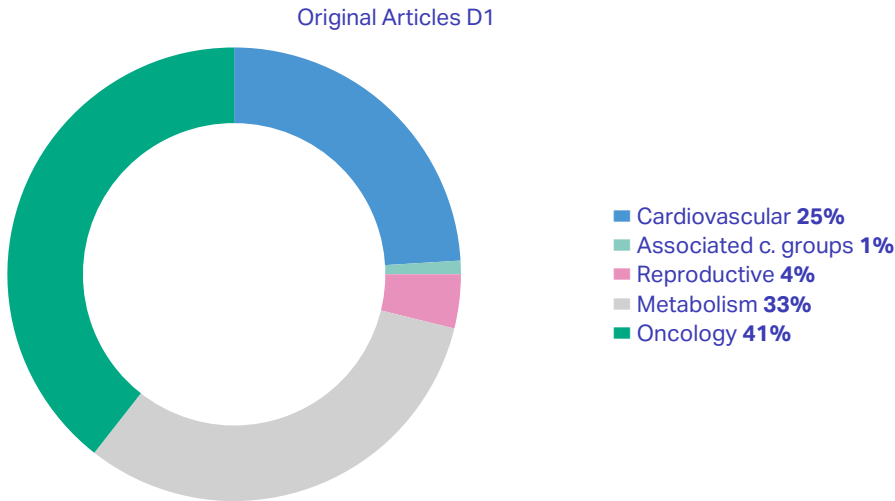
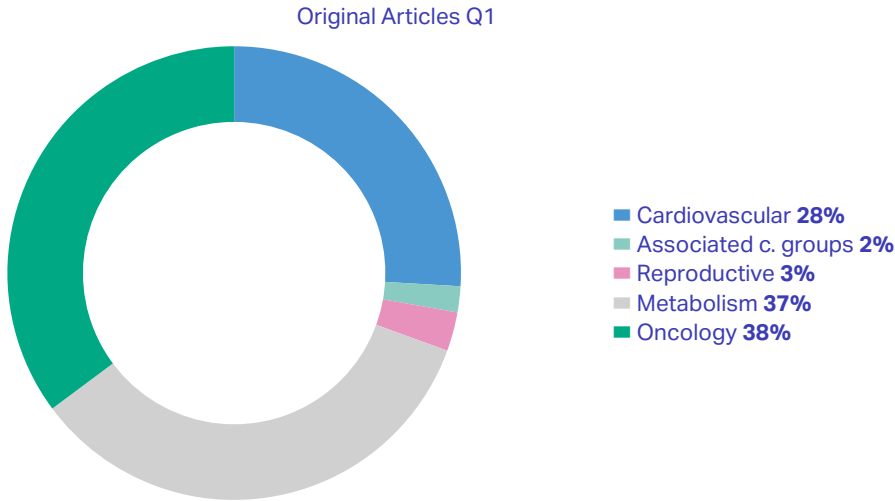


The number and percentage of scientific publications according to category are:

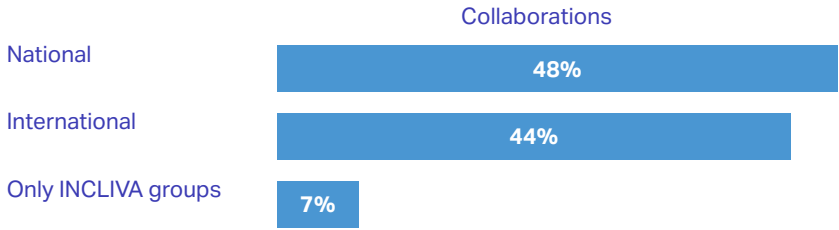
Category	Value
Article	628
Case Reports	3
Editorial Material	19
Letter	20
News Item	1
Review	26



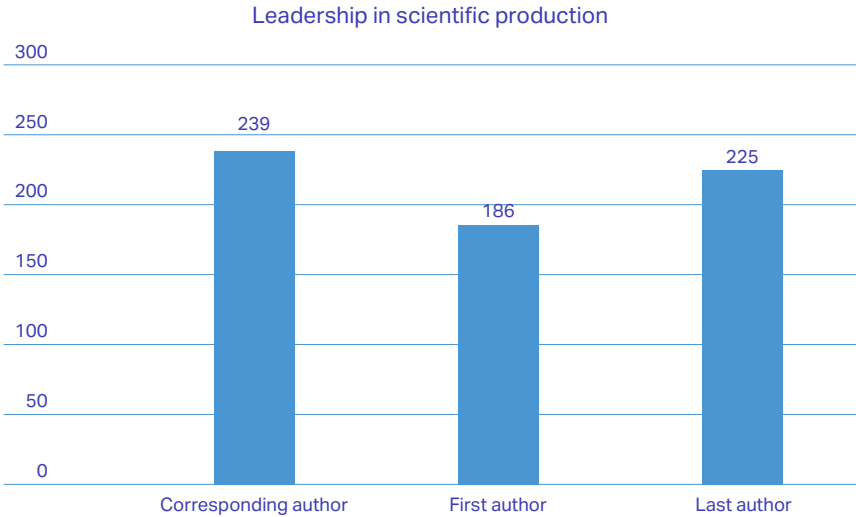
The percentage of originals in first decile and first quartile publications in 2024 are:



One of the main success factors for a biomedical research institution has to do with its potential to establish high level scientific collaborations. The percentage of national and international collaborations which led to scientific output in 2024 is listed below:

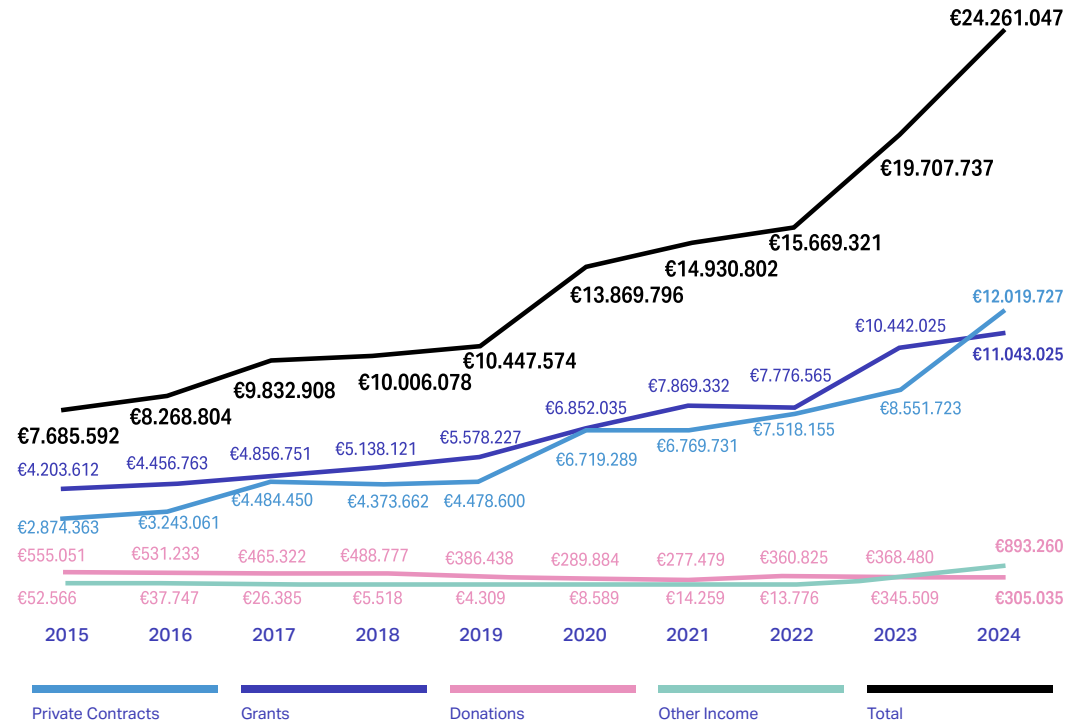


Another key performance indicator is the leadership role in scientific publications. The chart below shows the number of published articles in which INCLIVA researchers sign as corresponding author, first and last author.

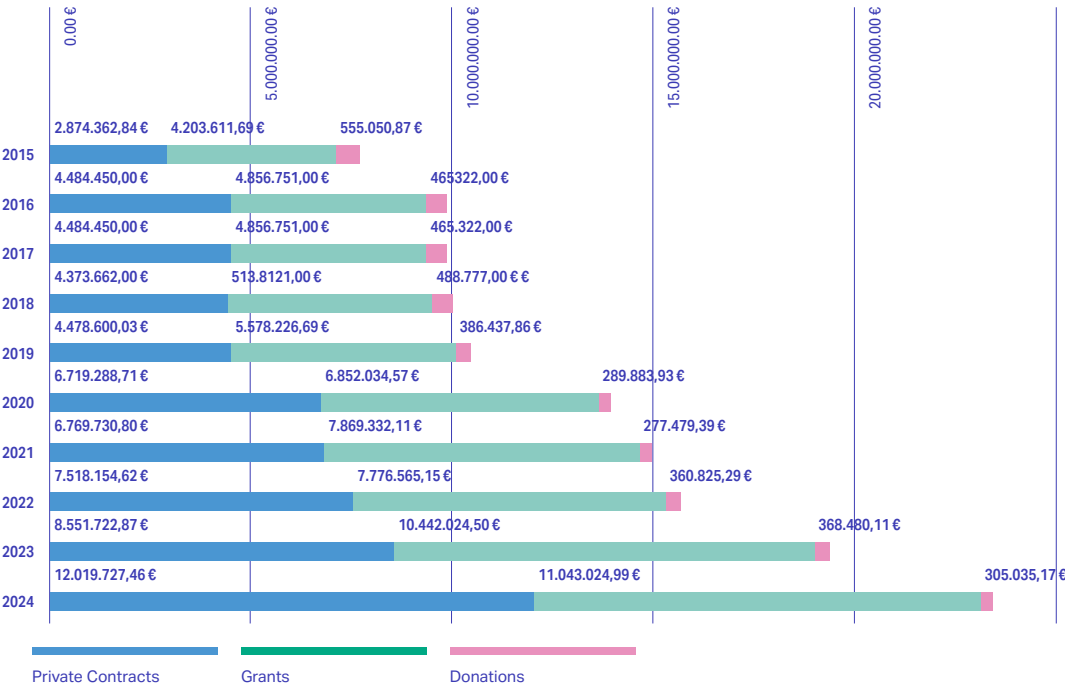


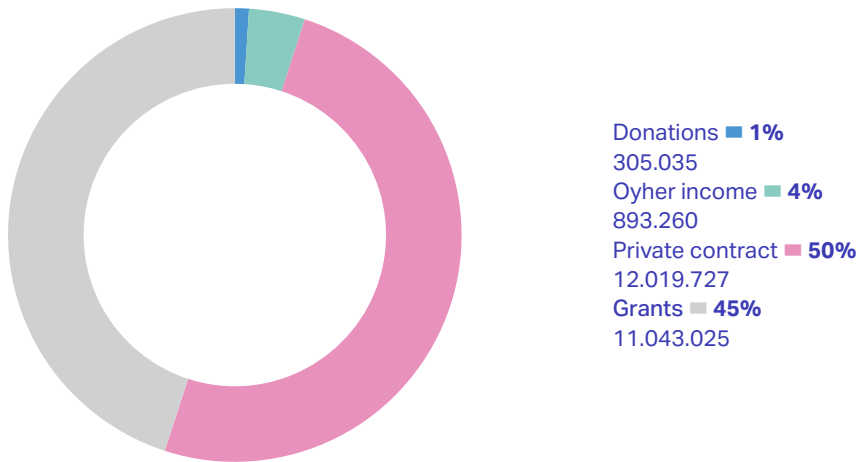
3.2.Financial Resources

INCLIVA's funding during 2024 totaled €24.261.047. The funds raised from competitive sources were still higher than the average of recent years



Funding source in the indicated period is shown below.
The remaining income corresponds to private sources of funding, clinical trial revenues and grants among others. The graph below shows this distribution of the year 2024.





The analysis of the income obtained by the Foundation in its last fiscal year (2024) is shown in the table.

Income	Amount	Overheads	Total
Turnover	10.059.593,34	1.960.134,12	12.019.727,46
Donations	274.980,01	30.055,16	305.035,17
Grants	9.001.192,48	756.255,57	9.757.448,05
Capital Grants	1.226.834,38		1.285.576,94
Financial	342.694,28		725.285,37
Extraordinari	2.814,76		167.974,37
Total Income	20.908.109,25	2.746.444,85	24.261.047,36

Also used as a source of information the Annual Accounts of 2024 approved by the Board of Trustees of the Foundation and audited by the General Intervention of the Generalitat Valenciana (through the audit firm DULA Auditores) the information of the expenses executed is provided, with the explanation of the use of the corresponding indirect costs.

Expenses	Total
Cash Funding	128.018,35
Supplies	1.910.296,09
Other Funcional Expenses (Activity)	3.925.091,50
Staff Costs	10.820.304,22
Other Funcional Expenses (Structural)	676.546,87
Extraordinary Expenses	149.689,43
Inventory Item Donation Expenses	0,00
Amortization Of Fixed Assets	1.634.433,77
Total Expenses	19.244.380,23

Finally, this is the balance sheet of the foundation in official format, extracted from the Annual Accounts of 2024:

Assets			Fiscal Year 2024	Fiscal Year 2023
A)	Non-Current Assets		12.395.394,34	14.591.004,45
	I.	Intangible assets	2.199.736,00	2.295.355,86
	2.	Concessions	2.172.872,82	2.263.104,62
	3.	Patents, licences, trademarks and similar rights	4.678,91	5.100,21
	5.	Computer software	22.184,27	27.151,03
	III.	Investment property	6.017.242,69	5.938.261,56
	1.	Land and buildings	1.009.842,47	835.238,96
	2.	Technical facilities and other tangible fixed assets	4.606.166,77	5.103.022,60
	3.	Fixed assets in progress and advances	401.233,45	0,00
	VI.	Deferred tax assets	4.178.415,65	6.357.387,03
	1.	Other government loans	297.947,00	1.114.593,27
	2.	Other government loans group and associated companies	165.209,80	107.006,20
	3.	Other loans from private entities	193.830,75	172.500,00
	4.	Other loans from private entities group and associated companies	0,00	0,00
	5.	Other European Union loans	3.521.428,10	4.963.287,56
B)	Current Assets		48.709.531,61	39.772.408,21
	III.	Trade and other receivables	7.164.777,58	5.999.245,02
	1.	Trade and other receivables	7.116.432,53	5.843.847,46
	2.	Trade and other receivables group and associated companies	48.345,05	155.397,56
	IV.	Current investments in group companies and associates	18.083.690,66	9.063.124,78
	1.	Other government loans	11.826.248,70	5.262.686,02
	2.	Other government loans group and associated companies	6.257.441,96	3.800.438,76
	VI.	Prepayments for current assets	15.060.941,70	10.044.964,36
	1.	Equity instruments	3.001.766,40	
	2.	Credits to entities	27.759,30	28.248,36
	5.	Other financial assets	12.031.416,00	10.016.716,00
	VII.	short-term periodicities	0,00	318,18
	VIII.	Cash and cash equivalents	8.400.121,67	14.664.755,87
	1.	Cash	8.400.121,67	14.664.755,87
Total Assets (A + B)			61.104.925,95	54.363.412,66

Equity And Liabilities			Fiscal Year 2024	Fiscal Year 2023
A)		Equity	25.402.346,25	20.930.603,45
	A-1)	Capital and reserves without valuation adjustments	21.068.370,03	16.051.702,90
	I.	Endowments	617.482,67	617.482,67
	II	Reserves	15.434.220,23	13.210.852,13
	2.	Other reserves		
	IV.	Profit/(loss) for the period	5.016.667,13	2.223.368,10
	A-3)	Grants, donations or gifts and legacies received	4.333.976,22	4.878.900,55
B)		Non-Current Liabilities	7.154.044,58	9.587.547,68
	II.	Non-current payables	7.154.044,58	9.587.547,68
	5.	Other financial liabilities	5.953.195,09	8.872.743,67
	6.	other short-term debts with group companies and associates	1.200.849,49	714.804,01
C)		Current Liabilities	28.548.535,12	23.845.261,53
	II	Current provisions	645.194,32	593.843,46
	1.	Other provisions	98.030,75	98.030,75
	2.	Other provisions with group companies and associates	547.163,57	495.812,71
	III.	Current payables	20.327.607,19	18.499.003,28
	5.	Other financial liabilities	18.644.612,43	16.774.522,12
	6.	other short-term debts with group companies and associates	1.682.994,76	1.724.481,16
	V.	Beneficiaries-Creditors	484.533,92	490.374,93
	VI.	Trade creditors and other accounts payable	7.091.199,69	4.262.039,86
	1.	Suppliers	433.079,34	32.703,89
	3.	Other payables	217.817,63	252.433,99
	4.	Personnel (salaries payable)	-70,42	-377,46
	5.	current tax liabilities	0,00	0,00
	6.1	Public entities, other	6.112.075,18	3.552.445,63
	7.	Advances from customers	328.297,96	424.833,81
Total Equity and Liabilities (A + B + C)			61.104.925,95	54.363.412,66

3.3. Cooperative research networks

The Carlos III Health Institute (*Instituto de Salud Carlos III*) develops – through the General Subdirection of Networks and Centers for the Cooperative Research – the creation of stable research network structures such as CIBER (Network of Centres for Biomedical Research). INCLIVA participates in this research structure through its associated groups.

The following table shows the participation in scientific networks according to the prioritized research area, the center and its principal investigator.

CIBER

Research Area	INCLIVA PI	Scientific Network	Reference
Cardiovascular	Mr. José Tomás Real Collado	<i>ciber</i> DEM	CB07/08/0018
	Mrs. Empar Lurbe i Ferrer	<i>ciber</i> OBN	CB06/03/0039
	Mr. Vicent Bodí Peris	<i>ciber</i> CV	CB16/11/00486
	Mr. Juan Sanchis Forés	<i>ciber</i> CV	CB16/11/00420
Metabolism and Organ Damage	Mr. Federico V. Pallardó Calatayud	<i>ciber</i> ER	CB06/07/0073
	Mr. Ruben Artero Allepuz	<i>ciber</i> ER	CB23/07/00005
	Mr. Juan Nacher Roselló	<i>ciber</i> SAM	CB07/09/006
	Mr. Rafael Tabarés Seisdedos	<i>ciber</i> SAM	CB07/09/0021
	Mr. José Viña Ribes	<i>ciber</i> FES	CB16/10/00435
Oncology	Mr. Andrés Cervantes Ruipérez	<i>ciber</i> ONC	CB16/12/00473
	Mrs. Rosa Noguera Salvá	<i>ciber</i> ONC	CB16/12/00484

3.4. Knowledge transfer activities

INCLIVA Biomedical Research Institute is fully committed to transfer the knowledge created both to the National Health System and to the industrial sector in order to fulfil its organizational mission.

3.4.1. Knowledge transfer to the National Health System

Clinical guidelines and consensus documents are one of the best indicators of knowledge transfer from research to clinical practice. The following table shows the guidelines published in indexed journals in which authors affiliated with INCLIVA have participated.

Clinical guidelines	IF
13	101,1
1. Guidelines for inhaled sedation in the ICU. García F, Paz D, Pestaña D, Soro M, Marcos JM, Badenes R, de la Rica AS et al. Revista Espanola de Anestesiologia y Reanimacion. 2024 February 01. 71 (2):90-111. DOI:10.1016/j.redar.2023.07.001. PMID:38309642. 2. Pan-Asian adapted ESMO Clinical Practice Guidelines for the diagnosis, treatment and follow-up of patients with gastric cancer. Shitara K, Fleitas T, Kawakami H, Curigliano G, Narita Y, Wang F, Wardhani SO et al. Esmo Open. 2024 February 03. 9 (2):102226-102226. DOI:10.1016/j.esmoop.2023.102226. PMID:38458658. 3. ESGO-ESMO-ESP consensus conference recommendations on ovarian cancer: pathology and molecular biology and early, advanced and recurrent disease. Ledermann JA, Matias X, Amant F, Concin N, Davidson B, Fotopoulou C, González A et al. ANNALS OF ONCOLOGY. 2024 March 01. 35 (3):248-266. DOI:10.1016/j.annonc.2023.11.015. PMID:38307807. 4. Multidisciplinary Management of Patients With Chronic Obstructive Pulmonary Disease and Cardiovascular Disease. de Miguel J, Villota JN, Pérez SS, Lorite NM, Navarrete BA, Jiménez JFD, Soler JJ et al. ARCHIVOS DE BRONCONEUMOLOGIA. 2024 April 01. 60 (4):226-237. DOI:10.1016/j.arbres.2024.01.013. PMID:38383272. 5. European clinical practice guidelines for the definition, diagnosis, and treatment of oligometastatic esophagogastric cancer (OMEC-4). Kroese TE, Bronzwaer S, van PSN, Schoppman SF, Deseyne P, van E, Haustermans K et al. EUROPEAN JOURNAL OF CANCER. 2024 June 01. 204114062-114062. DOI:10.1016/j.ejca.2024.114062. PMID:38678762. 6. Pan-Asian adapted ESMO Clinical Practice Guidelines for the diagnosis, treatment and follow-up of patients with biliary tract cancer. Chen LT, Vogel A, Hsu C, Chen MH, Fang W, Pangarsa EA, Sharma A et al. Esmo Open. 2024 August 06. 9 (8):103647-103647. DOI:10.1016/j.esmoop.2024.103647. PMID:39232586. 7. Tiempos y condiciones de almacenamiento de las muestras en anatomía patológica. Recomendaciones de la Sociedad Española de Anatomía Patológica parte 1: muestras destinadas al diagnóstico. Tresserra F, Rosello E, Fernández MJ, Zaragoza L, Azúa J, Alfaro C, Navarro S et al. REVISTA ESPANOLA DE PATOLOGIA. 2024 October 01. 57 (4):235-249. DOI:10.1016/j.patol.2024.04.004. PMID:39393891. 8. SEAP-IAP recommendations for the collection, storage and use of biological materials of human origin and related data intended for research. Generic biobank consideration and ethical-legal review (Part II). Martínez A, Rosello E, Jesús Fernández Aceñero M, Zaragoza L, Azúa J, Alfaro C, Navarro S et al. REVISTA ESPANOLA DE PATOLOGIA. 2024 October 01. 57 (4):250-257. DOI:10.1016/j.patol.2024.04.005. PMID:39393892. 9. SEOM-GEMCAD-TTD clinical guideline for the diagnosis and treatment of gastric cancer (2023). Rivera F, Longo F, Richard MM, Richart P, Alsina M, Carmona A, Custodio AB et al. CLINICAL & TRANSLATIONAL ONCOLOGY. 2024 November 01. 26 (11):2826-2840. DOI:10.1007/s12094-024-03600-7. PMID:39023829. 10. SEOM-GEICO clinical guideline on epithelial ovarian cancer (2023). Pérez JA, Gálvez F, Guerra EM, Madariaga A, Manzano A, Martín C, Rubio MJ et al. CLINICAL & TRANSLATIONAL ONCOLOGY. 2024 November 01. 26 (11):2758-2770. DOI:10.1007/s12094-024-03531-3. PMID:39008159. 11. SEOM-GEMCAD-TTD clinical guidelines for the adjuvant treatment of colon cancer (2023). Pericay C, Montagut C, Reina JJ, Melian M, Alcaide J, Tarazona N, Ruiz A et al. CLINICAL & TRANSLATIONAL ONCOLOGY. 2024 November 01. 26 (11):2812-2825. DOI:10.1007/s12094-024-03559-5. PMID:38914755.	

12. Recomendaciones preventivas vasculares. Actualización PAPPS 2024. Orozco D, Brotons C, Banegas JR, Gil VF, Cebrián AM, Martín E, Jordá A et al. Atencion PriMaría. 2024 November 01. 56 Suppl 1 (Suppl 1):103123-103123. DOI:10.1016/j.aprim.2024.103123. PMID:39613355.
13. Biomarkers in breast cancer 2024: an updated consensus statement by the Spanish Society of Medical Oncology and the Spanish Society of Pathology. Colomer,R, González Farré,B, Ballesteros,AI, Peg,V, Bermejo,B, Pérez Mies,B, de la Cruz,S et al. CLINICAL & TRANSLATIONAL ONCOLOGY. 2024 December 01. 26 (12):2935-2951. DOI:10.1007/s12094-024-03541-1. PMID:38869741.

Consensus documents	IF
11	108,7
1. Early management of adult traumatic spinal cord injury in patients with polytrauma: a consensus and clinical recommendations jointly developed by the World Society of Emergency Surgery (WSES) & the European Association of Neurosurgical Societies (EANS). Picetti E, Demetriades AK, Catena F, Aarabi B, Abu FM, Alves OL, Ansaloni L et al. WORLD JOURNAL OF EMERGENCY SURGERY. 2024 January 18. 19 (1):4-4. DOI:10.1186/s13017-023-00525-4. PMID:38238783. 2. Prophylaxis and management of graft-versus-host disease after stem-cell transplantation for haematological malignancies: updated consensus recommendations of the European Society for Blood and Marrow Transplantation. Penack O, Marchetti M, Aljurf M, Arat M, Bonifazi F, Duarte RF, Giebel S et al. LANCET HAEMATOLOGY. 2024 February 01. 11 (2):147-159. DOI:10.1016/S2352-3026(23)00342-3. PMID:38184001. 3. ESGO-ESMO-ESP consensus conference recommendations on ovarian cancer: pathology and molecular biology and early, advanced and recurrent disease. Ledermann JA, Matias X, Amant F, Concin N, Davidson B, Fotopoulou C, González A et al. ANNALS OF ONCOLOGY. 2024 March 01. 35 (3):248-266. DOI:10.1016/j.annonc.2023.11.015. PMID:38307807. 4. Multidisciplinary approach for locally advanced non-small cell lung cancer (NSCLC): 2023 expert consensus of the Spanish Lung Cancer Group GECP. Ospina,AV, Nadal,SB, de la Cruz,JLCC, Larriba,JLG, Vidueira,IM, Sureda,BM, Nadal,E et al. CLINICAL & TRANSLATIONAL ONCOLOGY. 2024 March 26. 26 (7):1647-1663. DOI:10.1007/s12094-024-03382-y. PMID:38530556. 5. Improvement of thrombosis management in patients with cancer: a practical consensus document of recommendations for cancer-associated thrombosis patients' healthcare in Spain. Martín AM, Trujillo AJ, Martí E, Jara L, Montero RM, Gallardo E, López JJ et al. CLINICAL & TRANSLATIONAL ONCOLOGY. 2024 June 01. 26 (6):1319-1328. DOI:10.1007/s12094-023-03379-z. PMID:38349577. 6. Consensus on the approach to hydrosaline overload in acute heart failure. SEMI/SEC/S.E.N. recommendations. Llacer P, Romero G, Trullas JC, de la Espriella R, Cobo M, Quiroga B, Casado J et al. REVISTA ESPANOLA DE CARDIOLOGIA. 2024 July 01. 77 (7):556-565. DOI:10.1016/j.rec.2024.01.008. PMID:38432324. 7. Migraine treatment consensus document of the Spanish Society of Neurology (SEN), Spanish Society of Family and Community Medicine (SEMFYC), Society of Primary Care Medicine (SEMERGEN) and Spanish Association of Migraine and Headache (AEMICE) on migraine treatment. Belvis R, Irimia P, González N, García J, Pozo P, López A, Morollón N et al. MEDICINA CLINICA. 2024 August 30. 163 (4):1-10. DOI:10.1016/j.medcli.2024.02.006. PMID:38643025. 8. Multidisciplinary Delphi consensus on challenges and key factors for an optimal care model in chronic kidney disease. Górriz JL, Arroyo RA, Arribas P, Artola S, Cinza S, de la Espriella R, Escalada J et al. NEFROLOGIA. 2024 September 01. 44 (5):678-688. DOI:10.1016/j.nefro.2024.01.006. PMID:39505678. 9. Update on Cytomegalovirus Infection Management in Allogeneic Hematopoietic Stem Cell Transplant Recipients. A Consensus Document of the Spanish Group for Hematopoietic Transplantation and Cell Therapy (GETH-TC). Piñana JL, Giménez E, Vázquez L, Marcos MA, Guerreiro M, Duarte R, Pérez A et al. Mediterranean Journal of Hematology and Infectious Diseases. 2024 September 01. 16 (1):DOI:10.4084/MJHID.2024.065. PMID:39258183. 10. Consensus Definitions of Cytomegalovirus (CMV) Infection and Disease in Transplant Patients Including Resistant and Refractory CMV for Use in Clinical Trials: 2024 Update From the Transplant Associated Virus Infections Forum. Ljungman P, Chemaly RF, Khawaya F, Alain S, Avery R, Badshah C, Boeckh M et al. CLINICAL INFECTIOUS DISEASES. 2024 September 26. 79 (3):787-794. DOI:10.1093/cid/ciae321. PMID:39041385.	

11. Clinical Recommendations for Managing Genitourinary Adverse Effects in Patients Treated with SGLT-2 Inhibitors: A Multidisciplinary Expert Consensus. Gorgojo JJ, Górriz JL, Cebrián A, Castro A, Velasco M. Journal of Clinical Medicine. 2024 October 30. 13 (21):DOI:10.3390/jcm13216509. PMID:39518647.

Institutional documents	IF
13	147,3

1. Updated treatment recommendation for third-line treatment in advanced colorectal cancer from the ESMO Metastatic Colorectal Cancer Living Guideline. Cervantes,A, Martinelli,E, ESMO Guidelines Electronic address;Committeeclinicalguidelines@esmoorg. ANNALS OF ONCOLOGY. 2024 February 01. 35 (2):241-243. DOI:10.1016/j.annonc.2023.10.129. PMID:37951473.

2. Post-Transplantation Cyclophosphamide-Based Graft-versus-Host Disease Prophylaxis in HLA-Matched and Haploidentical Donor Transplantation for Patients with Hodgkin Lymphoma: A Comparative Study of the Lymphoma Working Party of the European Society for Blood and Marrow Transplantation. Montoro J, Boumendil A, Finel H, Bramanti S, Castagna L, Blaise D, Dominietto A et al. Transplantation And Cellular Therapy. 2024 February 01. 30 (2):DOI:10.1016/j.jtct.2023.11.021. PMID:38043802.

3. Transcatheter valvular interventions 2022: insights from the National Societies of Cardiology Journals of the European Society of Cardiology. Monsuez JJ, Gatzov P, Alfonso F, Natl Soc Cardiology J, European C. EUROPEAN HEART JOURNAL. 2024 February 01. 45 (5):328-329. DOI:10.1093/eurheartj/ehad676. PMID:38087771.

4. Recommendations of the Spanish Society of Pediatric Cardiology and Congenital Heart Diseases for the prevention of respiratory syncytial virus infections with nirsevimab in pediatric cardiology. López,CM, Malfaz,FC, Sánchez,MG, Representacion Soc,Espanola, Cardiologia Clin SECPCC,Grp, Comite Asesor Vacunas,Asociacion. ANALES DE PEDIATRIA. 2024 February 01. 100 (2):148-150. DOI:10.1016/j.anpedi.2023.10.006. PMID:38245401.

5. Current use of androgens in bone marrow failure disorders: a report from the Severe Aplastic Anemia Working Party of the European Society for Blood and Marrow Transplantation. Pagliuca S, Kulasekararaj AG, Eikema D, Piepenbroek B, Iftikhar R, Satti TM, Griffin M et al. HAEMATOLOGICA. 2024 March 01. 109 (3):765-776. DOI:10.3324/haematol.2023.282935. PMID:37199126.

6. A comprehensive examination of small-bowel capsule endoscopy in Spanish centers to meet European Society of Gastrointestinal Endoscopy standards. Villagrà MG, de Frías CP, de la Mata D, Alonso M, Alonso N, Caballero N, Ceballos FS et al. Endoscopy International Open. 2024 March 01. 12 (03):344-351. DOI:10.1055/a-2252-8946. PMID:38481597.

7. Peripheral blood stem cell versus bone marrow graft for patients =60 years undergoing reduced intensity conditioning haploidentical transplantation for acute myeloid leukemia in complete remission: An analysis of the Acute Leukemia Working Party of the European Society for Blood and Marrow Transplantation. Devillier R, Galimard JE, Blaise D, Raiola AM, Bramanti S, Grillo G, Pastano R et al. AMERICAN JOURNAL OF HEMATOLOGY. 2024 July 01. 99 (7):1250-1256. DOI:10.1002/ajh.27343. PMID:38778766.

8. Cross-sectional and longitudinal associations of adherence to WCRF/AICR cancer prevention recommendations with health-related quality of life in breast cancer survivors. Health-EpiGEICAM study. Lope V, Guerrero Á, Fernández de Larrea N, Antolín S, Benavent M, Bermejo B, Ruiz E et al. Journal of Nutrition Health & Aging. 2024 August 01. 28 (8):100312-100312. DOI:10.1016/j.jnha.2024.100312. PMID:38970849.

9. Pan-Asian adapted ESMO Clinical Practice Guidelines for the diagnosis, treatment and follow-up of patients with biliary tract cancer. Chen LT, Vogel A, Hsu C, Chen MH, Fang W, Pangarsa EA, Sharma A et al. Esmo Open. 2024 August 06. 9 (8):103647-103647. DOI:10.1016/j.esmoop.2024.103647. PMID:39232586.

10. Associations between respiratory pathogens and lung function in primary ciliary dyskinesia: cross-sectional analysis from the PROVALF-PCD cohort. Rubbo B, Kant A, Zhang K, Allegorico A, Basilicata S, Boon M, Borrelli M et al. ERJ Open Research. 2024 September 01. 10 (5):DOI:10.1183/23120541.00253-2024. PMID:39351386.

11. Assessment and Management of Patients with Obesity and Hypertension in European Society of Hypertension Excellence Centres. A survey from the ESH Working Group on Diabetes and Metabol-

ic Risk Factors. Antza C, Grassi G, Weber T, Persu A, Jordan J, Nilsson PM, Redon J et al. BLOOD PRESSURE. 2024 December 01. 33 (1):2317256-2317256. DOI:10.1080/08037051.2024.2317256. PMID:38407195.

12. Joint associations of handgrip strength and physical activity with incident cardiovascular disease and overall mortality in the UK Biobank. Polo A, Calatayud J, Palau P, López L, Núñez R, Andersen LL, López R. CLINICAL NUTRITION. 2024 December 01. 43 (12):218-224. DOI:10.1016/j.clnu.2024.10.022. PMID:39504675.

13. Why were the 2023 Guidelines of the European Society of Hypertension not developed as Joint Guidelines together with the European Society of Cardiology?. Kreutz,R, Azizi,M, Grassi,G, Januszewicz,A, Kahan,T, Lurbe,E, Polonia,J et al. BLOOD PRESSURE. 2024 December 31. 33 (1):2317263-2317263. DOI:10.1080/08037051.2024.2317263. PMID:38404242.

Consensus statements	IF
2	19,7

1. Dietary sodium and fluid intake in heart failure. A clinical consensus statement of the Heart Failure Association of the ESC. Mullens W, Damman K, Dhont S, Banerjee D, Bayes A, Cannata A, Chioncel O et al. EUROPEAN JOURNAL OF HEART FAILURE. 2024 April 12. 26 (4):730-741. DOI:10.1002/ehhf.3244. PMID:38606657.

2. Biomarkers in breast cancer 2024: an updated consensus statement by the Spanish Society of Medical Oncology and the Spanish Society of Pathology. Colomer,R, González Farré,B, Ballesteros,AI, Peg,V, Bermejo,B, Pérez Mies,B, de la Cruz,S et al. CLINICAL & TRANSLATIONAL ONCOLOGY. 2024 December 01. 26 (12):2935-2951. DOI:10.1007/s12094-024-03541-1. PMID:38869741.

3.4.2. Innovation and Knowledge Transfer

The Innovation Unit of INCLIVA supports professionals in the development of translational research, which is one of the main objectives of the institution, to maximize its impact on society. The unit fosters innovation and collaboration with research centres and industry partners, bridging the gap between research and solutions that reach clinical practice.

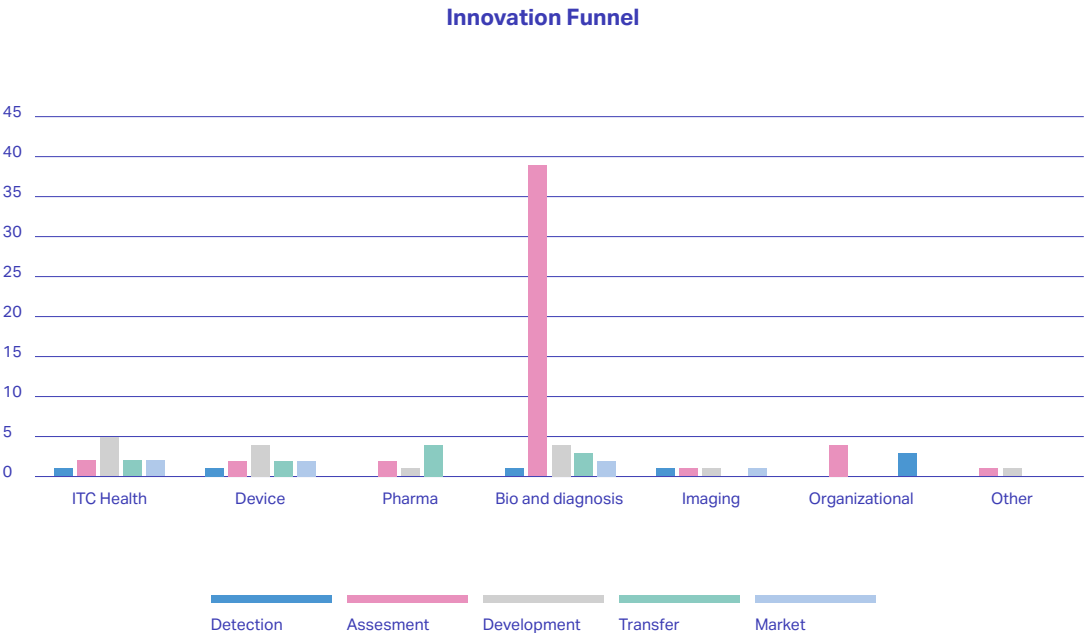
A key responsibility of the unit is managing the innovation funnel, assessing the viability of innovative ideas at different stages to ensure that high-impact ideas reach the market.

The Unit’s main services include:

- Identification and analysis of ideas
- Evaluation and management of intellectual property rights
- Commercialisation and technology transfer
- Project management of innovation projects
- Training activities to foster an innovation-driven culture

Consequently, INCLIVA innovation funnel in 2024 is shown in Table:

INNOVATION FUNNEL	ITC Health	Device	Pharma	Bio and diagnosis	Imaging	Organizational	Other	Total
Detection	1	1	0	1	1	0	0	4
Assessment	2	2	2	38	1	4	1	50
Development	5	5	1	4	1	0	1	17
Transfer	4	3	4	3	0	0	0	14
Market	4	2	0	2	1	3	0	12
TOTAL	16	13	7	48	4	7	2	97



3.4.2.1. Intellectual Assets

The protection of knowledge is the first step to move scientific findings and ideas from researchers to the industry. Patents are the most common way to protect technologies that are new, inventive and have industrial application. Thus, research institutions can exploit the patents they hold by licensing them to companies.

The following family patents and utility models were active in 2024:

Invention	Priority number	% INCLIVA	Status
2024. Prenylated tetrahydroquinolines and quinolines with ppar agonist activity	EP24382406	50%	European Patent
2024. Dispositivo para canalización de la sangre para hemodiálisis	P202330882	5,5%	PCT extension
2024. Lipid nanoparticles and their use in treatment	EP24389971	16%	European Patent
2023. Development and Validation of the AMMON-OHE model to risk stratify cirrhoticoutpatients for occurrence of overt hepatic encephalopathy	UK2303652	50%	PCT extension
2022. Dispositivo de Lubricación Intrauretral pediátrica	U202230442	100%	Granted in Spain
2022. Method for assessing the activity of nicotinamida N-Methyl Transferase	EP22382866	10%	European Patent
2022 Reposicionamiento de haloperidol como tratamientos farmacológicos para atrofia muscular espinal	PCT/EP2022/087022	5%	Europe and US National Phase
2021. Use of Musashi 2 (msi2) as therapeutic target for the treatment of the characteristic myopathy of type 1 myotonic dystrophy	EP21382133	5%	Europe and US National Phase
2021. Compound comprising ruthenium(iii) and 2,2'-biimidazole (Runat-bi) and the therapeutic use thereof	P202130624	40%	Granted in Spain
2021. APC protein for the detection and prediction of septic shock	EP21382173	10%	Europe, US China, Japan and Canada National Phase
2021. Epigenetic signature for the diagnosis and prognosis of Spitzoides cutaneous melanocytic tumors	EP21382569	66,67%	Europe and US National Phase
2019. Oropharyngeal obturation device	P201900039	100%	Granted in Spain, Germany, France and Great Britain
2018. Injectable material for the regeneration of the articular cartilage	P201830730	29%	Granted in Spain
2017. Prenylated benzopyranes as PPAR agonists	P201731470	40%	Granted in Europe
2016. Mass spectrometry-based methods for the detection of circulating histones h3 and h2b in plasma from sepsis or septic shock (ss) patients	EP16382509.4	6%	Licensed
2016. Intramedullary fixation device	P201631220	2,5%	Licensed
2016. Device for the exo-prosthetisation of limbs and other percutaneous applications	P201631218	2,5%	Licensed
2013. Maxillomandibular prosthesis and production method	P20130030734	33,33%	Licensed

3.4.2.2. Competitive innovation

Competitive calls offer technical and financial support for developing innovation ideas. Then, INCLIVA submits proposals to regional, national and international funding programs. In 2024, 10 innovation projects were granted for a total of 1.850.532.31 €

Innovative competitive project	Total ammount (€)
DTS24/00094 (i2025_02) Proteómica cuantitativa por espectrometría de masas para la identificación temprana de biomarcadores predictivos de eventos adversos en el síndrome coronario agudo	143.660,00
INNEST/2024/409 (i2024_45) Desarrollo de una metodología avanzada para evaluación morfofuncional integral en paciente obeso-FITME-	144.764,61
INNVA2/2024/1 Unidad científica de innovación empresarial para la transferencia de conocimiento y resultados en salud (UCIE INCLIVA)	380.634,79
INNACC/2024/11 Sandbox para la innovación en procesos hospitalarios ecosostenibles para una atención sanitaria basada en valor	103.922,91
PI24/01784 (i2025_01) Enfoque integral de la enfermedad micrometastásica hepática en cáncer colorrectal: caracterización multiómica de metástasis, respuesta inmune y abordaje de la enfermedad residual	271.250,00
PI24/00722 (i2025_07) Impacto microbiota en la patogénesis de la endometriosis ovárica	215.000,00
PI24/01784 (i2025_08) Rejuvenecimiento ovárico mediante reprogramación celular parcial	190.000,00
PI24/00338 (i2025_09) ADN extracromosómico y elementos transponibles como mecanismos tempranos implicados en el desarrollo de la diabetes tipo 2 y marcadores tempranos	233.750,00
PI24/01695 (i2025_10) Caracterización preclínica y clínica del papel de LCOR y de la vía de señalización Hippo en la resistencia a las terapias anti-HER2 en el cáncer de mama HER2-positivo	132.500,00
CIAPOT/2023/027 (i2019_16) Desarrollo preclínico de gapmers contra Musashi2 y su potencial uso en Distrofia Miotónica y LGMD2	35.050,00
TOTAL	1.850.532,31

3.4.2.3. Entrepreneurship

When the knowledge generated in INCLIVA is disruptive and the researchers are willing to exploit it by themselves, the knowledge transfer is direct. Consequently, a new venture (also known as a spin-off or start-up) is created. INCLIVA counts with the following companies officially recognized as spin-offs:



Epidesase SL.
Company created in 2014 as a result of a project led by researchers from INCLIVA and the Center for Research in Biomedicine Network (CIBER) in the area of Rare Diseases to transfer knowledge in the field of epigenetics and biomedical sciences at the service of society.
Founding year: 2014
INCLIVA entrepreneurial team: Mr. José Luis García Giménez and Mr. Federico Pallardó
<http://www.epidisease.com/>



Sequencing Multiplex SL.
Company created in 2013, which was born from the idea of generating solutions for research and clinical applications, using as a basis the introduction of new techniques and advanced genetic platforms, mainly next-generation sequencing (NGS).
Founding year: 2013
INCLIVA entrepreneurial team: Mr. Javier Chaves
<https://www.seqplexing.com/es>



Nela BioDynamics SL.
The company arises from the results of a final master thesis in biomedical engineering, which led to two patents on a novel intramedullary fixation system for joint endoprostheses, nails for fractures and exopros-theses; and a percutaneous ostomy collar. Both patents are currently licensed to the spin-off itself.
Founding year: 2020
INCLIVA entrepreneurial team: Mr. José Expósito Ollero
<http://www.nelabiodynamics.com/>



ArtHex biotech SL.
Company created in 2020 at the University of Valencia that develops advanced RNA treatments against genetic diseases. ARTHEx Biotech's mission is to find effective treatments for unmet medical needs. As a result, the company investigates anti-microRNAs for the treatment of myotonic dystrophy type 1 (DM1).
Founding year: 2020
INCLIVA entrepreneurial team: Mr. Rubén Artero
<http://www.arthexbiotech.com/>

PLATFORMS AND NETWORKS

INCLIVA has the status of Adhered Center of the **ITEMAS** Platform of the IISLaFe Node for 2024 to 2027.

INCLIVA has been included as a member of the **Health Commission** of the Bioval association, which brings together companies, technological institutes, and other foundations from the Valencian Community, within this commission, strategies are defined and aligned, and joint opportunities in the health sector are explored.

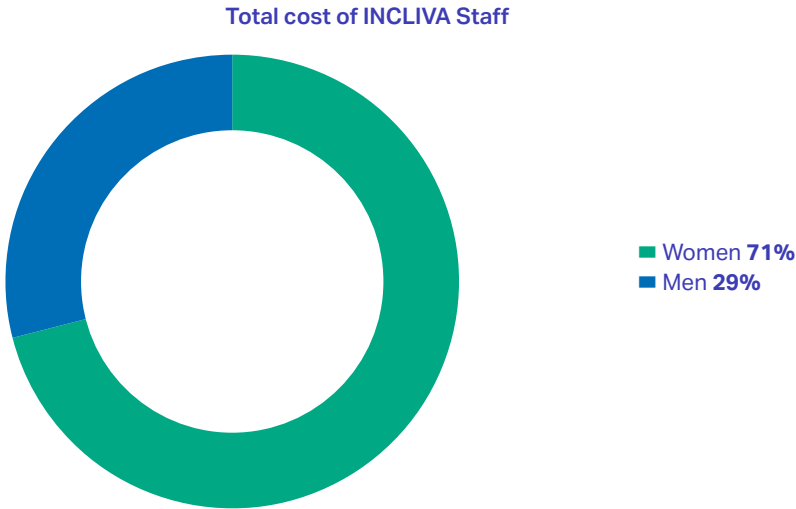
The members of INCLIVA's Innovation Unit are part of the professional network **Redtransfer**.

3.5. Gender perspective

As part of its commitment to contribute towards guaranteeing real equality between women and men, INCLIVA's Board of Trustees has approved the II INCLIVA Equality Plan (2020-2024) following approval by the Equality Committee. Through INCLIVA's II Equality Plan, the different planned actions will be implemented throughout its four-year duration following the timeline established for each one.

Currently, 71% of INCLIVA employees are women. The data corresponding to activity in 2024 is as follows:

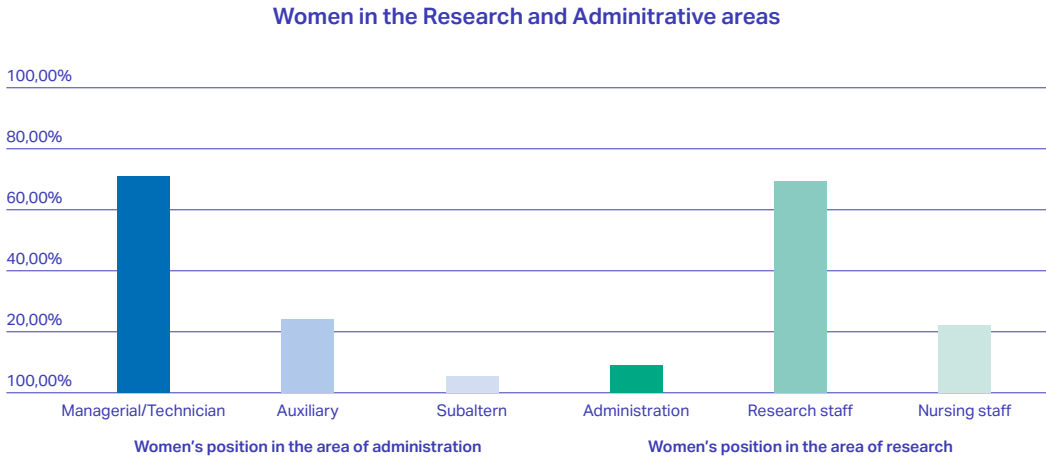
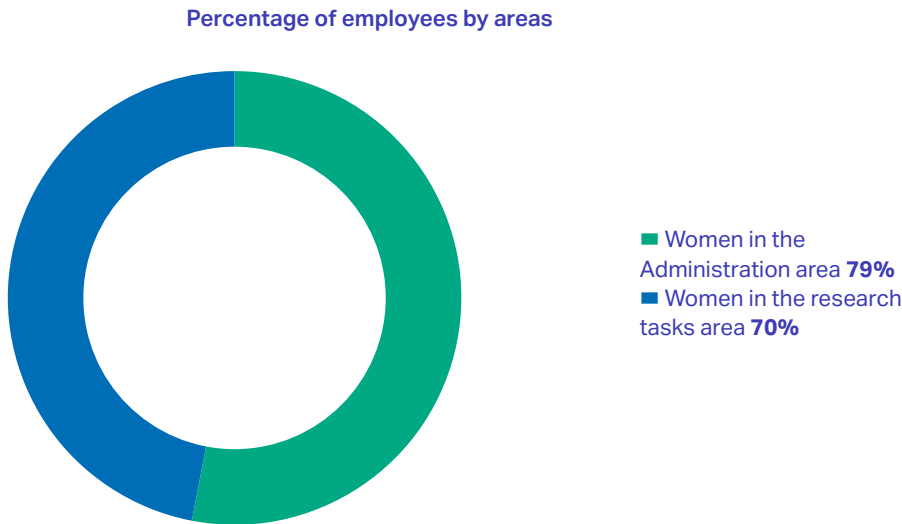
Total cost of INCLIVA staff	2024
Men	€3.033.126
Women	€7.787.178
TOTAL	€10.820.304



A total of 289 employees joined INCLIVA in 2024, of whom 71% are women. The percentage of women hired has increased every year for the last three years.

The following graphs differentiate between personnel hired for administration tasks and research staff:

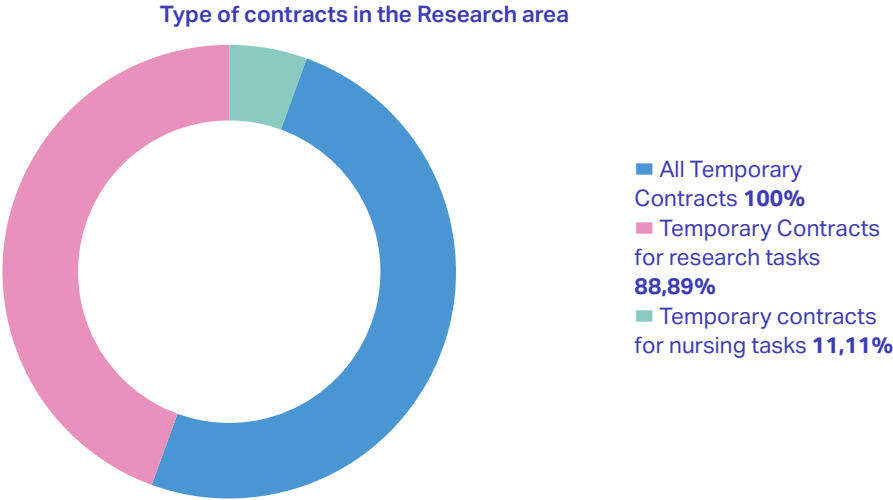
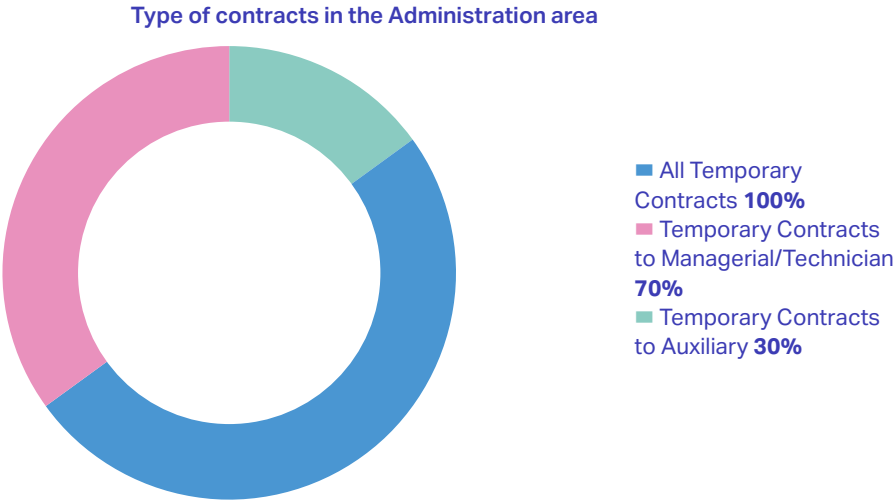
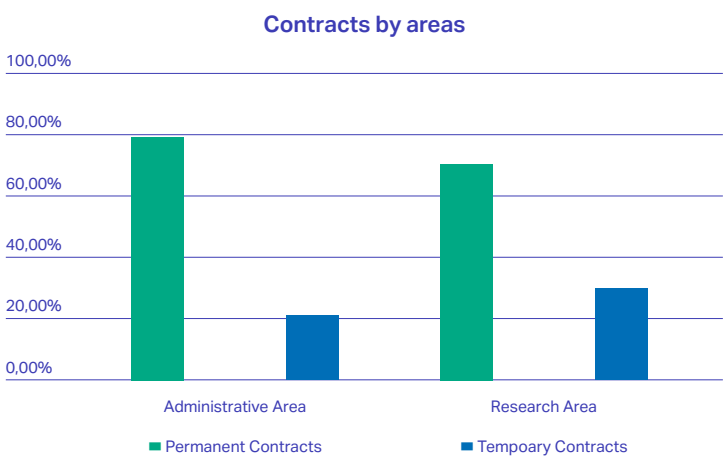
- Women comprise 79,17% of staff contracted to carry out administration tasks and 69,71% of those who carry out research tasks
- Within the administrative area, 71,05% of Managerial/Technician positions are women, 23,68% of Auxiliary and the 5,26% of subaltern.
- In research, 22,02% of those hired as Nursing staff, 8,93% of Administrative staff and 69,05% of Research staff are women



Distribution by contract type

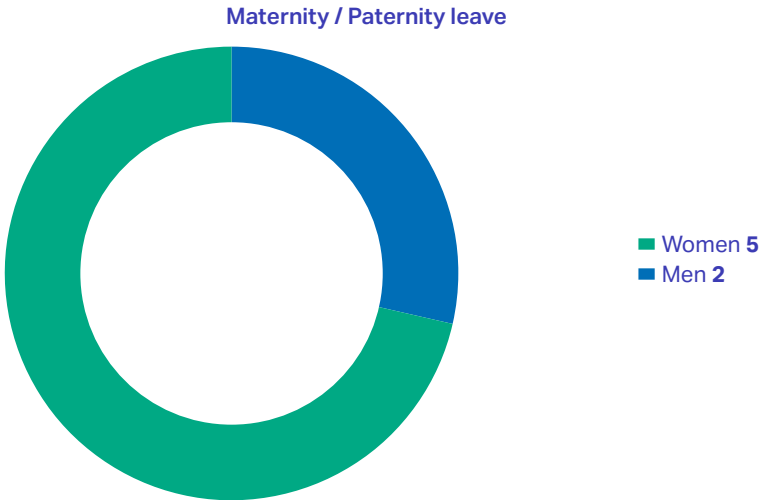
The breakdown of contracts granted to women is shown in the following graphs:

- 72,92% of permanent contracts for administration tasks and 50,62% of permanent contracts for research tasks are for women.
- 6,25% of temporary contracts for administration tasks and 19,07% of temporary contracts for research tasks are for women.
- In administration: 50% of contracts for women are temporary contracts. Of these, 30% are contracts to carry out Managerial/Technician tasks and 20% for Auxiliary and Subordinate staff jobs. Fixed contracts for women within the administration are 100% for positions such as Managerial/Technician.
- In research: 63,89% of contracts awarded to women are temporary contracts. Of these, 54,17% of temporary contracts for research tasks, 9,72% of temporary contracts for nursing tasks are women.



Shared parental leave

Maternity/paternity leave was requested by only 7 employees throughout 2024: 2 by men, 5 by women.



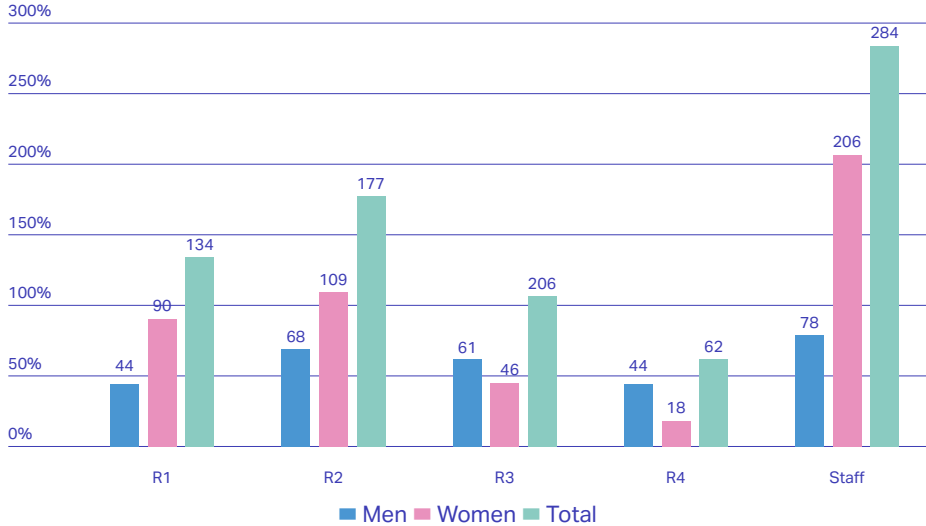
Organizational structure

In line with our staff structure, women are clearly represented in most of the governing bodies, scientific committees and research groups. The distribution of each is summarized below:

	Men	Women	Total 2024
Board of Trustees	11	8	19
Board of Governors	8	5	13
External Scientific Committee	5	2	7
Internal Scientific Committee	5	5	10
Research Committe	13	16	29
Innovation Committe	7	10	17
Ethical Committee in Clinical Research	12	12	24
Training and Mobility Committee	8	11	19
Emerging researchers	7	8	15
R&D Group leader	40	20	60
R&D Group member	295	469	764

Breakdown of Research Group staff

A total of 764 researchers belong to consolidated, emerging and associated research groups, and whose EURAXESS profile distribution is as follows. Distribution by group of research staff in 2024



Research projects

Throughout 2024, 50 new competitive projects were awarded, making a total of 194 currently active projects under competitive tender. The Principal Investigators of new projects are distributed as shown in the table. In total, 64% of national projects and 20% of international projects are led by women.

	Men	Women	Total 2024
National	18	29	45
Internacional	4	1	5

Clinical studies and trials

A total of 189 studies have been managed throughout 2024. The tables below indicate the distribution of Principal Investigators, and number of male and female evaluators.

	Men	Women	Total 2024
Managed Studies	89	100	189
CEIm Evaluators	12	9	21

Transfer to the Productive Sector

Calls for proposals, innovation awards and patent portfolios during 2024 are distributed by gender as shown in the table:

	Men	Women	Total 2024
innovation proposals in external calls 2024	22	14	35
Patents y MU in portfolio (IPs that have inventorship of a patent)	11	4	15
Vlc-Biocl�nic Applications 2024	5	13	18
Applicants for Innovation Awards 2024	6	18	24

Bibliometric analysis: Biomedical Research Institute (IIS) corresponding author, first and last author

Of the 697 INCLIVA publications in 2024, the distribution of men to women according to the relevant position of signature (first, last or corresponding author) it is 31,56% for female researchers and 36,73% for male researchers.

Training Activities

In total, 2621 people participated in training activities carried out during 2024. According to registration questionnaires, 66,20% of participation was female (1.735), 33.69% male (883) and 0.11% (3) do not want to indicate their gender. In 83,75% of activities, participation was mainly female.

Of the 109 activities, the 1 listed below provided training on equality, and their content and participant data are summarized in the following table.

Title	Date	Scope	Activity Type	Modality	Hours	Participants	Men	Women
Jornada “Temas en salud de la mujer”. Endometriosis	20/05/2024	Local	Scientific Conferences	Presencial	2	27	1	26

YouTube link: https://youtu.be/laKouGG15_k

External stays

Of a total of 5 external stays, 4 were completed by women and 1 completed by men, while of the 25 external stays funded by INCLIVA, 18 were women. In total, 72% of stays were completed by women and 28% stays were completed by men.

Internal Stays

Of a total of 8 internal stays, 6 were completed by women and 2 were completed by men and, entailing 75 % of total internal stays completed by women and 25% by men.

Training placements

The classification and distribution by gender of training placements in 2024 is shown in the following table:

	Men	Women	Total 2024
Vocational training placements	7	26	33
Bachelor’s placements	10	29	39
Master’s placements	5	14	19
Bachelor’s final project (TFG)	1	11	12
Master’s final project (TFM)	1	10	11
Total	24	90	114

Doctoral thesis

Below is a breakdown by gender of the 45 doctoral theses defended or supervised by INCLIVA research staff: 71% of predoctoral researchers who defended their thesis in 2024 were women, and 46% of those supervising the theses defended in 2024 were women.

	Men	Women	Total 2024
Doctoral students who defended their thesis in 2024	13 (29 %)	32 (71 %)	45 (100%)
Doctoral students who defended their thesis in 2024 hired by INCLIVA	4 (22%)	14 (78%)	18 (100 %)
INCLIVA Doctoral Supervisors	37 (54 %)	32 (46 %)	69 (100 %)



4 SCIENTIFIC ACTIVITY

INCLIVA SCIENTIFIC REPORT 2024

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4.1 Scientific structure

INCLIVA articulates its research in 4 areas of research, 7 scientific programs, 10 platforms and 8 associated clinical groups.

Areas of research constitute the basis on which to articulate the scientific work of the groups:

- Research area in cardiovascular
- Research area in oncology
- Research area in metabolism and organ damage
- Research area in reproductive medicine
- Associated clinical groups

Scientific programs are aimed at specific diseases from a translational perspective:

- Program in Overweight and cardiovascular and renal risk
- Program in Detection and control of ventricular dysfunction
- Program in Rare Diseases
- Program in Neurological Decline
- Program in Translational Oncology
- Program in Reproductive Medicine
- Program in Aging and associated diseases

Platforms are based on the provision of research services to the whole institute:

- Clinical Research and Clinical Trials Unit
- Biobank
- Precision Medicine Unit
- Biomarker Analysis Unit
- Molecular, Cellular and in vivo Analysis Unit
- Biostatistics Unit
- Bioinformatics Unit
- Body Composition Unit
- Analytical Liquid Chromatography Unit
- Mass Spectrometry Unit

4.2 Scientific translational programs

4.2.1 Overweight and cardiovascular and renal risk

Obesity and overweight are a field in which new strategies are developed both for prevention and treatment with the use of traditional resources and new technologies. The present program is focused on the study of pathology on the first stages of obesity (overweight with or without metabolic syndrome) integrating different clinical and experimental research studies to assess the associated cardio-renal complications applying new technologies. The analysis carried out in the preparation of the Strategic Plan suggested the creation of a new Big Data and Artificial Intelligence (AI) Programme, based on the policies and trends of the research environment (new Spanish Strategy for R&D&I in Artificial Intelligence within the framework of the Spanish Strategy for Science, Technology and Innovation (2021-2027), as well as INCLIVA's needs and resources.

Coordinators: Mr. José Tomás Real and Mr. José Redon

Objectives:

- To deepen in the early alterations, mechanisms and biomarkers that contribute to the development of obesity, vascular and renal alterations in overweight subjects.
- Early application of new technologies for the prevention and treatment of obesity, vascular and renal alterations in overweight subjects.
- To assess and prevent cardio-renal damage in hypertension, diabetes and autoimmune disease by molecular approaches.
- To know potential signaling pathways susceptible to be therapeutic targets by in vitro and in vivo models.
- To apply Big-Data and Artificial Intelligence for digitisation of health data and its integration into national and European data spaces.
- To perfume environmental epidemiology for exposome studies on obesity, metabolic and autoimmune disorders and organ damage associated with diabetes and hypertension.

Research lines:

- Line 1: Delve into the early alterations, mechanisms and biomarkers that contribute to the development of obesity and vascular and renal alterations in overweight subjects and in animal models.
- Line 2: To analyze the relationship between overweight and obesity with inflammatory axes and endothelial dysfunction to identify potential signaling pathways that could be therapeutic targets.
- Line 3: Biomarkers (biological, genomic, metabolomic and imaging) for better categorisation of risk in the progression to obesity and development of associated metabolic, vascular and renal complications.
- Line 5: New intervention procedures to halt the progression to obesity or its metabolic, vascular and renal consequences in patients and animal models.
- Line 6: Cardio-renal damage in hypertension and diabetes. Population studies.
- Line 7: Role of extracellular vesicles in the development of renal and cardiac organ damage in hypertension, diabetes and autoimmune diseases.
- Line 8: Molecular bases, cellular models and translational research of renal and cardiac organ damage in hypertension, diabetes and autoimmune diseases.
- Line 9: Development of databases (BigData) for epidemiological studies and application of AI models for clinical use and care planning and management.
- Line 10: Development of predictive models based on artificial intelligence (AI).
- Line 11: Impact of the interaction of the exposome and genetics on metabolic, cardiovascular and renal alterations.

Clinical groups:

- Research Group on the Study of Cardiometabolic and Renal Risk (Mr. José Redón i Mas, Mrs. Raquel Cortés Vergaz)
- Cardiometabolic Research Group on Primary Care (Mr. Jorge Navarro Pérez)
- Research Group for the Prevention of Cardiovascular Risk in Children and Adolescents (Mrs. Empar Lurbe i Ferrer)
- Research Group on Cardiometabolic Risk and Diabetes (Mr. José Tomás Real Collado, Mr. Sergio Martínez Hervás)
- Research Group on General and Digestive Surgery (Mr. Joaquín Ortega Serrano)

- Research Group on Pediatric Nutrition (Mrs. Cecilia Martínez Costa)
- Research Group in Care. INVESTENF-INCLIVA (Mrs. M^a José Gastaldo Zaragoza)
- Research Group in Medical Chemistry for Drug Development (Mrs. Nuria Cabedo Escrig)
- Research Group in Autoimmune diseases (Mrs María José Forner Giner)
- Research Group in complications of Infectious Diseases and HIV (Mrs Joséfina Galindo Puerto)

Experimental groups:

- Research Group on Endothelial Cells (LINCE) (Mr. Carlos Hermenegildo Caudevilla, Mrs. Susana Novella del Campo)
- Research Group on Molecular Imaging and Metabolomics (Mr. Daniel Monleón Salvadó)
- Research Group on Inflammation (Mr. Esteban Morcillo Sánchez, Mrs. M^a Jesús Sanz Ferrando)
- Genomics and Diabetes Unit (Mr. Felipe Javier Chaves Martínez)
- Research Group on Nuclear Receptors in Cardiometabolic Pathology (Mrs. Laura Piqueras Ruiz)
- Research group on Metabolic Diseases (Mrs. Herminia González Navarro)
- Research Group on Exercise, Nutrition and Healthy Lifestyle (Mrs. M^a Carmen Gómez Cabrera)

OVERWEIGHT, OBESITY AND METABOLIC, VASCULAR AND RENAL RISK				
OBJECTIVES	ACTIONS	STATE		
		Achieve	Partially achieved	Not achieve
Metabolic, vascular and renal evaluation of overweight patients (children and adults)				■
Characterization of the relationship between overweight and vascular inflammation / endothelial function			■	
Identification of molecular markers that relate overweight with its associated diseases	Metabolomic measurements (80 spectral features) of 3 cohorts (4500 subjects) for associations between obesity, associated diseases and morbidities and early alterations of metabolism. Focus on the metabolic interaction between host and gut microbiota. Cohorts: Rio Hortega (general population), AWHS (working population) and PIANCAVALLO (obese and morbid obese)		■	
Identification of metabolomic markers that relate overweight with its associated morbidities	Metabolomic measurements (80 spectral features) of 3 cohorts (4500 subjects) for associations between obesity, associated diseases and morbidities and early alterations of metabolism. Focus on the metabolic interaction between host and gut microbiota. Cohorts: Rio Hortega (general population), AWHS (working population) and PIANCAVALLO (obese and morbid obese)		■	
Development of new early detection systems for obesity and its associated complications	Metabolomic measurements (80 spectral features) of 3 cohorts (4500 subjects) for associations between obesity, associated diseases and morbidities and early alterations of metabolism. Focus on the metabolic interaction between host and gut microbiota. Cohorts: Rio Hortega (general population), AWHS (working population) and PIANCAVALLO (obese and morbid obese)		■	
Identification of molecular targets of obesity and its associated complications and development of new therapies				■

4.2.2 Detection, risk prediction and control of ventricular dysfunction

The program focuses on the study of the pathophysiological mechanisms involved in myocardial injury, on its structural, functional and electrophysiological repercussions, on the evaluation of diagnostic tools and biomarkers, on the personalized risk prediction and on the study of new therapeutic approaches to prevent the adverse consequences of cardiac dysfunction. It is a translational research program that capitalizes the synergies between clinical and experimental research groups and includes specialists in cardiac imaging techniques and technological development experts. The multidisciplinary approach extends the possibilities of collaboration between groups, strengthens those already existing and incorporates other groups into the activities of the program. The development of analytical tools and biomarkers (imaging techniques such as cardiac magnetic resonance and electrophysiological mapping techniques), allows the innovation in the field of technological development.

Coordinators: Dr. Juan Sanchis Forés, Dr. Vicente Bodí Peris and Dr. Julio Núñez Villota

Objectives:

- Clinical studies aimed at the validation of clinical tools related to the diagnostic, personalized risk prediction and best selection of management strategies in patients with ventricular dysfunction.
- Ventricular remodeling: Evaluation of the role of different mechanisms involved in the adverse consequences of myocardial damage (ischemia-reperfusion injury, microvascular damage, angiogenesis, fibrosis) and study of potential therapeutic targets.
- Electrical remodeling: Protection against arrhythmic vulnerability.

Research lines:

- Prospective multicenter registries: Patients with acute and chronic coronary syndromes. CMR studies in order to advance in diagnosis, personalized risk stratification and management strategies. Study of different aspects as myocardial viability, ventricular remodeling or microvascular obstruction.
- Prospective Evaluation of the European Society of Cardiology 0/1h-algorithm's Safety and Efficacy for Triage of Patients with Suspected Myocardial Infarction (PRESC1SE-MI)
- Basic research related to ischemia and myocardial infarction. Mechanisms involved in the ischemia-reperfusion injury deterioration of systolic function, inflammation, fibrosis and the inducibility of arrhythmias. Study of therapeutic targets to reduce the structural damage and the adverse consequences.
- Prognostic value of geriatric conditions in older patients admitted for acute coronary syndromes.
- CA125 biomarker-guided versus conventional treatment after transcatheter aortic valve implantation for severe aortic stenosis with heart failure. Randomized clinical trial
- Interventionism in structural heart disease.
- Cardiac Rehabilitation programs: Ischemic heart disease; heart failure.
- Management strategies in patients with heart failure.
- Diabetes and cardiovascular diseases.
- Development of useful technical tools in the study of cardiac dysfunction and cardiac electrophysiology.

Clinical Groups:

- Research Group on Clinical Cardiology (Dr. Juan Sanchis Forés)
- Group on Translational Research in Ischemic Heart Disease (Dr. Vicente Bodí Peris)
- Research Group on Heart Failure (Dr. Julio Núñez Villota)
- Cardiometabolic Research Group on Primary Care (Dr. Jorge Navarro Pérez)

Experimental Groups:

- Research Group on Cardiac Experimental Electrophysiology (Dr. Francisco Javier Chorro Gascó)
- Research Group on Inflammation (Dr. M^a Jesús Sanz Ferrando)
- Research Group on Nuclear Receptors in Cardiometabolic Pathology (Dr. Laura Piqueras Ruiz)
- Histopathology (Dr. Amparo Ruiz Saurí)

DETECTION, RISK PREDICTION AND CONTROL OF VENTRICULAR DYSFUNCTION				
OBJECTIVES	ACTIONS	STATE		
		Achieve	Partially achieved	Not achieve
Risk prediction through new analytical biomarkers	• Definition of new serological indicators with NMR-S to predict DR and fibrosis		■	
	• Serum CA125, galectin-1 and galectin-3 markers		■	
	• 0/1h-algorithm's Safety and Efficacy for Triage and Troponin extraction of Patients with Suspected Myocardial Infarction		■	
	• Biomarkers in cardiorenal syndromes		■	
	• Study of new therapeutic approaches to prevent the adverse consequences of cardiac dysfunction.		■	
Study of the basic mechanisms involved in myocardial damage	• Oxidative stress during reperfusion in acute myocardial infarction	■		
	• Neoangiogenesis, the appearance of micro-vascular obstruction and impaired systolic function		■	
	• New therapeutic targets.		■	
	• Deregulation of the immune system in acute myocardial infarction		■	
	• Inflammation and fibrosis.		■	
	• Morphometric and molecular changes in the extracellular matrix	■		
Diagnosis through new RM tools	• RM micro-image for the development of combinations of RM sequences without contrast	■		
	• Analysis of myocardial textures	■		
	• Offline evaluation of myocardial tension	■		
	• CMR for risk stratification and decision making in STEMI		■	
	• Stress CMR for risk stratification and decision making in chronic coronary syndromes		■	
Prevention	• DR prevention through multiple antioxidant treatment		■	
	• Prevention of deterioration of systolic function, fibrosis and arrhythmias		■	
	• Cardiac Rehabilitation programs		■	
Development of technical tools	• Analysis and processing of electrophysiological signals. Cardiac mapping.		■	
	• CMR analytical techniques		■	

Interventionism in structural heart disease.	• Implementation and development of clinical applications		■	
	• Useful prognostic indicators in the application of interventional techniques. Utility of CA125 in the indication of transcatheter aortic valve implantation (TAVI)		■	
Management strategies in patients with ventricular dysfunction	Personalized treatment in heart failure patients	■		
Electrical remodeling: Experimental studies on the protective effect against arrhythmic vulnerability.	Protective effects of:	■		
	Nitric oxide donors		■	
	iSGLT2	■		
	Inhibition of neprilysin, late sodium current and intracellular calcium overload.	■		

4.2.3. Rare diseases

The program's main objectives are to improve the diagnosis and current treatments of rare diseases (RDs). New therapeutic strategies will be developed to treat these diseases. Human and animal model samples will be used to understand the molecular basis of disease, evaluate the activity of candidate drugs, and discover new biomarkers. In this regard, biomarkers for RD will be identified and validated for which, currently, we do not have effective diagnostic and/or prognostic indicators.

The program seeks to fill the gap between basic research and commercial development of diagnostic systems and treatments, so it aims to transfer this knowledge to companies to transform biomedical knowledge into products and services that improve human health. To this end, we have established contacts with biotechnology and pharmaceutical companies that have shown interest in our program. Furthermore, we want to bring our discoveries closer to society through scientific dissemination, in order to involve it and to contribute, through a feedback mechanism, to informing the research group about the real needs of the patients.

In summary, the program aspires to become a reference model in translational research for rare diseases. By promoting collaboration between academia, industry and society, the aim is to accelerate the transition from scientific findings to tangible clinical solutions.

Coordinators: Mr. Francisco Dasí and Mrs. Pilar González Cabo

Objectives:

- Study of the physiopathology, natural history, and fundamental epigenetic, genetic, and metabolic bases of rare diseases (RD), mainly neuromuscular, metabolic, or respiratory. Among them, we highlight: Amyotrophic Lateral Sclerosis, Friedreich's Ataxia, CANVAS Syndrome, Duchenne Muscular Dystrophy, Lafora Disease, Neonatal Sepsis, Prader-Willi Syndrome, Myotonic Dystrophy, Charcot-Marie-Tooth disease, Spinal Muscular Atrophy, Dravet disease, Hereditary Spastic Paraplegia 7, Alpha-1 Antitrypsin Deficiency, Primary Ciliary Dyskinesia, pulmonary interstitial diseases, idiopathic pulmonary fibrosis, Cystic Fibrosis and Wilson's disease.
- Generation of new study biomodels for RD research.
- Development of new diagnostic and prognostic methods
- Exploration of therapeutic strategies and identification of molecular targets and drugs as potential treatments for these RD.
- Protection of research results that can be transferred to the biotechnology sector for effective transformation into improvements in healthcare and the quality of life of patients.
- Study of respiratory problems in RD, as well as the physiopathological aspects that interfere with the effectiveness of their management and therefore negatively influence the survival of patients.
- Promote collaboration with services of the Clinical Hospital involved in the treatment of these RDs, emphasizing primary care to improve its diagnostic potential
- Dissemination of research results following FAIR principles (Findability, Accessibility, Interoperability, and Reusability), as well as dissemination of research results in society.

Research lines:

- Study of the physiopathology of rare neuromuscular diseases
- Epigenetic regulation of neonatal sepsis and Dravet disease
- Physiopathology of pulmonary fibrosis with telomere involvement.
- Pathophysiology of alpha-1 antitrypsin deficiency, cystic fibrosis, primary ciliary dyskinesia, childhood interstitial diseases and Prader-Willi syndrome
- Genetic and epigenetic modifiers in Friedreich's ataxia, CANVAS Syndrome and Wilson's disease.
- Gene therapy for the treatment of rare diseases
- Design and testing of new biomarkers for rare diseases
- Characterization of the cellular and molecular mechanisms associated with Myotonic Dystrophy, Limb-Girdle Muscular Dystrophy D2 (LGMD2), Friedreich's ataxia, Hereditary Spastic Paraplegia 7 and CANVAS Syndrome, and identification of potential molecular targets susceptible to pharmacological modification for the development of new therapies.
- Study of new experimental treatments in animal models.
- Rare diseases affecting the musculoskeletal system: tumoral pathology (multiple forms of benign cartilaginous tumors) and metabolic bone pathology.
- Respiratory problems in rare diseases.
- Rare epilepsies such as Lafora Disease.

Clinical groups

- Research Group on Respiratory Diseases (Mr. Jaime Signes-Costa Miñana)
- Research Group on Psychiatry and Neurodegenerative Diseases (Mr. Julio Sanjuán Arias)
- Cardiometabolic Research Group on Primary Care (Mr. Jorge Navarro Pérez)
- Clinical Associated Group in Traumatology and Orthopedics (Mr. Antonio Silvestre Muñoz)

Experimental groups

- Research Group on Human Translational Genomics (Mr. Rubén D Artero Allepuz)
- Research Group on Rare Respiratory Diseases (RRD) (Mr. Francisco Dasí Fernández)
- Research Group on Cellular and Organic Physiopathology of Oxidative Stress (Mr Federico V. Pallardó Calatayud)
- Research Group on Epigenomics and translational epigenetics (Mr. José Luis García Giménez)
- Research group on Neurobiology and Molecular Physiopathology in Rare Diseases – NeurFisER (Mrs. Pilar González Cabo)
- Research Group on Genetics and Biomarkers of Rare Diseases (Mrs. Carmen Espinós)

Clinical Services Associated with the Program

- Department of Pediatrics
- Department of Pneumology
- Department of Traumatology and Orthopedic Surgery

RARE DISEASES				
OBJECTIVES	COMMENTS	STATE		
		Achieve	Partially achieved	Not achieve
Extension to the PCT phase of the European patent «Mass spectrometry-based methods for the detection of circulating histones H3 and H2B in plasma from sepsis or septic shock (ss) patients» (PCT/EP2017/078362)	European Patent (EP); United States (US); Canada (CA); Japan (JP); China (CN)	■		
Acquisition of budget and resources from different programs	Counseling of Innovation, Universities, Science and Digital Society (2 new projects), Carlos III Health Institute - Co-financed FEDER (4 new projects), Ministry of Science and Innovation (4 new projects), Center of Excellence ALBA synchrotron (1 new project), Society of Pneumology (2 projects), Alpha-1 antitrypsin deficiency patients' association (Generalitat Valenciana 3 projects)	■		
Carry out teaching and outreach activities	• Subject «Enfermedades Raras»: Medicine degree (UV) • Master course in Biomedical Research • Master «Enfermedades raras» • 2nd edition of the online course «<i>Introducción a las EE.RR: investigación y atención clínica</i>» • «Introduction to rare diseases». Program of the • University of Valencia La Nau Gran. • «Master's degree in alpha-1 antitrypsin deficiency». ». SEPAR- University CEU San Pablo. • TERRETA Meeting (Rare Diseases and Treatments: Advanced Therapeutic Strategies).	■		

4.2.4. Neurological decline

Inflammation, which is associated with many chronic diseases (diabetes, liver cirrhosis, etc.), aging or major surgeries, leads to neuroinflammation and brain alterations that eventually lead to cognitive and functional impairment. This deterioration reduces the quality of life and increases the risk of accidents, falls, fractures and adverse consequences, which implies an increase in hospitalizations and the use of public resources.

Cognitive and functional impairment associated with aging and many chronic diseases is one of the most important challenges in order to improve the quality of life of the population and secure the sustainability of health systems. Early detection and treatment and prevention of cognitive and functional impairment would improve the quality of life of the elderly or with chronic diseases and reduce the demand for resources to the health system, improving its sustainability. Therefore, it is necessary to design new approaches to address these challenges, based on advances in knowledge on mechanisms, early diagnosis, prevention and treatment of cognitive and functional impairment.

Coordinators: Dr. Carmina Montoliu and Dr. Vicente Felipo

Objectives:

- Characterize the alterations in inflammation, neuroinflammation, neurotransmission, function and brain structure associated with the appearance of cognitive and functional impairment
- Characterize cognitive and functional disturbances in detail
- Identify biomarkers for the early detection of cognitive and functional impairment
- Identify the mechanisms by which:
 - a) peripheral inflammation leads to neuroinflammation
 - b) neuroinflammation leads to functional, structural and neurotransmission alterations in the brain
 - c) brain disorders lead to cognitive and functional impairment
- Identify therapeutic targets to reverse or prevent cognitive and functional impairment
- Design and test new therapeutic procedures to reverse or prevent cognitive and functional impairment

As progress is made on the above objectives, new lines of action will be included, focusing on:

- Develop new early diagnostic procedures for cognitive and functional impairment
- Try to transfer the new diagnostic procedures developed to clinical practice
- Evaluate in patients the efficacy and usefulness of new therapeutic procedures to prevent or reverse cognitive and functional impairment that has been effective in animal models
- Transfer to clinical practice the new validated therapeutic procedures

Research lines:

- Characterization of the cognitive and functional alterations.
- Cognitive impairment in diabetes
- Cognitive impairment in major surgeries and anaesthesia
- Alzheimer's and Mild Cognitive Impairment
- Cognitive and Functional Impairment in Hyperammonemia and Liver Disease

Clinical Groups:

- Research Group on Anesthesiology and Reanimation (Dr. Rafael Badenes Quiles)
- Cardiometabolic Risk and Diabetes (Dr. José Tomás Real).
- Associated Clinical Group in Digestive Medicine (Dr. Isabel Pascual Moreno)
- Research Group on Psychiatry and Neurodegenerative Diseases (Mr. Julio Sanjuán Arias)
- Research Group on the Study of Cardiometabolic and Renal Risk (Dr. Josép Redón i Mas)
- Research Group in Care. INVESTENF-INCLIVA (Dr. M^a José Gastaldo Zaragoza, Dr. Cintia Borja Herrero)

Experimental Groups:

- Research Group on Neurological Impairment (Dr. Carmina Montoliu Félix)
- Research Group on Personal Autonomy, Dependence and Severe Mental Disorders (TMAP) (Dr. Rafael Tabarés Seisdedos, Dr. Gabriel Selva Vera)
- Research Group on Aging and Physical Activity (Dr. Ana Lloret, Dr. José Viña Ribes)
- Research Group on Psychiatry and neurodegenerative diseases (Dr. Juan Nacher)
- Research Group on Inflammation (Dr. Esteban Morcillo Sánchez, Dr. M^a Jesús Sanz Ferrando)

University Department Associated with the Program

- Biology Unit. Department of Pathology

NEUROLOGICAL DECLINE				
OBJECTIVES	COMMENTS	STATE		
		Achieve	Partially achieved	Not achieve
1. Characterize the alterations in inflammation, neuroinflammation, neurotransmission, function and brain structure associated with the appearance of cognitive and functional impairment	We analyzed the presence of neuroinflammation in post-mortem samples of the cerebellum from patients died with different grades of liver disease, from mild steatohepatitis to cirrhosis. We analysed alterations in neural connectivity by functional magnetic resonance imaging. We showed in MHE patients a lower functional connectivity in neural networks involved in processes of attention and executive control, and in learning and memory. We found that improved cognition after rifaximin treatment is associated with changes in intra and inter-brain network functional connectivity.		■	
2. Characterize cognitive and functional disturbances in detail	Gait, balance, hand strength and motor speed performance were evaluated in cirrhotic patients. We are studying if motor performance is a predictor of blood levels of ammonia and inflammatory biomarkers in patients with liver cirrhosis. Evaluation and characterization of sensory thresholds was also performed by quantitative sensory testing using a CASE IV. We are characterizing cognitive and functional disturbances in patients with other pathologies: MASLD (metabolic dysfunction-associated steatotic liver disease), diabetes mellitus, schizophrenia, bipolar disorder, and post-surgery patients. We showed that a relevant percentage of MASLD patients have cognitive impairment, and we identified some specific alterations of the immune system associated with the appearance of mild cognitive alterations in MASLD patients. We are better characterizing executive functions in cirrhotic patients by computerized tests.		■	
3. Identify biomarkers for the early detection of cognitive and functional impairment	We are studying the altered genes in peripheral blood cells and the involved pathways associated with the appearance of cognitive impairment; we are characterizing the changes in inflammation and metabolites associated to cognitive impairment. We are performing an integrated multiomics analysis to identify biomarkers of cognitive and functional impairment. We are characterizing eye movements in patients with different pathologies: cirrhosis, MASLD, and diabetes mellitus.		■	

3. Identify biomarkers for the early detection of cognitive and functional impairment	We showed that patients with MHE have increased plasma levels of a parameter of axonal injury (neurofilament light chain protein) which decreased in patients who responded to rifaximin treatment. We studied the associations between blood ammonia, coordination, and quality of life, and the moderating influence of sex on these associations. We found that for women with MHE, high ammonia and poor coordination significantly affected their quality of life, while this was not the case for men. We found sex differences in the mediating role of brain-derived neurotrophic factor (BDNF) between inflammation and memory in cirrhotic patients with MHE.		■	
4. Identify the mechanisms by which: a) peripheral inflammation leads to neuroinflammation b) neuroinflammation leads to functional, structural and neurotransmission alterations in the brain c) brain disorders lead to cognitive and functional impairment	We have identified alterations of the immune system associated with the appearance of neurological alterations in cirrhotic patients with MHE, and in MASLD patients. We have identified, in animal models, mechanisms by which peripheral inflammation induces neuroinflammation, and how this alters neurotransmission and cognitive and motor function. We have shown that there is a dysregulation in the urea cycle in non-alcoholic fatty liver disease. We are analyzing the role of exosomes as mediators of neuroinflammation and of alterations in neurotransmission and cognitive and motor function in animal models of MHE.		■	
5. Identify therapeutic targets to reverse or prevent cognitive and functional impairment	We have identified several therapeutic targets in animal models of MHE.		■	
6. Design and test new therapeutic procedures to reverse or prevent cognitive and functional impairment	We are testing the effect of treatments on cognitive impairment and immunophenotype in patients to reverse or prevent cognitive and functional impairment. We have designed several treatments that improve cognitive and motor function in animal models.		■	
7. Programme activity: seminars of the Neurological Impairment Program	Seminars are scheduled for the third Thursday of each month. Time: 13:30h		■	

4.2.5. Translational oncology

The translational oncology program called “Identification of oncogenic biomarkers: mechanisms and clinical implications, detection in non-invasive samples, omics analysis” tries to apply to the clinical practice the genomic screening in human tumors.

Its main objective is to assess cancer dynamics through non-invasive samples in order to detect minimal residual disease, early onset of markers after surgery and patient response to different treatments.

The high heterogeneity of cancer results in inefficiency of treatments, even when they are directed against specific molecular targets. The low availability of tumor specimens makes genomic studies difficult.

In this sense, the use of liquid biopsies would facilitate the serial collection of samples to carry out molecular analysis and would guarantee a minimum risk for the patient. Thus, improving the follow-up and allowing a dynamic understanding of the evolution of the genomic parameters of the patient.

This point of view benefits the National Health System as a whole since it allows the application of more specific treatments to patients, thus avoiding those that would have been less effective, reducing hospitalization and improving life expectancy and quality thereof. It could also prevent generalized treatments, secondary toxicities and rapid treatment adequacy responses.

Finally, it would improve the inclusion of patients in clinical trials which are stratified by molecular mutations.

Coordinators: Mr. Andrés Cervantes

Objectives:

- Identification of diagnostic biomarkers that help the early identification of patients
- Identification of biomarkers of resistance to treatment or relapses
- Development of functional models mimetic to the characteristics of the patient
- Development of decision support systems through data analysis

Research lines:

- Liquid biopsy as a diagnostic tool
- Functional models of organoids, murine and 3D bioprinted for the study of resistance and drug screening
- Integration of molecular and image data for the development of decision support systems
- Promote the development and implementation of programs in advanced therapies, particularly, CAR-T cells cell therapy and other models
- Continuous improvement of the inclusion of patients in clinical trials, in coordination with primary care
- Economic evaluation of innovative therapies and digital health.

Clinical Groups:

- Research Group on Breast Cancer Biology (Mrs. Ana Lluch Hernández, Mrs. Pilar Eroles Asensio)
- Research Group of Innovative Diagnostic and Therapeutical Developments in Solid Tumors - InDeST (Mr. Andrés Cervantes Ruipérez)
- Research Group on Hematopoietic Transplantation (Mr. Carlos Solano Vercet)
- Research Group on Myeloid Neoplasms (Mrs. Mar Tormo Díaz)
- Research Group on Lymphoproliferative Disorders (Mrs. M^a José Terol Casterá)
- Translational Research Group on Pediatric Solid Tumors (Mr. Samuel Navarro Fos, Mrs. Rosa Noguera Salvá)
- Research Group on General and Digestive Surgery (Mr. Luis Sabater)
- Associated Clinical Group in Urology (Mr. José Martínez Jabaloyas)
- Associated Clinical Group in Pharmacy (Mr. Manuel Alós Almiñana)
- Research Group on Skin Cancer (Mr. Carlos Monteagudo Castro)

Clinical Services Associated to the Program:

- Department of Pathology
- Department of Radiology
- Central Laboratory

Associated program platforms:

- Biobank
- Bioinformatics Unit
- Biostatistics Unit
- Precision Medicine Unit

TRANSLATIONAL ONCOLOGY				
OBJECTIVES	COMMENTS	STATE		
		Achieve	Partially achieved	Not achieve
Identify biomarkers	Proof of concept on commercial cell lines	■		
	Establishment of cell lines with patient tumours	■		
	Establishment of tumours in mouse models (xenografts)	■		
	IHC antibodies in FFPE to validate expression / western blot in cell lines / xenotumours	■		
Validate promising biomarkers / mechanistic analysis	Proof of concept on commercial cell lines		■	
	Establishment of cell lines with patient tumours	■		
	Establishment of tumours in mouse models (xenografts)		■	
	IHC antibodies in FFPE to validate expression / western blot in cell lines / xenotumours		■	
Detect biomarkers in liquid biopsies to monitor disease progression	Start on biopsies of patients with advanced disease or disease progression	■		
	Implement technology optimized for initial detection, detection of residual disease, and disease evolution and response to treatment	■		

4.2.6. Reproductive Medicine

This program comprises three main lines:

- 1. Research in the field of Reproductive Medicine and women's health, with a particular focus on factors that cause infertility, and other gynecological and obstetric pathologies
- 2. Molecular characterization at single-cell resolution of the human uterus as a basis for both understanding uterus health and disease, and improving diagnosis, monitoring and new therapies.
- 3. Study of maternal-embryonic communication mechanisms and their impact on reproductive health.

Coordinators: Dr. Carlos Simón and Dr. Felipe Vilella

Objectives:

- To create comprehensive reference map at single-cell resolution of the human uterus in health and disease
- To study the origin of fibroids at the single-cell level
- To study the origin of late gestational pathology focuses on decidualization deficiency
- To establish the maternal-fetal communication mechanisms before embryo implantation
- To provide early diagnosis and treatment of endometriosis and endometrial cancer
- To study the molecular mediators in hormone-dependent oncogenesis in endometrium and ovary
- To establish a success strategy in the implementation of physical activity to reduce the risk of chronic disease in women

Research lines

- Study of endometrial receptivity and cell map of the human uterus. Previous research in our laboratory has established a transcriptomic signature of human endometrial receptivity
- Maternal-fetal communication
- Role of the endometrial microbiome in reproduction
- Ovarian aging and rejuvenation
- Early diagnosis of preeclampsia and other complications of pregnancy
- Study at the single-cell level of the origin of uterine fibroids
- Early Diagnosis and Treatment of Endometriosis and endometrial cancer
- Molecular factors involved in the initiation and progression of hormone-dependent tumours in the endometrium and ovary
- Implementation of physical activity as a strategy to improve health indicators in women
- Impact of the microbiome on the pathogenesis of ovarian endometriosis

Clinical groups:

- Research Group on Women's Health (Dr. Antonio Cano Sánchez)
- Research Group on Endometriosis and Endometrial Cancer Therapies (Dr. Raúl Gómez Gallego)

Experimental groups:

- Research Group on Maternal Fetal Communication (Dr. Felip Vilella Mitjana)
- Research Group on Reproductive Medicine (Dr. Carlos Simón Vallés)
- Research Group on Molecular Diagnosis of Gynaecological Tumours (Dr. Aymara Mas)

Clinical Services Associated to the Program

- Department of Gynaecology and Obstetrics

REPRODUCTIVE MEDICINE				
OBJECTIVES	ACTIONS	STATE		
		Achieve	Partially achieved	Not achieve
Advance in the understanding of the mechanisms that regulate maternal-fetal communication	Project is ongoing. Results published		■	
Single cell resolving molecular characterization of the human uterus with its implications for health and disease	Project is finished. Results to be published	■		
Single cell study of the origin of fibroids	Project is finished. Results published	■		
Study of resistance to decidualization at the origin of late gestational disease	Project is finished. Results published	■		
Early diagnosis and treatment of endometriosis and endometrial cancer	Project is ongoing		■	
Molecular mediators in hormone-dependent oncogenesis in endometrium and ovary	Project is ongoing		■	
Success strategy in the implementation of physical activity to reduce the risk of chronic disease in women	Project is ongoing		■	

4.2.7. Ageing and age-associated diseases

This program prioritizes improving the quality of life of the elderly and promoting longevity as much as possible. The aging population is a challenge for current health systems since the population over 65 years old contributes, in a very significant percentage, to health expenditure. As life expectancy increases, so do age-associated diseases.

The concept of «healthspan» (quality of life) has emerged in this context. The program is formed by many researchers and health professionals who consider that efforts to extend life at the expense of causing a severe physical or psychic disability are undesirable and, on the contrary, they should focus on lengthening the part of life during which we can maintain autonomy, independence, productivity, and well-being.

A central guiding idea in this program is that people who achieve exceptional longevity (i.e., centenarians) serve as a model of satisfactory aging. On the other hand, it is considered that the most problematic expression of the population aging is the clinical condition of frailty since an important part of the people over 65 and older fulfill several frailty criteria. Approximately one-fourth of people over the age of 85 are estimated to be frail. Frailty is a geriatric syndrome characterized by increased vulnerability to external aggressions due to an alteration in the physiological reserves of multiple systems, leading to difficulties in maintaining homeostasis. The program tries to identify specific molecular targets to intervene concretely and rationally to improve the quality of life of the elderly.

For this, INCLIVA has an enormous advantage because of the great integration that exists, by proximity and interests, between the Hospital Clínico Universitario de Valencia and the Faculty of Medicine of the University of Valencia. This framework allows intense collaboration between basic research groups, that analyze possible biomarkers associated with healthy aging, frailty, or age-associated diseases and clinical research groups that provide biological human samples and, on the other hand, can transfer to the patient those studies that have been successfully developed at the bench.

In addition to this, INCLIVA has registered the first and only Spanish Group for the Study of Centenarians, which includes research groups working in this field distributed in different Spanish communities.

Coordinators: Mr. José Viña, Mrs. Consuelo Borrás, Mrs. María Carmen Gómez Cabrera

Objectives:

- Determination of oxidative stress and inflammation parameters associated with healthy aging, frailty, and age-associated diseases
- Determination of genetic biomarkers (microRNAs, mRNAs, and SNPs) associated with healthy aging, frailty, and age-associated diseases
- Determination of epigenetic biomarkers associated with healthy aging, frailty, and age-associated diseases
- Determination of metabolomic biomarkers associated with healthy aging, frailty, and age-associated diseases
- Protocols of physical exercise and other healthy life interventions for the treatment and prevention of frailty
- Regenerative medicine in aging: role of stem cells and their extracellular vesicles in restoring intercellular communication in aging.
- Muscle Regeneration and Sarcopenia

Research topics:

- Biomarkers of aging
- Mechanisms of aging with special attention to exceptional aging: centenarians
- Healthy aging: frailty and prevention of disability
- Intervention for successful aging: physical exercise, nutrition, molecular interventions (extracellular vesicles)
- Age-associated diseases: cardiovascular and neurodegenerative diseases
- Mitochondrial implications in age-associated frailty
- Skeletal muscle repair, exercise, frailty, and sarcopenia
- Regenerative medicine in aging and age-associated diseases

Clinical research groups:

- Research Group on the Study of Cardiometabolic and Renal Risk (Mr. José Redón i Mas and Mrs. Raquel Cortés Vergaz)

- Cardiometabolic Research Group on Primary Care (Mr. Jorge Navarro Pérez)
- Research Group on Clinical Cardiology (Mr. Juan Sanchis Forés)
- Research Group on Women Health (Mr. Antonio Cano Sánchez)
- Research Group in Care. INVESTENF-INCLIVA (Mrs. M^a José Gastaldo Zaragoza)

Experimental research groups:

- Research Group on Neurological Impairment (Mrs. Carmina Montoliu Félix)
- Research Group on Endothelial Cells (LINCE) (Mr. Carlos Hermenegildo Caudevilla, Mrs. Susana Novella del Campo)
- Research Group on Exercise, Nutrition and Healthy Lifestyle (Mrs. M^a Carmen Gómez Cabrera)
- Research Group on Healthy Aging (Mrs. Consuelo Borrás Blasco)
- Research Group on Aging and Physical Activity (Mr. José Viña Ribes)
- Research Group on Cellular and Organic Physiopathology of Oxidative Stress (Mr. Federico V. Pallardó Calatayud)
- Research Group on Inflammation (Mr. Esteban Morcillo Sánchez, Mrs. M^a Jesús Sanz Ferrando)
- Research Group on Genetics of Osteoporosis (Mr. Miguel Ángel García Pérez)
- Research Group on Molecular Imaging and Metabolomics (Mr. Daniel Monleón Salvadó)

AGING AND AGE-ASSOCIATED DISEASES				
	ACTIONS	STATE		
		Achieve	Partially achieved	Not achieve
Determination of parameters of oxidative stress and inflammation associated with healthy aging, frailty, and age-associated diseases (mainly cardiovascular and neurodegenerative)	· Oxidative signature of cerebrospinal fluid from mild cognitive impairment and Alzheimer's disease patients · Reductive Stress: a New Concept in Alzheimer's Disease · Global, regional, and national age-sex-specific mortality and life expectancy, 1950-2017: a systematic analysis for the Global Burden of Disease · Glucose 6-P dehydrogenase delays the onset of frailty by protecting against muscle damage · Frailty is associated with oxidative stress in older patients with Type 2 Diabetes · Redox-related biomarkers in physical exercise Project: CIBER de Fragilidad y envejecimiento (CIBERfes) Project: Evolution-Age-Gender-Lifestyle-Environment: mitochondrial fitness mapping Thesis title: Role of p16ink4a and bmi-1 in oxidative stress-induced premature senescence in human dental pulp stem cells Thesis title: Regulation of antioxidant defenses in the prevention of skeletal muscle deconditioning		■	
Determination of genetic biomarkers (microRNAs, mRNAs, and SNPs) associated with healthy aging, frailty, and age-associated diseases (mainly cardiovascular and neurodegenerative)	· In Search of 'Omics'-Based Biomarkers to Predict Risk of Frailty and Its Consequences in Older Individuals: The FRAILOMIC · Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative. Joint actions (HP-JA). 3rd EU Health Programme · Scaling-up of an evidence-based intervention programme in older people with Diabetes and Frailty in Latin America. DIABFRAIL-LATAM · Human exceptional longevity: transcriptome from centenarians is distinct from septuagenarians and reveals a role of Bcl-xL in successful aging. Aging (Albany NY) · A translational approach from an animal model identifies CD80 as a candidate gene for the study of bone phenotypes in postmenopausal women · Centenarians maintain the miRNA biogenesis pathway while it is impaired in octogenarians. Mechanisms of aging and development Thesis title: <i>Transcriptómica en centenarios: un ejemplo de envejecimiento satisfactorio</i>	■		

Determination of epigenetic biomarkers associated with healthy aging, frailty, and age-associated diseases (mainly cardiovascular and neurodegenerative)	· Epigenetic biomarkers for human sepsis and septic shock: insights from immunosuppression · Epigenetic regulation in the pathogenesis of Sjögren Syndrome and Rheumatoid Arthritis · Exercise training as a modulator of epigenetic events in prostate tumors · Implementing precision medicine in human frailty through epigenetic biomarkers · Epigenetic biological age in mice models in aging and frailty		■	
Determination of metabolomic biomarkers associated with healthy aging, frailty, and age-associated diseases (mainly cardiovascular and Neurodegenerative)	Sex Differences in Age-Associated Type 2 Diabetes in Rats-Role of Estrogens and Oxidative Stress		■	
Physical exercise protocols for the prevention of frailty	· A Multicomponent exercise intervention that reverses frailty and improves cognition, emotion, and social networking in the community-dwelling frail elderly · Boosting the intrinsic myofiber self-repair mechanisms in skeletal muscle to prevent and treat frailty and sarcopenia (MYOLD) · Promoting health span and preventing frailty through mitohormetic targeted interventions (miTHOR) · Exercise training as a drug to treat age-associated frailty · Copenhagen consensus statement 2019: physical activity and aging · Muscle repair after physiological damage relies on nuclear migration for cellular reconstruction Project: Novel multidomain therapeutic interventions to delay frailty and disability. Identification of molecular mechanisms with translational relevance Project: EXERNET. Red de ejercicio físico y salud Project: Personalized physical exercise as an intervention to reverse disability in older adults living in residences (RESIFIT) Thesis title: A multicomponent exercise program to prevent frailty, and for cognitive, emotional, and social improvement in frail elderly people Thesis title: Moderate overexpression of glucose-6-phosphate dehydrogenase improves health-span in mice. Implications in skeletal muscle regeneration Thesis title: Impact of long-term physical exercise on neuroprotection in middle-aged subjects: study of the molecular mechanisms involved Thesis title: Modulation of the Immune System by G6PD Activity, Diet, and Physical Exercise, and Their Potential Impact on Aging, Inflammation, and Cancer.		■	

Regenerative medicine in aging: role of stem cells and their extracellular vesicles in restoring intercellular communication in aging.	- Stem cell culture under physiological conditions for healthy status - Extracellular vesicles from healthy stem cells improve senescence in vitro - Extracellular vesicles from young mice isolated stem cells improve health in aged mice Project: Effect of treatment with extracellular vesicles of fat stem cells from young mice on aging and fragility parameters in old mice Project: Study of the importance of extracellular vesicles as mediators of intercellular communication in aging and frailty Project: Biomarkers in extracellular plasma vesicles in patients with traumatic brain injury. Thesis title: Obtention of stem cells from dental pulp. characterization and adaptation to various oxygen conditions. Thesis title: Obtention and characterization of human dental pulp stem cells and interaction with b-phosphatotricalcium Thesis title: Role of p16 ink4a and bmi-1 in oxidative stress-induced premature senescence in human dental pulp stem cells Thesis title: Favorable effect of intercellular communication through extracellular vesicles derived from adipose tissue stem cells in aging. Thesis title: Role of resveratrol and other natural components on lipid catabolism, mitochondrial function, and longevity		■	
Muscle Regeneration and Sarcopenia	Generation of a Multimodal cell atlas of the ageing human skeletal muscle	■		

4.3. Research areas

INCLIVA Biomedical Research Institute has four research areas in order to organize its scientific activity. Despite their independence, they have a common objective: meeting health needs and improving R&D&i system.

Their main aim is to establish a common reference framework to promote collaboration between INCLIVA attached researchers.

Each of the lines counts on the participation of one or several advisers from the External Scientific Committee. These lines are led by the following coordinators:

Cardiovascular Area

- **Coordinator:** Mr. Francisco Javier Chorro
- **Mission:** to contribute to the study of different aspects of cardiovascular disease (CVD) from its origins to its consequences.

Oncology Area

- **Coordinator:** Mr. Andrés Cervantes
- **Mission:** to contribute to the study of different aspects of oncological diseases, at the stage of diagnosis and molecular characterization and selection of specific molecular targets of therapeutic interest.

Metabolism and Organic Damage Area

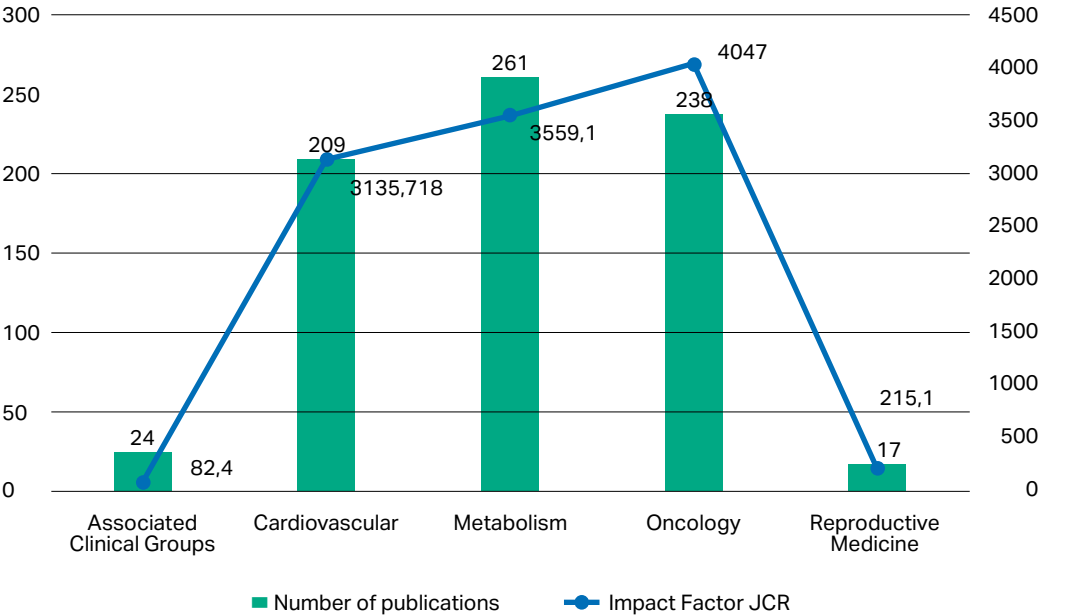
- **Coordinator:** Mr. José Viña
- **Mission:** to contribute to the study of the etiology, pathophysiology and diagnosis mechanisms or treatment of various metabolic diseases; or those that generate organ damage as a fundamental link of its trigger action.

Reproductive Medicine Area

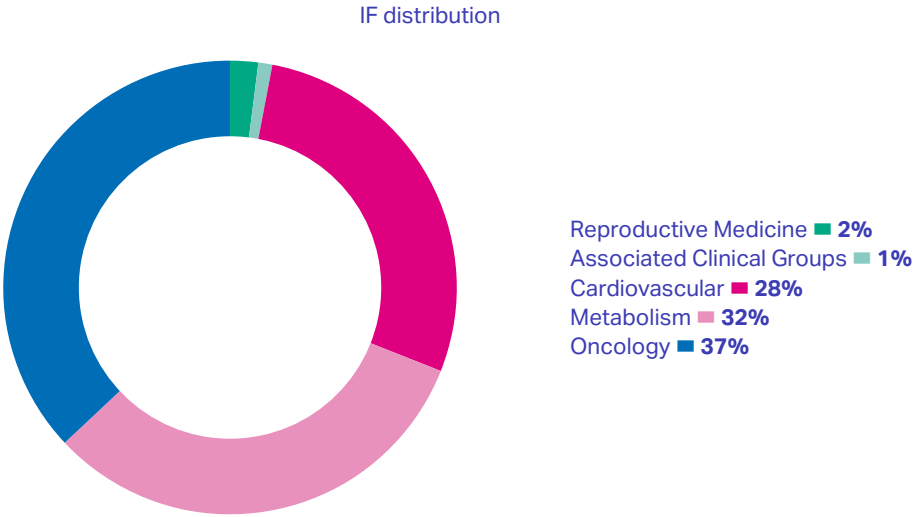
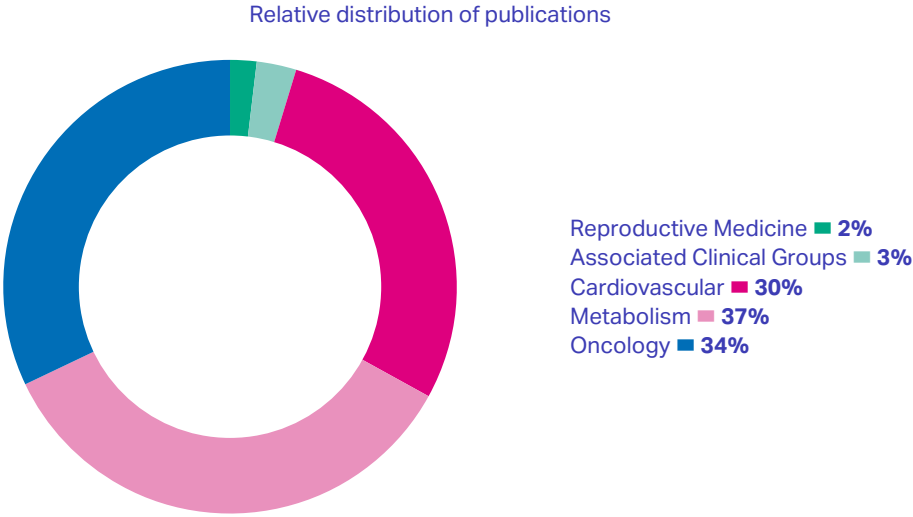
- **Coordinator:** Mr. Carlos Simón
- **Mission:** to advance in knowledge of human reproduction for translational application, improving the efficiency of assisted reproduction treatment and reducing adverse effects

Scientific production analysis by research area

The following charts and figures summarize the main scientific activity indicators of the four areas of research and the other divisions from Hospital Clínico de Valencia.



Since there are some scientific articles which are shared by two or more areas, it is worth mentioning that the sum of publications by area exceeds INCLIVA's total scientific output. Additionally, the next tables shows scientific publications distribution by area in terms of number of articles and impact factor.



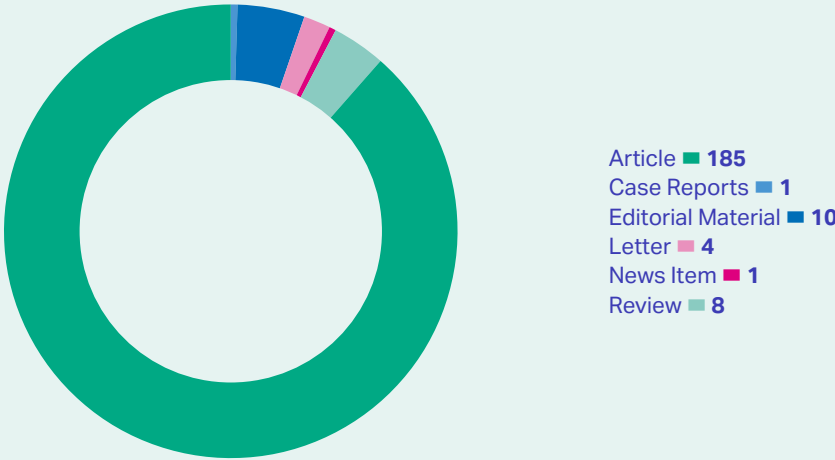
4.3.1 Cardiovascular Area

Groups

- Research Group on Cardiometabolic Risk and Diabetes
- Genomics and Diabetes Unit
- Research Group on Cardiac Experimental Electrophysiology
- Research Group on Endothelial Cells (LINCE)
- Research Group on Clinical Cardiology
- Research Group for the Prevention of Cardiovascular Risk in Children and Adolescents
- Cardiometabolic Research Group on Primary Care
- Research Group on the Study of Cardiometabolic and Renal Risk
- Research Group on Vascular Function
- Research Group on Pediatric Nutrition
- Group on Translational Research in Ischemic Heart Disease
- Research Group on Heart Failure
- Research Group on Renal Disease

Number of publications	IF	Average IF	National collaborations	International collaborations	Corresponding author
209	3.135,72	6,4125	126	77	94

D1	Q1	Q2	First author	Last author
59	138	51	68	83



Research Group on Cardiometabolic Risk and Diabetes

Consolidated

Persons Responsible: José Tomás Real Collado / Sergio Martínez Hervás

STRATEGIC AIMS

In terms of scientific activity of the research group during 2022, our group is participating in the development of three competitive and multidisciplinary research projects that include the following aims:

- Project: Immunopharmacological modulation of the systemic inflammation associated to metabolic disorders. Search for new therapeutic targets and synthesis of novel drugs
- Project: Study of new inflammatory and angiogenic mechanisms associated to severe morbid obesity
- Project: Role of the inflammatory processes in metabolic diseases and associated complications
- Project: Evaluation of the efficacy of pharmacogenetics to improve the response to treatment in subjects with insufficiently controlled type 2 diabetes

MAIN LINES OF RESEARCH

- Adipokines, inflammatory axes, new therapeutic targets and cardiovascular risk in metabolic fatty liver disease.
- Ageing, frailty, sarcopenia and neurodegeneration in people with diabetes.
- Applying Big Data and Artificial Intelligence technologies to analyse cardiovascular risk in dyslipidemia and diabetes.
- Body composition analysis.
- Diabetes and its complications
- Effect of body composition analysis, vascular risk and treatment in people with diabetes
- Impact of body composition analysis on prognosis, quality of life and therapeutic response in onco-haematological patients
- New diabetes technologies.
- Pharmacogenetic-based personalized treatment in diabetes.
- Primary dyslipidemias: molecular mechanisms, insulin resistance and novel therapeutic targets.
- Role of inflammatory axes in the modulation of metabolic and vascular dysfunctions in obesity, insulin resistance and diabetes.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Sergio Martínez Hervás. Hospital José Tomás Real Collado. Hospital Juan Francisco Ascaso Gimilio. Hospital
- **Established Researcher:**
Javier Ampudia Blasco. Hospital Miguel Civera Andrés. Hospital
- **Recognised emerging researcher:**
Vera Lucía Gomes Francisco. INCLIVA
- **Recognised Researcher:**
Blanca Alabadí Pardiñes. INCLIVA
- **First Stage Researcher:**
Carlos Bea Serrano. INCLIVA Miriam Moriana Hernandez. Hospital
- **Staff-Collaborating Researcher:**
Amparo Bartual Rodrigo. Hospital Esther Benito Casado. Hospital Ana Palanca Palanca. INCLIVA
- **Staff-Nurse:**
Pilar Aguilar Santaisabel. Hospital

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
1	4	0	1	2

Emerging Researcher

Vera Lucía Gomes Francisco

Her work focuses on establishing new biomarkers and therapeutic targets in metabolic and cardiovascular diseases, highlighting the role of new adipokines and inflammatory axes.

TEAM INVOLVED IN



RESEARCH PROJECTS

Reference: PI22/00062

Title: Identificación de nuevas dianas terapéuticas y mecanismos de la modulación de la inflamación en las enfermedades metabólicas

Principal Investigator: Herminia González Navarro and Sergio Martínez Hervás

Funding Body: Instituto de Salud Carlos III-Co-financed FEDER

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2023-2025

Total budget: €147.620

Reference: PI21/00220

Title: Estudio de nuevos ejes de quimiocinas como potenciales dianas de intervención en la obesidad y la resistencia a la insulina

Principal Investigator: Laura Piqueras Ruiz and José Tomás Real Collado

Funding Body: Instituto de Salud Carlos III-Co-financed FEDER

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2022-2024

Total budget: €204.490

Reference: ICI21/00020

Title: Evaluación de la eficacia de la farmacogenética para mejorar la respuesta al tratamiento en sujetos con diabetes tipo 2 insuficientemente controlada

Principal Investigator: Sergio Martínez Hervás

Funding Body: Instituto de Salud Carlos III-Co-financed FEDER

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2022-2025

Total budget: €267.300

Reference: PMP21/00076

Title: ImpactT2D: una estrategia genómica para implementar medicina de precisión en la diabetes tipo 2

Principal Investigator: Felipe Javier Chaves Martínez and Sergio Martínez Hervás

Funding Body: Instituto de Salud Carlos III-Co-financed FEDER

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2022-2025

Total budget: €106.700

Reference: INNEST/2024/409

Title: Desarrollo de una metodología avanzada para evaluación morfofuncional integral en paciente obeso. FITME.

Principal Investigator: Miguel Civera Andrés

Funding Body: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2024-2026

Total budget: €144.764,61

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
22	120,4	6,68
National collaborations	International collaborations	Corresponding author
17	4	11

Comparison of GLP-1 receptor agonists and other Glucose-Lowering agents on cardiovascular outcomes in individuals with type 2 diabetes and Obesity: A Spanish Real-World Population-Based study. Palanca A, Ampudia FJ, Calderón JM, Sauri I, Martínez S, Trillo JL, Redón J et al. DIABETES RESEARCH AND CLINICAL PRACTICE. 2024 January 01. 207111071-111071. DOI:10.1016/j.diabres.2023.111071. PMID:38142748.

Targeting systemic inflammation in metabolic disorders. A therapeutic candidate for the prevention of cardiovascular diseases?. Domingo E, Marques P, Francisco V, Piqueras L, Sanz MJ. PHARMACOLOGICAL RESEARCH. 2024 February 01. 200107058-107058. DOI:10.1016/j.phrs.2024.107058. PMID:38218355.

Are New Ultra-Rapid-Acting Insulins Associated with Improved Glycemic Control and Reduced Hypoglycemia in Comparison to Conventional Rapid-Acting Insulins for Individuals with Type 1 and Type 2 Diabetes? A Systematic Review and Meta-Analysis. Villar R, Sanz AG, Fernández E, Galindo DB, Servat AS, Ampudia FJ. Diabetes Technology & Therapeutics. 2024 August 01. 26 (8):575-586. DOI:10.1089/dia.2023.0524. PMID:38502158.

Lomitapide for the treatment of paediatric patients with homozygous familial hypercholesterolaemia (APH-19) results from the efficacy phase of an open-label, multicentre, phase 3 study. Masana L, Zambon A, Schmitt CP, Taylan C, Driemeyer J, Cohen H, Buonuomo PS et al. Lancet Diabetes & Endocrinology. 2024 December 01. 12 (12):880-889. DOI:10.1016/S2213-8587(24)00233-X. PMID:39426393.

Homozygous Familial Hypercholesterolemia in Spain: Data From Registry of the Spanish Atherosclerosis Society. Sánchez RM, Ibarretxe D, Fuentes F, Martínez S, Blanco A, Cortés B, Rodríguez G et al. JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM. 2024 December 05. DOI:10.1210/clinem/dgae784. PMID:39514762.

THESIS

Thesis title: Factors associated with malnutrition in schoolchildren in San Miguel Parish
Type: Doctoral Thesis
Doctoral candidate: Jacinto Eugenio Pérez Rodríguez
Director(s): Sergio Martínez Hervás
University: University of Valencia (UV)
Date of the defense: January 2024
Grade: Sobresaliente Cum

Thesis title: Implementation of a search strategy to diagnose subjects with familial hypercholesterolemia in a Department of Health
Type: Doctoral Thesis
Doctoral candidate: Carolina Cuenca Valero
Director(s): Sergio Martínez Hervás
University: University of Valencia (UV)
Date of the defense: March 2024
Grade: Sobresaliente Cum Laude

Genomics and Diabetes Unit

Consolidated
Person Responsible: Felipe Javier Chaves Martínez

STRATEGIC AIMS

- Study of genetic and environmental factors involved in the development of type 2 diabetes and related diseases by the use of genomics, bioinformatic and artificial intelligence tools
- Study of transposable elements and circular extrachromosomal ADN in the development of cardiometabolic diseases.
- Identify alterations of DNA methylation in relation to the development of type 2 diabetes and its potential use as biomarkers for prediction of cardiometabolic diseases
- Identify genetic causes of rare diseases: Abeta and allergy to all food
- Study of somatic mutations and genomic alterations involved in the development of cardiometabolic diseases

MAIN LINES OF RESEARCH

- Analysis of methylated and hydroxymethylated regions in the genome in patients with specific phenotypes at baseline compared with phenotypes present eight years later, as pertains to type 2 diabetes.
- Identification of frequent and rare functional variants involved in high cardiovascular risk disease development and their interaction with environmental factors.
- Identification of relationships between different genes, environmental factors and pollutants in relation to type 2 diabetes and related traits.
- Development and application of bioinformatic and artificial intelligence tools to improve the identification of genetic variations (germinal and somatic including small and large alterations) and their interaction with environmental factors in the development of cardiometabolic diseases.
- Monitoring and molecular characterization of chronic lymphocytic leukaemia and study of molecular markers.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Established Researcher:**
Felipe Javier Chaves Martínez. INCLIVA
- **Recognised Researcher:**
Luis Álvarez Fernández. INCLIVA
Ana Bárbara García García. Ciber
- **First Stage Researcher:**
Celeste Rosa Moya Valera. INCLIVA
Francisco Lara Hernández. INCLIVA
María Elena Quiroz Rodríguez. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
3	1	0	0	0

RESEARCH PROJECTS

Reference: PI24/00338
Title: ADN_extracromosomico y elementos trans-ponibles como mecanismos tempranos implica-dos en el desarrollo de la diabetes tipo 2 y marca-dores tempranos.
Principal Investigator: Felipe Javier Chaves Mar-tínez
Funding Body: Instituto de Salud Carlos III-Co-fi-nanced FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia-INCLIVA
Duration: 2025-2027
Total budget: 233.750 €

Title: clinical and pre-clinical studies for the devel-opment of novel antidiabetic therapies: targeting HMG20A mechanism of action.
Funding Body: CIBERDEM
COORDINATOR: Benoit R. GAUTHIER; IP in our Centre: Ana B. García-García
Duration: 2025-2026
Total Budget: 74.960

Reference: PMP21/00076
Title: ImpactT2D: una estrategia genómica para implementar medicina de precisión en la diabetes tipo 2
Principal Investigator: Felipe Javier Chaves Mar-tínez
Funding Body: Instituto de Salud Carlos III-Co-fi-nanced FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2025
Total budget: €106.700

Reference: PMP22/00033
Title: El primer estudio de asociación de genoma completo (GWAS) con enfermedad coronaria po-blacional a 10 años en más de 100.000 participan-tes para personalizar la prevención cardiovascular en España
Principal Investigator: Felipe Javier Chaves Mar-tínez
Funding Body: Instituto de Salud Carlos III-Co-fi-nanced FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2025

Reference: PI21/00506
Title: *Estudio multifactorial para la identificación de nuevos factores genéticos y no genéticos mediante la secuenciación del exoma y técnicas de inteligencia artificial*
Principal Investigator: Felipe Javier Chaves Martínez
Funding Body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2024 extended 2026
Total budget: €183.920

Reference: AICO/2021/033
Title: *Role of host mucosal glycosylation in SARS-CoV-2 infectivity*
Principal Investigator: Jesús Rodríguez Díaz
Funding Body: *Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital*
Beneficiary Institution: *Universidad de Valencia*
Duration: 2022-2024
Total budget: €90.000

Reference: ACIF/2021/229
Title: *Contrato predoctoral*
Principal Investigator: Francisco Lara Hernández
Funding Body: *Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2021-2025

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
4	15	3,7
National collaborations	International collaborations	Corresponding author
4	0	1

Association between exposure to air pollution and blood lipids in the general population of Spain. Valdés S, Doulatram V, Maldonado C, García E, García S, Oualla W, García M et al. EUROPEAN JOURNAL OF CLINICAL INVESTIGATION. 2024 February 01. 54 (2):DOI:10.1111/eci.14101. PMID:37795744.

Cross-sectional association between severe periodontitis and diabetes mellitus: A nation-wide cohort study. Montero E, Bujaldón R, Montanya E, Calle AL, Rojo G, Castaño L, Franch J et al. JOURNAL OF CLINICAL PERIODONTOLOGY. 2024 April 01. 51 (4):368-379. DOI:10.1111/jcpe.13937. PMID:38140803.

Association of carotid atheroma plaque with IL-18 levels and with polymorphisms in the IL-18 receptor gene in a Mediterranean population. Palanca A, Bartual A, Cuenca C, Mayo OD, Ampudia FJ, González H, Ascaso JF et al. CLINICA E INVESTIGACION EN ARTERIOSCLEROSIS. 2024 July 01. 36 (4):210-217. DOI:10.1016/j.arteri.2023.12.005. PMID:38216380.

Protective Effect of High Adherence to Mediterranean Diet on the Risk of Incident Type-2 Diabetes in Subjects with MAFLD: The Di@bet.es Study. Lago A, Oualla W, García S, Maldonado C, Valdés S, Doulatram V, Oliveira G et al. Nutrients. 2024 November 01. 16 (21):DOI:10.3390/nu16213788. PMID:39519621.

THESIS

Thesis title: Estudio de nuevos biomarcadores genéticos en la Leucemia Linfática Crónica-B (LLC-B).
Doctoral Candidate: Blanca Ferrer Lores
Directors: Felipe Javier Chaves Martínez, Mª José Terol Castera, Blanca Navarro Cubells.
Date of Defense: 27 June 2024.

Research Group on Cardiac Experimental Electrophysiology

Consolidated
Persons Responsible: Francisco Javier Chorro Gascó / Antonio M. Alberola Aguilar

STRATEGIC AIMS

- Experimental studies on the protective effect against arrhythmic vulnerability by inhibition of neprilysin (sacubitril), late sodium current (eleclazine) and intracellular calcium overload (rimacalib, KN-93).
- Study of the protective effects of the inhibition of histone deacetylases in an experimental model of myocardial infarction. Effects on infarct size, fibrosis and inducibility of arrhythmias.
- Development of an experimental model of metabolic syndrome to analyze the electrophysiological modifications and the inducibility of cardiac arrhythmias. Analysis of the protective effects of iSGLT2.
- Effects of modifications of the basic electrophysiological properties on the mechanisms involved in the induction and maintenance of fibrillatory processes.
- Development of instruments for recording, processing and analysis of cardiac electrophysiological signals obtained with cardiac mapping systems (optical and electric mapping).

MAIN LINES OF RESEARCH

- Development and extension of technical tools for the recording, processing and analysis of cardiac electrophysiological signals based on multielectrodes and cardiac mapping systems.
- Experimental studies on the protective effect against arrhythmic vulnerability. Modifications of the signaling pathways involved in mechanoelectric coupling and activated in situations of mechanical stretch and metabolic overload..
- New therapeutic targets related to: a) calcium homeostasis; b) renin angiotensin aldosterone system/neprilysin inhibition; c) common nodes in the signaling pathways (CaMKII) and d) transmembrane ionic currents..
- Study of electrophysiological modifications and inducibility of cardiac arrhythmias in an experimental model of metabolic syndrome
- Study of the mechanisms involved in the deterioration of the systolic function, fibrosis and the inducibility of arrhythmias in an experimental model of myocardial infarction.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- Leading Researcher:** Antonio M. Alberola Aguilar. University Francisco Javier Chorro Gascó. University
- Established Researcher:** Luis Such Belenguer. University
- Recognised Researcher:** Patricia Genovés Martínez. University Óscar Julián Arias Mutis. University Irene Del Canto Serrano. University Manuel Zarzoso Muñoz. University Luis Such Miquel. University Isabel Trapero Gimeno. University
- First Stage Researcher:** Johan Enrique Ortiz Guzman. University

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
1	4	0	3	0

TEAM INVOLVED IN



RESEARCH PROJECTS

Reference: PI21/01984
Title: *Efectos de la inhibición de SGLT2 sobre el remodelado auricular producido por el síndrome metabólico y su sustrato arritmogénico. Estudio experimental*
Principal Investigator: Francisco Javier Chorro Gascó and Manuel Zarzoso Muñoz
Funding Body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2024
Total budget: €99.220

Reference: EU4H-2022-JA-03
Title: *Prevention of NCDs – cardiovascular diseases and diabetes*
Principal Investigator: Clara Bonanad Lozano, Josép Redón Mas
Funding Body: *European Comission*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2027

Reference: MS21-162 (Margarita Salas Grant for the training of young doctors)
Title: Molecular characterization of fibroblast activation in human ischemic cardiomyopathy. Effect of inhibition of histone deacetylation.
Investigator: Patricia Genovés Martínez
Beneficiary Institution: University of Valencia
Duration: 2023-2024

Reference: CIAICO/2023/013 (Generalitat Valenciana Grant awarded for established research groups)
Title: Cardiovascular effects of SGLT2 inhibition in Metabolic Syndrome: Progressing into the mechanisms of action at the genomic, functional, and structural levels.
Principal Investigators: María Dolores Mauricio Aviñó and Manuel Zarzoso Muñoz.
Beneficiary Institution: *University of Valencia*
Duration: 2024-2027
Total Budget: 90.000 euros

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
10	26,7	3,81
National collaborations	International collaborations	Corresponding author
9	1	8

Plasma fibroblast activation protein is decreased in acute heart failure despite cardiac tissue upregulation. Delgado M, Genovés P, Pérez L, González I, Giménez I, Martínez L, Portolés M et al. Journal of Translational Medicine. 2024 February 01. 22 (1):DOI:10.1186/s12967-024-04900-w. PMID:38297310.

Improvement in left atrial strain following ferric carboxymaltose in heart failure: an analysis of the Myocardial-IRON trial. Santas E, Del Canto I, Cardells I, Miñana G, Llácer P, Almenar L, Fácila L et al. Esc Heart Failure. 2024 April 01. 11 (2):1258-1262. DOI:10.1002/ehf2.14630. PMID:38115745.

Analysis and prevention of falls among community-dwelling older adults in southern Thailand. Pantong U, Trapero I, Jareaprapal U. JOURNAL OF ADVANCED NURSING. 2024 May 01. 80 (5):2121-2136. DOI:10.1111/jan.15945. PMID:37950381.

Sodium valproate treatment reverses endothelial dysfunction in aorta from rabbits with acute myocardial infarction. Guerra S, Suárez A, Belmonte B, Marchio P, Genovés P, Arias OJ, Aldasoro M et al. EUROPEAN JOURNAL OF PHARMACOLOGY. 2024 May 05. 970176475-176475. DOI:10.1016/j.ejphar.2024.176475. PMID:38438061.

Levamisole Impairs Vascular Function by Blocking a-Adrenergic Receptors and Reducing NO Bioavailability in Rabbit Renal Artery. Guerra S, Marchio P, Suárez A, Aldasoro M, Vallés SL, Genoves P, Vila JM et al. Cardiovascular Toxicology. 2024 August 01. 24 (8):789-799. DOI:10.1007/s12012-024-09879-w. PMID:38877381.

THESIS

Thesis title: Biomarcadores de utilidad clínica en pacientes con insuficiencia cardiaca aguda y síndrome cardiorrenal
Type: Doctoral
Doctoral candidate: Rafael De la Espriella Juan
Director(s): Julio Nuñez Villota and Francisco Javier Chorro Gascó
Date of the defense: 22/03/2024
University: Universitat de València
Grade: Ph.D.
Quality recognition/Award: Outstanding «cum laude»

Thesis title: Características de los mapas de voltaje del istmo cavotricuspídeo y su relevancia en la ablación del flutter auricular istmo dependiente.
Type: Doctoral
Doctoral candidate: Francisco Antonio Ribes Tur
Director(s): Ricardo Ruiz Granell and Francisco Javier Chorro Gascó
Date of the defense: 22/10/2024
University: Universitat de València
Grade: Ph.D.
Quality recognition/Award: Outstanding «cum laude»

Research Group on Endothelial Cells (LINCE)

Consolidated
Persons Responsible: Susana Novella Del Campo / Carlos Hermenegildo Caudevilla

STRATEGIC AIMS

- To analyze the levels of selected miRNA of acute myocardial infarction patients included in the studies of PI19/01714
- To analyze the role of estrogen receptors on the regulation of miRNA by estradiol
- To tune the experimental surgical procedure of AMI in the SAMR1/SAMP8 murine senescence model, which will allow us to evaluate the vascular effect of aging and sex and to verify that the change in expression of some miRNA observed in humans with AMI is reproduced
- To incorporate new pre and postdoctoral researchers to our group

MAIN LINES OF RESEARCH

- Identification and characterization of estradiol-regulated miRNA in endothelium and acute myocardial infarction murine model.
- Identification of new sex hormone-regulated signaling pathways in endothelium.
- Interaction of sex hormones with pro-atherogenic factors.
- Sex differences in cardiovascular research.
- Vascular effects of sex hormones.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:** Carlos Hermenegildo Caudevilla. University Susana Novella Del Campo. University
- **Recognised Researcher:** Daniel Bernardo Pérez Cremades. University Elena Monsalve Villalba. University
- **First Stage Researcher:** Bianca Descals Beltran. University Cristina Rosales Ariza. University

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
2	0	0	0	0

RESEARCH PROJECTS

Reference: COST Action CA21153
Title: Network for implementing multiomics approaches in atherosclerotic cardiovascular disease prevention and research (AtheroNET)
Principal Investigator: Paolo Magni (Susana Novella as secondary partner Management Committee and Grant Award Coordinator (Leadership position)).
Funding body: European Commission
Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2026

Reference: PI22/01083
Title: *Mecanismos moleculares de las rutas de señalización de los miRNA modificados por infarto agudo de miocardio. Influencia del sexo y el envejecimiento*
Principal Investigator: Susana Novella and Carlos Hermenegildo
Funding body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2025
Total Budget: €111.320

Reference: CIAICO/2021/211
Title: *Análisis funcional de las rutas de señalización vascular reguladas por miRNA sensibles a estrógenos*
Principal Investigator: Susana Novella and Carlos Hermenegildo
Funding body: *Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital*
Beneficiary institution: *Universidad de Valencia*
Duration: 2022-2024
Total Budget: €90.000

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
3	25,3	8,433
National collaborations	International collaborations	Corresponding author
0	3	0

FAM222A, Part of the BET-Regulated Basal Endothelial Transcriptome, Is a Novel Determinant of Endothelial Biology and Angiogenesis-Brief Report. Tzani A, Haemmig S, Cheng HS, Pérez D, Heuschkel MA, Jamaiyar A, Singh SA et al. ARTERIOSCLEROSIS THROMBOSIS AND VASCULAR BIOLOGY. 2024 January 01. 44 (1):143-155. DOI:10.1161/ATVBAHA.123.319909. PMID:37942611.

Deficiency of lncRNA MERRICAL abrogates macrophage chemotaxis and diabetes-associated atherosclerosis. Chen JS, Jamaiyar A, Wu WN, Hu Y, Zhuang RL, Sausen G, Cheng HS et al. Cell Reports. 2024 March 26. 43 (3):113815-113815. DOI:10.1016/j.celrep.2024.113815. PMID:38428421.

miR-369-3p ameliorates diabetes-associated atherosclerosis by regulating macrophage succinate-GPR91 signalling. Rawal S, Randhawa V, Rizvi SHM, Sachan M, Wara AK, Pérez D, Weisbrod RM et al. CARDIOVASCULAR RESEARCH. 2024 June 06. 120 (14):1693-1712. DOI:10.1093/cvr/cvae102. PMID:38703377.

Research Group on Clinical Cardiology

Consolidated
Person Responsable: Juan Sanchis Fores

STRATEGIC AIMS

- Publication of manuscripts in high IF journals
- CIBER Cardiovascular
- Development of FIS projects

MAIN LINES OF RESEARCH

- Investigation line in interventional cardiology: Effect of changes in antigen carbohydrate 125 levels before percutaneous aortic valve prosthesis implant on prognosis after implantation.
- Plaque modification in calcified chronic total occlusions: the PLACCTON study.
- Prospective application of a bleeding and ischemic risks-adjusted antithrombotic protocol in elderly patients revascularized with everolimus-eluting stents: EPIC05-Sierra75 study.
- Research line in acute coronary syndrome: Randomized comparison between invasive and conservative strategies in frail elderly patients with non-ST-segment elevation myocardial infarction (MOSCA-FRAIL).
- Research line in heart failure:. - Beta Blocker Treatment Withdrawal in Patients with Heart Failure with Preserved Systolic Function and Evidence of Chronotropic Incompetence
- Short-term effects of dapagliflozin on peak oxygen consumption in type 2 diabetic patients with heart failure with reduced systolic function

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Juan Sanchis Fores. Hospital. University.
- **Recognised Researcher:**
Sergio García Blas. Hospital
Ernesto Valero Picher. Hospital
Agustín Fernández Cisnal. Hospital
Carlos Eduardo Vergara Uzcategui. INCLIVA
Claudio Manuel Rivadulla Varela. Hospital
- **First Stage Researcher:**
Anna Mireia Mollar Fernández. Ciber
- **Staff-Nurse:**
Beatriz Silla Sobrecases. Hospital
Georgiana Zaharia. INCLIVA

TEAM INVOLVED IN



RESEARCH PROJECTS

Reference: PI23/01863
Title: Estrategia invasiva rutinaria y abordaje global sobre la fragilidad en ancianos frágiles sin discapacidad con infarto de miocardio sin elevación del segmento ST: El ensayo clínico aleatorizado MOSCA-FRAIL II.
Principal Investigator: Sergio García Blas
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2026
Total budget: €103.750

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
34	252,6	9,35
National collaborations	International collaborations	Corresponding author
23	11	19

Effect of paced heart rate on quality of life and natriuretic peptides for stage B or C heart failure with preserved ejection fraction: A secondary analysis of the myPACE trial. de la Espriella R, Wahlberg KJ, Infeld M, Palau P, Nunez E, Sanchis J, Meyer M et al. EUROPEAN JOURNAL OF HEART FAILURE. 2024 January 01. 26 (1):167-176. DOI:10.1002/ehjhf.3107. PMID:38124404.

Transcatheter valvular interventions 2022: insights from the National Societies of Cardiology Journals of the European Society of Cardiology. Monsuez JJ, Gatzov P, Alfonso F, Natl Soc Cardiology J, European C. EUROPEAN HEART JOURNAL. 2024 February 01. 45 (5):328-329. DOI:10.1093/eurheartj/ehad676. PMID:38087771.

Invasive vs. conservative management of older patients with non-ST-elevation acute coronary syndrome: individual patient data meta-analysis. Kotanidis CP,Mills GB,Bendz B,Berg ES,Hildick D,Hirlekar G,Milasinovic D et al. EUROPEAN HEART JOURNAL. 2024 April 10. 45 (23):2052-2062. DOI:10.1093/eurheartj/ehae151. PMID:38596853.

Non-ST-elevation acute coronary syndromes with previous coronary artery bypass grafting: a meta-analysis of invasive vs. conservative management. Kelham M,Vyas R,Ramaseshan R,Rathod K,de Winter RJ,de Winter RW,Bendz B et al. EUROPEAN HEART JOURNAL. 2024 May 28. 45 (27):2380-2391. DOI:10.1093/eurheartj/ehae245. PMID:38805681.

Left ventricular volume and maximal functional capacity in heart failure with preserved ejection fraction: Size matters. de la Espriella R, Palau P, Losito M, Crisci G, Miñana G, Domínguez E, Bertomeu V et al. EUROPEAN JOURNAL OF HEART FAILURE. 2024 December 01. 26 (12):2544-2552. DOI:10.1002/ehhf.3401. PMID:39078308.

Research Group for the Prevention of Cardiovascular Risk in Children and Adolescents

Consolidated
Person Responsible: Empar Lurbe Ferrer

STRATEGIC AIMS

The iPEDITEC Unit brings healthcare workers into daily contact with engineers developing software for signal capture through mobile devices. Studying the psychological parameters that facilitate personalized therapy has been a priority aim during 2021, resulting in improved treatment of obese pediatric patients in the Unit

- The PAIDO Program is focused on personalized medical care extended through initiatives involving family, educators, nutritionists, physical education teachers and other social agents. Treatment goes beyond the hospital setting to include the child's environment and personal sphere and is supported by state-of the art artificial intelligence technologies
- To improve the knowledge of fetal life and postnatal growth on the development of cardiometabolic risk factors early in life. The KITE cohort is a prospective study starting at birth and assessing the determinants of cardiometabolic risk factors in the first decades of life. Omics data from umbilical cord are available and the analysis of the interaction between clinical data and omics may help to introduce actions in critical periods of life and the potential contribution to reduce cardiometabolic disease later in life. Dr. Lurbe is the coordinator of the new document of the European Guidelines on Arterial Hypertension in Children and Adolescents

MAIN LINES OF RESEARCH

- «Preventing lifetime obesity by early risk-factor identification, prognosis and intervention». Record number: eprObes101080219.
- Arterial hypertension in children and adolescents.
- Cardiovascular and renal risk in diabetes.
- Childhood obesity: New insights in the personalized treatment: Study of the cardiorespiratory capacity
- Early origins of cardiometabolic risk factors assessed in a prospective study starting at birth (Cohort KITE).
- HyperChildNET: European Network for Research on Blood Pressure in Children and Adolescents.
- New technologies applied to the detection of congenital heart diseases and sepsis in asymptomatic newborn babies.
- New technologies applied to the treatment of obesity:.. Physical exercise preventing and treating obesity

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Empar Lurbe Ferrer. University
- **Established Researcher:**
Francisco Aguilar Bacallado. University
María Isabel Torro Domenech. University
- **Recognised Researcher:**
Julio Carlos Alvarez Pitti. University
- **First Stage Researcher:**
Ana De Blas Zapata. University
- **Staff-Collaborating Researcher:**
Juan José Alcon Sáez. University
Rafael Gómez Zafra. University
Nuria García Carbonell. University
- **Staff-technicians:**
Laura González Ramos. University
Christine Deutsch. Ciber OBN

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
0	1	0	0	1

TEAM INVOLVED IN



RESEARCH PROJECTS

Reference: eprOBes
Title: early prevention of obesity
Principal Investigator: Empar Lurbe i Ferrer
Funding Body: European Commision
Beneficiary Institution: *CiberObn*
Duration: 2023-2028

Reference: COST CA19115
Title: Network for blood pressure research in children and adolescents. HyperChildNET
Principal Investigator: Empar Lurbe i Ferrer
Funding Body: European Commision
Beneficiary Institution: *Universidad de Valencia*
Duration: 2020-2024

Reference: PI20/00269
Title: *Impacto del peso al nacer y el patrón de crecimiento en los factores de riesgo cardiometabólico en adolescentes postpuberales: aproximación clínica y molecular*
Principal Investigator: Empar Lurbe i Ferrer
Funding Body: *Instituto de Salud Carlos III*-Co-financed FEDER
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2021-2023 extended 2024
Total budget: €174.845

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
5	24,9	4,98
National collaborations	International collaborations	Corresponding author
0	4	1

Eating disorders and obesity: bridging clinical, neurobiological, and therapeutic perspectives. Camacho L,Giel KE,Jiménez S,Pitti JA,Micali N,Lucas I,Miranda R et al. Trends In Molecular Medicine. 2024 April 01. 30 (4):361-379. DOI:10.1016/j.molmed.2024.02.007. PMID:38485648.

Dietary Strategies in the Prevention and Treatment of Hypertension in Children and Adolescents: A Narrative Review. Koziol A,Wójcik M,Herceg V,Cobal S,Radovanovic D,Alvarez J,Hartgring I et al. Nutrients. 2024 August 01. 16 (16):DOI:10.3390/nu16162786. PMID:39203922.

A holistic perspective of the comorbidities in childhood obesity. Herrera R, Lurbe E. ANALES DE PEDIATRIA. 2024 November 01. 101 (5):344-350. DOI:10.1016/j.anpedi.2024.07.013. PMID:39482196.

The Effect of Maternal Diet and Lifestyle on the Risk of Childhood Obesity. Luszczki E,Wyszynska J,Dymek A,Drozd D,González L,Hartgring I,García N et al. Metabolites. 2024 December 01. 14 (12):DOI:10.3390/metabo14120655. PMID:39728436.

Why were the 2023 Guidelines of the European Society of Hypertension not developed as Joint Guidelines together with the European Society of Cardiology?. Kreutz R,Azizi M,Grassi G,Januszewicz A,Kahan T,Lurbe E,Polonia J et al. BLOOD PRESSURE. 2024 December 31. 33 (1):2317263-2317263. DOI:10.1080/08037051.2024.2317263. PMID:38404242.

Cardiometabolic Research Group on Primary Care

Consolidated
Person Responsible: Jorge Navarro Pérez

STRATEGIC AIMS

- The main objective of the group is to consolidate and stabilize the main lines of research with a relevant number of members. It is also key to strengthen collaboration in existing transversal programs (overweight, obesity and metabolic risk; ventricular dysfunction; rare diseases; aging).

MAIN LINES OF RESEARCH

- This group, initially focused on cardiometabolic research, has extended the scope of its activity by integrating new lines, such as active aging, liver diseases and research in pediatrics, and has consolidated the Research based on Big Data. It has recently opened new lines of work in mental health and genetics.
- We collaborate with other INCLIVA research groups, such as internal medicine, cardiology, nephrology and aging..
- We have addressed issues such as the cardiovascular impact of risk factors (such as smoking, hypertension and diabetes), care inequalities according to gender, the impact of social determinants, diagnostic and therapeutic inertia,. potentially inappropriate prescribing or stratification of the chronic population according to costs.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Jorge Navarro Pérez. Primary Care
- **Established Researcher:**
María Desamparados Garcés Sánchez. Primary Care
Carolina Mir Sánchez. Hospital
José Luis Trillo Mata. Primary Care
Alvaro Bonet Pla. Primary Care
- **Staff-Technician:**
Ismael Ejarque Domènech. Primary Care
Canales Luz De Myotanh Vázquez. Primary Care
Ester Robles Pastor. Primary Care
Paula Sala Ivars. Primary Care
María Aida Andreu Lledo. Primary Care
Idoia Aramburu Aizpiri. Primary Care
Verónica Ausina Márquez. Primary Care
Eugenia Avelino Hidalgo. Primary Care
Sofia Bauer Izquierdo. Primary Care
Alberto Belenguer Guillot. Primary Care

- Esther Carrión Albert. Primary Care
María Consuelo Ferrús Domingo. Primary Care
M José Garzón Nieto. Primary Care
Margarita Giménez Loreiro. Primary Care
Marína Gimeno Gimeno. Primary Care
Ricardo González Espadas. Hospital
Verónica Lozano Rodríguez. Primary Care
Cristina Mas Lazaro. Primary Care
Tamara Miravalls Pérez. Primary Care
Alex David Misle Morales. Primary Care
Lucia Navarro Salvador. Primary Care
Svitlana Nikítina Osadcha. Primary Care
Oscar Pérez Quintana. Primary Care
Aaron Piera Torro. Primary Care
Celia Poveda Rocamora. Hospital
Ignacio Ramos Manuel. Primary Care
Eduardo Rovira Cabrera. Primary Care
M Dolores Seligra Borrull. Primary Care
Alexandre Sorribes Ramirez. Primary Care
Vibiana Blanco Alvarado. Primary Care
María Isabel Gabaldon Sánchez. Primary Care
Marisa Gómez Arnero. Primary Care
Enrique Guinot Martínez. Primary Care
Irene Marco Moreno. Primary Care
Carmen Martínez Vernia. Primary Care
Mª José Puchades Company. Primary Care
Pablo Sabater Arnaldos. Primary Care
Tomás Sánchez Ruiz. Primary Care
Ruth Uribes Fillol. Primary Care
Victoria Gosalbes Soler. Primary Care
María Pilar Roca Navarro. Primary Care
Nidia Ruiz Varea. Primary Care
Laura Almudéver Campo. Primary Care

RESEARCH PROJECTS

Reference: PI21/01417
Title: *Cribado sistemático de insuficiencia cardíaca en pacientes con diabetes mellitus tipo 2. Estudio piloto*
Principal Investigator: Enrique Santas Olmeda and Jorge Navarro Pérez
Funding Body: *Instituto de Salud Carlos III*-Co-financed FEDER
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2024 extended 2025
Total Budget: €90.871

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
13	40,7	3,13
National collaborations	International collaborations	Corresponding author
12	1	7

Comparison of GLP-1 receptor agonists and other Glucose-Lowering agents on cardiovascular outcomes in individuals with type 2 diabetes and Obesity: A Spanish Real-World Population-Based study. Palanca A, Ampudia FJ, Calderón JM, Sauri I, Martínez S, Trillo JL, Redón J et al. DIABETES RESEARCH AND CLINICAL PRACTICE. 2024 January 01. 207111071-111071. DOI:10.1016/j.diabres.2023.111071. PMID:38142748.

Lipoprotein(a) and Long-Term Recurrent Infarction After an Acute Myocardial Infarction. Miñana G, Cordero A, Fácila L, Company M, Fernández A, Valero E, Carratalá A et al. AMERICAN JOURNAL OF CARDIOLOGY. 2024 January 15. 2119-16. DOI:10.1016/j.amjcard.2023.10.028. PMID:37858663.

Evaluation of antibody-based preventive alternatives for respiratory syncytial virus: a novel multi-criteria decision analysis framework and assessment of nirsevimab in Spain. Mestre J, Rivero A, Orrico A, Hidalgo A, Abdalla F, Martín I, Alvarez J et al. BMC INFECTIOUS DISEASES. 2024 January 18. 24 (1):99-99. DOI:10.1186/s12879-024-08988-9. PMID:38238680.

Role of Leptin in Obesity, Cardiovascular Disease, and Type 2 Diabetes. Vilariño T, Polonio ML, Pérez A, Ribalta J, Arrieta F, Aguilar M, Obaya JC et al. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2024 February 16. 25 (4):DOI:10.3390/ijms25042338. PMID:38397015.

Long-Term Effect of Home Blood Pressure Self-Monitoring Plus Medication Self-Titration for Patients With Hypertension A Secondary Analysis of the ADAMPA Randomized Clinical Trial. Martínez P, Marco I, García A, Peiró S, Martínez L, Barreira I, Bellot L et al. Jama Network Open. 2024 May 10. 7 (5):DOI:10.1001/jamanetworkopen.2024.10063. PMID:38728033.

Research Group on the Study of Cardiometabolic and Renal Risk

Consolidated
Persons Responsible: José Redón Mas / Raquel Cortés Vergaz

STRATEGIC AIMS

- To analyze changes on podocytes and RPTEC (ncRNAs, apoptosis...) and their intercellular communication (extracellular vesicles) under renal damage conditions
- To identify circulating and exosomal non-coding RNA - mRNA interaction networks associated to renal damage progression
- To characterize extracellular vesicles cargos through antigen surface, ncRNA and single vesicle analysis associated with renal damage
- To develop an advanced diagnostic model to predict renal damage in hypertensive, diabetic or systemic lupus patients, combining levels of EV markers (surface and miRNA signatures) by supervised machine learning
- To integrate metabolomics and genomics in the study of factors related to the development of cardiorenal damage
- To develop studies for noninvasive hemodynamic characterization in vascular pathology
- To analyze morbidity and mortality linked to the presence of hypertension and renal injury
- To develop biomarkers in autoimmune diseases
- To perform genetic studies related to obesity and overweight
- To characterize and determine the cardiovascular risk and alterations in renal function in patients with HIV infection and in HIV/HBV-HCV co-infected
- To assess the comorbidities of patients with HIV and their impact on the development of frailty and quality of life
- To develop biomarkers to diagnose and predict the development of clinical events in patients with HIV infection, viral hepatitis and other infectious pathologies
- Big Data and AI in primary and secondary uses in health
- To develop of phase III and IV clinical trials

MAIN LINES OF RESEARCH

- Analysis of podocytes-renal proximal tubular epithelial cell communication as key player in kidney damage progression (miRNAs and exosomes).
- Molecular mechanisms associated with activity changes and renal damage development in systemic lupus erythematosus.
- Relationship between risk of venous thromboembolic disease and arteriosclerosis.

- Big Data and artificial intelligence (AI).
- Environmental epidemiology: exposome and genetic interaction.
- Factors associated with venous thrombosis.
- Genomics, proteomics and metabolomics of early cardiometabolic and renal disorders.
- Identification of polymorphisms and related to the control of BMI and waist circumference and the risk of obesity genes.
- Impact of cardiovascular risk factors and renal function in absolute morbidity and mortality in high-risk population and in the general population.
- Impact of environmental toxins (metals) on cardiometabolic risk.
- Infectious diseases, cardiometabolic risk and clinical events.
- Inflammation and oxidative stress in chronic diseases.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
José Redón Mas. Hospital
- **Established Researcher:**
Raquel Cortés Vergaz. INCLIVA
Fernando Martínez García. Hospital
M^a José Forner Giner. Hospital
M^a José Galindo Puerto. Hospital
- **Recognised emerging researcher:**
David Martí Aguado. Hospital
Ana María Ortega Gutiérrez. INCLIVA
- **Recognised Researcher:**
Elena Furio Rodríguez. Hospital
Adrian Ruiz Hernandez. Hospital
María Grau Pérez. INCLIVA
- **First Stage Researcher:**
Ana Flores Chova. INCLIVA
Olga Martínez Arroyo. INCLIVA
Sara Vela Bernal. INCLIVA
- **Staff-Collaborating Researcher:**
Javier Díaz Carnicero. INCLIVA
Elena Solaz Moreno. Hospital
Alba Morales Cano. INCLIVA
- **Staff-Technician:**
María Inmaculada Saurí Ferrer. INCLIVA
Marta Méndez Debaets. INCLIVA
Noemí Dolz Gilba. INCLIVA
Antonio Fernández Giménez. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
2	3	1	0	5

Emerging Researchers

David Martí Aguado
He coordinates an international registry named «Virtual Liver Biopsy» that aims to generate and integrate multidimensional data to model computational tools based on Artificial Intelligence that define the biological processes involved in the phenotypic variability of MASLD, and to identify a signature of the disease that predicts its risk of progression.

Ana María Ortega Gutiérrez
The main research line of Dra Ana Ortega Gutiérrez is focused on the study of the cellular and molecular bases and the search for biomarkers of renal damage derived from hypertension and in urine and plasma patient samples and renal cell cultures. She has developed in vitro cellular models in order to decipher the mechanisms and pathways in which these biomarkers participate and their implication in the onset and/or treatment of incipient renal damage.

RESEARCH PROJECTS

Reference: 945097-WELLBASED
Title: WELLBASED. Improving health, wellbeing and equality by evidenced-based urban policies for tackling energy poverty
Principal Investigator: Josép Redón i Mas
Funding body: European Commission
Beneficiary institution: Fundació Investigación Hospital Clínico Universitario de Valencia
Duration: 2021-2025
Total budget: €395.250

Reference: PI21/00249
Title: Identificación de ARN no codificantes en biopsia líquida con énfasis en exosomas como biomarcadores pronóstico de actividad en el lupus eritematoso sistémico. Implicación fisiopatológica en el daño renal
Principal Investigator: Raquel Cortés Vergaz and Mª José Forner Giner
Funding body: Instituto de Salud Carlos III -Co-financed FEDER
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2026
Total budget: €135.520

Reference: PI23/01179
Title: Caracterización de vesículas extracelulares para la identificación de biomarcadores de daño renal incipiente en pacientes diabéticos albuminúricos y no albuminúricos. Estudio clínico-experimental.
Principal Investigator: Ana María Ortega Gutiérrez
Funding body: Instituto de Salud Carlos III -Co-financed FEDER
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2026
Total budget: €165.000

Title: Proyecto 4Dtools: nuevas técnicas y biomarcadores para diagnóstico-pronóstico de patologías de la aorta ascendente a través de técnicas de imagen médica
Principal Investigator: Fernando Martínez y Alicia Maceiras
Funding body: ASCIRES
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration:
Total budget: €30.000

Reference: TSI-100121-2024
Title: Creación del ecosistema Valenciano de Datos Sanitarios Integrando los Departamentos de Salud Clínico Malvarrosa, Gandía y Sagunto.
Principal Investigator: Josép Redón i Mas
Funding body: Ministerio para la Transformación Digital y de la Función Pública
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2026
Total budget: €1.048.930

Reference: 101083002- INNDIH
Title: Valencia Region Digital Innovation Hub
Principal Investigator: Josép Redón i Mas
Funding body: European Comission
Beneficiary institution: Inndromeda, Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2025
Total budget: €231.595,42

Reference: EUR00151- InnDIH
Title: Valencia Region Digital Innovation Hub
Principal Investigator: Josép Redón i Mas
Funding body: Consellería Educación/ Innovación, Universidades, Ciencia y Sociedad Digital/ Empleo. Y Ministerio de Industria y Turismo
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2025
Total budget: €84.821,38

Reference: 101095480- Hypermarker
Title: Personalised pharmacometabolomic optimisation of treatment for hypertension
Principal Investigator: Josép Redón i Mas
Funding body: European Comission
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2026
Total budget: €400.000

Reference: EU4H-2022-JA-03
Title: Multimodal Engagement and sustainable Lifestyle Interventions Optimizing breast cancer Risk reduction supported by Artificial intelligence. MELIORA. Dra. Cristina Hernando 2023
Principal Investigator: Clara Bonanad Lozano and Josép Redón i Mas
Funding body: European Comission
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2027
Total budget: €758.377

Reference: INTEGRA-CLOUD
Title: Creación de una plataforma abierta de acceso, captura, almacenamiento e intercambio descentralizado de los datos de salud en tiempo real del Departamento de Salud Clínico-Malvarrosa para la computación cloud-edge de sistemas predictivos, de toma de decisiones y de inteligencia artificial
Principal Investigator: Josép Redón i Mas
Funding body: Ministerio de Asuntos Económicos y Transformación Digital
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2025
Total budget: €5.252.273,94

Reference: CNS2022-136175
Title: Supervised learning algorithms to predict lupus nephritis based on extracellular vesicles markers (ExoLN)
Principal Investigator: Raquel Cortés Vergaz
Funding body: Ministerio de Ciencia e Innovación
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2025
Total budget: €120.395

Reference: CIGE/2022/37
Title: De la medicina reactiva a la medicina predictiva y pronóstica en la enfermedad hepática metabólica: identificación de una firma del riesgo de progresión de la enfermedad
Principal Investigator: David Martí Aguado
Funding body: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2024
Total budget: €19.895

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
28	158,5	5,66
National collaborations	International collaborations	Corresponding author
17	11	10

Comparison of GLP-1 receptor agonists and other Glucose-Lowering agents on cardiovascular outcomes in individuals with type 2 diabetes and Obesity: A Spanish Real-World Population-Based study. Palanca A, Ampudia FJ, Calderón JM, Sauri I, Martínez S, Trillo JL, Redón J et al. DIABETES RESEARCH AND CLINICAL PRACTICE. 2024 January 01. 207111071-111071. DOI:10.1016/j.diabres.2023.111071. PMID:38142748.

Impact of Long SARS-CoV-2 Omicron Infection on the HealthCare Burden: Comparative Case-Control Study Between Omicron and Pre-Omicron Waves. Valdivieso B, López V, Sauri I, Diaz J, Calderon JM, Gas ME, Lidon L et al. Jmir Public Health And Surveillance. 2024 January 01. 10DOI:10.2196/53580. PMID:39226091.

Impact of seasonal blood pressure changes on visit-to-visit blood pressure variability and related cardiovascular outcomes. Mancia G, Schumacher H, Boehm M, Grassi G, Teo KK, Mahfoud F, Parati G et al. JOURNAL OF HYPERTENSION. 2024 July 01. 42 (7):1269-1281. DOI:10.1097/HJH.0000000000003759. PMID:38690947.

The impact of acute kidney damage in the community. Diaz J, Lidon L, Sauri I, Fernández A, Grau M, Gorriz JL, Forner MJ et al. NEPHROLOGY DIALYSIS TRANSPLANTATION. 2024 August 26. 40 (2):385-392. DOI:10.1093/ndt/gfae175. PMID:39049453.

Assessment and Management of Patients with Obesity and Hypertension in European Society of Hypertension Excellence Centres. A survey from the ESH Working Group on Diabetes and Metabolic Risk Factors. Antza C, Grassi G, Weber T, Persu A, Jordan J, Nilsson PM, Redon J et al. BLOOD PRESSURE. 2024 December 31. 33 (1):2317256-2317256. DOI:10.1080/08037051.2024.2317256. PMID:38407195.

THESIS

Thesis title: Insights into the role of the RAB3A-RAB27A system on the development of kidney injury associated with type ii diabetes mellitus
Type: Doctoral Thesis
Doctoral candidate: Olga Martínez Arroyo
Director(s): Raquel Cortés Vergaz, Nadezda Apostolova Atanasovska, Ana María Ortega Gutiérrez.
University: Universitat de València
Date of the defense: 17 April 2024

Thesis title: Estudio multicéntrico de la fisiopatología de la inmunodeficiencia común variable con hiperactivación del sistema inmune y enfermedad pulmonar intersticial granulomatosa linfocítica como modelo de dis inmunidad.
Type: Doctoral Thesis
Doctoral candidate: Cabañero Navalón, Marta Dafne
Director(s): Alejandro Mira Obrador, María José Forner Giner.
University: Universitat de València
Date of the defense: 26 February 2024

Research Group on Vascular Function

Consolidated
Persons Responsible: José María Vila Salinas / María Dolores Mauricio Aviño

STRATEGIC AIMS

- Vascular changes associated with different pathologies
Regulation of blood flow
- Study of molecular mechanisms involved in cardiometabolic diseases

MAIN LINES OF RESEARCH

- Characterization of vascular alterations in metabolic syndrome.
- Cardiovascular effects of SGLT-2 inhibitors in metabolic syndrome.
- Characterization of calcium channels function in vascular physiology.
- Vascular alterations in acute myocardial infarction.
- Effects of histone deacetylase inhibitors in the treatment of acute myocardial infarction.
- Characterization of alterations in the control of vascular tone and endothelial function induced by aging.
- Antioxidants targeting mitochondria: application to cardiometabolic diseases. Circadian cycle and cardiometabolic diseases. Mechanism of action of anti-diabetic drugs: molecular mechanisms. Mitochondrial-endothelial dysfunction in cardiometabolic diseases. Novel nanoparticles and antioxidant compounds for the treatment of diseases. Vascular effects of nanoparticles.
- Physical exercise in obesity and diabetes: effect on endothelial function. Physiology and physiopathology of type 2 diabetes. Study of autophagy and endoplasmic reticulum stress in type 2 diabetes and obesity.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
María Dolores Mauricio Aviño. University
José María Vila Salinas. University
- **Established Researcher:**
Victor Manuel Victor González. University
Martín Aldasoro Celaya. University
- **Established Researcher:**
Victor Manuel Victor González. University
Martín Aldasoro Celaya. University

- **Recognised Researcher:**
Oscar Caballero Luna. University
Carmen García Gomariz. University
Juan Campos Campos. University
Adrian Jorda Vallés. University
Lilian Soraya Vallés Marti. University
María Pilar Nieto Gil. University
Solanye Guerra Ojeda. University
Susana Rovira Llopis. University
- **First Stage Researcher:**
Clara Luna Marco. INCLIVA
Begoña Belmonte Alonso. INCLIVA
Andrea Suárez Fortea. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
0	0	1	1	0

RESEARCH PROJECTS

Reference: CIAICO 2023-013
Title: *Efectos cardiovasculares de la inhibición de SGLT2 en el síndrome metabólico: ahondando en los mecanismos de acción a nivel genómico, funcional y estructural*
Principal Investigator: María Dolores Mauricio Aviño
Funding body: Generalitat Valenciana
Beneficiary Institution: Universitat de Valencia
Duration: 2024-2027
Total budget: 90.000€

Reference: PI22/00424
Title: *Nuevas perspectivas en la relación mito-fagia, autofagia y disfunción mitocondrial en la diabetes tipo 2: implicaciones clínicas y complicaciones cardiovasculares asociadas*
Principal Investigator: Víctor Manuel Víctor González
Funding body: Instituto de Salud Carlos III -Co-financed FEDER
Beneficiary Institution: Universidad de Valencia
Duration: 2023-2025
Total budget: € 171.820

Reference: CIPROM/2022/32
Title: *Nuevas perspectivas en el estudio de la fisiopatología de las enfermedades cardiometabólicas*
Principal Investigator: Víctor Manuel Víctor
Funding body: Generalitat Valenciana
Beneficiary Institution:
Duration: 01/09/2023 - 31/12/2026
Total budget: 482.912€

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
17	82,7	5,16
National collaborations	International collaborations	Corresponding author
15	2	17

Cardiovascular benefits of SGLT2 inhibitors and GLP-1 receptor agonists through effects on mitochondrial function and oxidative stress. Luna C, Iannantuoni F, Hermo A, Devos D, Salazar JD, Víctor VM, Rovira S. FREE RADICAL BIOLOGY AND MEDICINE. 2024 March 01. 21319-35. DOI:10.1016/j.freeradbiomed.2024.01.015. PMID:38220031.

Sodium valproate treatment reverses endothelial dysfunction in aorta from rabbits with acute myocardial infarction. Guerra S, Suárez A, Belmonte B, Marchio P, Genovés P, Arias OJ, Aldasoro M et al. EUROPEAN JOURNAL OF PHARMACOLOGY. 2024 May 05. 970176475-176475. DOI:10.1016/j.ejphar.2024.176475. PMID:38438061.

Levamisole Impairs Vascular Function by Blocking α-Adrenergic Receptors and Reducing NO Bioavailability in Rabbit Renal Artery. Guerra S, Marchio P, Suárez A, Aldasoro M, Vallés SL, Genoves P, Vila JM et al. Cardiovascular Toxicology. 2024 August 01. 24 (8):789-799. DOI:10.1007/s12012-024-09879-w. PMID:38877381.

Molecular circadian clock disruption in the leukocytes of individuals with type 2 diabetes and overweight, and its relationship with leukocyte-endothelial interactions. Luna C, Devos D, Cacace J, Fernández M, Díaz P, Salazar JD, Solá E et al. DIABETOLOGIA. 2024 October 01. 67 (10):2316-2328. DOI:10.1007/s00125-024-06219-z. PMID:38981930.

Calorie restriction modulates mitochondrial dynamics and autophagy in leukocytes of patients with obesity. Abad Z, López S, Pelechá M, Perea L, Rovira S, Banuls C, Blas A et al. FREE RADICAL BIOLOGY AND MEDICINE. 2024 November 20. 225677-686. DOI:10.1016/j.freeradbiomed.2024.10.295. PMID:39447993.

THESIS

Thesis title: Role of T-Type Voltage-Gated calcium channels on vascular tone
Type: Doctoral
Doctoral candidate: Andrea Suárez Fortea
Director(s): María Dolores Mauricio Aviñó/ Eva Serna García/ Solanye Guerra Ojeda
Date of the defense: 26th September 2024
Grade: Sobresaliente cum laude
Quality recognition/Award: Doctorado internacional.

Research Group on Pediatric Nutrition

Consolidated
Person Responsible: Cecilia Martínez Costa

STRATEGIC AIMS

- Cardiovascular area:
Study of metabolome and microbiome in obese children with/without insulin resistance before and after personalized nutritional intervention and physical exercise
- Area of human milk:
Characterization of mother-infant microbiome in term and preterm infants. Influence of perinatal variables
- Area of hospital malnutrition and artificial nutrition:
Validation of the pediatric screening tools for detecting the risk of malnutrition linked to chronic disease and pediatric hospitalization

MAIN LINES OF RESEARCH

- Area of hospital malnutrition and artificial nutrition:
Validation of the pediatric screening tools for detecting the risk of malnutrition
Multicenter study of acceptance and quality of life in children treated with home enteral nutrition
- Area of human milk:
Analysis of nutritional and bioactive components in human milk:
Influence of genotype FUT2 on oligosaccharides
Analysis of mother-fetal microbiome in term and preterm infants. Influence of delivery mode, maternal diet and development. Impact on host response and intestinal function
- Cardiovascular area:
Analysis of microbiota in obese children before and after intervention
Analysis of microbiota in obese children with/without insulinresistence
Analysis of metabolome in obese children with/without insulin resistance
Monitoring exercise and energy consumption in obese schoolchildren and teenagers to adjust nutritional intervention

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- Leading Researcher:**
Cecilia Martínez Costa. Hospital
Javier Buesa Gómez. Hospital

- Established Researcher:**
José Vicente Arcos Machancoses. Hospital
Elena Crehua Gaudiza. Hospital
Javier Estañ Capell. Hospital
Laura Martínez Rodríguez. Hospital
Francisco Nuñez Gómez. Hospital
- Recognised Researcher:**
José Luis López-Prats Lucea. Hospital
Patricia Roselló Millet. Hospital
Ana Paula Grattarola. INCLIVA
- First Stage Researcher:**
Vicente Posadas Blazquez. Hospital
Ana Barres Fernández. Hospital
Laura Núñez Martínez. Primary Care
Alba Peretó Moll. Hospital
Angel Vicente Valls Arevalo. Primary Care
- Staff-Technician:**
Isidro Robredo García. INCLIVA
Inmaculada Tarazona Casany. Hospital

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
0	0	0	0	1

RESEARCH PROJECTS

Reference: PID2022-139475OB-I00
Title: *El impacto del microbioma y dieta en la programación, crecimiento y desarrollo de la salud infantil: seguimiento 6 años de la cohorte MAMI*
Principal Investigator: Mª Carmen Collado Amores y Cecilia Martínez Costa
Funding Body: Ministerio de Ciencia e Innovación
Beneficiary Institution: Instituto de Agroquímica y Tecnología de Alimentos (IATA) - CSIC
Duration: 2023-2027
Total budget: €262.500

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
18	89,9	5,28
National collaborations	International collaborations	Corresponding author
11	6	10

Differences When Classifying Small for Gestational Age Preterm Infants According to the Growth Chart Applied. Estan J, Alarcon B, Miro M, Martínez-Costa C. AMERICAN JOURNAL OF PERINATOLOGY. 2024 May 01. 41 (S 01):1212-1219. DOI:10.1055/s-0043-1761297. PMID:36709759.

Birthmode and environment-dependent microbiota transmission dynamics are complemented by breastfeeding during the first year. Selma-Royo M, Dubois L, Manara S, Armanini F, Cabrera-Rubio R, Vallés-Colomer M, González S, Parra-Llorca A, Escuriet R, Bode L, Martínez-Costa C, Segata N, Collado MC.Cell Host & Microbe. 2024 June 12. 32 (6):DOI:10.1016/j.chom.2024.05.005. PMID:38870906.

The influence of pre- and postnatal exposure to air pollution and green spaces on infant’s gut microbiota: Results from the MAMI birth cohort study. Cruells A, Cabrera R, Bustamante M, Pelegrí D, Cirach M, Jiménez P, Samarra A, Martínez-Costa C, Collado MC, Gascón M. ENVIRONMENTAL RESEARCH. 2024 September 15. 257119283-119283. DOI:10.1016/j.envres.2024.119283. PMID:38830395.

Human milk metals and metalloids shape infant microbiota. Ventura E, Bernabeu M, Callejón B, Cabrera R, Yeruva L, Estañ J, Martínez Costa et al. Food & Function. 2024 November 11. 15 (24):12134-12145. DOI:10.1039/d4fo01929f. PMID:39584920.

The role of Bifidobacterium genus in modulating the neonate microbiota: implications for antibiotic resistance acquisition in early life. Samarra A, Cabrera R, Martínez-Costa C, Collado MC. Gut Microbes. 2024 December 31. 16 (1):2357176-2357176. DOI:10.1080/19490976.2024.2357176. PMID:38798019.

THESIS

Thesis title: Caracterización metabólica de escolares y adolescentes con hipobetalipoproteinemia

Type: Doctoral

Doctoral candidate: Ángel Vicente Valls Arévalo

Director(s): Prof. Cecilia Martínez Costa, Prof. Vannina González Marrachelli

Date of the defense: 23/05/2024

University: University of Valencia (UV)

Grade: Sobresaliente Cum Laude

Group on Translational Research in Ischemic Heart Disease

Consolidated
Person Responsible: **Vicent Bodí Peris**

STRATEGIC AIMS

- From our research experience from the last years in the clinical and experimental field related to ischemic cardiopathy, our current goal is to focus into a translational approach.
- In 2023 we continued elucidating the abnormalities in the coronary circulation after a myocardial infarction by using a swine model. Moreover, we have also started to evaluate in vitro the role of endothelial injury after coronary reperfusion and the implication of angiogenesis in the recovery of the microvasculature after a myocardial infarction in animal models and in patients
- We have also developed new tools to study patients with ST-segment elevation myocardial infarction using cardiac magnetic resonance imaging.

MAIN LINES OF RESEARCH

- Multicenter registry of patients with chronic coronary syndrome studied with stress cardiac magnetic resonance imaging.
- Porcine and mice model of experimental myocardial ischemia and myocardial infarction. To achieve a better understanding of the pathophysiology of ischemia, necrosis, fibrosis, angiogenesis, and reperfusion injury and test new novel therapeutic avenues.
- Prospective registry of patients with first ST-segment elevation myocardial infarction studied with cardiac magnetic resonance imaging at acute and chronic phases.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- Leading Researcher:**
Vicent Bodí Peris. Hospital
- Established Researcher:**
Amparo Ruiz Sauri. University
- Recognised emerging researcher:**
Victor Marcos Garcés. Hospital
Clara Bonanad Lozano. Hospital
- Recognised Researcher:**
Josép Gavara Doñate. INCLIVA
Francisca Esteve Claramunt. University
César Rios Navarro. University
- First Stage Researcher:**
Carlos Ángel Bertolin Boronat. INCLIVA
Andrea Arroyo Álvarez. INCLIVA
Héctor Manuel Merenciano González. Hospital
Nerea Júlia Pérez Solé. INCLIVA
Elena Victoria De Dios Lluch. CIBERCV

- Staff-Nurse:**
María Regina Blanco Del Burgo. INCLIVA
- Staff-Collaborating Researcher:**
Joaquin Canoves Femenia. Hospital
Paolo Racugno. Hospital
- Staff-Technician:**
Daniela Alejandra Maidana. INCLIVA
Tamara Molina García. INCLIVA
Guillermo Barreres Martín. INCLIVA
Daznia Loiret Bompert Berroteran. INCLIVA
Javier Damiá Escrig. INCLIVA
Carles Muñoz Alfonso. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
3	4	0	0	1

Emerging Researcher

Clara Bonanad Lozano

Her line of research aims to evaluate the impact of geriatric syndromes and residual risk, specifically dyslipidemia and inflammation, in patients with non-ST-segment elevation acute coronary syndrome.

Víctor Marcos Garcés

His line of research is focussed in clinical and preventive cardiology, cardiac rehabilitation and cardiac imaging techniques.

TEAM INVOLVED IN



RESEARCH PROJECTS

Reference: PI20/00637
Title: Resolución de la obstrucción microvascular tras un infarto de miocardio: evaluación de las consecuencias estructurales y clínicas y búsqueda de nuevas opciones terapéuticas
Principal Investigator: Vicente Bodí Peris and Clara Bonanad Lozano
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2021-2023 extended 2024
Total Budget: €129,470

Reference: PROMETEO/2021/008
Title: A multidisciplinary study to advance in the understanding of the basic mechanisms and clinical implications of microvascular obstruction after acute myocardial infarction. Exploration of novel diagnostic and therapeutic opportunities
Principal Investigator: Vicente Bodí Peris and Amparo Ruiz Saurí
Funding Body: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2021-2024
Total Budget: €435,929

Title: Detección Incidental de Calcio coronario en tomografía computerizada y prescripción de estatinas. Registro ICARUS
Principal Investigator: Víctor Marcos Garcés
Funding Body: Sociedad Valenciana de Cardiología
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2025
Total Budget: €3000

Reference: PI23/01468
Title: Ferropenia en el SCASEST: valor pronóstico y efecto sobre la inflamación y la inmunosenescencia.
Principal Investigator: Clara Bonanad Lozano
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2026
Total Budget: €96.250

Reference: PI23/01150
Title: Obstrucción microvascular tras un infarto de miocardio. Avances hacia una cuantificación automatizada, biomarcadores basados en técnicas ómicas y una estratificación de riesgo a largo plazo personalizada.
Principal Investigator: Vicente Bodí Peris y César Ríos Navarro
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2026
Total Budget: €71.250

Reference: EU4H-2022-JA-03
Title: Multimodal Engagement and sustainable Lifestyle Interventions Optimizing breast cancer Risk reduction supported by Artificial intelligence. MELIORA. Dra. Cristina Hernando 2023
Principal Investigator: Clara Bonanad Lozano
Funding Body: European Commission
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2027
Total Budget: €606.701

Title: Ferropenia, inflamación e inmunosenescencia en el paciente mayor tras SCASEST
Principal Investigator: Clara Bonanad Lozano
Funding Body: Sociedad Española de Cardiología
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2027
Total Budget: €15000

Title: Impacto pronóstico de los biomarcadores Klotho alfa y FGF23 en el paciente mayor con SCA de alto riesgo
Principal Investigator: Clara Bonanad Lozano
Funding Body: Sociedad Española de Cardiología
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2028
Total Budget: €15000

Title: Implementation of a care pathway between primary care and cardiology in patients with atrial fibrillation over 75 years. Project to improve the quality of care
Principal Investigator: Clara Bonanad Lozano
Funding Body: Ayudas Proyectos 2022 Pfizer SL.U.
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total Budget: €18000

RESEARCH RESULTS

Invention: 2024. Lipid nanoparticles and their use in treatment
Priority number: EP24389971
Status: European Patent
Principal Investigator: Dr. Vicente Bodí Peris

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
18	86,1	6,15
National collaborations	International collaborations	Corresponding author
12	6	13

Impact of Epicardial Adipose Tissue on Infarct Size and Left Ventricular Systolic Function in Patients with Anterior ST-Segment Elevation Myocardial Infarction. Gavara J, Merenciano H, Llopis J, Molina T, Pérez N, de Dios E, Marcos V et al. Diagnostics. 2024 February 07. 14 (4):DOI:10.3390/diagnostics14040368. PMID:38396407.

Effect of serum from patients with ST-segment elevation myocardial infarction on endothelial cells. Ríos C, Gavara J, de Dios E, Pérez N, Molina T, Marcos V, Ruiz A et al. REVISTA ESPANOLA DE CARDIOLOGIA. 2024 March 01. 77 (3):254-264. DOI:10.1016/j.rec.2023.08.004. PMID:37696331.

Novel Fibrillar and Non-Fibrillar Collagens Involved in Fibrotic Scar Formation after Myocardial Infarction. Ortega M, Fábrega MM, Molina T, Gavara J, de Dios E, Pérez N, Marcos V et al. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2024 June 01. 25 (12):DOI:10.3390/ijms25126625. PMID:38928330.

Combining loop with thiazide diuretics in patients discharged home after a heart failure decompensation: Association with 30-day outcomes. Miró Ò, Núñez J, Trullàs JC, López P, Llauger L, Alquézar A, Miñana G et al. European Journal of Internal Medicine. 2024 September 01. 127126-133. DOI:10.1016/j.ejim.2024.05.009. PMID:38763846.

Left ventricular volume and maximal functional capacity in heart failure with preserved ejection fraction: Size matters. de la Espriella R, Palau P, Losito M, Crisci G, Miñana G, Domínguez E, Bertomeu V et al. EUROPEAN JOURNAL OF HEART FAILURE. 2024 December 01. 26 (12):2544-2552. DOI:10.1002/ehj.3401. PMID:39078308.

THESIS

Thesis title: Estudio histológico y transcriptómico de los cambios acontecidos en la matriz extracelular cardiaca tras un infarto de miocardio
Type: Doctoral
Doctoral candidate: Carmen María Ortega Albiach
Director(s): Vicente Bodí Peris, Amparo Ruiz Saurí y César Ríos Navarro
University: University of Valencia (UV)
Date of the defense: 13 December 2024
Grade: Sobresaliente *cum laude*

Thesis title: Impacto pronóstico de las alteraciones del potasio sérico en pacientes con enfermedad cardiovascular establecida en diálisis peritoneal.
Type: Doctoral
Doctoral candidate: Daznia Loiret Bompert Berroteran
Director(s): Clara Bonanad Lozano y José Luis Górriz Teruel
University: University of Valencia (UV)
Date of the defense: 19 November 2024
Grade: Sobresaliente *cum laude*

Research Group on Heart Failure

Consolidated
Person Responsible: Julio Nuñez Villota

STRATEGIC AIMS

- Phenotypic characterization of heart failure syndrome
- Deepen into pathophysiological mechanisms in the different phenotypes of the disease
- Development of tools to improve the diagnostic process of heart failure
- Risk stratification in patients with acute and chronic heart failure
- Evaluation of different therapeutic and monitoring strategies that allow improving the prognosis of heart failure

MAIN LINES OF RESEARCH

- Biomarkers discovery in heart failure.
- Effect of dapagliflozin on functional capacity in patients with heart failure and reduced ejection fraction.
- Effect on functional capacity of withdrawal of beta-blockers in patients with heart failure and preserved ejection fraction and chronotropic incompetence.
- Myocardial effects of iron repletion.
- Pathophysiological characterization of heart failure.
- Prevalence and clinical implications of frailty in heart failure.
- Usefulness of intrarenal Doppler to evaluate intrarenal congestion and its clinical significance.
- Usefulness of the carbohydrate antigen 125 marker in the evaluation of congestion and a guide to titrate diuretic treatment.
- Utility of continuous ambulatory peritoneal dialysis in the treatment of patients with heart failure and reduced ejection fraction.
- Utility of leg venous compression in treatment of patients with acute heart failure.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- Leading Researcher:**
Julio Nuñez Villota. Hospital
- Recognised Researcher:**
Cristina Flor Rufino. University
Rafael De La Espriella Juan. Hospital
Gema Miñana Escriba. Hospital
Patricia Palau Sempio. Hospital
Enrique Santas Olmeda. Hospital

- First Stage Researcher:**
Miguel Lorenzo Hernández. Primary Care
Gonzalo Núñez Marín. Hospital
Sandra Villar Conejos. INCLIVA
- Staff-Technician:**
Francisco Javier Cebrián García. INCLIVA
Evelin Idaly Bejarano Sandoval. INCLIVA
Teresa Benito Ferrer. INCLIVA
Laura López Bueno. University
Carolina Martínez Botella. INCLIVA
Adriana Conesa Bona. INCLIVA
Adoración Pérez Sánchez. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
0	0	0	1	2

RESEARCH PROJECTS

Reference: PI21/01417
Title: Cribado sistemático de insuficiencia cardíaca en pacientes con diabetes mellitus tipo 2. Estudio piloto
Principal Investigator: Enrique Santas Olmeda and Jorge Navarro Pérez
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €90.871

Reference: PI22/01948
Title: Congestión como potencial catalizador de la progresión de la enfermedad renal crónica
Principal Investigator: Rafael de la Espriella Juan and José Luis Górriz Teruel
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2025
Total budget: €87.120

Reference: PI22/00535
Title: Efectos de un programa de entrenamiento físico supervisado en pacientes con insuficiencia cardíaca y función sistólica preservada e incompetencia cronotrópica sobre capacidad funcional
Principal Investigator: Patricia Palau Sempio
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2025
Total budget: €44.770

Reference: PI23/00952
Title: Terapia compresiva de miembros inferiores en pacientes con insuficiencia cardíaca descompensada y predominio de congestión sistémica tisular.
Principal Investigator: Julio Núñez Villota
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2026
Total budget: €102.500

Reference: CIAICO/2021/129
Title: Efecto del bloqueo de la rama izquierda sobre capacidad funcional, disincronía electromecánica y función cardíaca en población general con patología cardiovascular
Principal Investigator: Patricia Palau Sempio and Julio Núñez Villota
Funding Body: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €90.000

Reference: BIOTOOL-CHF
Title: BIOmarker based diagnostic TOOLkit to personalize pharmacological approaches in congestive heart failure
Principal Investigator: Julio Núñez Villota
Funding Body: European Commission
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2028
Total budget: €282.625

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
75	670,82	10,32
National collaborations	International collaborations	Corresponding author
36	37	36

Angiotensin Receptor-Neprilysin Inhibition in Patients With STEMI vs NSTEMI. Mann DL, Nicolas J, Claggett B, Miao ZM, Granger CB, Kerkar P, Kober L et al. JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY. 2024 March 05. 83 (9):904-914. DOI:10.1016/j.jacc.2024.01.002. PMID:38418004.

Semaglutide in Patients with Obesity-Related Heart Failure and Type 2 Diabetes. Kosiborod MN, Petrie MC, Borlaug BA, Butler J, Davies MJ, Hovingh GK, Kitzman DW et al. NEW ENGLAND JOURNAL OF MEDICINE. 2024 April 06. 390 (15):1394-1407. DOI:10.1056/NEJMoa2313917. PMID:38587233.

Semaglutide versus placebo in people with obesity-related heart failure with preserved ejection fraction: a pooled analysis of the STEP-HFpEF and STEP-HFpEF DM randomised trials. Butler J, Shah SJ, Petrie MC, Borlaug BA, Abildstrøm SZ, Davies MJ, Hovingh GK et al. LANCET. 2024 April 27. 403 (10437):1635-1648. DOI:10.1016/S0140-6736(24)00469-0. PMID:38599221.

Colchicine in acutely decompensated heart failure: the COLICA trial. Pascual D, Núñez J, Pérez MT, González JR, Taibo M, Llàcer P, Delgado J et al. EUROPEAN HEART JOURNAL. 2024 August 30. 45 (45):4826-4836. DOI:10.1093/eurheartj/ehae538. PMID:39211951.

Interatrial Shunt Treatment for Heart Failure: The Randomized RELIEVE-HF Trial. Stone GW, Lindenfeld J, Rodés J, Anker SD, Zile MR, Kar S, Holcomb R et al. CIRCULATION. 2024 December 10. 150 (24):1931-1943. DOI:10.1161/CIRCULATIONAHA.124.070870. PMID:39308371.

THESIS

Thesis title: Biomarcadores de utilidad clínica en pacientes con insuficiencia cardíaca aguda y síndrome cardiorrenal
Doctoral candidate: Rafael de la Espriella
Type: Doctoral Thesis
Director(s): Julio Núñez
University: Valencia
Date of the defense: March 2024
Grade: Excellent with Cum Laude distinction

Research Group on Renal Disease

Consolidated
Person Responsible: José Luis Górriz Teruel

STRATEGIC AIMS

The main scientific objectives of the group focus on research in chronic kidney disease: Research on new nephroprotective molecules in patients with chronic kidney disease, both diabetic and non-diabetic, and work on personalized medicine for nephroprotection

First, maintaining the clinical trials unit, which allows us to evaluate new drugs in Nephrology and participate in multicenter working groups while also contributing to the group's funding.

Continuing with independent research projects to assess their potential nephroprotective role. As well as research strategies in the cardiorenal-metabolic approach for patients with cardiorenal syndrome.

The group's research lines are based on: nephroprotective drugs, detection of chronic kidney disease in individuals with risk factors, laboratory work and big data analysis, measurement of kidney function in individuals with obesity and in oncology patients (therapeutic optimization of chemotherapy), cardiorenal syndrome, and monitoring of cytomegalovirus infection parameters in kidney transplantation (therapy guided by real-time monitoring systems).

MAIN LINES OF RESEARCH

- Early detection of chronic kidney disease in at-risk populations.
- Early metabolic, vascular and renal alterations in overweight and obese subjects.
- Changes in renal function and biomarkers in cardiorenal syndrome.
- Measurement of renal function in oncology patients and adjustment of chemotherapy doses.
- Measurement of renal function in people with obesity.
- Monitoring of cytomegalovirus infection parameters in the kidney traplants patients. Therapy guided by real-time monitoring systems.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
José Luis Górriz Teruel. Hospital
- **Established Researcher:**
Isidro Torregrosa Maicas. Hospital
- **Recognised Researcher:**
María Jesús Puchades Montesa. Hospital
- **First Stage Researcher:**
Elena Giménez Civera. Hospital
Boris Marcelo Gonzales Candia. Hospital
Miguel Angel González Rico. Hospital
Isabel Juan García. Hospital
Francesc Moncho Francés. Hospital
Marco Montomoli. Primary Care
Nayara Panizo González. Primary Care
Irina Sanchis Muñoz. Hospital
Miguel Angel Solis Salguero. Hospital
- **Staff-Collaborating Researcher:**
María Camila Solano Rivera. Hospital
- **Staff-Nurse:**
Lorena Gandía Salmerón. INCLIVA
- **Staff-Technician:**
Claudia Forquet Daroca. INCLIVA

RESEARCH PROJECTS

Reference: PI22/01948
Title: *Congestión como potencial catalizador de la progresión de la enfermedad renal crónica.*
Principal Investigator: Rafael de la Espriella Juan
Funding Body: *Instituto de Salud Carlos III*-Co-financed FEDER
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2025
Total budget: €87.120

Reference: 101095146
Title: *Personalized Drug Response: IMplementation and Evaluation in CKD. PRIME CKD 2022.*
Principal Investigator: José Luis Górriz Teruel
Funding Body: *European Commission*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2027
Total budget: €420.562

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
29	172,8	6,912
National collaborations	International collaborations	Corresponding author
16	10	9

Intrarenal Venous Flow Pattern Changes Do Relate With Renal Function Alterations in Acute Heart Failure. de la Espriella R, Núñez G, Cobo M, Campos DD, Llácer P, Manzano L, Zegrí I et al. JACC-HEART FAILURE. 2024 February 01. 12 (2):304-318. DOI:10.1016/j.jchf.2023.07.015. PMID:37676214.

Effect of Avenciguat on Albuminuria in Patients with CKD: Two Randomized Placebo-Controlled Trials. Heerspink HJL, Cherney D, Gafor A, Gorriz JL, Pergola PE, Tang SCW, Desch M et al. JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY. 2024 September 01. 35 (9):1227-1239. DOI:10.1681/ASN.0000000000000418. PMID:38795055.

Effects of Zibotentan Alone and in Combination with Dapagliflozin on Fluid Retention in Patients with CKD. Smeijer JD, Wasehuus VS, Dhaun N, Gorriz JL, Soler MJ, Astrand M, Mercier AK et al. JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY. 2024 October 01. 35 (10):1381-1390. DOI:10.1681/ASN.0000000000000436. PMID:39352861.

Effects of semaglutide with and without concomitant SGLT2 inhibitor use in participants with type 2 diabetes and chronic kidney disease in the FLOW trial. Mann J, Rossing P, Bakris G, Belmar N, Bosch H, Busch R, Charytan DM et al. Nature Medicine. 2024 October 01. 30 (10):2849-2856. DOI:10.1038/s41591-024-03133-0. PMID:38914124.

Anticoagulation in Chronic Kidney Disease. Montomoli M,Candia BG,Barrios AA,Bernat EP. Drugs. 2024 October 01. 84 (10):1199-1218. DOI:10.1007/s40265-024-02077-6. PMID:39120783.

THESIS

Thesis title: Analysis of dose adjustment of direct oral anticoagulants according to different glomerular filtration rate estimation formulas in patients with chronic kidney disease and non-valvular atrial fibrillation
Doctoral candidate: M^a Angeles Viñas Gimeno
Type: Doctoral Thesis.
Director(s): José Luis Górriz Teruel, Javier de la Rubia Comos
University: University of Valencia (UV)
Date of the defense: June 18, 2024
Grade: Cum Laude

Thesis title: Prognostic Impact of Serum Potassium Disorders in Patients Undergoing Peritoneal Dialysis.
Doctoral candidate: Daznia Loiret Bompert Berroteran
Type: Doctoral Thesis.
Director(s): José Luis Górriz Teruel, Clara Bonanad Lozano
University: University of Valencia (UV)
Date of the defense: November 11, 2024
Grade: Cum Laude

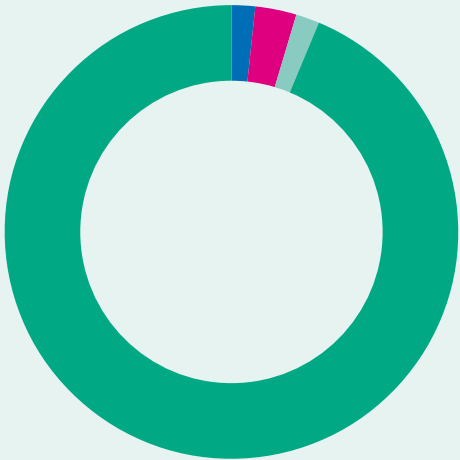
4.3.2. Oncology Area

Groups

- Research Group on Histopathology and Tissue Engineering
- Research Group on Central Nervous System Tumors
- Research Group of Innovative Diagnostic and Therapeutical Developments in Solid Tumors - InDeST
- Research Group on Breast Cancer Biology
- Research Group on Skin Cancer
- Translational Research Group on Pediatric Solid Tumors
- Research Group on Hematopoietic Transplantation
- Research Group on Lymphoproliferative Disorders
- Research Group on Myeloid Neoplasms
- Research Group on Molecular Imaging and Metabolomics
- Research Group on Molecular Microbiology and Microbial Pathogenesis
- Translational Research Group on Esophagogastric Cancer
- Oncology Phase I Oncology Clinical Trials Unit

Number of publications	IF	Average IF	National collaborations	International collaborations	Corresponding author
238	4047	7,738	108	117	62

D1	Q1	Q2	First author	Last author
85	177	44	48	55



Article ■ 223
Editorial Material ■ 4
Letter ■ 7
Review ■ 4

Research Group on Histopathology and Tissue Engineering

Consolidated

Person Responsible: Manuel Mata Roig

STRATEGIC AIMS

The group obtained funding to continue working on to the line of Tissue Engineering with new projects:

- Bone regeneration in prosthetic implants. Biological processes conditioned by age and gende. Design of new biomaterials
- Biomimetic microgels for the study of the tumor microenvironment (TME) and the mesenchymal epithelial transition (EMT) in lung cancer
- Cartilage and bone regeneration techniques and their application in pathologies

MAIN LINES OF RESEARCH

- Histopathology: - Study of ciliary pathology
- Regenerative Medicine: - Study of articular cartilage regeneration
- Study of bone regeneration. Effect of age and gender on the regeneration process
- Study of the use of dental pulp cells as precursors in regenerative therapies
- Study of regeneration of dental and periodontal tissues
- Study of tumor microenvironment using biomimetic microgels

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Manuel Mata Roig. University
Carmen Carda Batalla University
- **Established Researcher:**
José Javier Martin De Llano University
Antonio Fons Font University
Francisco Forriol Brocal Hospital
Genaro Galan Gil Hospital
María Fe Minguez Rey Hospital
Miguel Puche Torres Hospital
Carlos Tejerina Botella Hospital
María Sancho-Tello Valls University
- **Recognised Researcher:**
Lara Milián Medina University
- **First Stage Researcher:**
Lucía Bravo Baranda University
Irene Monleon Guinot University
Angel Aguilar Hernandez Hospital
Zakaria Oguir University
Javier Alcacer Fernández-Coronado Hospital
Ignacio Peregrin Nevado Hospital
- **Staff-Collaborating Researcher:**
Mª Teresa Sagrado Vives. University

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
2	0	0	0	0

RESEARCH PROJECTS

Reference: PID2022-138572OB-C43
Title: *Microentorno adaptativo para un modelo in vivo de regeneración del cartílago articular*
Principal Investigator: Manuel Mata Roig and María Sancho-Tello Valls
Funding Body: *Ministerio de Ciencia e Innovación*
Beneficiary Institution: *Universidad de Valencia*
Duration: 2023-2026
Total Budget: €237.500

Reference: CIPROM/2023/62
Title: *Modificación de superficies de titanio que potencien el sellado biológico en implantes transmucosales*
Principal Investigator: Manuel Mata Roig
Funding Body: *Generalitat Valenciana*
Beneficiary Institution: *Universidad de Valencia*
Duration: 2024-2028
Total Budget: € 451.592

RESEARCH RESULTS

Invention: 2019. Oropharyngeal obturation device
Priority number: P201900039
Status: Granted in Spain, Germany, France and Great Britain
Principal Investigator: Miguel Puche Torres

Invention: 2018. Injectable material for the regeneration of the articular cartilage
Priority number: P201830730
Status: Granted in Spain
Principal Investigator: Carmen Carda Batalla

Invention: 2013. Maxillomandibular prosthesis and production method
Priority number: P20130030734
Status: Licensed
Principal Investigator: Miguel Puche Torres

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
10	31,2	3,9
National collaborations	International collaborations	Corresponding author
8	2	5

Mesenchymal Stem Cells Cultured in a 3D Microgel Environment Containing Platelet-Rich Plasma Significantly Modify Their Chondrogenesis-Related miRNA Expression. Mata M, Salvador R, Rodenas J, Sancho M, Ferrer GG, Ribelles JLG. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2024 January 01. 25 (2):DOI:10.3390/ijms25020937. PMID:38256011.

Analysis of the Initial Learning Curve for Robotic-Assisted Total Knee Arthroplasty Using the ROSA® Knee System. Neira I, Llopis R, Cuadrado L, Fernández D, Villanueva E, Nuño N, Forriol F. Journal of Clinical Medicine. 2024 June 01. 13 (11):DOI:10.3390/jcm13113349. PMID:38893059.

The surface charge of electroactive materials governs cell behaviour through its effect on protein deposition. Rodriguez P, Martin S, Moneo A, Colom A, Redondo L, Giannotti MI, Petrenko V et al. Acta Biomaterialia. 2024 August 01. 184201-209. DOI:10.1016/j.actbio.2024.06.039. PMID:38950807.

Cancer Epithelial Cells Participate in the Self-Organization of Lung Tumor Spheroids: A Morphological Approach. Monleón I, Bravo L, Milián L, Sancho M, Llop M, Galbis JM, Cremades A et al. CELLS TISSUES ORGANS. 2024 October 09. 1-23. DOI:10.1159/000541524. PMID:39383853.

- Biomimetic microgels for articular cartilage regeneration. A minipig knee model. Milián L, Ródenas J, Alcorisa I, Pla J, Hernández AA, Gómez JA, Ferrer GG et al. POLYMER. 2024 October 24. 312DOI:10.1016/j.polymer.2024.127650.

THESIS

Thesis title: Evaluación De La Efectividad En El Manejo De Procedimientos De Cirugía Oral Y Maxilofacial En El Hospital Clínico Universitario De Valencia.

Doctoral Candidate: D.ª Ana Mª López Velasco

Director (s): Dr. Javier Silvestre Donat, Dr. Miguel Puche Torres

Date of the defense: 20 December 2024.

Grade: Sobresaliente con mención cum laude.

Thesis title: Agonistas de cannabinoides en cáncer de pulmón

Doctoral candidate: Javier Alcacer Fernández-Coronado

Director(s): Manuel Mata Roig, Lara Milián Medina

Date of the defense: 18 October 2024

Grade: Excellent cum laude.

Research Group on Central Nervous System Tumors

Consolidated
Person Responsible: Miguel Cerdá Nicolás

STRATEGIC AIMS

- Clinical-pathological study of 40 patients affected by primary glioblastoma according to established protocol:
 - Short-cell cultures and their viability analysis have been performed. Analysis by FISH of EGFR status and freezing of the different passes according to established methodology
 - The study of the proteomic analysis of the 40 tumors (frozensamples) by Western Blott according to established methodology has been completed
- Experimental study:
 - Spheres (neurospheres) have been elaborated from different cell lines and cell cultures of glioblastoma, characterizing and analyzing their behavior
 - Analysis of cultures subjected to silencing and overexpression by transfection of miRNAs by the lipofection method
 - Analysis of cell cultures in hypoxia situation, analyzing their characteristics and behavior before silencing and overexpression by transfection of selected miRNAs in hypoxia situation and in the different amplification status of the EGFR
 - The pilot study of viability and effectiveness of xenotransplantation in nude mice has been completed with the achievement of neoplasias under study

MAIN LINES OF RESEARCH

- Development of a model for analyzing the modulation of microRNA gene activity in cell cultures of primary GBM and GBM cell lines.
- Development of a model of population analysis and spatial distribution of these neoplasias.
- Metabolomics and microvascular environment characterization of aggressive human glioma by DCE-MRI and genetic study of biopsies.
- Primary GBM. Amplification status of EGFR and angiogenic/infiltrative phenotype. Molecular networks responsible for tumor modulation and reprogramming processes.
- Role of microRNA in the regulation of EGFR-dependent signaling pathways in high-grade astrocytic gliomas.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:** Miguel Cerda Nicolas. Hospital
- **Established Researcher:** Concepción López Gines. University Javier Megias Vericat. University Pedro Roldan Badia. INCLIVA Teresa C. San Miguel Diez. University
- **Recognised Researcher:** Pablo Cerda Duran. University Lisandra Muñoz Hidalgo. University
- **Staff-Technician:** Lara Navarro Cerveró. INCLIVA

RESEARCH PROJECTS

Reference: PID2021-125485NB-C21
Title: *Astrofísica computacional y análisis de datos*
Principal Investigator: Pablo Cerdá Durán
Funding body: *Ministerio de Ciencia e Innovación*
Beneficiary institution: *Universidad de Valencia*
Duration: 2022-2025
Total Budget: €207.000

Reference: GRISOLIAP/2021/119
Title: Estudio de la interacción entre amplificación egfr, reprogramación metabólica, microambiente vascular y estados celulares en WT-GBM
Principal Investigator: Daniel Monleón Salvadó
Funding Body: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Beneficiary institution: Universidad de Valencia
Duration: 2022-2025
Total budget: €93.878

Reference: PID2021-124937NB-I00
Title: Reprogramación de progenitores hematopoyéticos durante la vacunación con Candida albicans para aumentar la protección frente a la reinfección
Principal Investigator: María Luisa Gil Herrero
Funding Body: Proyecto del Ministerio de Ciencia e Innovación. Convocatoria de Proyectos de Generación de Conocimiento 2021. Tipo B.
Beneficiary institution: Universidad de Valencia
Duration: 2022-2024
Total budget: €280.720

Reference: UV-INV_AE-2633839
Title: Papel del sistema immune y de las vesículas extracelulares en las alteraciones neurológicas en pacientes con hepatopatía crónica. Implicaciones diagnósticas y terapéuticas
Principal Investigator: Carmina Montoliu Félix
Funding Body: Accions especials d’investigació de la Universitat de València (AEUV) en l’any 2022
Beneficiary institution: Universidad de Valencia
Duration: 2023-2024
Total budget: €12.000

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
4	19,7	4,9
National collaborations	International collaborations	Corresponding author
2	2	0

Neutron stars in accreting systems - Signatures of the QCD phase transition. Largani NK, Fischer T, Shibagaki S, Cerdá P, Torres A. ASTRONOMY & ASTROPHYSICS. 2024 July 18. 687DOI:10.1051/0004-6361/202348742.

ETV6::NTRK3 Fusion-Positive Wild-Type Gastrointestinal Stromal Tumor (GIST) with Abundant Lymphoid Infiltration (TILs and Tertiary Lymphoid Structures): A Report on a New Case with Therapeutic Implications and a Literature Review. Machado I, Claramunt R, Lavernia J, Romero I, Barrios M, Safont MJ, Santonja N et al. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2024 April 01. 25 (7):DOI:10.3390/ijms25073707. PMID:38612518.

Bayesian inference from gravitational waves in fast-rotating, core-collapse supernovae. Pastor C, Cerdá P, Walker D, Torres A, Abdikamalov E, Richers S, Font JA. PHYSICAL REVIEW D. 2024 March 25. 109 (6):DOI:10.1103/PhysRevD.109.063028.

Assessment of a new sub-grid model for magnetohydrodynamical turbulence - II. Kelvin-Helmholtz instability. Miravet M, Cerda P, Obergaulinger M, Font JA. Monthly Notices of the Royal Astronomical Society. 2024 January 01. 527 (1):1081-1092. DOI:10.1093/mnras/stad3237.

Research Group of Innovative Diagnostic and Therapeutical Developments in Solid Tumors - InDeST

Consolidated
Person Responsible: Andrés Cervantes RuiPérez

STRATEGIC AIMS

Our group aims to improve the patient's life through the development of new diagnostic and therapeutic methods. In addition to this main goal, we intend to implement strategies to facilitate the development of precision medicine in solid tumors with innovative therapeutic approaches and provide knowledge on how to approach precision medicine in colorectal and gastric cancer from different points such as molecular classification, the use of predictive biomarkers and new therapeutic approaches.

MAIN LINES OF RESEARCH

- Expand current knowledge in the microenvironment of gastric cancer.
- To develop first-in-human Phase I trials of antineoplastic agents with innovative designs.
- To develop liquid biopsies (ctDNA, cmicroRNAs) for early diagnosis, monitoring and the prediction of therapeutic effects in patients with gastro-intestinal malignancies
- To implement the use of organoids (3D cell cultures) from patients as functional models, in order to understand the underlying causes of tumorigenesis and to test the appropriateness of the treatments.
- To use the latest technologies to improve our knowledge of the molecular and genetic causes of cancer through international.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- Leading Researcher:**
Andrés Cervantes RuiPérez. Hospital
- Established Researcher:**
Gerardo López Rodas. University
Desamparados Roda Pérez. Hospital
- Recognised emerging researcher:**
Noelia Tarazona Llaveró. INCLIVA
Valentina Gambardella. Hospital
Tania Carolina Fleitas Kanonnikoff. Hospital
- Recognised Researcher:**
Clara Alfaro Cervelló. Hospital
Francisco Gimeno Valiente. INCLIVA
Jorge Martín Arana. INCLIVA
Gema Bruixola Campos. Hospital
María Del Sol Huerta Álvaro. Hospital
María Carolina Martínez Ciarpaglini. Hospital
Amelia Insa Molla. Hospital
- José Alejandro Pérez Fidalgo. Hospital
Susana Roselló Keränen. Hospital
Joséfa Castillo Aliaga. University
María Fernanda Gutiérrez Bravo. INCLIVA

- First Stage Researcher:**
Raquel Herrero Tejedor. INCLIVA
Belén Martínez Castedo. INCLIVA
Blanca García Micó. INCLIVA
Paloma Martín Martorell. Hospital
Arturo González Vilanova. INCLIVA
Marta Tapia Cespedes. INCLIVA
Alba Aguilar Cifre. INCLIVA
Manuel Cabeza Segura. INCLIVA
- Staff-administrative:**
Paranee Archavarat Sianmekan. INCLIVA
Laura Boix Bartual. INCLIVA
Enrique Castelló Moreno. INCLIVA
- Staff-Collaborating Researcher:**
Victor Segui Manzaneeque. INCLIVA
- Staff-Nurse:**
María Montes De Oca Ortuño. INCLIVA
María Isabel Calzadilla Luz. INCLIVA
Gloria Corredor Agulló. INCLIVA
Silvia Moreno Magraner. INCLIVA
Ana Ruíz Quílez. INCLIVA
Inmaculada Blasco Blasco. INCLIVA
- Staff-technicians:**
Nuria Roig Sánchez. INCLIVA
María Rodrigo Faus. INCLIVA
Laura González Castillo. INCLIVA
Aitana Bolea Cortina. INCLIVA
Ilza Victoria Freitas Durks. INCLIVA
Andreea Ghiuro. INCLIVA
Daniel González Camblor. INCLIVA
Mónica Gorbe Moya. INCLIVA
Brenda Palomar De Lucas. INCLIVA
Verónica Repullés Martín. INCLIVA
Andrea Pascual Herrero. INCLIVA
Alejandro Asturiano Pérez-Chao. INCLIVA
Paloma Campos Bañegil. INCLIVA
Victoria Lucia Doldán Martelli. INCLIVA
Carme María Ortega Albiach. INCLIVA
Arantxa Sánchez Cosmo. INCLIVA
María Carmen Martínez López. INCLIVA
Guillermo Moret Peiró. INCLIVA
José Francisco González Muñoz. INCLIVA
Ignacio Castaño López. INCLIVA
Beatriz López Montero. INCLIVA
María Pilar Natividad López. INCLIVA
Laura Olivares Ordóñez. INCLIVA
Alba Inmaculada Viala Monleon. INCLIVA
Ana Vercher Grau. INCLIVA
María Cristina Mongort Sanchís. Hospital
Almudena Vera González. Hospital
José Francisco Catala Senent. INCLIVA
Ana María Miralles Marco. INCLIVA

- Andrea Marín Alonso. INCLIVA
America Bueno Gomez. INCLIVA
María Elena Duréndez Sáez. INCLIVA
Paula Irene Petruskevicius Fernández. INCLIVA
Sergio Romero Alcaide. INCLIVA
Laura Martínez Lucia. INCLIVA

Emerging Researchers

Noelia Tarazona Llaveró

Our scientific pursuits revolve around utilizing liquid biopsy, specifically circulating tumor DNA in plasma, for various objectives. These objectives include the detection of minimal residual disease and its correlation with survival rates, understanding the mechanisms behind disease progression and therapy resistance, and identifying potential therapeutic targets. Additionally, we are intrigued by the application of circulating tumor cells in characterizing minimal residual disease, which can aid in its effective eradication. We also focus on establishing organoids derived from primary or metastatic tumors and circulating tumor cells obtained from patients with gastrointestinal cancers. Furthermore, we prioritize the investigation of novel biomarkers, such as the lack of CDX2 expression in localized colon cancer.

Tania Fleitas Kanonnikoff

Our scientific interests are based on the understanding of the tumor immune microenvironment of Gastric Cancer. Moreover, we are also focused on the study of the clinical-epidemiological-molecular and the microbiome characteristics of patients with young gastric tumors under 50 years of age, the study of mechanisms of resistance of Her2-positive Gastric Cancer, to understand the differences and similarities among GC in European and Latin American population, and applying AI as a tool for gastric cancer prevention.

Valentina Gambardella

Our scientific interest is improving precision medicine for cancer patients through genomic and transcriptomic analyses with the aim of identifying specific druggable alterations beyond the standard biomarkers. This could offer the opportunity of entering promising early clinical trials with both targetted agents and novel immunotherapies. The multi-omic evaluation of tumor and microenvironment features at baseline and at time of progression, will help in understanding those molecular mechanisms related to resistance to anticancer drugs. In particular, our interest is studying these mechanisms in KRAS mutant NSCLC patients.

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
3	7	0	0	6

TEAM INVOLVED IN



RESEARCH PROJECTS

Title: *Targeting Liver Micrometastatic Disease with Immunotherapy and Artificial Intelligence-based Radiomics for Predicting Response in Colorectal Cancer*
Principal Investigator: Noelia Tarazona Llaveró
Funding Body: Gilead Sciences, S.L.
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2024-2026
Total Budget: €55.000

Reference: PMP21/00107
Title: *Integrative genomic, digital imaging and clinical information towards Precision Oncology Optimization - INGENIO*
Principal Investigator: Andrés Cervantes Ruipérez
Funding Body: Centro de Investigación Biomédica en Red (CIBER)
Beneficiary Institution: Multicéntrico (*Fundación Investigación Hospital Clínico Universitario de Valencia incluida*)
Duration: 2022-2025
Total Budget: €3.196.600 (INCLIVA: €302.147,50)

Title: *Targeting Minimal Residual Disease And Artificial Intelligence-Based Radiomics For Predicting Response In Colon Cancer (GLADIATOR)*
Principal Investigator: Noelia Tarazona Llaveró
Funding Body: SEOM
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2024-2026
Total Budget: €30.000

Reference: 101095359 - AIDA
Title: *An Artificially Intelligent Diagnostic Assistant for gastric inflammation. AIDA*
Principal Investigator: Tania Fleitas Kanonnikoff
Funding Body: European Commission
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2026
Total Budget: €6.334.803,75 (INCLIVA: €1.138.750)

Reference: 101057514 - Mypath
Title: *Developing and implementing innovative Patient-Centred Care Pathways for cancer patients*
Principal Investigator: Andrés Cervantes Ruipérez
Funding Body: European Commission
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2027
Total Budget: €4.773.470 (INCLIVA: €388.125)

Reference: PI22/01173
Title: *El papel del estrés oxidativo y la vía NRF2 en determinar resistencia a quimioinmunoterapia de primera línea en pacientes con cáncer de pulmón no microcitico avanzado KRAS mutado*
Principal Investigator: Valentina Gambardella
Funding Body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2025
Total Budget: €111.320

Reference: PI22/02000
Title: *Hacia la medicina de precisión en el colangiocarcinoma: la relevancia de la radiogenómica que define el perfil molecular de un paciente individual en busca de nuevas oportunidades de tratamiento*
Principal Investigator: Desamparados Roda Pérez
Funding Body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2025
Total Budget: €98.494

Reference: PI21/00689
Title: *Caracterización y abordaje de la enfermedad mínima residual en cáncer de colon localizado: un paso hacia la medicina de precisión*
Principal Investigator: Noelia Tarazona Llaveró and Andrés Cervantes Ruipérez
Funding Body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2024
Total Budget: €232.320

Reference: PI21/00693
Title: *Perfil de biomarcadores inmunes como herramienta para la identificación de pacientes con cáncer gástricos subsidiarios de inmunoterapia*
Principal Investigator: Tania Fleitas Kanonnikoff
Funding Body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2024
Total Budget: €208.120

Reference: PI21/00695
Title: *Transición mesenquimal como mecanismo asociado a inhibición de la respuesta inmune en el carcinoma colorrectal sin inestabilidad de microsatélites*
Principal Investigator: Mª Carolina Martínez Ciarpaglini
Funding Body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2024
Total Budget: €94.380

Reference: PT20/00100
Title: *Clinical Research Platform*
Principal Investigator: Andrés Cervantes Ruipérez
Funding Body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2021-2023 extended 2024
Total budget: €199.650

Reference: ICI20/00009
Title: *Circulating Tumor DNA Based Decision for Adjuvant Treatment in Colon Cancer stage II-III (CIRCULATE-SPAIN)*
Principal Investigator: Andrés Cervantes Ruipérez
Funding Body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2021-2026
Total Budget: €1.039.970

Reference: CPP2021-009064
Title: *Tratamiento innovador con ABTL0812 para el cáncer pancreático metastático: acortando los tiempos para su aprobación – INNOPANC*
Principal Investigator: Carles Domenech García (Susana Roselló as collaborating researcher)
Funding Body: *Ministerio de Ciencia e Innovación – Agencia Estatal de Investigación*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2024
Total Budget: €180.599

Title: *Valor pronóstico y predictivo de respuesta del microambiente del cáncer gástrico en personas jóvenes. Proyecto VERO*
Principal Investigator: Tania Fleitas Kanonnikoff
Funding Body: *GEMCAD - Grupo Español Multidisciplinar en Cáncer Digestivo*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2024
Total budget: €20.000

Title: *El papel del estrés oxidativo en la resistencia a inhibidores selectivos de KRAS G12C en pacientes con cáncer de pulmón avanzado no microcítico*

Principal Investigator: Valentina Gambardella

Funding Body: *Sociedad Española de Oncología Médica (SEOM)*

Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*

Duration: 2023-2025

Total budget: €20.000

Title: *Estudio del papel del microambiente inmune y la vía de AXL en la resistencia a inhibidores de PARP en cáncer de ovario de alto grado*

Principal Investigator: José A. Pérez Fidalgo

Funding Body: *Sociedad Española de Oncología Médica (SEOM)*

Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*

Duration: 2023-2025

Total budget: €35.000

Title: Precision medicine in oncology: development of new technological approaches for personalized treatments in Immunotherapy

Principal Investigator: Desamparados Roda and Sheila Zúñiga

Funding Body: *Fundación FERO*

Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*

Duration: 2022-2024

Total budget: €300.000

Title: Decoding GC microenvironment: a new step towards precision immunotherapy

Principal Investigator: Tania Fleitas Kanonnikoff

Funding body: *Asociación Española Contra el Cáncer*

Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*

Duration: 2022-2026

Total budget: €53.000

Reference: GCAEC20030CERV

Title: Tumor microenvironment-derived factors in localized colon cancer: clinical impact and therapeutic implications (TuMiCC)

Principal Investigator: Andrés Cervantes Ruipérez

Funding Body: *Asociación Española Contra el Cáncer*

Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*

Duration: 2020-2025

Total budget: €992.996 (INCLIVA: €332.970)

Title: *Inmunoterapia en cáncer gastroesofágico. Hacia una nueva estrategia terapéutica a través de la inhibición de las proteínas HCK y/o FGR implicadas en la atenuación de la respuesta inmune*

Principal Investigator: Tania Fleitas Kanonnikoff

Funding Body: *Fundación Mutua Madrileña*

Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*

Duration: 2023-2026

Total budget: €110.000

Title: Prognostic and predictive impact of the microbiome and the tumor immune microenvironment on advanced gastric cancer across young patients (<50 YO): VERO-2 project

Principal Investigator: Tania Fleitas Kanonnikoff

Funding Body: Gilead Fellowship Program

Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*

Duration: 2023-2024

Total budget: €49.980

RESEARCH RESULTS

Invention: 2022. Method for assessing the activity of nicotinamida N-Methyl Transferase

Priority Number: EP22382866

Status: European Patent

Principal Investigator: Amelia Insa Molla

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
66	652,5	10,696
National collaborations	International collaborations	Corresponding author
24	39	12

Divarasib plus cetuximab in KRASG12C-positive colorectal cancer: a phase 1b trial. Desai J, Alonso G, Kim SH, Cervantes A, Karasic T, Medina L, Shacham E et al. Nature Medicine. 2024 January 01. 30 (1):271-278. DOI:10.1038/s41591-023-02696-8. PMID:38052910.

Atezolizumab plus bevacizumab and chemotherapy for metastatic, persistent, or recurrent cervical cancer (BEATcc): a randomised, open-label, phase 3 trial. Oaknin A, Gladieff L, Martínez J, Villacampa G, Takekuma M, De Giorgi U, Lindemann K et al. LANCET. 2024 January 06. 403 (10421):31-43. DOI:10.1016/S0140-6736(23)02405-4. PMID:38048793.

Phase I Study of Elraglusib (9-ING-41), a Glycogen Synthase Kinase-3β Inhibitor, as Monotherapy or Combined with Chemotherapy in Patients with Advanced Malignancies. Carneiro BA, Cavalcante L, Mahalingam D, Saeed A, Safran H, Ma WW, Coveler AL et al. CLINICAL CANCER RESEARCH. 2024 February 01. 30 (3):522-531. DOI:10.1158/1078-0432.CCR-23-1916. PMID:37982822.

Evaluating Debio 1347 in Patients with FGFR Fusion-Positive Advanced Solid Tumors from the FUZE Multicenter, Open-Label, Phase II Basket Trial. Grivas P, Garralda E, Meric F, Mellinghoff IK, Goyal L, Harding JJ, Dees EC et al. CLINICAL CANCER RESEARCH. 2024 October 15. 30 (20):4572-4583. DOI:10.1158/1078-0432.CCR-24-0012. PMID:38771739.

Phase I/Ib Trial of Inavolisib Plus Palbociclib and Endocrine Therapy for PIK3CA-Mutated, Hormone Receptor-Positive, Human Epidermal Growth Factor Receptor 2-Negative Advanced or Metastatic Breast Cancer. Jhaveri KL, Accordino MK, Bedard PL, Cervantes A, Gambardella V, Hamilton E, Italiano A et al. JOURNAL OF CLINICAL ONCOLOGY. 2024 November 20. 42 (33):3947-3956. DOI:10.1200/JCO.24.00110. PMID:39236276.

THESIS

Thesis title: Estudio del impacto del índice neutrófilo-linfocito en pacientes con cáncer colorrectal estadio II-III sometidos a quimioterapia adyuvante.

Type: Doctoral Thesis

Doctoral candidate: Paola Pimentel Cáceres

Director(s): José Alejandro Pérez Fidalgo, María Teresa García

University: Universidad De Murcia

Date of the defense: 23 february 2024

Grade: Sobresaliente Cum laude

Thesis title: “Mutation Tracking” en el DNS tumoral circulante para predecir enfermedad mínima residual, respuesta al tratamiento y recaída precoz en pacientes diagnosticados de adenocarcinoma de páncreas.

Type: Doctoral Thesis

Doctoral candidate: María Del Sol Huerta Álvaro

Director(s): Andrés Cervantes RuiPérez y Luis Sabater Orti

Date of the defense: 16 may 2024

Thesis title: Relevancia en la vía de la aurora quinasas y su papel como diana en la resistencia a platino e inhibidores de PARP en y cancer de ovario de alto grado y cáncer de mama triple negativo.

Type: Doctoral Thesis

Doctoral candidate: Juan José Martínez Pretel

Director(s): José Alejandro Pérez Fidalgo y Begoña Pineda Merlo

Date of the defense: 22 october 2024

Grade: Sobresaliente Cum laude

Research Group on Breast Cancer Biology

Consolidated
Person Responsible: Ana Lluch Hernández / Pilar Eroles Asensio

STRATEGIC AIMS

- Resistance to treatments:
 - Study of resistance mechanisms to anti-HER2 therapy in HER2+ breast cancer and search for therapeutic options
 - Discover the mechanisms of resistance to therapy in triple negative breast cancer and search for alternative therapies
 - Study of mechanisms of resistance to ADC
- Breast cancer in very young women:
 - Identification of biomarkers and molecular characterization
- Prognostic and prediction:
 - Evaluation of the pathologic complete response rate to neoadjuvant immunotherapy in triple negative breast cancer
 - Prediction of residual disease after neoadjuvant therapy in HER2-positive breast cancer
 - Use of new diagnostic tools: HER2DX, AI
 - Molecular characterization of oligometastatic breast cancer patients
- Patient-Derived Models:
 - Establishment of patient-derived organoids
 - Establishment of patient-derived xenografts
- Lifestyle and physical exercise in breast cancer patients

MAIN LINES OF RESEARCH

Our group focuses on understanding treatment resistance mechanisms in breast cancer, characterizing tumors in very young women, and identifying prognostic and predictive biomarkers. We also explore the use of advanced diagnostic tools such as HER2DX and artificial intelligence, and develop patient-derived models including organoids and xenografts.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- Leading Researcher:**
Pilar Eroles Asensio. Hospital
Ana Lluch Hernández. Hospital
- Established Researcher:**
Octavio Burgues Gasion. Hospital
Isabel Chirivella González. Hospital
- Recognised emerging researcher:**
Juan Miguel Cejalvo Andujar. Hospital

- Recognised Researcher:**
Lidia González Villena. INCLIVA
Diego Miguel Soriano Mena. Hospital
Elvira Buch Villa. Primary Care
María Teresa Martínez Martínez. Hospital
Begoña Bermejo De Las Heras. Hospital
Sandra Torres Ruíz. INCLIVA
- First Stage Researcher:**
Cristina Tébar Sánchez. INCLIVA
Ana María Agreda Roca. INCLIVA
Ana Catarina Trigo Lameirinhas. INCLIVA
Cristina Hernando Meliá. Hospital
- Staff-Technician:**
Elena Mieres Negro. INCLIVA
Júlia Soler Flores. INCLIVA
Silvia Coret Sinisterra. INCLIVA
Esther Jorda Sorolla. Hospital
Sara Rodríguez Pestano. INCLIVA
Elisa Alonso Yuste. University
Yolanda De La Cruz Robles. INCLIVA
Elena Ortiz Bagan. INCLIVA
- Staff- Administrative:**
Francisca Fernández Olmo INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
2	4	0	0	0

Emerging Researcher

Juan Miguel Cejalvo Andújar

Our research focuses on elucidating molecular pathways underlying resistance to targeted therapies in breast cancer, aiming to enhance treatment efficacy. Additionally, we conduct comprehensive transcriptomic analyses to better understand the disease's heterogeneity and identify potential therapeutic targets.

TEAM INVOLVED IN



RESEARCH PROJECTS

Reference: 101136791
Title: Multimodal Engagement and sustainable Lifestyle Interventions Optimizing breast cancer Risk reduction supported by Artificial intelligence. MELIORA.
Principal Investigator: Juan Miguel Cejalvo Andújar
Funding Body: European Commission
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2027
Total budget: €416.550

Reference: 965231-REBECCA
Title: REsearch on BrEast Cancer induced chronic conditions supported by Causal Analysis of multi-source data
Principal Investigator: Aristotelio Panepistimio Thessalonikis (Cristina Hernando as collaborating researcher)
Funding Body: European Commission
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2021-2025
Total budget: €466.125

Reference: PI21/01351
Title: Predicción de enfermedad residual después de la terapia neoadyuvante en cáncer de mama HER2 positivo e identificación de estrategias para superar la resistencia
Principal Investigator: Pilar Eroles Asensio
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €123.420

Reference: NanoOncoTME
Title: Mesoporous silica nanoparticles targeting tumor microenvironment as an innovative approach for breast cancer treatment
Principal Investigator: Ana Lluch and Alba García
Funding Body: CIBER-BBN
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €16.250

Title: Papel de AXL en la modulación del microambiente tumoral e implicaciones terapéuticas en cáncer de mama HER2 positivo
Principal Investigator: Juan Miguel Cejalvo Andújar
Funding Body: Sociedad Española de Oncología Médica
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2025
Total budget: €30.000

Title: Estudio de biomarcadores en biopsia líquida para diagnóstico precoz en síndromes hereditarios de predisposición a cáncer de mama (SHCM)
Principal Investigator: Isabel Chirivella González
Funding Body: Sociedad Española de Oncología Médica
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €20.000

Title: Clinical and molecular characterization of oligometastatic breast cancer: revealing and improving the potential benefit of a local treatment on primary or metastatic sites. A multicentric study
Principal Investigator: Juan Miguel Cejalvo Andújar
Funding Body: Asociación Española de Cáncer de Mama Metastásico
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €40.000

Title: The role of AXL in modulating tumor microenvironment as potential therapeutic strategy for HER2-positive breast cancer
Principal Investigator: Juan Miguel Cejalvo Andújar
Funding Body: Gilead Fellowship Program
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €49.350

Title: The role of AXL modulating tumor microenvironment as potential therapeutic strategy for HER2-positive breast cancer
Principal Investigator: Juan Miguel Cejalvo Andújar
Funding Body: Fundación FERO
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €80.000

Title: The role of AXL and tumor microenvironment in determining resistance to anti-HER2 agents in HER2 amplified breast cancer models
Principal Investigator: Ana Mª Ágreda Roca
Funding Body: Fundación Científica Asociación Española Contra el Cáncer
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €66.000

Title: *Multidisciplinary dissection of the chemotherapy resistance mechanisms in triple negative breast cancer: a step towards improved clinical care*

Principal Investigator: Ángel R Nebreda (Juan Miguel Cejalvo as collaborating researcher)

Funding Body: *Instituto de Investigación Biomédica-IRB*

Beneficiary institution: CIBERONC/*Fundación Investigación Hospital Clínico Universitario de Valencia*

Duration: 2021-2026

Total budget: €268.500

Title: Integrating longitudinal patient-generated data and multi-omic profiling for comprehensive precision oncology in womens’ cancers

Principal Investigator: Miguel Ángel Quintela (Begoña Bermejo de las Heras as collaborating researcher)

Funding Body: Centro Nacional Investigaciones Oncológicas (CNIO). European Union-NextGenerationEU

Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*

Duration: 2023-2025

Total budget: €70.482,5

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
28	324,9	12,03
National collaborations	International collaborations	Corresponding author
10	17	3

NK cell-triggered CCL5/IFN?-CXCL9/10 axis underlies the clinical efficacy of neoadjuvant anti-HER2 antibodies in breast cancer. Santana S, Suárez J, Servitja S, Berenguer P, Costa M, Comerma L, Rea A et al. JOURNAL OF EXPERIMENTAL & CLINICAL CANCER RESEARCH. 2024 January 03. 43 (1):10-10. DOI:10.1186/s13046-023-02918-4. PMID:38167224.

Prevalence of Homologous Recombination Deficiency Among Patients With Germline RAD51C/D Breast or Ovarian Cancer. Torres S, Llop A, Gutiérrez S, Romey M, Teulé À, Llort G, Herrero A et al. Jama Network Open. 2024 April 01. 7 (4):DOI:10.1001/jamanetworkopen.2024.7811. PMID:38648056.

3-year invasive disease-free survival with chemotherapy de-escalation using an 18F-FDG-PET-based, pathological complete response-adapted strategy in HER2-positive early breast cancer (PHERGain): a randomised, open-label, phase 2 trial. Pérez JM, Cortés J, Ruiz M, Colleoni M, Stradella A, Bermejo B, Dalenc F et al. LANCET. 2024 April 27. 403 (10437):1649-1659. DOI:10.1016/S0140-6736(24)00054-0. PMID:38582092.

Patritumab deruxtecan in HER2-negative breast cancer: part B results of the window-of-opportunity SOLTJ-1805 TOT-HER3 trial and biological determinants of early response. Brasó F, Ferrero JM, Falato C, Martínez O, Cejalvo JM, Margeli M, Tolosa P et al. Nature Communications. 2024 July 11. 15 (1):5826-5826. DOI:10.1038/s41467-024-50056-y. PMID:38992028.

A phase I dose escalation and expansion trial of the next-generation oral SERD camizestrant in women with ER-positive, HER2-negative advanced breast cancer: SERENA-1 monotherapy results. Hamilton E, Oliveira M, Turner N, García J, Hernando C, Ciruelos EM, Kabos P et al. ANNALS OF ONCOLOGY. 2024 August 01. 35 (8):707-717. DOI:10.1016/j.annonc.2024.04.012. PMID:38729567.

THESIS

Thesis title: Mesoporous silica nanoparticles targeting tumor microenvironment as a tool for breast cancer treatment.

Doctoral candidate: Ana Catarina Trigo Lameirinhas

Director(s): Martínez Mañez, Ramón; Garrido Cano, Iris; Eroles Asensio, Pilar.

Date of the defense: 13 September 2024

University: Universitat Politècnica de València.

Thesis title: Papel de la familia de micrnas-449 y el gen CDC20b en la respuesta a tratamientos en cáncer de mama: organoides y cultivos primarios como modelos tumorales.

Doctoral candidate: Sandra Torres Ruíz

Director(s): Eduardo Tormo Martín; Pilar Eroles Asensio.

Date of the defense: 01 January 2024

University: Universitat Politècnica de València.

Research Group on Skin Cancer

Consolidated
Person Responsible: Carlos Monteagudo Castro

STRATEGIC AIMS

- Transcriptomic identification of miRNA-205 target genes potentially involved in metastasis and survival of cutaneous malignant melanoma
- Search for a genetic and/or epigenetic signature which permit a more precise diagnosis and prediction of the metastatic potential of ambiguous melanocytic lesions, and particularly of spitzoid tumors
- Identification of circulating miRNAs which may serve as prognostic and/or staging biomarkers in patients with primary cutaneous melanoma
- To create a public dataset of whole slide images of spitzoid melanocytic tumours for use in deep learning analysis.
- Creation of a whole slide image dataset of cutaneous spindle cell tumors for AI analysis
- Study of a large retrospective case series to evaluate eccrine coil elastosis as a new cutaneous biomarker for components of the metabolic syndrome.

MAIN LINES OF RESEARCH

- Artificial intelligence techniques for the classification of spindle cell tumors of the skin.
- Deep Learning analysis of methylation and miRNA profile of ambiguous melanocytic tumors to improve diagnosis and prognosis.
- Improvement by circulating biomarkers of melanoma staging schedule at the time of diagnosis.
- Machine learning analysis of whole slide images of spitzoid melanocytic tumors to improve diagnosis and prognosis decision making.
- Methylation biomarkers for diagnosis and prognosis of ambiguous, spitzoid and non-spitzoid, melanocytic tumors.
- New histologic cutaneous biomarkers of aging, metabolic and cardiovascular risk factors.
- Prognostic value of intratumoral and circulating microRNAs in melanoma tumor progression and clinical outcome.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:** Carlos Monteagudo Castro. Hospital
- **Recognised Researcher:** Silvia Pérez Deben. INCLIVA
José María Martín Hernandez. Hospital Liria Terradez Mas. Hospital

- **First Stage Researcher:** Andres David Mosquera Zamudio. INCLIVA
- **Staff-technicians:** Esther Álvarez Vilanova. Primary Care

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
0	1	0	1	0

RESEARCH PROJECTS

Reference: 860627- H2020 - Marie Skłodowska-Curie Innovative Training Networks

Title: *Cloud Artificial Intelligence for pathology-CLARIFY*

Principal Investigator: José Carlos Monteagudo Castro

Funding body: *European Commission*

Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*

Duration: 2019-2023 extended 2024

Total Budget: €252.000

Reference: PI20/00094

Title: *Análisis combinado por Inteligencia Artificial de marcadores epigenéticos e imágenes microscópicas digitalizadas de tumores melanocíticos ambiguos para optimizar su clasificación diagnóstica y pronóstica*

Principal Investigator: José Carlos Monteagudo Castro

Funding body: *Instituto de Salud Carlos III-Co-financed FEDER*

Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*

Duration: 2021-2023 extended 2024

Total Budget: €220.220

Reference: PI23/01408

Title: *Análisis integrado mediante inteligencia artificial de las imágenes dermatoscópicas e histopatológicas con la secuenciación genética y epigenética para un pronóstico preciso de los pacientes con melanoma.*

Principal Investigator: José María Martín Hernández - Co-IP: José Carlos Monteagudo Castro

Funding body: *Instituto de Salud Carlos III-Co-financed FEDER*

Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*

Duration: 2024-2026

Total Budget: €152.500

RESEARCH RESULTS:

Invention: 2021. Epigenetic signature for the diagnosis and prognosis of Spitzoides cutaneous melanocytic tumors
Priority Number: EP21382569
Status: Europe and US National Phase
Principal Investigator: Carlos Monteagudo Castro

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
12	35,3	4,41
National collaborations	International collaborations	Corresponding author
4	5	3

Diagnostic Algorithm to Subclassify Atypical Spitzoid Tumors in Low and High Risk According to Their Methylation Status. González JF, Sánchez B, Monteagudo C. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2024 January 01. 25 (1):DOI:10.3390/ijms25010318. PMID:38203489.

CD34-negative, STAT6-negative, Low-grade, Low-risk Solitary Fibrous Tumor. Monteagudo C, Pérez S, Pérez I, Giner F, Machado I. AMERICAN JOURNAL OF SURGICAL PATHOLOGY. 2024 February 01. 48 (2):247-249. DOI:10.1097/PAS.0000000000002087. PMID:37345671.

Histological interpretation of spitzoid tumours: an extensive machine learning-based concordance analysis for improving decision making. Mosquera A, Launet L, Colomer A, Wiedemeyer K, López JC, Palma LF, Undersrud E et al. HISTOPATHOLOGY. 2024 July 01. 85 (1):155-170. DOI:10.1111/his.15187. PMID:38606989.

Equipping computational pathology systems with artifact processing pipelines: a showcase for computation and performance trade-offs. Kanwal N, Khoraminia F, Kiraz U, Mosquera A, Monteagudo C, Janssen E, Zuiverloon TCM et al. BMC Medical Informatics and Decision Making. 2024 October 07. 24 (1):288-288. DOI:10.1186/s12911-024-02676-z. PMID:39375719.

Comprehensive mutational profiling identifies new driver events in cutaneous leiomyosarcoma. van der Weyden L, Del Castillo Velasco M, Cheema S, Wong K, Boccacino JM, Offord V, Droop A et al. BRITISH JOURNAL OF DERMATOLOGY. 2024 December 02. 192 (2):335-343. DOI:10.1093/bjd/ljae386. PMID:39392932.

Translational Research Group on Pediatric Solid Tumors

Consolidated
Persons Responsible: Samuel Navarro Fos / Rosa Noguera Salva

STRATEGIC AIMS

- Genomic heterogeneity in neuroblastoma (NB)
- 3D in vitro and xenotransplant models of NB
- Morphological and molecular analysis of neuroblastic and malignant infantile skeletal tumors
- Importance of extracellular matrix and stroma cells (including immune cells) in tumors using digital analysis.

MAIN LINES OF RESEARCH

- Digital analysis of diagnostic, prognostic and therapeutic biomarkers in tumors.
- Genetic analysis in neuroblastoma. At the European level, we participate in the establishment of a uniform nomenclature, and standard practices and quality validation studies, essential to obtain and maintain high quality in genetic results used for therapeutic stratification
- Identification of new genetic factors with prognostic value in neuroblastic and malignant infantile skeletal and soft tissue tumors.
- Preclinical models. Obtaining and characterizing cell lines in vivo and in vitro (2D and 3D) from fresh tumor material.
- Tumor microenvironment studies in tumors.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Samuel Navarro Fos. Hospital Rosa Noguera Salva. University
- **Established Researcher:**
Desamparados Compañ Quilis. Primary Care Jaime Verdu Amoros. Primary Care Inmaculada Noguera Salvá. University Isidro Machado Puerto. University
- **Recognised Researcher:**
Meryem El Ouardi El Hamidy. INCLIVA Sofía Granados Aparici. INCLIVA María Amparo López Carrasco. INCLIVA Ezequiel Monferrer Garzarán. University
- **First Stage Researcher:**
Isaac Vieco Martí. INCLIVA
- **Staff-Collaborating Researcher:**
Karina Alexandra Parra Haro. INCLIVA
- **Staff-Technician.**
Marta Gómez Rebolledo. INCLIVA Mara Stoks. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
1	3	4	2	3

TEAM INVOLVED IN



RESEARCH PROJECTS

Reference: PI20/01107
Title: Neuroblastoma: estrategias mecanoterapéuticas basadas en modelos 3D y tumores derivados de pacientes con microambiente rico en vitronectina
Principal Investigator: Rosa Noguera Salvá
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2021-2023 extended 2024
Total budget: €232.320

Reference: CASA-DP
Title: Cancer Stroma Assessment through Digital Pathology
Principal Investigator: Núria Malats (Rosa Noguera Salvá as collaborating researcher)
Funding body: CIBERONC
Beneficiary institution: CIBERONC
Duration: 2021-2024
Total budget: €90.000

Reference: PMP21/00107
Title: INtegrative GENomic, digital Imaging and clinical information towards Precision Oncology Optimization - INGENIO
Principal Investigator: Luis Paz-Ares Rodríguez (Rosa Noguera, Samuel Navarro, Amparo López and Sofía Granados as collaborating researchers)
Funding body: Ministerio de Ciencia e Innovación
Beneficiary institution: CIBERONC
Duration: 2022-2025
Total budget: €3.780.700

Reference: IDIFEDER/2021/067
Title: *Biomarkers of immunotherapy in solid tumors*
Principal Investigator: Rosa Noguera Salvá
Funding body: *Conselleria de Educaci3n, Investigaci3n, Cultura y Deporte*
Beneficiary institution: *Universidad de Valencia*
Duration: 2021-2027
Total budget: €365.142,5

Reference: PRV00166
Title: *Espacio intercelular: Bioimagen microsc3pica, Fase II*
Principal Investigator: Rosa Noguera Salvá
Funding body: *Fundaci3n Neuroblastoma*
Beneficiary institution: *Fundaci3n Investigaci3n Hospital Cl3nico Universitario de Valencia*
Duration: 2021-2024
Total budget: €20.000

Reference: Immuno4All
Title: *Towards precision oncology optimization*
Principal Investigator: Enrique de Alava
Funding body: *CIBERONC*
Beneficiary institution: *CIBERONC*
Duration: 2023-2026
Total budget: €4.671.132

Reference: FPU20/05344
Title: *Predoctoral Ministerio*
Principal Investigator: Isaac Vieco Mart3
Funding body: *Ministerio de Ciencia, Innovaci3n y Universidades*
Beneficiary institution: *Fundaci3n Investigaci3n Hospital Cl3nico Universitario de Valencia*
Duration: 2021-2025

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
28	190,9	7,95
National collaborations	International collaborations	Corresponding author
13	14	6

MOXD1 is a lineage-specific gene and a tumor suppressor in neuroblastoma. Fredlund E, Andersson S, Hilgert E, Monferrer E, alvarez G, Karakaya S, Loontjens S et al. Science Advances. 2024 June 21. 10 (25):DOI:10.1126/sciadv.ado1583. PMID:38905335.

Evolution of the Innovative Therapies for Children With Cancer Consortium Trial Portfolio for Drug Development for Children With Cancer. Bautista F, Verdu J, Georger B, Rubio A, Paoletti X, Zwaan CM, Casanova M et al. JOURNAL OF CLINICAL ONCOLOGY. 2024 July 20. 42 (21):2516-2526. DOI:10.1200/JCO.23.01237. PMID:38743911.

Vitronectin Levels in the Plasma of Neuroblastoma Patients and Culture Media of 3D Models: A Prognostic Circulating Biomarker?. L3pez A, Vieco I, Granados S, Acevedo D, Esta3n N, Portugal R, Huerta J et al. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2024 August 01. 25 (16):DOI:10.3390/ijms25168733. PMID:39201421.

SEAP-IAP recommendations for the collection, storage and use of biological materials of human origin and related data intended for research. Generic biobank consideration and ethical-legal review (Part II). Mart3nez A, Rosello E, Jes3s Fern3ndez Ace3ero M, Zaragoza L, Az3a J, Alfaro C, Navarro S et al. REVISTA ESPANOLA DE PATOLOGIA. 2024 October 01. 57 (4):250-257. DOI:10.1016/j.patol.2024.04.005. PMID:39393892.

Article therapy for neuroblastoma cells in monolayer and 3D hydrogels using digital holographic microscopy. Granados S, Vieco I, L3pez A, Navarro S, Noguera R. Iscience. 2024 November 15. 27 (11):111231-111231. DOI:10.1016/j.isci.2024.111231. PMID:39569369.

Research Group on Hematopoietic Transplantation

Consolidated
Person Responsible: Carlos Solano Vercet

STRATEGIC AIMS

- Translational research on biology and treatment of graft-versus-host disease after allogeneic transplantation of hematopoietic progenitor cells
- Infection and immune reconstitution after haematopoietic transplant
- Development of an Advanced Therapies-clinical and translational program in Hospital Cl3nico Universitario de Valencia – INCLIVA
- Design and implementation of an outpatient programme in hematopoetic transplant and cellular therapy

MAIN LINES OF RESEARCH

- Clinical application of gene and cellular therapy using CAR-T and other immune effector cells.
- Infection and immune reconstitution after hematopoietic transplantation.
- Scientific and logistical implications of the implementation of a transplant programme in the outpatient setting.
- Translational research of alloreactivity in the context of new modalities of allogeneic transplantation from compatible and incompatible alternative donors (haploidentical transplant).
- Translational research on complications of allogeneic hematopoietic transplantation: graft-versus-host disease.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- Leading Researcher:** Carlos Solano Vercet. Hospital
- Established Researcher:** Jos3 Luis Pi3ana S3nchez. Primary Care
- Recognised Researcher:** Rafael Hernani Morales. Primary Care
Paula Amat Mart3nez. Hospital
M3 Jos3 Remigia Pellicer. Hospital
- First Stage Researcher:** Rut Meseguer Naturil. INCLIVA
Ariadna P3rez Mart3nez. Primary Care
- Staff-Collaborating Researcher:** Daniella Morello Gonz3lez. Primary Care
Ana Benzaquen Vallejos. Primary Care
Rosa Goterris Viciado. Hospital

- Staff-Nurse:** Teresa Barber Ballester. University
J3lia Carri3 Fito. INCLIVA
Mar3na Hern3ndez Aliaga. INCLIVA
- Staff-Technician:** Mar3a Carmen Hurtado Fontelles. INCLIVA
Vicent Cuevas Mauricio. INCLIVA
Clara Seherazade Osca G3mez. INCLIVA
Diana Campos Beltr3n. INCLIVA
Mar3a Del Pilar Ortiz Gavil3n. INCLIVA
Alfonso Ortiz Algarra. Primary Care
Ana Riera Calabuig. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
1	0	0	0	1

RESEARCH PROJECTS

Reference: PI21/01628
Title: *Inmunobiolog3a de c3lulas NK expandidas con criterios GMP de donantes seleccionados de banco de linfocitos para inmunoterapia adoptiva despu3s de TPH alog3nico o trasplante de 3rgano s3lido*
Principal Investigator: Carlos Solano Vercet
Funding body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary institution: *Fundaci3n Investigaci3n Hospital Cl3nico Universitario de Valencia*
Duration: 2022-2024
Total budget: €102.850

Reference: ICI21/00016
Title: *Terapia celular combinada para pacientes COVID-19 de alto riesgo de mortalidad (DECODE-19)*
Principal Investigator: Bernat Soria Escoms (Carlos Solano as collaborating researcher)
Funding body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary institution: *Instituto de Investigaci3n Sanitaria y Biom3dica de Alicante (ISABIAL)*
Duration: 2021-2024
Total budget: €459.800

Title: Immunobiology of GMP-compliant expanded NK cells from selected lymphocyte-bank-registry donors for adoptive immunotherapy after allogeneic HSC in hematological neoplasias or solid organ transplantation
Principal Investigator: Rut Meseguer Naturil
Funding body: *Fundación Científica Asociación Española Contra el Cáncer*
Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2025
Total budget: €66.000

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
41	292,6	7,315
National collaborations	International collaborations	Corresponding author
19	18	13

Recent Bendamustine Treatment Before Apheresis Has a Negative Impact on Outcomes in Patients With Large B-Cell Lymphoma Receiving Chimeric Antigen Receptor T-Cell Therapy. Iacoboni G, Navarro V, Martín AÁ, Rejeski K, Kwon M, Jalowiec KA, Amat P et al. JOURNAL OF CLINICAL ONCOLOGY. 2024 January 10. 42 (2):205-217. DOI:10.1200/JCO.23.01097. PMID:37874957.

Prophylaxis and management of graft-versus-host disease after stem-cell transplantation for haematological malignancies: updated consensus recommendations of the European Society for Blood and Marrow Transplantation. Penack O, Marchetti M, Aljurf M, Arat M, Bonifazi F, Duarte RF, Giebel S et al. LANCET HAEMATOLOGY. 2024 February 01. 11 (2):147-159. DOI:10.1016/S2352-3026(23)00342-3. PMID:38184001.

ADAMTS13 recovery in acute thrombotic thrombocytopenic purpura after caplacizumab therapy. Mingot ME, García F, Martínez J, García J, de la Rubia J, Gómez I, Paciello ML et al. BLOOD. 2024 May 02. 143 (18):1807-1815. DOI:10.1182/blood.2023022725. PMID:38237147.

Thrombotic risk and features of patients with inferior vena cava agenesis: a multicentre, retrospective, observational study. Bravo C, Blanco A, Revilla N, Cobos J, Salgado A, Asenjo S, Méndez R et al. LANCET HAEMATOLOGY. 2024 August 01. 11 (8):606-616. DOI:10.1016/S2352-3026(24)00138-8. PMID:38878784.

Development and validation of the post-CAR prognostic index for large B-cell lymphoma patients after CAR-T progression in third or later line treatment. Iacoboni G, Navarro V, Sesques P, Rejeski K, Bastos M, Serpenti F, López A et al. Journal of Hematology & Oncology. 2024 October 29. 17 (1):102-102. DOI:10.1186/s13045-024-01608-8. PMID:39468591.

Research Group on Lymphoproliferative Disorders

Consolidated
Persons Responsible: Mª José Terol Castera

STRATEGIC AIMS

- During the 2024:
- First, we analyzed the study of the mutational status of IgVH in CLL and its prognostic impact in a wide series of patients, as well as collaborating in the design of a new NGS technique to study this mutational status. New molecular markers (mutations TP53, BIRC3, MYD88, NOTCH1 and SF3B1) have also been studied in CLL by new generation sequencing techniques. In addition, we have continued the collaboration in the GENOMA CLL sequencing project, with a clinical-evolutionary update.
 - Second, we analyzed and integrate the information obtained from conventional lymphoma evaluation testS performed for clinical practice, including clinical, molecular and imaging biomarkers using new tools of imaging interpretation (artificial intelligence, deep learning and radiomics), disease-specific molecular markers (lymphoma clonotype through liquid biopsies) and CAR-T cell monitoring (digital PCR) to accurately predict disease response at one year of CAR-T cells infusion
 - Third, we began to identify patients and samples of lymphoma patients diagnosed at our center who could benefit from a personalized genomic precision medicine, as well as participate in the PREGENLINF project
 - Finally, we have expanded our participation in clinical research projects in CLL, refractory lymphomas and multiple myeloma, both with the incorporation of new drugs and in the design and development of new therapeutic options in the context of phase 1 to 3 clinical trials

MAIN LINES OF RESEARCH

- Study of new molecular markers (mutations of IgVH, TP53, BIRC3, MYD88, NOTCH1 and SF3B1) in CLL.: conventional versus NGS techniques. Implication in clonal evolution associated with tumor progression.
- To analyze the value of new molecular markers in lymphoma established by Next Generation Sequencing Techniques (NGS). to help diagnosis of certain types of lymphoproliferative diseases and also the prognostic impact in term of response to treatment and future targeted therapy

- To integrate and analyze the data obtained from lymphoma evaluation tests.,using new tools of imaging interpretation (artificial intelligence, deep learning and radiomics), disease-specific molecular markers (lymphoma clonotype through liquid biopsies) and CAR-T cell monitoring (digital PCR) to accurately predict disease response at one year of CAR-T cells infusion
- New therapeutic options for CLL/lymphoma/ MM patients who are refractory to chemoimmunotherapy.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- Leading Researcher:**
Mª José Terol Castera. Hospital
- Established Researcher:**
Antonio Ferrandez Izquierdo. Hospital
- Recognised Researcher:**
Edelmira Martí Sáez. Hospital
Blanca Ferrer Lores. Hospital
Alicia Serrano Alcalá. INCLIVA
Anabel Teruel Casasus. Hospital
- First Stage Researcher:**
Laura Ventura López. INCLIVA
Juan Ramón De Moya Romero. Hospital
- Staff-Technicians:**
Ana Saus Carreres. Hospital
Esther Lozano García. INCLIVA
María Mercedes Bou Moreno. INCLIVA
Alfonso Ortiz Algarra. Primary Care

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
0	2	0	0	0

RESEARCH PROJECTS

Reference: PMP21/00015
Title: *Medicina de precisión genómica en neoplasias linfoides (PREGENLINF)*
Principal Investigator: Elías Campo Güerri (Mª José Terol as collaborating researcher)
Funding body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary institution: *Instituto de Investigaciones Biomédicas August Pi i Sunyer (IDIBAPS)*
Duration: 2022-2025
Total budget: €3.063.060

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
15	127,6	9,11
National collaborations	International collaborations	Corresponding author
13	2	5

The genomic profiling of high-risk smoldering myeloma patients treated with an intensive strategy unveils potential markers of resistance and progression. Medina A, Vazquez I, Cuenca I, Rosa JM, Ariceta B, Jiménez C, Fernández M et al. Blood Cancer Journal. 2024 April 29. 14 (1):DOI:10.1038/s41408-024-01053-3. PMID:38684670.

Ibrutinib followed by ofatumumab consolidation in previously untreated patients with chronic lymphocytic leukemia (CLL): GELLC-7 trial from the Spanish group of CLL (GELLC). Abrisqueta P, González E, Ferrà C, Ríos E, Fernández de la Mata M, Delgado J, Andreu R et al. Eclinicalmedicine. 2024 July 01. 73102642-102642. DOI:10.1016/j.eclinm.2024.102642. PMID:38841711.

Ibrutinib in Combination with R-GemOx in Patients with Relapsed or Refractory Diffuse Large B-cell Lymphoma of Nongerminal Center B-cell-like Type: Phase II Clinical Trial of the Spanish GELTAMO Group. Rey B, Grande C, Sánchez JJ, Abrisqueta P, Gutiérrez A, Ramírez Á, Giné E et al. CLINICAL CANCER RESEARCH. 2024 September 03. 30 (17):3704-3714. DOI:10.1158/1078-0432.CCR-24-0183. PMID:38900037.

Curative Strategy for High-Risk Smoldering Myeloma: Carfilzomib, Lenalidomide, and Dexamethasone (KRd) Followed by Transplant, KRd Consolidation, and Rd Maintenance. Mateos MV, Martínez J, Rodríguez P, González V, González MS, Oriol A, Gutiérrez NC et al. JOURNAL OF CLINICAL ONCOLOGY. 2024 September 20. 42 (27):3247-3256. DOI:10.1200/JCO.23.02771. PMID:39038268.

Predicting survival, neurotoxicity and response in B-cell lymphoma patients treated with CAR-T therapy using an imaging features-based model. Ferrer B, Ortiz A, Picó A, Estepa A, Bellví F, Weiss GJ, Fuster A et al. EJNMMI Research. 2024 November 20. 14 (1):113-113. DOI:10.1186/s13550-024-01172-9. PMID:39567446.

THESIS

Thesis title: Estudio de nuevos biomarcadores genéticos en la Leucemia Linfática Crónica-B (LLC-B)

Doctoral candidate: Blanca Ferrer Lores

Director(s): Felipe Javier Chaves Martínez, M^a José Terol Castera and Blanca Navarro Cubells.

University: Universidad de Valencia

Date of the defense: 27 June 2024

Research Group on Myeloid Neoplasms

Consolidated
Person Responsible: María Del Mar Tormo Diaz

STRATEGIC AIMS

- To determine the risk factors for thrombosis in myelofibrosis
- Analyse Myelodysplastic syndromes with 20q deletion
- Analyse in patients diagnosed of acute myeloid leukaemia and Myelodysplastic syndromes with 7q deletion

MAIN LINES OF RESEARCH

- Collaborative studies with. the CETLAM group (LMA, SMD), PETHEMA (LLA, LMA), the Spanish Philadelphia-negative chronic myeloproliferative disorders group (GEMFIN), the Spanish LMC group (GELMC), the Spanish SMD group (GESMD) and Spanish Group of Advanced Systemic Mastocytosis (GEMAST
- Study of acute myeloid leukemias with 7q deletion.
- Study of mechanisms involved in leukemic transformation in myeloproliferative neoplasms.
- Study of myelodysplastic syndromes with 20q deletion.
- Study of myelodysplastic syndromes with 7q deletion.
- Study of risk factors for thrombosis in myelofibrosis.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:** María Del Mar Tormo Diaz. Hospital Juan Carlos Hernandez Boluda. Hospital
- **Established Researcher:** Eva Villamón Ribate. University
- **Recognised Researcher:** Marisa Calabuig Muñoz. Hospital Iván Martín Castillo. INCLIVA
- **First Stage Researcher:** Alicia Borrero Abarca. INCLIVA Irene Pastor Galan. Primary Care
- **Staff-Collaborating Researcher:** Carlos Carretero Marquez. Hospital Montserrat Gómez Calafat. Hospital
- **Staff-Technician:** Ana Riera Calabuig. INCLIVA
- **Staff-Nurse:** María Carmen Hurtado Fontelles. INCLIVA

RESEARCH PROJECTS

Reference: PI21/00538
Title: Factores clinicobiológicos y genéticos asociados al riesgo de trombosis en la mielofibrosis
Principal Investigator: Juan Carlos Hernández Boluda
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024 extended 2025
Total Budget: €96.800

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
39	247,1	6,33
National collaborations	International collaborations	Corresponding author
21	17	12

Impact of somatic gene mutations on the risk of thrombosis in myelofibrosis. Pastor I, Pereira A, Arellano E, Martín I, Mosquera A, Gómez MT, Hernández A et al. LEUKEMIA. 2024 noviembre 01. 38 (11):2483-2486. DOI:10.1038/s41375-024-02389-2. PMID:39215061.

Proposals for revised International Working Group-European Leukemia Net criteria for anemia response in myelofibrosis. Tefferi A, Barosi G, Passamonti F, Hernandez JC, Bose P, Döhner K, Ellis M et al. BLOOD. 2024 octubre 24. 144 (17):1813-1820. DOI:10.1182/blood.2024025802. PMID:39116296.

Incidence and clinical correlates of NFE2 mutations in myeloid neoplasms. Castillo IM, Villamon E, Calabuig M, Pastor I, Ferrer B, Amat P, Mas E et al. BRITISH JOURNAL OF HAEMATOLOGY. 2024 agosto 01. 205 (2):733-737. DOI:10.1111/bjh.19579. PMID:38840560.

Chronic myelomonocytic leukemia with ring sideroblasts/SF3B1 mutation presents with low monocyte count and resembles myelodysplastic syndromes with-RS/SF3B1 mutation in terms of phenotype and prognosis. Xicoy B, Pomares H, Morgades M, Germing U, Arnan M, Tormo M, Palomo L et al. Frontiers in Oncology. 2024 julio 01. 141385987-1385987. DOI:10.3389/fonc.2024.1385987. PMID:39011475.

Indication and management of allogeneic haematopoietic stem-cell transplantation in myelofibrosis: updated recommendations by the EBMT/ELN International Working Group. Kröger N,Bacigalupo A,Barbui T,Ditschkowski M,Gagelmann N,Griesshammer M,Gupta V et al. LANCET HAEMATOLOGY. 2024 enero 01. 11 (1):62-74. DOI:10.1016/S2352-3026(23)00305-8. PMID:38061384.

Research Group on Molecular Imaging and Metabolomics

Consolidated
Person Responsible: Daniel Monleón Salvado

STRATEGIC AIMS

- Identify new metabolomic markers of tumor aggressiveness in brain cancer
- Explore the role of tumor metabolites as epigenetic drivers of chemo and radio sensitivity
- Identify new metabolomic cardiovascular risk markers based on the microbiota-host interaction
- Identify new mechanisms for metabolite epigenetic effects on cardiometabolic disease
- Explore applications in nutrition of NMR metabolomics

MAIN LINES OF RESEARCH

- Metabolic profiles in the progression of cardiometabolic risk modulated by the microbiota-host interaction.
- Metabolic profiles of healthy aging vs frailty.
- MRI microimaging study of porcine cardiac tissue samples to develop new detection methods and microenviroment.
- Exploration of the brain tumor microenvironment through MRI microimaging and multivoxel magnetic resonance spectroscopy.
- Tumor metabolism through metabolic profiles in biopsies, biofluids and cells (brain cancer, glioblastoma multiforme, prostate, bladder).

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Daniel Monleon Salvado. Hospital
- **Recognised Researcher:**
Rafael Benito Alcaraz. Hospital
Vannina González Marrachelli. University
José Manuel Morales Tatay. University
María Mercedes Pardo Tendaro. University
Antonio Pellin Carcelen. University
- **First Stage Researcher:**
Pilar Casanova Querol. University
Geraldine Rocha Correal. University
María Martín Grau. University
- **Staff-Technician:**
Clara Francés Gómez. University
José Francisco Haro Estévez. University
Laura Moreno Morcillo. University

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
1	2	0	1	0

RESEARCH PROJECTS

Reference: PID2023-147163OB-C21
Title: *El papel del selenio y el metabolismo de un carbono en la metilación del ADN y la diabetes: un enfoque mecanicista para informar la prevención de precisión de la diabetes*
Principal Investigator: Consuelo Borrás Blasco
Funding Body: *Ministerio de Ciencia e Innovación*
Beneficiary institution: *Universidad de Valencia*
Duration: 2024-2028
Total budget: €300.000

Reference: PID2020-113839RB-I00
Title: *Efecto del tratamiento con vesículas extracelulares de células madre de grasa de ratones jóvenes sobre parámetros de envejecimiento y fragilidad en ratones de edad avanzada*
Principal Investigator: Consuelo Borrás Blasco
Funding Body: *Ministerio de Ciencia e Innovación*
Beneficiary institution: *Universidad de Valencia*
Duration: 2021-2024
Total budget: €181.500

Reference: GRISOLIAP/2021/119
Title: *Estudio de la interacción entre amplificación egfr, reprogramación metabólica, microambiente vascular y estados celulares en WT-GBM*
Principal Investigator: Daniel Monleón Salvadó
Funding Body: *Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital*
Beneficiary institution: *Universidad de Valencia*
Duration: 2022-2025
Total budget: €93.878

Reference: CIAICO/2022/181
Title: *Estudio de la interacción entre amplificación egfr, reprogramación metabólica, microambiente vascular y estados celulares en WT-GBM*
Principal Investigator: Daniel Monleón Salvadó
Funding Body: *Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital*
Beneficiary institution: *Universidad de Valencia*
Duration: 2023-2025
Total budget: €89.990

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
7	51,2	7,314
National collaborations	International collaborations	Corresponding author
2	3	3

Effect of a Very Low-Calorie Diet on Oxidative Stress, Inflammatory and Metabolomic Profile in Metabolically Healthy and Unhealthy Obese Subjects. Bosch N, Valle CGD, Salom C, Zaragoza B, Perea L, Falcón R, Rovira S et al. ANTIOXIDANTS. 2024 March 01. 13 (3):DOI:10.3390/antiox13030302. PMID:38539836.

Glutathione and a Pool of Metabolites Partly Related to Oxidative Stress Are Associated with Low and High Myopia in an Altered Bioenergetic Environment. Merida S, Navea A, Desco C, Celda B, Pardo M, Morales JM, Bosch F. ANTIOXIDANTS. 2024 May 01. 13 (5):DOI:10.3390/antiox13050539. PMID:38790644.

The transfer of gut microbiota/metabolites from children to mice affects cardiometabolic development and induces sexdimorphism in recipients. Guzzardi MA, La Rosa F, Faita F, Ait L, Panetta D, Kusmic C, Granziera F et al. VASCULAR PHARMACOLOGY. 2024 June 01. 155107325-107325. DOI:10.1016/j.vph.2024.107325. PMID:38985582.

A mild increase in nutrient signaling to mTORC1 in mice leads to parenchymal damage, myeloid inflammation and shortened lifespan. Ortega A, Lebrero C, Sanz A, Calvo M, Deleyto N, de Prado L, Plata AB et al. Nature Aging. 2024 August 01. 4 (8):1102-1120. DOI:10.1038/s43587-024-00635-x. PMID:38849535.

Postprandial metabolomics analysis reveals disordered serotonin metabolism in post-bariatric hypoglycemia. Ferraz R, Ozturk B, Cummings C, Efthymiou V, Querol PC, Poulos L, Wang HN et al. JOURNAL OF CLINICAL INVESTIGATION. 2024 November 01. 134 (21):DOI:10.1172/JCI180157. PMID:39264731.

THESIS

Thesis title: Estudio longitudinal del desarrollo de la enfermedad del hígado graso no alcohólico (NAFLD). Eventos clave y búsqueda de biomarcadores
Doctoral candidate: Martín Grau, María
Director(s): Monleon Salvado, Daniel y González Marrachelli, Vannina
Date of the defense: 29 April 2024

Thesis title: Caracterización metabólica de escolares y adolescentes con hipobetalipoproteinemias
Doctoral candidate: Valls Arévalo, Ángel Vicente
Director(s): González Marrachelli, Vannina y Cecilia Martínez Costa
Date of the defense: 23 May 2024

Research Group on Molecular Microbiology and Microbial Pathogenesis

Consolidated
Person Responsible: David Navarro Ortega

STRATEGIC AIMS

- Study of the basic aspects of infectious diseases
- Study of the microorganisms that cause human pathology, characterization, biology and physiopathogenesis
- The implementation and optimization of the use of new diagnostic technologies in the clinical management of infectious patients, particularly in the context of a basic onco-haematological pathology
- Creation of multidisciplinary “diagnostic stewardship” Units (Programs for optimization of the use of diagnostic techniques -PRODIM-) with other services (Oncology/Hematology/ICU/Resuscitation, Primary Care)
- Study of the immunobiology of patients with infectious diseases, characterization and study of their clinical impact on individuals and society

MAIN LINES OF RESEARCH

- Analytical validation of diagnostic techniques. Study concordance between diagnostic techniques and linearity.
- Sensitivity, specificity, predictive values and robustness study
- Clinical validation of diagnostic techniques. - Clinical validation field studies of diagnostic techniques
- Economic evaluations of diagnostic techniques and algorithms
- Design and evaluation of diagnostic algorithms, applicability and actions associated with the result of analytical techniques and development of new diagnostic strategies. - Use of MALDI-TOF technology (Matrix-assisted laser desorption ionisation-time-of- fligh) for early identification and preliminary characterization of the resistotype in a blood sample from a patient with bacteremia
- Use of MALDI-TOF (Matrix-assisted laser desorption ionisation-time-of-flight) technology for early identification and preliminary characterization of the resistotype in urine samples in patients with suspected pyelonephritis
- Immunobiology of cytomegalovirus infection in patients undergoing allogeneic transplantation of hematopoietic precursors and hematological neoplasms. - Cytomegalovirus, pathophysiology of infection and study of mortality in transplant patients

- Study of genotypic resistance of cytomegalovirus using techniques of Next Generation Sequencing
- Study of adaptive immunity T against cytomegalovirus in haematological patients
- Immunobiology of SARS-CoV-2 infection. - Post-vaccination B and T adaptive immunity in a high-risk population
- Study of the virological characteristics of SARS-CoV-2 and its relationship with the clinical evolution of the patient with Covid-19
- Molecular characterization of Neisseria gonorrhoeae.
- Viroma study, in particular the usefulness of monitoring anelloviruses, their quantity and distribution,. as a tool to quantify the degree of immunosuppression or immunoreconstitution in allogeneic hematopoietic precursor transplantation (Alo-HSCT), in solid organ transplantation (SOT) and in autoimmune diseases treated with immunosuppressants
- Study of Torque tenovirus as a surrogate marker of reconstitution or immunosuppression in allo-HSCT
- Study of Torque tenovirus as a tool to guide the degree of immunosuppression in solid organ transplant patients
- Study of the virome as a tool to generate a multifactorial score for prognostic purposes in different pathologies with an important immunological pathophysiogenic component

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:** David Navarro Ortega. Hospital
- **Established Researcher:** Jesus Rodriguez Diaz. University Estela Berenice Giménez Quiles. Hospital
- **Recognised emerging researcher:** Eliseo Alejandro Albert Vicent. Hospital Ignacio Torres Fink. Hospital
- **Recognised Researcher:** Enric Cuevas Ferrando. INCLIVA Roberto Gozalbo Rovira. University Beatriz Olea Miguel. Hospital
- **First Stage Researcher:** Roberto Cárcamo Calvo. University Sergi López Navarro. University Nazaret Peña Gil. University Ángela Sánchez Simarro. INCLIVA
- Cristina Santiso Bellon. University José María Ferrer Chirivella. INCLIVA

- **Staff-Collaborating Researcher:**
María Angeles Clari Pons. Hospital Francisco Javier Colomina Rodríguez. Primary Care
- **Staff-Technician:**
Ester Colomer Roig. INCLIVA
Patricia Navarro Rodríguez. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
4	3	0	0	0

Emerging Researchers

Eliseo Alejandro Albert Vicent

The main objective is the study of infection in immunosuppressed patients, particularly in Cytomegalovirus and Alphatorquevirus infection in patients undergoing allogeneic hematopoietic stem cell transplantation

Ignacio Torres Fink

The project managed by the researcher consists of the evaluation of the immune T specific reconstitution against Cytomegalovirus in patients who underwent an allogenic hematopoietic precursor transplantation that receive Letermovir

RESEARCH PROJECTS

Reference: TTVGuideTX
Title: Personalisation of immunosuppression by monitoring viral load post kidney transplantation - a randomised controlled phase II trial
Principal Investigator: David Navarro Ortega
Funding body: European Commission
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2021-2026
Total budget: €85.625

Reference: PI21/00563
Title: Inmunidad adaptativa de linfocitos B y T frente a SARS-CoV-2 tras la vacunación de pacientes en riesgo de sufrir COVID-19 severa
Principal Investigator: David Navarro Ortega (Estela Giménez as co-IP)
Funding body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €169.400

Reference: CIGE/2023/183
Title: Evaluación económica del uso del panel FilmArray Pneumonía Plus junto con un programa de AntimicrobialStewardship en el diagnóstico y tratamiento de la neumonía asociada a la ventilación mecánica en el paciente crítico y desarrollo de un test diagnóstico basado en la tecnología LAMP para la detección de Stenotrophomonas maltophilia con el fin de maximizar la utlidad clínica del panel.
Principal Investigator: Eliseo Alejandro Albert Vicent
Funding body: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024
Total budget: €9.000

Reference: PID2020-115403RB-C22
Title: Glicosil hidrolasas bacterianas y su función en la infectividad viral
Principal Investigator: Jesús Rodríguez Díaz
Funding Body: Ministerio de Ciencia e Innovación
Beneficiary Institution: Universidad de Valencia
Duration: 2021-2024
Total budget: €160.930

Reference: AICO/2021/033
Title: Role of host mucosal glycosylation in SARS-CoV-2 infectivity
Principal Investigator: Jesús Rodríguez Díaz
Funding Body: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Beneficiary Institution: Universidad de Valencia
Duration: 2022-2024
Total budget: €90.000

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
38	208,6	5,489
National collaborations	International collaborations	Corresponding author
20	10	19

ole of the first WHO mutation catalogue in the diagnosis of antibiotic resistance in Mycobacterium tuberculosis in the Valencia Region, Spain: a retrospective genomic analysis. García AM, Cancino I, Torres M, Villamayor LM, Borrás R, Borrás M, Bosque M et al. Lancet Microbe. 2024 January 01. 5 (1):43-51. DOI:10.1016/S2666-5247(23)00252-5. PMID:38061383.

Monkeypox virus genomic accordion strategies. Monzon S, Varona S, Negredo A, Vidal S, Patino JA, Ferressini N, Zaballos A et al. Nature Communications. 2024 April 18. 15 (1):3059-3059. DOI:10.1038/s41467-024-46949-7. PMID:38637500.

Urban wastewater-based epidemiology for multi-viral pathogen surveillance in the Valencian region, Spain. Girón I, Cuevas E, Barranquero R, Díaz A, Puchades P, Falcó I, Pérez A et al. WATER RESEARCH. 2024 May 15. 255121463-121463. DOI:10.1016/j.watres.2024.121463. PMID:38537489.

Human intestinal enteroids platform to assess the infectivity of gastroenteritis viruses in wastewater. Carmona N, Pandiscia A, Santiso C, Pérez A, Rodríguez J, Costantini VP, Buesa J et al. WATER RESEARCH. 2024 May 15. 255121481-121481. DOI:10.1016/j.watres.2024.121481. PMID:38520776.

Longitudinal study on the multifactorial public health risks associated with sewage reclamation. Girón I, Sánchez S, Cuevas E, Falcó I, Díaz A, Puchades P, Ballesteros S et al. npj Clean Water. 2024 August 02. 7 (1):DOI:10.1038/s41545-024-00365-y.

THESIS

Thesis title: Utilidad de la cuantificación de ADN de Alphatorquevirus, Anellovirus y Pegivirus como posible marcador del estado inmunológico en el paciente sometido a trasplante y en el paciente crítico
Doctoral candidate: Lorena Forqué Rodríguez
Director(s): David Navarro Ortega
Date of the defense: March 2024

Thesis title: Carga viral del SARS-CoV-2 en tracto respiratorio superior: factores que la modulan e implicaciones diagnósticas
Doctoral candidate: Paula de Michelena García
Director(s): David Navarro Ortega
Date of the defense: September 2024

Translational Research Group on Esophagogastric Cancer*

Emerging
Person Responsible: Tania Carolina Fleitas Kanonnikoff

STRATEGIC AIMS

- Identification of biomarkers to stratify patients diagnosed with gastric cancer according to their sensitivity to immunotherapy.
- Development and integration of tools to identify individuals at risk of developing gastric cancer as a prevention strategy.
- Understanding risk factors and biological characteristics of gastric tumors in young population.
- Generation of a biobank of organoids for the analysis of the biological characteristics of each patient's tumor and screening for sensitivity to therapies as a validation tool

MAIN LINES OF RESEARCH

- Immune microenvironment of advanced gastric cancer and mechanisms of resistance to immunotherapy
- Generation of organoid models as a tool for personalized medicine strategies in gastric cancer.
- Clinical, epidemiological, biological and microbiome characteristics of gastric tumors in young patients.
- Models for risk stratification of developing gastric cancer and the establishment of prevention strategies.

GROUP MEMBERS

Staff in the period 10/12/2024 - 31/12/2024

- **Established Researcher:**
Tania Carolina Fleitas Kanonnikoff. Hospital
- **Recognised Researcher:**
Manuel Cabeza Segura. INCLIVA
Joséfa Castillo Aliaga. University
Mari Carmen Fernández Moreno. Hospital
- **First Stage Researcher:**
Alba Aguilar Cifre. INCLIVA
Arturo González Vilanova. INCLIVA
- **Staff-Collaborating Researcher:**
María Eugenia Barrios Carvajal. Hospital
Fernando López Mozos. Hospital
Almudena Vera González. Hospital
Rosa Ana Villagrasa Manzano. Hospital
- **Staff-Technician:**
Andrea Marín Alonso. INCLIVA
Laura Martínez Lucía. INCLIVA
Ana María Miralles Marco. INCLIVA
Sergio Romero Alcaide. INCLIVA
Matteo Stocco. INCLIVA

RESEARCH PROJECTS

Reference: 101095359 - AIDA
Title: An Artificially Intelligent Diagnostic Assistant for gastric inflammation. AIDA
Principal Investigator: Tania Fleitas Kanonnikoff
Funding Body: European Commission
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2026
Total Budget: €6.334.803,75 (INCLIVA: €1.138.750)

Reference: PI21/00693
Title: Perfil de biomarcadores inmunes como herramienta para la identificación de pacientes con cáncer gástricos subsidiarios de inmunoterapia
Principal Investigator: Tania Fleitas Kanonnikoff
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total Budget: €208.120

Title: Valor pronóstico y predictivo de respuesta del microambiente del cáncer gástrico en personas jóvenes. Proyecto VERO
Principal Investigator: Tania Fleitas Kanonnikoff
Funding Body: GEMCAD - Grupo Español Multidisciplinar en Cáncer Digestivo
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €20.000

Title: Decoding GC microenvironment: a new step towards precision immunotherapy
Principal Investigator: Tania Fleitas Kanonnikoff
Funding body: Asociación Española Contra el Cáncer
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2026
Total budget: €53.000

Title: Inmunoterapia en cáncer gastroesofágico. Hacia una nueva estrategia terapéutica a través de la inhibición de las proteínas HCK y/o FGR implicadas en la atenuación de la respuesta inmune
Principal Investigator: Tania Fleitas Kanonnikoff
Funding Body: Fundación Mutua Madrileña
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2026
Total budget: €110.000

Title: Prognostic and predictive impact of the microbiome and the tumor immune microenvironment on advanced gastric cancer across young patients (<50 YO): VERO-2 project
Principal Investigator: Tania Fleitas Kanonnikoff
Funding Body: Gilead Fellowship Program
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2024
Total budget: €49.980

* This group was created in December 2024, so this year's Scientific Report corresponds to one month

Oncology Phase I Oncology Clinical Trials Unit

TEAM

PI:
Andrés Cervantes Ruipérez. Hospital. University

Research Team

Alba Viala Monleón. Hospital
Amelia Insa Mollá. Hospital
Begoña Bermejo de las Heras. Hospital. University
Desamparados Roda Pérez. Hospital
Gema Bruixola Campos. Hospital
Inés González Barrallo. Hospital
Isabel Chirivella González. Hospital. University
José Vicente Montón Bueno. Hospital
José A. Pérez Fidalgo. Hospital
Juan Miguel Cejalvo Andújar. Hospital
Maite Martínez Martínez. Hospital
Marisol Huerta Álvaro. Hospital
Marta Tapia Céspedes. Hospital
Noelia Tarazona Llaveró. Hospital
Paloma Martín Martorell. Hospital
Susana Roselló Keranen. Hospital
Tania Fleitas Kanonnikoff. Hospital
Valentina Gambardella. Hospital
Victor Seguí Manzaneque. Hospital

Nurses, laboratory technicians and CTAE

Inma Blasco Blasco INCLIVA. University
Cecilia Ramón Mascarell. INCLIVA
María Isabel Calzadilla Luz. INCLIVA.
Matteo Stocco. INCLIVA
Nuria Aguado Machancoses. INCLIVA
Silvia Moreno Magraner. INCLIVA
Gloria Corredor Agulló. INCLIVA
María Montes de Oca. INCLIVA
Mónica Ferrer Aguado. INCLIVA
Paula Martínez Lucas. INCLIVA
Grace Steffa. INCLIVA.
Jesmina Belenguer. INCLIVA
María Falco. INCLIVA
Arantxa Sánchez Cosmo. INCLIVA
Ana Vinatea.
Cristian Pérez.
Silvia Coret.
Sara Rodríguez. INCLIVA
Cristina Tebar. INCLIVA
Ana Cosías. INCLIVA
Elena Mieres. INCLIVA
María José Sansó. INCLIVA

Data Managers

Ignacio Castaño López. INCLIVA.
Alejandro Asturiano. INCLIVA
Ana Vercher Grau. INCLIVA
Andrea Pascual Herrero. INCLIVA

Beatriz López Montero. INCLIVA.
Júlia Soler Flores. INCLIVA.
Mª Carmen Martínez López. INCLIVA
Sergio Romero Alcaide. INCLIVA
Andreea Ghiuro. INCLIVA

Administrative assistants

Yolanda de la Cruz. INCLIVA
Maribel Gómez. INCLIVA
Ainoa Vizuite. INCLIVA
Paqui Fernández. INCLIVA
Paloma Campos. INCLIVA
Enrique Castelló. INCLIVA
Paranee Archavarat. INCLIVA
Roberto San Leandro. INCLIVA
Lorena Saz Lluch. INCLIVA

INCLIVA is the only hospital in Valencia performing Phase I cancer clinical trials, and one of the few in Spain. Phase I trials are those in which a substance or product is tested in humans for the first time.

INCLIVA is conducting, through the Oncology Department, 229 clinical trials, 164 of them related to treatment in the early stages of testing (85 phase I or “first in human” and 79 phase II). INCLIVA's new facilities provide a full floor and a half specifically dedicated to host the unit.

The unit aims to develop and select new drugs through clinical trials and to perform studies related to the pathogenesis, prognosis and new experimental therapies in solid tumors.

FUNCTIONS

The unit focuses on developing new drugs through clinical trials, studies on pathogenesis, prognosis and new experimental therapies for solid tumours.

A large part of its activity consists of the development of Clinical Trials of a marked international nature, promoted by the leading companies in the pharmaceutical sector. The first administration of medication to humans (PHASE I) is carried out through the identification of patients from the Oncology Department of the Hospital Clínico Universitario de Valencia and other referral centres, whose characteristics are in line with those of the target population of the drugs under investigation. Unlike other units where phase I clinical trials are carried out, no action is performed on healthy subjects.

The innovative approach of this unit, which deals with the diagnosis and treatment of cancer based on the complete sequencing of the human genome, is achieving promising results with the use of specific treatments against molecular alterations detectable in sequencing processes and the development of new combinations of immunotherapy, allowing the development of new therapies and implementing Precision Medicine.

These are new drugs that are less toxic and more specific for each type of cancer, and some of these drugs have now entered Phase II.

EQUIPMENTS

- Located on the 2nd floor:
- -80º C Freezer
 - -20º C Freezer
 - 2 Refrigerated desktop centrifuge
 - Scientific refrigerator
 - Conventional fridge
 - Defibrillator
 - Electrocardiographic equipment
 - 7 monitors (blood pressure, heart rate and O2 saturation)
 - 7 double medication infusion pumps
 - 7 heads gases (oxygen and vacuum)

- Located on the 3rd floor:
- Conventional refrigerator
 - Refrigerated tabletop centrifuge
 - Electrocardiography equipment
 - Defibrillator
 - Ultrasound scanner
 - 5 Philips counter monitors
 - 2 voltage monitors
 - 4 arches with 8 sockets/heads + 2 in the rooms

LOCATION

- The following facilities are located on the second floor:
- Reception and waiting room
 - 2 Consulting rooms
 - Staff room
 - Meeting room
 - Therapy room

- The third floor hosts the following facilities:
- Clinical trials office
 - Monitoring room
 - Clinical trials archives

RESEARCH PROJECTS

Reference: 2020/111 - TUMiCC
Title: Tumor microenvironment-derived factors in localized colon cancer: clinical impact and therapeutic implications
Principal Investigator: Andrés Cervantes Ruipérez
Funding Body: *Asociación Española Contra el Cáncer*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2020-2025
Total budget: €992.665 (INCLIVA: €332.970)

Reference: CIRCULATE-SPAIN-01
Title: Ensayo clínico aleatorizado, fase II, para evaluar el efecto de la quimioterapia adyuvante intensiva frente a la estándar en el cáncer de colon localizado con ADN tumoral circulante.
Principal Investigator: Andrés Cervantes Ruipérez
Funding Body: Instituto de Salud Carlos III
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2021-2026
Total budget: 1.039.967,68

Reference: PI21/00689
Title: Profiling and targeting minimal residual disease in localised colon cancer: a step forward towards precision medicine in adjuvant treatment
Principal Investigator: Andrés Cervantes Ruipérez (CO-IP senior), Noelia Tarazona.
Funding Body: Instituto de Salud Carlos III
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2025
Total budget: €232.000

Reference: 101057514 - MyPath
Title: Developing and implementing innovative Patient-Centred Care Pathways for cancer patients
Principal Investigator: Andrés Cervantes Ruipérez (CO-IP)
Funding Body: European Commission
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022- 2027
Total budget: €4.773.470 (INCLIVA: €388.125)

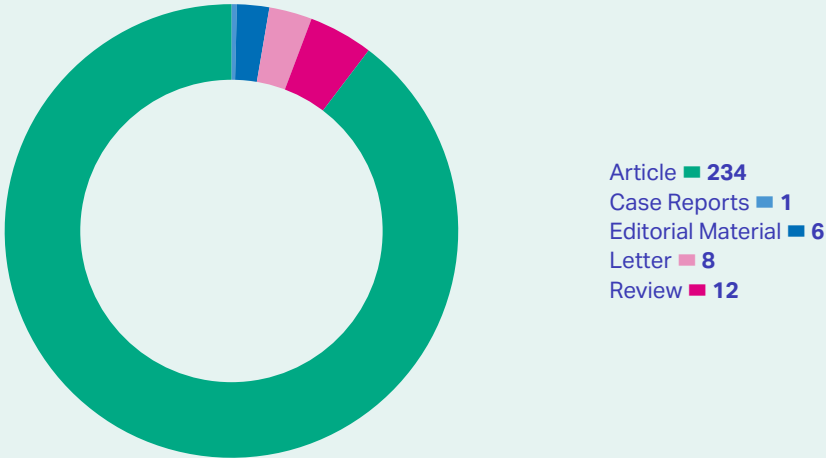
4.3.3 Metabolism and Organic Damage Area

Groups

- Research Group on Genetics of Osteoporosis
- Research Group on Neurological Impairment
- Research Group on Inflammation
- Research Group on Psychiatry and Neurodegenerative Diseases
- Research Group on Respiratory Diseases
- Research Group on Tissular Biochemistry
- Research Group on Aging and Physical Activity
- Research Group on Anesthesiology and Reanimation
- Research Group on Human Translational Genomics
- Research Group on General and Digestive Surgery
- Research Group on Personal Autonomy, Dependence and Severe Mental Disorders (TMAP)
- Research Group on Cellular and Organic Physiopathology of Oxidative Stress
- Research Group on Nuclear Receptors in Cardiometabolic Pathology
- Research group on Metabolic Diseases
- Research Group on Rare Respiratory Diseases (RRD)
- Research Group on Healthy Aging (MiniAging)
- Research Group on Exercise, Nutrition and Healthy Lifestyle
- Research Group on Epigenomics and Translational Epigenetics
- Research Group in Medical Chemistry for Drug Development
- Research Group on Neurobiology and Molecular Physiopathology in Rare Diseases – NeuroFisER
- Research Group on Genetics and Biomarkers of Rare Diseases
- Mixed Unit of Neurological Impairment

Number of publications	IF	Average IF	National collaborations	International collaborations	Corresponding author
261	3559,10	6,8841	121	107	109

D1	Q1	Q2	First author	Last author
70	184	49	86	108



Research Group on Genetics of Osteoporosis

Consolidated

Person Responsible: Miguel Ángel García Pérez

STRATEGIC AIMS

- Identification of genes and polymorphisms associated with bone phenotypes such as bone mineral density and fragility fracture
- Identification of miRNAs as biomarkers of fragility fracture and osteoarthritis
- Development of animal models of accelerated bone loss as a source of candidate genes for study in humans
- Functional characterization of genetic variants associated with quantitative phenotypes

MAIN LINES OF RESEARCH

- Development of animal models of accelerated bone loss and cellular models of osteogenesis.
- Functional analysis of genetic variants.
- Genetic and epigenetic biomarkers of prevalent bone phenotypes.
- Genetics of postmenopausal osteoporosis.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Miguel Ángel García Pérez. Hospital
- **Established Researcher:**
Damian Mifsut Miedes. University
- **Staff-Collaborating Researcher:**
Rosa María Aliaga Corachan. University

RESEARCH PROJECTS

Reference: PID2022-137515OB-I00

Title: Biomarcadores genéticos y epigenéticos en la osteoporosis postmenopáusica

Principal Investigator: Miguel Ángel García Pérez

Funding Body: Ministerio de Ciencia e Innovación

Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2023-2026

Total Budget: €115.000

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
3	7,7	2,56
National collaborations	International collaborations	Corresponding author
1	2	3

Association between anxiety and frailty in postmenopausal women. García-Vigara A, Fernández-Garrido J, Chedraui P, Monllor-Tormos A, García-Pérez MÁ, Tarín JJ, Artero A, Cano A. GYNECOLOGICAL ENDOCRINOLOGY. 2024 March 09. 40 (1):2329714-2329714. DOI:10.1080/09513590.2024.2329714. PMID:38499020.

Allelic variants of the estrogen receptor genes and frailty phenotype in postmenopausal women. Monllor-Tormos A, García-Vigara A, Morgan O, García-Pérez MÁ, Tarín JJ, Cano A. CLIMACTERIC. 2024 May 03. 27 (3):314-320. DOI:10.1080/13697137.2024.2306269. PMID:38318796.

Physical activity to reduce the burden of frailty after menopause: effectiveness and adherence rate of a resource saving exercise plan. G García-Vigara A, Fernández-Garrido J, Carbonell-Asíns JA, Sánchez-Sánchez ML, Monllor-Tormos A, García-Pérez MÁ, Tarín JJ, Cano. MENOPAUSE-THE JOURNAL OF THE MENOPAUSE SOCIETY. 2024 July 01. 31 (7):634-640. DOI:10.1097/GME.0000000000002372. PMID:38743912.

THESIS

Thesis title: Abordaje multidisciplinar en el estudio de una enfermedad compleja y una cromosómica: la osteoporosis postmenopáusica y el síndrome Idic(15)

Type: Doctoral

Doctoral candidate: Clara Pertusa Viñuales

Director(s): Miguel Ángel García-Pérez

University: Universitat de València

Date of the defense: 9 May 2024

Grade: Sobresaliente

Quality recognition/Award: Cum Laude

Research Group on Neurological Impairment

Consolidated
Person Responsible: María Del Carmen Montoliu Félix

STRATEGIC AIMS

- Characterization of cognitive, functional and brain alterations in cirrhotic patients with minimal hepatic encephalopathy (MHE)
- Characterization of immunological, inflammatory, microbiota and neuroinflammatory alterations associated with the onset of MHE
- Identification of biomarkers for early detection of mild cognitive impairment in MHE
- To characterize the inflammatory processes and create a bioinformatic model of the molecular and cellular events of the immune system associated to the onset of MHE. Assess its utility to predict or diagnose MHE
- Evaluation of the effects of treatment with rifaximin and the mechanisms involved
- Study of cognitive and motor impairment in patients with metabolic dysfunction-associated steatotic liver disease (MASLD)
- Characterization of immunological alterations in microbiota, inflammation and neuroinflammation associated with cognitive impairment in MASLD. Molecular and cellular mechanisms

MAIN LINES OF RESEARCH

- Main Line of research: Characterization of neurological and brain alterations in patients with liver disease. Mechanisms: role of changes in inflammation, immune system, microbiota and extracellular vesicles. Diagnostic and therapeutic implications.
- Characterization of immunological, inflammatory, microbiota and neuroinflammatory alterations associated with the onset of mild cognitive impairment in liver cirrhosis and MASLD.
- Characterization of cognitive, functional and brain alterations in patients with minimal hepatic encephalopathy (MHE).
- Identification and modelling of molecular and cellular events of the immune response associated to the appearance of MHE.
- Identify biomarkers for early detection of mild cognitive impairment in liver cirrhosis and MASLD.
- Research on cognitive and motor alterations in patients with MASLD with mild cognitive impairment.
- To assess the effects of rifaximin treatment and new treatments: mechanisms involved.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Carmina Montoliu Félix. University
- **Established Researcher:**
Andrea Cabrera Pastor. University
Roberto Aliaga Méndez. Hospital
José Luis León Guijarro. Hospital
José Ballester Fayos. Primary Care
María Desamparados Escudero García. Hospital
- **Recognised Emerging Researcher:**
María Pilar Ballester Ferre. Hospital
- **Recognised Researcher:**
Yaiza Arenas Ortiz. University
Paula Cases Bergon. Hospital
Nicolas Peñaranda Sarmiento. Hospital
Rut Victorio Muñoz. Hospital
Cristina Monton Rodríguez. Hospital
María Amparo Urios Lluch. INCLIVA
Alessandra Fiorillo. INCLIVA
Juan José Gallego Roig. INCLIVA
- **First Stage Researcher:**
Adrià López Gramaje. University
Franc Casanova Ferrer. INCLIVA
- **Staff-Collaborating Researcher:**
Mika Aiko Gesler. Hospital
- **Staff-Nurse:**
María Jesús Campa Santiago. Hospital
- **Staff-Technician:**
Laura Ávila Fernández. INCLIVA
María Oliver Ferrándiz. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
2	3	1	0	1

Emerging Researcher

María Pilar Ballester Ferre
María Pilar Ballester is a Specialist in Hepatology and performs her medical activity at Hospital Clínico Universitario de Valencia, Spain. She recently obtained a Juan Rodés contract 2024-2028 (JR23/00029) of the Spanish Ministry of Science and Innovation, Instituto de Salud Carlos III. She obtained her cum laude PhD at University of Valencia in 2021 by studying the immune dysfunction associated with cognitive impairment in patients with cirrhosis, obtaining an extraordinary doctorate award from University of Valencia. The project was also selected as the best oral presentation in the regional conference from Sociedad Valenciana de Patología Digestiva in 2018. Her PhD was funded through a competitive grant (Rio Hortega contract -CM19/00011-) from Instituto de Salud Carlos III. As a pre-doctorate, she spent two months in the University of Pittsburgh Medical Centre under the supervision of Professor Ramón Bataller, with the support of a fellowship from INCLIVA-Biomedical Research Institute. Soon after finishing, she performed a postdoctoral stay at University College London, United Kingdom, supervised by Professor Rajiv Jalan; which was funded through two grants (INCLIVA-Biomedical Research Institute and Sociedad Valenciana de Patología Digestiva). In London, she studied the role of ammonia in the pathogenesis and treatment of complications of cirrhosis, creating the Ammon Consortium, which she currently coordinates. She obtained a regional competitive grant as Principal Investigator by Sociedad Valenciana de Patología Digestiva in 2020, a national grant from Asociación Española para el Estudio del Hígado in 2023 and a national competitive-funded project by Instituto de Salud Carlos III in 2024 as co-Investigator. She has also collaborated in three funded research projects from Instituto de Salud Carlos III, Fundación Ramón Areces and Programa Prometeo Consellería de Educación Generalitat Valenciana. Recently, she also obtained her first patent. She is part of the International Society of Hepatic Encephalopathy and Nitrogen Metabolism (ISHEN) Translational steering committee and member of the European Association for the Study of the Liver. In parallel, Dr Ballester has supervised 5 final degree projects, 1 final master's project and she is currently co-directing 3 doctoral thesis at University of Valencia.

RESEARCH PROJECTS

Reference: CP20/00009
Title: Role of extracellular vesicles, metabolome and altered intercellular communication in the induction of minimal hepatic encephalopathy: mechanisms, therapeutic and diagnostic implications
Principal Investigator: Andrea Cabrera Pastor
Funding body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2021-2024
Total budget: €40.000

Title: Impacto de la implementación de nuevas estrategias de cribado para microeliminación de Hepatitis C en el Departamento de Salud Valencia Clínico-Malvarrosa
Principal Investigator: Amparo Escudero García
Funding body: Gilead Fellowship Program
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2025
Total budget: €30.000

Reference: PI23/00204
Title: Papel de las vesículas extracelulares en comorbilidades asociadas a obesidad mórbida: implicaciones diagnósticas, terapéuticas y mecanismos.
Principal Investigator: Andrea Cabrera Pastor
Funding body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2026
Total budget: €140.000

Reference: PI23/00062
Title: Mecanismos que conducen al deterioro cognitivo y motor leve en pacientes con enfermedad hepática: Papel de los cambios en la microbiota, el sistema inmunitario y las vesículas extracelulares.
Principal Investigator: María del Carmen Montoliu Félix
Funding body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2026
Total budget: €252.500

Reference: PI-2023-001. Acrónimo: NeurObes
Title: Validación clínica de la cirugía bariátrica como tratamiento de la obesidad mórbida en la disfunción neurológica asociada a la enfermedad hepática metabólica e implementación de una estrategia multimodal de precisión para la identificación de perfiles de respuesta terapéutica
Principal Investigator: Carmina Montoliu (UV) / M^a Pilar Ballester (INCLIVA)
Funding body: Programa VLC-BIOCLINIC. Subprograma Proyectos de Investigación Traslacional Conjuntos.
Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia/ Universidad de Valencia*
Duration: 2024
Total budget: 20000 €

Reference: CIPROM2021/082
Title: Molecular mechanisms of the neurological (cognitive and motor) alterations in hyperammonemia and hepatic encephalopathy. Therapeutic implications.
Principal Investigator: Vicente Felipo
Researchers: Alicia Salvador; Gaspar Pérez, Carmina Montoliu, Desamparados Escudero
Responsible INCLIVA/Universidad de Valencia: Carmina Montoliu
Funding body: Conselleria de Educacio. Generalitat Valenciana. Ayuda para Grupos de Investigación de Excelencia – Programa Prometeo,
Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia / Universidad de Valencia/ Instituto de Agroquímica y Tecnología de Alimentos (CSIC) / Centro de Investigación Príncipe Felipe de Valencia*
Total budget: 600.000 euros
Duration: 2022-2025

RESEARCH RESULTS

Invention: 2023. Development and Validation of the AMMON-OHE model to risk stratify cirrhoticoutpatients for occurrence of overt hepatic encephalopathy
Priority number: UK2303652
Status: PCT extension
Principal Investigator: María Pilar Ballester Ferre

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
21	121,2	6,06
National collaborations	International collaborations	Corresponding author
9	8	12

Improved cognition after rifaximin treatment is associated with changes in intra- and inter-brain network functional connectivity. Casanova F, Gallego JJ, Fiorillo A, Urios A, Ríos MP, León JL, Ballester MP et al. Journal of Translational Medicine. 2024 January 12. 22 (1):49-49. DOI:10.1186/s12967-023-04844-7. PMID:38217008.

Ammoniagenic Action of Valproate without Signs of Hepatic Dysfunction in Rats: Possible Causes and Supporting Evidence. Alilova G, Tikhonova L, Montoliu C, Kosenko E. Biomolecules. 2024 March 01. 14 (3):DOI:10.3390/biom14030370. PMID:38540788.

Longitudinal outcomes of obeticholic acid therapy in ursodiol-nonresponsive primary biliary cholangitis: Stratifying the impact of add-on fibrates in real-world practice. Gómez E, Montero JL, Molina E, García L, Casado M, Fuentes J, Simón MA et al. ALIMENTARY PHARMACOLOGY & THERAPEUTICS. 2024 June 01. 59 (12):1604-1615. DOI:10.1111/apt.18004. PMID:38690746.

A transient blood IL-17 increase triggers neuroinflammation in cerebellum and motor incoordination in hyperammonemic rats. Arenas YM, Montoliu C, Llansola M, Felipo V. Journal of Neuroinflammation. 2024 November 30. 21 (1):314-314. DOI:10.1186/s12974-024-03310-5. PMID:39616376.

Low-to-moderate alcohol consumption is associated with increased fibrosis in individuals with metabolic dysfunction-associated steatotic liver disease. Marti D, Calleja JL, Vilar E, Iruzubieta P, Rodríguez JC, Del Barrio M, Puchades L et al. JOURNAL OF HEPATOLOGY. 2024 December 01. 81 (6):930-940. DOI:10.1016/j.jhep.2024.06.036. PMID:38971533.

THESIS

Thesis title: Mecanismos cerebrales de las alteraciones neurológicas en pacientes con encefalopatía hepática mínima. Efectos del tratamiento con rifaximina
Type: Doctoral
Doctoral candidate: Franc Casanova Ferrer
Director(s): Amparo Urios and Carmina Montoliu
University: Universidad de Valencia
Date of the defense: 25 October 2024
Quality recognition/Award: Sobresaliente cum laude

Research Group on Inflammation

Consolidated
Person Responsible: María Jesús Sanz Ferrando

STRATEGIC AIMS

- Study of cellular and soluble inflammatory mediators in early chronic obstructive pulmonary disease
- Study of the systemic inflammation associated to Primary Hypercholesterolemia, Metabolic Syndrome and Nonalcoholic Fatty Liver Disease (NAFLD)
- Study of the CCL11/CCR3 axis in Primary Hypercholesterolemia and atherosclerosis
- Study of the CCL11/CCR3 axis in in abdominal aortic aneurism development
- Study of the CXCL16/CXCR6 axis in Nonalcoholic Fatty Liver Disease (NAFL) and nonalcoholic steatohepatitis (NASH)
- Pharmacological modulation of Nonalcoholic Fatty Liver Disease (NAFL) and nonalcoholic steatohepatitis (NASH) by combination of drugs targeting LXR and PPARalpha
- Synthesis of new panPPAR agonists and evaluation of their pharmacological impact in ob/job mice

MAIN LINES OF RESEARCH

- Study of new immune players in abdominal aortic aneurism development.
- Study of the systemic inflammation in early chronic obstructive pulmonary disease (COPD).
- Study of the vascular inflammation induced by different risk factors of atherosclerosis: metabolic syndrome, primary and familial hypercholesterolemia and nonalcoholic fatty liver disease (NAFLD).
- Synthesis of new dual PPARα/γ and panPPAR agonists and their pharmacological evaluation in the control of cardiometabolic disorders.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:** María Jesús Sanz Ferrando. University Esteban Morcillo Sánchez. University
- **Established Researcher:** José Luis Ortiz Belda. University
- **Recognised Researcher:** Elena Domingo Pérez. INCLIVA
- **First Stage Researcher:** Álvaro Gómez Martín. INCLIVA

- **Staff-Technician:** Inés Descalzo Arenas. INCLIVA
- **Staff-Collaborating:** José Luis Aparicio Collado. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
1	1	0	0	1

TEAM INVOLVED IN



RESEARCH PROJECTS

Reference: PID2020-120336RB-I00
Title: *Modulación de la inflamación metabólica en la prevención de la patología cardiovascular: Identificación de nuevas dianas terapéuticas y desarrollo de fármacos novedosos*
Principal Investigator: María Jesús Sanz Ferrando
Funding Body: *Ministerio de Ciencia, Innovación y Universidades*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2021-2024
Total Budget: €290.400

Reference: CIPROM/2022/45
Title: *A traslational approach to study systemic inflammation as main driver of cardiovascular diseases in metabolic disorders*
Principal Investigator: María Jesús Sanz Ferrando
Funding body: *Conselleria de Educación, Universidades y Empleo*
Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2026
Total budget: €599.636

Reference: PID2023-152677OB-I00
Title: *Nuevos inmunoactores en desórdenes metabólicos: Nuevas dianas terapéuticas? (INMUNCARDIMETAB)*
Principal Investigator: María Jesús Sanz Ferrando
Funding body: *Ministerio de Ciencia e Innovación*
Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2024-2026
Total budget: €362.500

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
4	23,4	5,85
National collaborations	International collaborations	Corresponding author
4	—	2

Targeting systemic inflammation in metabolic disorders. A therapeutic candidate for the prevention of cardiovascular diseases?. Domingo E, Marques P, Francisco V, Piqueras L, Sanz MJ. PHARMACOLOGICAL RESEARCH. 2024 February 01. 200107058-107058. DOI:10.1016/j.phrs.2024.107058. PMID:38218355.

Comparison of different agents and doses of anti-vascular endothelial growth factors (aflibercept, bevacizumab, conbercept, ranibizumab) versus laser for retinopathy of prematurity: A network meta-analysis. Ortiz A,Martorell P,Barranco H,Pascual I,Morcillo E,Ortiz JL. Survey Of Ophthalmology. 2024 July 01. 69 (4):585-605. DOI:10.1016/j.survophthal.2024.02.005. PMID:38432359.

Key role of activated platelets in the enhanced adhesion of circulating leucocyte-platelet aggregates to the dysfunctional endothelium in early-stage COPD. Marques P, Bocigas I, Domingo E, Francisco V, Tarraso J, García Y, Morcillo EJ et al. Frontiers in Immunology. 2024 August 19. 151441637-1441637. DOI:10.3389/fimmu.2024.1441637. PMID:39229275.

Comparison of Different Doses of Oral and Ocular Propranolol for Retinopathy of Prematurity: A Network Meta-Analysis. Ortiz A,Martorell P,Roselló P,Morcillo E,Ortiz JL. PEDIATRIC DRUGS. 2024 September 01. 26 (5):499-518. DOI:10.1007/s40272-024-00647-5. PMID:39112827.

Research Group on Psychiatry and Neurodegenerative Diseases

Consolidated
Person Responsible: Juan Nacher Roselló

STRATEGIC AIMS

- Development of a mobile application linked to clinical records to improve treatment adherence in patients with first episode psychosis.
- Publication of results from gene-environment interaction projects related to first-episode psychosis.
- Development of new diagnostic techniques for psychosis using fMRI and machine learning approaches.
- Development of animal models for severe mental disorders.
- Development of new in vitro patient-specific neuronal models to study psychoses.
- Predictive modeling of treatment response in first-episode psychosis.
- Identification of genetic risk factors and biomarkers associated with the development of schizophrenia and medication response
- Identification of modifier genes, new targets and molecules for the treatment of Friedreich's ataxia.

MAIN LINES OF RESEARCH

- Design and coordination of clinical, genetic and neuroimaging data bases oriented to performing multicenter projects.
- Development of interactive systems for improving therapeutic adherence ** Study on the efficiency of psycho-social intervention techniques in serious mental illness.
- Epigenetic studies of candidate genes in psychosis and mental illness.
- Development of models for studying neurodegenerative diseases (Friedreich Ataxia) using invertebrate animals (Drosophila).
- Identifying abnormal patterns in neuroimaging (morphometry, functional, spectroscopy) in patients with psychosis.
- Identifying genetic and environmental risk factors in affective and psychotic disorders.
- Identifying risk-associated polymorphisms in psychosis and affective disorders.
- Study of mutations in monogenic neurodegenerative diseases.
- Research using animal models to study severe mental illness.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- Leading Researcher:**
Juan Nacher Roselló. University
- Established Researcher:**
Olga María Rivero Martín (Emerging). INCLIVA
Eduardo Jesús Aguilar García-Iturrospe. Hospital
M. Dolores Moltó Ruiz. University
- Recognised Emerging Researcher:**
Marta Pérez Rando. INCLIVA
- Recognised Researcher:**
Héctor Carceller Cerdá. INCLIVA
Jon Iñaki Etxeandia Pradera. Hospital
Carlos Cañete Nicolas. Hospital
Miguel Hernandez Viadel. Hospital
María José Escartí Fabra. Hospital
María Engracia Gadea Domenech. University
José Carlos González Piqueras. Hospital
Esther Lorente Rovira. Hospital
Francisco Olucha Bordonau. Hospital
Gracian García Marti. Hospital
- First Stage Researcher:**
Ricardo Ruiz Miguel. INCLIVA
Gabriel Daniel Flores Gómez. University
Marc Beltran Martínez. University
Yaiza Gramuntell Roch. University
Julia Alcaide Pozo. University
Javier David Llesma. University
- Staff-Administrative Assistant:**
Virginia Gómez Soriano. INCLIVA
- Staff-Technician:**
Patrycja Klimczak. INCLIVA
Hristina Vasileva Uzunova. INCLIVA
- Staff-Collaborating Researcher:**
Alba Postiguillo GiralDOS. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
6	2	1	0	2

Emerging Researcher

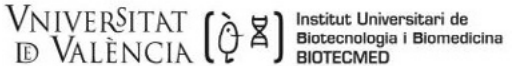
Marta Pérez Rando

The main line of research is focused on identifying brain alterations in psychiatric disorders—such as schizophrenia—using multimodal MRI techniques. She has published several studies showing structural changes in key brain regions, including thalamic nuclei, in patients with schizophrenia and persistent auditory hallucinations, and recently first-episode psychotic patients. Her work aims to bridge neuroimaging findings with clinical symptoms to improve understanding and treatment of mental illness.

Olga María Rivero Martín

Her main line of research is focused on the generation of neuronal cell lines from healthy subjects and first episode of psychosis (FEP) patients, obtained from human induced pluripotent stem cells and olfactory neuroepithelial cells, in order to identify biomarkers of psychosis and poor medication response.

TEAM INVOLVED IN



RESEARCH PROJECTS

Reference: PI20/00473
Title: Estudio longitudinal de una cohorte representativa: superando la heterogeneidad clínica y biológica en primeros episodios psicóticos
Principal Investigator: Julio Sanjuán Arias
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2021-2025
Total budget: €68.970

Reference: PI22/01985
Title: Desarrollo y caracterización de nuevos modelos preclínicos celulares de medicina personalizada en psicosis
Principal Investigator: Olga María Rivero Martín and M^a José Escartí Fabra
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2025
Total budget: €117.370

Reference: PI22/00507
Title: Reposicionamiento de fármacos como tratamiento para la enfermedad de Huntington y la ataxia espinocerebelosa de tipo 3. Estudios en cultivos primarios de pacientes y en modelos animales transgénicos
Principal Investigator: Federico V. Pallardó Calatayud and Juan Antonio Navarro Langa (M^a Dolores Moltó Ruiz as collaborating researcher)
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2025
Total budget: €147.620

Reference: CIPROM/2023/28
Title: Exploring the role of the thalamus and early life adversity on the etiopathology and treatment of schizophrenia: a translational and multidisciplinary approach.
Principal Investigator: Juan Nacher Roselló
Funding Body: Conselleria de Educación / Innovación, Universidades, Ciencia y Sociedad Digital /Empleo
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2028
Total budget: €600.000

Reference: INVEST/2022/141
Title: Programa de formación y ocupabilidad de psicólogo/a en evaluaciones clínicas y uso seguimiento del aplicativo Remindcare en proyectos de investigación
Principal Investigator: Julio Sanjuan Arias
Funding Body: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €66.217,84

Reference: INVEST/2022/49
Title: Programa de formación y ocupabilidad de especialista en análisis de imagen de sistema nervioso
Principal Investigator: Juan Nácher Roselló
Funding Body: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €66.217,84

Title: Impacto de las experiencias adversas tempranas sobre el tálamo y el desarrollo de la depresión
Principal Investigator: Juan Nácher Roselló
Funding Body: Fundación Alicia Koplowitz
Beneficiary Institution: CIBERSAM
Duration: 2023-2025
Total budget: €47.000

Title: Efecto de las experiencias traumáticas en la vida temprana sobre la estructura, función y conectividad del tálamo en pacientes psicóticos.
Principal Investigator: Juan Nácher Roselló
Funding Body: Fundacion Mutua Madrileña.
Duration: 01/09/2024-31/08/2027
Total budget: €110.000

Reference: PID2021-127595OB-I00
Title: Impacto de las experiencias adversas tempranas sobre el tálamo y el desarrollo de trastornos psiquiátricos
Principal Investigator: Juan Nácher Roselló
Funding Body: Ministerio de Ciencia e Innovación
Duration: 01/01/2022-31/12/2024
Total budget: €205.700 €.

Reference: PID2023-152127OB-I00
Title: Desarrollo de un software de analisis de imagen de rm cerebral multimodal de ultra-alta resolucion para su aplicacion a entornos clínicos
Principal investigator (CO-IP's): José Vicente Manjón Herrera y María Engracia Gadea Doménech
Funding Body: MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES
Beneficiary Institution: UPV, Universitat de València
Duration: 2024-26
Total budget: 172.500

Reference: AP-2023-012 PSYCHOCELLS
Title: Las células del neuroepitelio olfativo como plataforma para la identificación de biomarcadores en trastornos psicóticos
Principal Investigators: Olga Rivero Martín, José Manuel Torres Ibáñez
Funding Body: Fundación Investigación Hospital Clínico Universitario de Valencia / Universitat de València (Convocatoria VLC-Bioclinic)
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 13/03/2024 - 13/03/2025
Total Budget: 5.000 €.

Reference: AP-2023-006
Title: Estudio de la relación entre las experiencias adversas de la vida temprana, y la microbiota intestinal y su relevancia en la esquizofrenia
Principal Investigators: María José Escartí and Andrés Moya
Funding Body: Fundación Investigación Hospital Clínico Universitario de Valencia
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia / Universitat de València
Duration: 2024-25 (one year)
Total Budget: 5.000

Reference: VLC-BIOCLINIC AP-2023-003 PREVEDEP
Title: Prueba de concepto de protocolo tDCS para prevención de depresión en jóvenes: el papel del género.
Principal Investigator (CO-IP's): María Engracia Gadea Doménech y Raúl Espert Tortajada
Funding Body: Fundación Investigación Hospital Clínico Universitario de Valencia
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia / Universitat de València
Duration: 2024-25 (one year)
Total Budget: 5.000

Reference: PMP22/00088
Title: Estudio piloto de implementación de una herramienta de cribado para la prevención, diagnóstico y tratamiento de pacientes con un trastorno psiquiátrico del neurodesarrollo: utilización del síndrome delección 22q11.2 (22q11.2DS) como modelo.
Principal Investigator: Elisabet Vilella. Principal Investigator INCLIVA Group: Olga Rivero
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution:FUNDACION INSTITUTO DE INVESTIGACION SANITARIA PERE VIRGILI, Reus (Tarragona)
Duration: 2023-2025
Total budget: €1.679.997

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
25	106,2	4,82
National collaborations	International collaborations	Corresponding author
11	14	9

Alterations in the volume and shape of the basal ganglia and thalamus in schizophrenia with auditory hallucinations. Pérez M, García G, Escartí MJ, Salgado P, McKenna PJ, Pomarol E, Grasa E et al. PROGRESS IN NEURO-PSYCHOPHARMACOLOGY & BIOLOGICAL PSYCHIATRY. 2024 April 20. 131110960-110960. DOI:10.1016/j.pnpbp.2024.110960. PMID:38325744.

Accelerated Cortical Thinning in Schizophrenia Is Associated With Rare and Common Predisposing Variation to Schizophrenia and Neurodevelopmental Disorders. González J, Alloza C, Brouwer R, Díaz CM, Costas J, González N, Gallego AG et al. BIOLOGICAL PSYCHIATRY. 2024 September 01. 96 (5):376-389. DOI:10.1016/j.biopsych.2024.03.011. PMID:38521159.

Erythropoietin restrains the inhibitory potential of interneurons in the mouse hippocampus. Curto Y, Carceller H, Klimczak P, Pérez M, Wang Q, Grewe K, Kawaguchi R et al. MOLECULAR PSYCHIATRY. 2024 October 01. 29 (10):2979-2996. DOI:10.1038/s41380-024-02528-2. PMID:38622200.

Long-term effects of a double hit murine model for schizophrenia on parvalbumin expressing cells and plasticity-related molecules in the thalamic reticular nucleus and the habenula. Klimczak P, Alcaide J, Gramuntell Y, Castillo E, Varea E, Pérez M, Nacher J. Translational Psychiatry. 2024 October 24. 14 (1):450-450. DOI:10.1038/s41398-024-03166-6. PMID:39448557.

Orbitofrontal cortex hypergyrification in hallucinating schizophrenia patients: Surface ratio as a promising brain biomarker. Núñez C, Stephan C, Roldán A, Grasa EM, Escartí MJ, Aguilar García EJ, García G et al. EUROPEAN NEUROPSYCHOPHARMACOLOGY. 2024 December 01. 8947-55. DOI:10.1016/j.euroneuro.2024.09.006. PMID:39341083.

THESIS

Thesis title: Neuropsychological and Neuroimaging Markers in Cerebral Amyloid Angiopathy: A Cross-Sectional Population-Based Study

Doctoral candidate: Cristina Giménez Paños

Type: Doctoral Thesis

Director(s): Aída Lago Martín, María Engracia Gadea Doménech y Raúl Espert Tortajada

University: València

Date of the defense: 11-03-2024

Grade: Excellent

Quality recognition/Award: Cum Laude

Research Group on Respiratory Diseases

Consolidated
Person Responsible: Jaime Signes-Costa Miñana

STRATEGIC AIMS

- Study of respiratory complications in patients with neuromuscular diseases. Utility of mechanical ventilation and other respiratory supports
- Implication of early diagnosis of obstructive airway diseases in the prognosis and follow-up of patients. Emphysema early detection program. Program for early detection of Alpha 1 Antitrypsin Deficiency
- Early follow-up program for COPD with exacerbator phenotype
- Severe Asthma control program
- Control of respiratory disorders during sleep as prevention of cardiovascular risk factors
- Early diagnosis of idiopathic interstitial respiratory diseases (IPF) and secondary diseases (drug toxicity and post-BMT)

MAIN LINES OF RESEARCH

- Follow-up of patients admitted for bilateral COVID19 pneumonia: changes in pulmonary function tests for the early diagnosis of pulmonary fibrotic sequelae.
- Identify cardiac morphological changes in patients with sleep-disordered breathing and ischemic heart disease treated with CPAP.
- Improve the effectiveness of mechanically assisted cough procedures in patients with ALS, as well as the precision of the clinical tools available to evaluate frontotemporal dementia in them
- Study in smokers of the early stages of COPD. GOLD classification paradigm 0.
- Study of oxidative stress and inflammatory mechanisms underlying acute lung damage caused by SARS-CoV-2.
- Usefulness of non-invasive ventilation in the weaning process of patients with prolonged mechanical ventilation.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Jaime Signes-Costa Miñana. Hospital
- **Established Researcher:**
José Franco Serrano. Hospital
Jesús Ignacio Sancho Chinesta. Hospital
Mª Luisa Briones Urtiaga. Hospital
Mari Cruz González Villaescusa. Hospital

- **Recognised Researcher:**
Carmen Muñoz Esteban. Hospital
Francisco Carrión Valero. Hospital
José Luis Díaz Cordobes. University
- **First Stage Researcher:**
Elia Giménez Samblas. Hospital
Júlia Tarrasó Castillo. INCLIVA
Alba Mulet Arabí. Hospital
Paola Lisseth Ordoñez Gómez. Hospital
Santos Ferrer Espinosa. Hospital
- **Staff-Collaborating Researcher:**
Vanesa Alaeddine Marcano. Hospital
Guillermo Ruiz Matutano. Hospital
Miriam Bernaola Garrido. Hospital
Ramón Cercos González. Hospital
Yolanda García Sanjuan. Hospital
Irene Tur Cruces. Hospital
Carlos Alonso Ruzo. Hospital
Ana María Ferrer Marti. Hospital
Andrés Vales Veiga. Hospital
Antonio Herrera Cuadros. INCLIVA
Ana Ferrer Pons. Hospital
Maríam García Alfaro. Hospital
Nieves Navarro Soriano. Hospital
Pablo Royo Simo. Hospital
Erick Monclou Garzón. Hospital
Heidi Mora Bastida. Hospital
M.pilar Bañuls Polo. Hospital
Enric Bures Sales. Hospital
Natividad Blasco Angulo. INCLIVA
Paula Melgar Barcelona. INCLIVA

RESEARCH PROJECTS

Reference: 2019/036
Title: GOLD 0-DLCO 1. Una mirada más allá de la obstrucción. ¿Es suficiente la espirometría en el screening de EPOC?
Principal Investigator: MªCruz González Villaescusa
Funding body: Sociedad Valenciana de Neumología (SVN)
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2020-2025
Total Budget: €12.000

Title: *Impacto clínico asistencial de la creación de circuitos de derivación precoz en fibrosis pulmonar idiopática*
Principal Investigator: Belén Safont Muñoz
Funding body: Sociedad Valenciana de Neumología (SVN)
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2019-2025
Total Budget: €12.000

Reference: COV20/01209
Title: *Relación entre huellas metabólicas y secuelas fibróticas pulmonares en pacientes tras una neumonía bilateral por Sars-Cov-2*
Principal Investigator: Lucía Fernández Presa
Funding body: Sociedad Valenciana de Neumología (SVN)
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2021-2024
Total Budget: €6.000

Reference: 2021/121
Title: *Estudio de las subpoblaciones leucocitarias como marcadores de progresión en la enfermedad pulmonar obstructiva crónica (EPOC)*
Principal Investigator: Irene Bocigas Huéscar
Funding body: Sociedad Valenciana de Neumología (SVN)
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2021-2024
Total Budget: €9.000

Title: *Nódulos pulmonares indeterminados en pacientes con y sin antecedentes de cáncer: supervivencia tras la cirugía en cáncer de pulmón estadio I*
Principal Investigator: José Franco Serrano
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2025

Reference: 2020/253
Title: *Señalización inducida por los receptores Toll-like y TGF-beta en enfisema y cáncer de pulmón. ¿Mecanismos patogénicos vinculantes?*
Principal Investigator: Paola Lisseth Ordóñez Gómez
Funding body: Sociedad Española de Neumología y Cirugía Torácica (SEPAR)
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2020-2025

Reference: 2019/265
Title: *Estudio de polimorfismos de genes inmunes mediante tecnología de secuenciación masiva como marcador de Riesgo de cáncer de pulmón en pacientes con EPOC y enfisema*
Principal Investigator: Paola Lisseth Ordóñez Gómez
Funding body: Sociedad Valenciana de Neumología (SVN)
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2020-2025

Reference: 2022/170
Title: *Prevalencia de miopatía por Enfermedad de Pompe de Inicio Tardío en pacientes con diagnóstico de alteración neuromuscular respiratoria idiopática: Estudio POMPENYOL*
Principal Investigator: Santos Ferrer Espinosa and Jesús Sancho Chinesta
Funding body: Sociedad Española de Neumología y Cirugía Torácica (SEPAR)
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024

Reference: 2022/310
Title: *Cultivos en 3D de lavado broncoalveolar para predecir la evolución a fibrosis pulmonar*
Principal Investigator: Alba Mulet Arabí
Funding body: Sociedad Valenciana de Neumología (SVN)
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total Budget: €6.000

Reference: PMP21/00090
Title: *P4COPD: Predicción, prevención, tratamiento personalizado y preciso de la EPOC en adulto jóvenes*
Principal Investigator: Mari Cruz González Villaescusa
Funding body: Fundacio de Recerca Clinic Barcelona – Institut d’Investigacions biomediques August Pi i Sunyer FRCB-IDIBAPS
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2028
Total Budget: €2.640

Reference: 101183391
Title: *Joint Action on REspiratory Diseases. JARED*
Principal Investigator: Jaime Signes Costa-Miñana
Funding body: European Commission
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2027
Total Budget: €8.560

Title: *Registro español de hipertensión pulmonar (REHAP)*
Principal Investigator: Enric Burés Sales
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2021 - in progress

Title: *Registro español de enfermedades pulmonares por asbesto*
Principal Investigator: Enric Burés Sales
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022 - in progress

Title: *Hyperinflation and Contribution to Volume Overload and Functional Capacity in Heart Failure*
Principal Investigator: MªCruz González Villaescusa, Gemma Miñana
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2020-2024

Title: *European Alpha-1 Clinical Research Collaboration (Registro EARCO)*
Principal Investigator: M Cruz González Villaescusa
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2020- in progress

Title: *Estudio para establecer eficacia y efectividad de la deshabitación tabáquica con el uso de citisina. Registro CITITABAC*
Principal Investigator: Jaime Signes - Costa
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2024

Title: *Cancer screening, smoking cessation and respiratory assessment*
Principal Investigator: José Franco Serrano
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-in progress

Title: *Estudio multicéntrico observacional ambispectivo para describir y evaluar la evolución de la carga de la enfermedad en pacientes con asma grave, tanto en general como según la presencia o no de inflamación T2 (Estudio Breath)*
Principal Investigator: Erick Monclou Garzón
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2024

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
16	65,4	4,71
National collaborations	International collaborations	Corresponding author
8	4	10

Objeto[RevistasGrupo]- Persistent Pulmonary Fibrotic Sequelae in Patients With Telomere Shortening One Year After Severe COVID-19. Mulet A, González P, Pallardó FV, Signes J. ARCHIVOS DE BRONCONEUMOLOGIA. 2024 January 01. 60 (1):62-64. DOI:10.1016/j.arbres.2023.11.003. PMID:37985282.

Stiff-Person Syndrome With Respiratory Complications. Giménez E, Sancho J, Signes J. ARCHIVOS DE BRONCONEUMOLOGIA. 2024 March 01. 60 (3):173-174. DOI:10.1016/j.arbres.2023.12.008. PMID:38160164.

Challenges for Scientific Societies: New Tobacco-Derived Products. Signes J,Rábade C,Jiménez CA. ARCHIVOS DE BRONCONEUMOLOGIA. 2024 May 01. 60 (5):265-266. DOI:10.1016/j.arbres.2024.03.002. PMID:38514347.

Key role of activated platelets in the enhanced adhesion of circulating leucocyte-platelet aggregates to the dysfunctional endothelium in early-stage COPD. Marques P, Bocigas I, Domingo E, Francisco V, Tarraso J, García Y, Morcillo EJ et al. Frontiers in Immunology. 2024 August 19. 151441637-1441637. DOI:10.3389/fimmu.2024.1441637. PMID:39229275.

Impact of Hypoxia on Neutrophil Degranulation and Inflammatory Response in Alpha-1 Antitrypsin Deficiency Patients. Magallón M, Castillo S, Bañuls L, Romero T, Pellicer D, Herrejón A, Navarro MM et al. ANTIOXIDANTS. 2024 September 01. 13 (9):DOI:10.3390/antiox13091071. PMID:39334730.

Research Group on Tissular Biochemistry

Consolidated
Person Responsible: Juan Viña Ribes

STRATEGIC AIMS

- To study the influence of age at pregnancy and duration of breastfeeding on risk of breast cancer, and specifically, the role of calpain-2 as a regulatory node
- To decipher the role of CAPN2 functions on mammary gland involution by the identification of its primary output in conditional KO-CAPN2 mice.
- Identification by proteomic approaches of CAPN2 targets at 48h of mammary gland involution after lactation, to obtain a molecular signature linking age/short-breastfeeding to risk of breast cancer. Comparison of data from our murine model and that resulting from in-silico analysis of human mammary gland.
- To study the mechanisms that control respiratory homeostasis, as well as the dysregulation of molecular and cellular pathways in respiratory pathological processes, such as vitamin A deficiency, allergic inflammation, pulmonary fibrosis and muscular dystrophies

MAIN LINES OF RESEARCH

- Identification and analysis of calpain activity end-products in the post-lactation breast and their potential use in identifying patients at risk for pregnancy-associated breast cancer.
- Influence of age at pregnancy and duration of lactation on breast cancer risk.
- Investigation of molecular and cellular pathways involved in inflammatory respiratory diseases, particularly pulmonary fibrosis.
- Participation of calpains in the development of various pathologies associated with ECM alterations: pulmonary fibrosis, muscular dystrophies, and cancer.
- Role of calpain-2 as a regulatory node in post-lactation involution and neoplastic development.
- Search for early markers of pulmonary fibrosis with prognostic value.
- Study of ECM alteration in liver and lung in chronic vitamin A deficiency models.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Juan Viña Ribes. University
Elena Ruiz García Trevijano. University
- **Established Researcher:**
Luis Torres Asensi. University
Rosa Zaragoza Colom. University

- **Recognised Researcher:**
Elena Ortiz Zapater. University
- **Staff-Collaborating Researcher:**
Sara Puebla Planas. University

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
2	0	1	0	0

RESEARCH PROJECTS

Reference: CIPROM/2021/051
Title: *Subvenciones concedidas del Programa Prometeo para grupos de investigación de excelencia*
Principal Investigator: Elena Ruiz García-Trevijano and Juan Viña Ribes
Funding Body: *Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital*
Beneficiary Institution: *Universidad de Valencia*
Duration: 2022-2025
Total Budget: €240.238

Reference: PID2023-149201OB-I00
Title: Bronchoalveolar lavage (BAL) derived 3D cultures to predict the evolution of lung fibrosis. Role of the lipofibroblast as a new player in lung fibrosis. (LIPO-FIB-PREDICT).
Principal Investigator: Elena Ortiz-Zapater
Funding Body: Ministerio de Ciencia, Innovación y Universidades
Duration: 2024-2027
Total Budget: €137.500

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
4	61	15,25
National collaborations	International collaborations	Corresponding author
1	3	2

The epithelium takes the stage in asthma and inflammatory bowel diseases. López R, Bagley DC, Pardo C, Ortiz-Zapater E. *Frontiers in Cell and Developmental Biology*. 2024 March 11. 121258859-1258859. DOI:10.3389/fcell.2024.1258859. PMID:38529406.

Vitamin A Status Modulates Epithelial Mesenchymal Transition in the Lung: The Role of Furin. Cabe-zuelo MT, Torres L, Ortiz-Zapater E, López-Rodas G, Marín M, Timoneda J, Viña JR et al. *Nutrients*. 2024 April 01. 16 (8): DOI: 10.3390/nu16081177. PMID:38674868.

Bronchoconstriction damages airway epithelia by crowding-induced excess cell extrusion. Bagley DC, Russell T, Ortiz-Zapater E, Stinson S, Fox K, Redd PF, Joséph M et al. *SCIENCE*. 2024 April 05. 384 (6691):66-73. DOI:10.1126/science.adk2758. PMID:38574138.

Integrated 3D-Printed Hollow Microneedle Array and Lateral Flow Immunoassay for Point-of-Care Wound Healing Monitoring Sena A, Parrilla M, Hernanz A, Steijlen A, Ortiz-Zapater E, Cabaleiro C, López N et al. *ANALYTICAL CHEMISTRY*. 2024 December 17. 96 (52):20684-20692. DOI:10.1021/acs.analchem.4c05688. PMID:39686914.

Research Group on Aging and Physical Activity

Consolidated
Person Responsible: José Viña Ribes

STRATEGIC AIMS

- Regenerative medicine in aging
- Identification of physical training as a drug to treat age-related frailty
- Prove that G6PD protects against oxidative damage and improves lifespan in mice
- Modulation of life style in the treatment of Alzheimer's including stress control and interventions with supplements
- Modulation of the AhR signaling pathway by microbiota- derived metabolites as well as by plant- derived polyphenols of interest for healthy aging

MAIN LINES OF RESEARCH

- Aging: identification of genes associated with aging, particularly genes that are specific in centenary people. Implication of the estrogens and phytoestrogens in the prevention of age-related damage. Research about the involvement of the aryl hydrocarbon receptor (AhR) signaling pathway in the aging process.
- Study of the modulation of the AhR pathway through the identification of endogenous and exogenous ligands, including nutritional supplements and microbiota-derived metabolites, aimed at improving and treating pathological conditions. This includes evaluating its impact on diseases and age-related physiological decline.
- Physical activity: identification of the molecular mechanisms by which physical activity is good for health. Identification of the mechanisms by which physical activity and antioxidant supplements help preventing primary and secondary sarcopenia in both human and animal studies. Identification of the best exercise intervention to delay and to treat frailty in humans
- Physiopathology of the Alzheimer's disease: identification of the mechanisms by which free radicals, originators of the oxidative stress are used to unleash cell signals that lead to cell death in Alzheimer disease

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- Leading Researcher:** José Viña Ribes. University
- Established Researcher:** Ana Lloret Alcañiz. University
Eva Serna García. University

- Recognised Researcher:** José Viña Almunia. University
- First Stage Researcher:** Rut Campos Jiménez. Carlos Simón Foundation
Alicia Valls Arrufat. University
Sergio Prieto Valero. University
Artemis Ftara. University
David Verdú Coloma. University
- Staff-Technician:** Cristina Amézcuea García. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
2	0	0	0	1

TEAM INVOLVED IN:



RESEARCH PROJECTS

Reference: DIABFRAIL-LATAM-825546
Title: Scaling-up of and evidence-based intervention programme in older people with Diabetes and Frailty in LatinAmerica
Principal Investigator: José Viña Ribes and Leocadio Rodríguez Mañas
Funding Body: *European Commission*
Beneficiary Institution: CIBER (*Fundación Investigación Hospital Clínico Universitario de Valencia as Third Party*)
Duration: 2019-2024
Total Budget: €273.720

Reference: AC20/00026
Title: Asociación de chocolate fortificado con Vitamina E y ejercicio físico para reducir el riesgo de malnutrición proteica en personas mayores con deterioro cognitivo.
Principal Investigator: José Viña Ribes
Funding Body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2021-2025
Total Budget: €169.097,50

Title: Investigación y desarrollo de un probiótico basado en una bacteria funcional con propiedades beneficiosas para prevenir, reducir y/o mitigar el declive físico y cognitivo asociado al envejecimiento.
Principal Investigator: Eva Serna García
Funding Body: *Private, ADM-Biopolis*
Beneficiary Institution: Universidad de Valencia
Duration: 2024-2026
Total Budget: €100.566

Reference: CIAICO/2023/096
Title: Regulación de la actividad del receptor de hidrocarburos aromáticos, importancia en el desarrollo y progresión de la retinopatía diabética
Principal Investigator: Eva Serna García/ Ángel Ortega Valero
Funding Body: *Generalitat Valenciana, Programa I+D*
Beneficiary Institution: Universidad de Valencia
Duration: 2024-2027
Total Budget: €90.000

Reference: PID2021-127236OB-I00
Title: Desmielinización interhipocámpica en el inicio temprano de la enfermedad de Alzheimer
Principal Investigator: Ana Lloret Alcañiz/ Ana Cervera Ferri
Funding Body: Ministerio de Ciencia e Innovación
Beneficiary Institution: Universidad de Valencia
Duration: 2022-2025
Total Budget: €110.000

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
16	131,9	8,79
National collaborations	International collaborations	Corresponding author
9	2	7

Multimodal cell atlas of the ageing human skeletal muscle. Lai YW, Ramírez I, Isern J, An J, Perdiguero E, Serrano AL, Li JX et al. Nature. 2024 April 22. 629 (8010):154-164. DOI:10.1038/s41586-024-07348-6. PMID:38649488.

Plasma lipidomics in early APP/PS1 female mouse model and its relationship with brain: Is it affected by the estrous cycle?. Ferré L, Balaguer Á, Roca M, Ftara A, Lloret A, Cháfer C. Alzheimers Research & Therapy. 2024 August 14. 16 (1):183-183. DOI:10.1186/s13195-024-01549-x. PMID:39143583.

Glucose 6 phosphate dehydrogenase overexpression rescues the loss of cognition in the double transgenic APP/PS1 mouse model of Alzheimer's disease. Correas AG, Olaso G, Roca M, Blanco MC, Nascimento C, Lahoz A, Rodriguez M et al. Redox Biology. 2024 September 01. 75103242-103242. DOI:10.1016/j.redox.2024.103242. PMID:38908073.

Diet and exercise in frailty and sarcopenia. Molecular aspects. Millán F,García E,Gambini J,Olaso G,Viña J,Gómez MC. MOLECULAR ASPECTS OF MEDICINE. 2024 December 01. 100101322-101322. DOI:10.1016/j.mam.2024.101322. PMID:39591800.

Phenotypic upregulation of hexocylceramides and ether-linked phosphocholines as markers of human extreme longevity. Fernández A, Sol J, Galo JD, Mota N, Mas C, Belenguer A, Obis É et al. AGING CELL. 2024 December 05. DOI:10.1111/accel.14429. PMID:39639682.

THESIS

Thesis title: Role of T-Type voltage-gated calcium channels on vascular tone
Doctoral candidate: Suárez Fortea, Andrea
Type: International Doctoral Thesis
Director(s): Eva Serna García, María Dolores Mauricio Aviño, Solanye Guerra Ojeda
University: Univesitat de València
Date of the defense: 26/09/2024
Quality recognition/Award: Excellent cum laude

Thesis title: Interhippocampal demyelination in the early onset of Alzheimer's disease
Doctoral candidate: Artemis Ftara
Type: International Doctoral Thesis
Director(s): Ana Lloret Alcañiz
University: Univesitat de València
Date of the defense: 21/10/2024
Quality recognition/Award: Excellent

Thesis title: Role of resveratrol and other natural components on lipid catabolism, mitochondrial function, and longevity
Doctoral candidate: Kristine Stromsnes
Type: International Doctoral Thesis
Director(s): Juan Gambini Buchon, José Viña Ribes y Lucía Gimeno Mallench
University: Univesitat de València
Date of the defense: 22/07/2024
Quality recognition/Award: Excellent

Research Group on Anesthesiology and Reanimation

Consolidated
Person Responsible: Rafael Badenes Quiles
<http://www.anestesiaclinicovalencia.org>

STRATEGIC AIMS

- Open lung approach for respiratory management
- Management of chronic pain
- Performance analysis of homecare and ICU ventilators (bench model)
- Respiratory management in ARDS COVID19 patients
- Controlled donation after circulatory determination of death with the use of normothermic regional perfusion
- Determination of death by neurological criteria
- Prevalence and risk factors for delirium
- Advance neuromonitoring neurocritical care patients
- COVID 19 (SARS-CoV-2) ICU management
- Pharmacokinetics and pharmacodynamics (PK/PD) of antimicrobials in the critically ill patient with extracorporeal devices.
- Use of rapid diagnostic tests in the septic patient.
- Adsorptive therapies in the septic patient.

MAIN LINES OF RESEARCH

- COVID 19 (SARS-CoV-2) critically ill patients.
- Delirium critically ill patients.
- Development of new strategies and drugs for pain treatment.
- Organ donation and transplantation.
- Retrospective analysis of COVID19 patients management.
- Severe Traumatic Brain Injury.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Rafael Badenes Quiles. Hospital
- **Established Researcher:**
Gerardo Aguilar Aguilar. Hospital
Carlos Tornero Tornero. Hospital
- **Recognised Researcher:**
Laura García Vargas. Hospital
Berta Monleón López. Hospital
Nekane Romero García. Hospital
Rosa Herrera Castro. Hospital
María Luisa García Pérez. Hospital
Andrea Gutierrez Valcarcel. Hospital
Ana Mugarra Llopis. Hospital
Sara Martínez Castro. Hospital

- **Staff-Collaborating Researcher:**
Eva Amores Parra. INCLIVA
Antonio Guillen Bañuelos. Hospital
Cristina Elena Crisán Ovidiu. Hospital
José Antonio Carbonell López. Hospital
María José Parra González. Hospital
Ernesto Pastor Martínez. Hospital
- **Staff-Technician:**
María Angeles Casas López. University

TEAM INVOLVED IN



RESEARCH PROJECTS

Reference: 2023/204
Title: XXI Reunion monografica de coordinadores de trasplantes
Principal Investigator: Rafael Badenes Quiles
Funding Body: Organización Nacional de Trasplantes
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2024
Total Budget: €35.000

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
25	241,8	13,43
National collaborations	International collaborations	Corresponding author
3	19	5

Clinical practice and effect of carbon dioxide on outcomes in mechanically ventilated acute brain-injured patients: a secondary analysis of the ENIO study. Robba C, Battaglini D, Abbas A, Sarrió E, Cinotti R, Asehnoune K, Taccone FS et al. INTENSIVE CARE MEDICINE. 2024 February 01. 50 (2):234-246. DOI:10.1007/s00134-023-07305-3. PMID:38294526.

Individualised, perioperative open-lung ventilation strategy during one-lung ventilation (iPROVE-OLV): a multicentre, randomised, controlled clinical trial. Ferrando C, Carraminana A, Pineiro P, Mirabella L, Spadaro S, Libero J, Ramasco F et al. LANCET RESPIRATORY MEDICINE. 2024 March 01. 12 (3):195-206. DOI:10.1016/S2213-2600(23)00346-6. PMID:38065200.

Mild hypocapnia and outcomes in mechanically ventilated acute brain-injured patients: another piece in the puzzle. Robba C,Taccone FS,Cinotti R,Asehnoune K,Badenes R. INTENSIVE CARE MEDICINE. 2024 May 01. 50 (5):798-799. DOI:10.1007/s00134-024-07436-1. PMID:38630286.

A prognostic model for use before elective surgery to estimate the risk of postoperative pulmonary complications (GSU-Pulmonary Score): a development and validation study in three international cohorts. NIHR Global Health Research Unit on Global S, STARSurg C. LANCET DIGITAL HEALTH. 2024 July 01. 6 (7):DOI:10.1016/S2589-7500(24)00065-7. PMID:38906616.

Restrictive vs Liberal Transfusion Strategy in Patients With Acute Brain Injury: The TRAIN Randomized Clinical Trial. Taccone FS, Bittencourt CR, Moller K, Lormans P, Quintana M, Caricato A, Ferreira M et al. JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. 2024 November 19. 332 (19):1623-1633. DOI:10.1001/jama.2024.20424. PMID:39382241.

THESIS

Thesis title: Efecto del tratamiento con vesículas extracelulares de células madre de tejido adiposo de ratones jóvenes sobre parámetros de envejecimiento y longevidad en ratones de edad avanzada
Type: Doctoral
Doctoral candidate: Romero García, Nekane
Director(s): Borrás Blasco, Consuelo; Mas Bagues, Cristina
University: Universitat de València (Estudi General)
Date of the defense: 22/07/2024

Thesis title: Evaluación del Tiempo de Perfusión Regional Normotérmica durante la donación en asistolia controlada: un análisis de cohorteobservacional retrospectivo.
Type: Doctoral
Doctoral candidate: ROSALIA NAVARRO Pérez
Director(s): Rafael Badenes Quiles
University: Universitat de València
Date of the defense: 14/06/2024
Grade: Sobresaliente
Quality recognition/Award: Cum Laude

Research Group on Human Translational Genomics

Consolidated
Person Responsible: Ruben Artero Allepuz
<https://INCLIVA.portalinvestigacion.com/grupos/301>
<http://www.uv.es/gt/>
https://twitter.com/GenomicsLab_UV
<https://vimeo.com/user103005442>

STRATEGIC AIMS

Medium-term scientific research aims are to investigate mechanisms of pathogenesis and candidate therapies in Myotonic Dystrophy type 1 and 2, Spinal Muscular Atrophy, LGMDD2, CANVAS, and cancer-induced cachexia; to optimize oligonucleotide drug delivery methods; and to screen and repurpose drugs in additional biomedical models in Drosophila

MAIN LINES OF RESEARCH

- Discovery, development, and repurposing of drugs for the treatment of DM, SMA, CANVAS and LGMDD2.
- Study of the molecular causes of muscle atrophy in DM, LGMDD2 and cancer cachexia with emphasis on miRNA alterations.
- Use of Drosophila as preclinical model in oligonucleotide drug development and muscle targeting.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Ruben Artero Allepuz. University
Manuel Pérez Alonso. University
- **Established Researcher:**
Arturo López Castell. University
- **Recognised Researcher:**
Ariadna Bargiela Schonbrunn (emerging). INCLIVA
Raquel Pérez Gómez. INCLIVA
Javier Poyatos García. University
Raquel Atienzar Aroca. University
Natalia Galindo Riera. University
María Sabater Arcis. University
Dulce Peris Moreno. University. CIBER
Xiomara Gislen Fernández Garibay. INCLIVA
- **First Stage Researcher:**
Paola Jazmin Yanez Atiencia. University
Anna Colom Rodrigo. University
Alicia Novella Estelles. University
Natalia Mariel Riedel Bistoco. University
Irene González Martínez. University
Rosy Morejón Estévez. University
Nerea Moreno Cervera. University
- **Staff-Technician:**
Ana Ballestar Carrión. INCLIVA
Iván Gimeno Martínez. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
5	2	0	1	1

Emerging Researcher

Ariadna Bargiela Schonbrunn

The main objective of this research is focused on the identification of therapeutic targets in the context of myotonic dystrophy types 1 and 2 (DM1 and DM2) and limb-girdle muscular dystrophy type D2 (LGMDD2). Once identified, we focus on the non-clinical development of antisense oligonucleotides as a therapeutic approach. Currently, our work is centered on targeting the RNA-binding protein MSI2, which emerges as a promising candidate in DM1, DM2, and LGMDD2. Importantly, MSI2 is not only dysregulated in these neuromuscular disorders but also in various types of cancer, where it is associated with poor prognosis, further highlighting its potential as a therapeutic target.

TEAM INVOLVED IN



RESEARCH PROJECTS

Reference: PI21/00311
Title: Caracterización de una nueva diana terapéutica en disfunción muscular en la distrofia miotónica de tipo 1
Principal Investigator: Manuel Pérez Alonso
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024 extended 2025
Total budget: €141.570

Reference: DTS21/00081
Title: Desarrollo preclínico de gapmers contra una nueva diana terapéutica en Distrofia Miotónica
Principal Investigator: Manuel Pérez Alonso
Funding Body: Instituto de Salud Carlos III-Cofinanced FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2023, extended 2024
Total budget: € 127.600

Reference: DTS22/00088
Title: Optimización de parámetros PK/PD de una terapia farmacológica reutilizada para pacientes con AME
Principal Investigator: Rubén Artero Allepuz
Funding Body: Instituto de Salud Carlos III-Cofinanced FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024 extended 2025
Total budget: € 134.200

Reference: CPP2022-009960
Title: Investigación traslacional sobre la distrofia miotónica para el desarrollo de una terapia avanzada basada en ARN
Principal Investigator: Beatriz Llamusí (Rubén Artero Allepuz as collaborating researcher)
Funding Body: Ministerio de Ciencia e Innovación
Beneficiary Institution: Universidad de Valencia
Duration: 2023-2025
Total budget: € 1.783.867

Reference: MRR/PDC2022-133103-I00
Title: Desarrollo preclínico de un fármaco Gapmer para tratar distrofia miotónica y otras atrofas musculares
Principal Investigator: Rubén Artero Allepuz
Funding Body: Ministerio de Ciencia e Innovación
Beneficiary Institution: Universidad de Valencia
Duration: 2022-2024
Total budget: €149.500

Reference: PID2021-125978OB-C22
Title: Comprensión de la atrofia muscular inducida por TNPO3 mutante: modelos preclínicos y aproximaciones terapéuticas en LGMDD2
Principal Investigator: Rubén Artero Allepuz
Funding Body: Ministerio de Ciencia e Innovación
Beneficiary Institution: Universidad de Valencia
Duration: 2022-2025
Total budget: €242.000

Reference: PLEC2022-009367
Title: Nuevas herramientas en moscas y cultivos en 3D para el desarrollo de oligonucleótidos terapéuticos
Principal Investigator: Arturo López Castell
Funding Body: Ministerio de Ciencia e Innovación
Beneficiary Institution: Universidad de Valencia
Duration: 2022-2025
Total budget: €283.325

Reference: CIAPOT/2022/9
Title: Desarrollo de estrategias para el silenciamiento génico de Musashi2 en Distrofia Miotónica
Principal Investigator: Rubén Artero Allepuz
Funding Body: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2025
Total budget: €36.000

Reference: CIAPOS/2022/106
Title: Bioengineered functional human skeletal muscle tissues for preclinical research of myotonic dystrophy type 1
Principal Investigator: Xiomara Gislen Fernández Garibay
Funding Body: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2025
Total budget: €92.470

Reference: INVEST/2022/63
Title: Especialización en fenotipado y caracterización molecular de modelos biomédicos murinos
Principal Investigator: Rubén Artero Allepuz
Funding Body: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €44.812

Reference: INVEST/2022/81
Title: Utilización de Drosophila melanogaster en el desarrollo de oligonucleótidos antisentido como medicamentos
Principal Investigator: Arturo López Castell
Funding Body: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €66.218

Reference: VLC-BIOCLINIC-PI-2023-005
Title: Rastreo Farmacológico en modelos de Drosophila de Paraplejia Espástica Hereditaria 7.
Principal Investigator: Juan Antonio Navarro Langa / Arturo López Castell
Funding Body: Fundación Investigación Hospital Clínico Universitario de Valencia
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia / Universitat de Valencia
Duration: 2024-2025
Total budget: 20.000 €

Reference: VLC-BIOCLINIC-AP-2023-011
Title: Obtención y caracterización de modelos celulares en CANVAS
Principal Investigator: Arturo López Castel / Pilar González Cabo
Funding Body: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia / Universitat de Valencia*
Duration: 2024-2025
Total budget: €5.000

RESEARCH RESULTS

Invention: 2022 Reposicionamiento de haloperidol como tratamientos farmacológicos para atrofia muscular espinal
Priority number: PCT/EP2022/087022
Status: Europe and US National Phase
Principal Investigator: Ruben Artero Allepuz

Invention: 2021. Use of Musashi 2 (msi2) as therapeutic target for the treatment of the characteristic myopathy of type 1 myotonic dystrophy
Priority number: EP21382133
Status: Europe and US National Phase
Principal Investigator: Ruben Artero Allepuz

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
7	38,7	5,52
National collaborations	International collaborations	Corresponding author
3	4	4

Therapeutic potential of oleic acid supplementation in myotonic dystrophy muscle cell models. Moreno N, Sabater M, Sevilla T, Alonso MP, Ohana J, Bargiela A, Artero R. BIOLOGICAL RESEARCH. 2024 May 17. 57 (1):29-29. DOI:10.1186/s40659-024-00496-z. PMID:38760841.

Immortalized human myotonic dystrophy type 1 muscle cell lines to address patient heterogeneity. Núñez J, Capó J, Martínez A, Juanola E, Pesovic J, Mosqueira L, González K et al. Iscience. 2024 June 21. 27 (6):109930-109930. DOI:10.1016/j.isci.2024.109930. PMID:38832025.

Msi2 enhances muscle dysfunction in a myotonic dystrophy type 1 mouse model. Sabater M, Moreno N, Sevilla T, Pérez M, Bargiela A, Artero R. Biomedical Journal. 2024 August 01. 47 (4):100667-100667. DOI:10.1016/j.bj.2023.100667. PMID:37797921.

AntimiR treatment corrects myotonic dystrophy primary cell defects across several CTG repeat expansions with a dual mechanism of action. Cerro E, Núñez J, Naldaiz N, Carrascosa M, García A, Losilla DP, González I et al. Science Advances. 2024 October 11. 10 (41): DOI:10.1126/sciadv.adn6525. PMID:39383229.

Decoding Nucleotide Repeat Expansion Diseases: Novel Insights from Drosophila melanogaster Studies. Atienzar S, Kat M, López A. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2024 November 02. 25 (21): DOI:10.3390/ijms252111794. PMID:39519345.

THESIS
Thesis title: Understanding the molecular causes of muscle atrophy in Myotonic dystrophy type 1
Doctoral candidate: Nerea Moreno Cervera
Director(s): Ariadna Bargiela and Rubén Artero
University: University of Valencia
Date of the defense: 22/11/2024
Grade: Cum Laude

Research Group on General and Digestive Surgery

Consolidated
Person Responsible: Luis Sabater Ortí

STRATEGIC AIMS

- 1. Generate high impact clinical knowledge
Promote multicentre studies and clinical trials that will position the service as a benchmark in surgical evidence at national and international level.
- 2. Promote technological innovation applied to surgery.
Develop and validate advanced surgical technologies (robotisation, augmented reality, AI applied to the operating theatre), in alliance with technological institutes, universities and medical start-ups.
- 3. Promote precision surgical medicine
Research biomarkers, genomic profiles and predictive variables to personalise surgical decisions and improve outcomes in specific patient subgroups.
- 4. Reducing clinical variability and improving health outcomes
Identify key surgical quality indicators and conduct best practice implementation studies to optimise safety, efficiency and patient experience.
- 5. Promote translational research in surgery
Establish bridges between basic research (biomaterials, immunology, microbiota, tissue regeneration) and its application in advanced surgical techniques or new post-operative therapies.
- 6. Train surgical research talent
Create specific training programmes for residents and assistants in clinical and translational research, including internships, master's degrees and competitive projects with mentoring.
- 7. Enhance inter-institutional collaboration
Lead or actively participate in cooperative research networks and data-sharing platforms with other hospitals, research centres and international organisations.

MAIN LINES OF RESEARCH

- Abdominal wall: new developments in surgical meshes, laparoscopic abdominal wall surgery.
- Bariatric and Endocrine surgery: pathophysiology of postoperative changes after bariatric procedures by robotic or laparoscopic surgery. Robotic adrenal tumor resection, intraoperative localization of parathyroid adenomas, ambulatory surgery in hyperparathyroidism.

- Abdominal wall: new developments in surgical meshes, laparoscopic abdominal wall surgery.
- Bariatric and Endocrine surgery: pathophysiology of postoperative changes after bariatric procedures by robotic or laparoscopic surgery. Robotic adrenal tumor resection, intraoperative localization of parathyroid adenomas, ambulatory surgery in hyperparathyroidism.
- Breast surgery: Fibrin sealants in seroma. Selective sentinel node biopsy. Axilla assessment in DCIS. Laparoscopic mastectomy.
- Coloproctology: Quality standards for coloproctology, 3D endorectal ultrasound, sacral neuromodulation and perianal fistula surgery, robotic surgery.
- Gastroesophageal and oncological peritoneal surgery: mutations in GIST tumors, overexpression of HER2 and HER3 in gastric tumors, perioperative QT in advanced gastric cancer, preoperative gastric arteries embolization in esophageal surgery, PIPAC technique in carcinomatosis surgery.
- Hepato-bilio-pancreatic surgery: acute pancreatitis, gene transfection, pancreatico-duodenectomy, robotic surgery, 3D reconstruction models.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Luis Sabater Ortí. Hospital
- **Established Researcher:**
Alejandro Espí Macías. Hospital
- **Recognised Researcher:**
David Casado Rodrigo. Hospital
Stephanie García Botello. Hospital
Raquel Alfonso Ballester. Hospital
Norberto Cassinello Fernández. Hospital
Dimitri Dorcaratto. Hospital
Marína Garcés Albir. Hospital
José Martín Arevalo. Hospital
David Moro Valdezate. Hospital
Elena Muñoz Forner. Hospital
Vicente Pla Martí. Hospital
Mari Carmen Fernández Moreno. Hospital
Fernando López Mozos. Hospital
- **First Stage Researcher:**
María Lapeña Rodríguez. Hospital
Leticia Pérez Santiago. INCLIVA
Isabel Mora Oliver. Hospital
Carlos León Espinosa. Hospital

Guillermo Pou Santonja. Hospital
Vicente López Flor. Hospital
Marcos Adrianzen Vargas. Hospital
Rosa María Martí Fernández. Hospital
Elena Martí Cuñat. Hospital
María Eugenia Barrios Carvajal. Hospital
Ricardo Gadea Mateo. Hospital

• **Staff-Nurse:**
Margarita Fernández Guardiola. Hospital
Victoria Alejandra López Callejon. Hospital

RESEARCH PROJECTS

Reference: PI21/00689
Title: *Caracterización y abordaje de la enfermedad mínima residual en cáncer de colon localizado: un paso hacia la medicina de precisión*
Principal Investigator: Noelia Tarazona Llaveró, Andrés Cervantes Ruipérez (Alejandro Espí, David Moro and David Casado as collaborating researchers)
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2020-2024
Total Budget: € 232.320

Reference: PI21/00695
Title: *Transición mesenquimal como mecanismo asociado a inhibición de la respuesta inmune en el carcinoma colorrectal sin inestabilidad de microsatélites*
Principal Investigator: M^a Carolina Martínez Ciarpaglini (David Moro as collaborating researcher)
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2020-2024
Total Budget: € 94.380

Reference: PI19/00250
Title: *Anastomosis pancreática tras duodenopancreatectomía cefálica: pancreatogastrostomía versus anastomosis de Blumgart. Estudio prospectivo, aleatorizado y multicéntrico*
Principal Investigator: Luis Sabater Ortí
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2020-2024
Total Budget: €85.910

Reference: PI22/01520
Title: *Implementación de la biopsia líquida intraoperatoria como marcador de R1 en la cirugía del cáncer de páncreas (BLIPANC)*
Principal Investigator: Carmen Cepeda Franco (Elena Muñoz Forner, Dimitri Dorcaratto, Isabel Mora Oliver, Luis Sabater Ortí as collaborating researchers)
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution: Hospital Universitario Virgen del Rocío
Duration: 2023-2025
Total Budget: € 198.440

Title: *«Estudio 3d-panc: ¿es la tecnología de imagen en tres dimensiones superior a la tomografía computerizada para evaluar la respuesta al tratamiento neoadyuvante en los pacientes con adenocarcinoma de páncreas borderline o localmente avanzado?»*
Principal Investigator: Dimitri Dorcaratto, Marína Garcés. (Luis Sabater, Elena Muñoz, Isabel Mora as collaborating researchers)
Funding Body: Asociación Española de Cirujanos y CELLA Medical Solutions
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023 - 2024
Total Budget: € 60.000

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
36	140,9	4,26
National collaborations	International collaborations	Corresponding author
15	8	17

Pilot Trial on Ischemic Conditioning of the Gastric Conduit in Esophageal Cancer: Feasibility and Impact on Anastomotic Leakage (TIGOAL-I). Fernández MC, Barrios ME, López F, Martí R, Guijarro J, Casula E, Ortega J. Annals Of Surgery Open : Perspectives Of Surgical History, Education, And Clinical Approaches. 2024 March 01. 5 (1):DOI:10.1097/AS9.0000000000000379. PMID:38883947.

Two-row, three-row or powered circular stapler, which to choose when performing colorectal anastomosis? A systematic review and meta-analysis. Martín J, Pla V, Huntley D, García S, Pérez L, Izquierdo A, Garzón L et al. INTERNATIONAL JOURNAL OF COLORECTAL DISEASE. 2024 April 12. 39 (1):51-51. DOI:10.1007/s00384-024-04625-8. PMID:38607585.

Incidence of anastomotic leakage using powered circular staplers versus manual circular staplers for left colorectal anastomosis: a cost-effectiveness analysis. Pla V, Martín J, Moro D, García S, Pérez L, Barrachina I, González S et al. Techniques in Coloproctology. 2024 July 02. 28 (1):76-76. DOI:10.1007/s10151-024-02936-0. PMID:38954099.

Effects of the superior mesenteric artery approach versus the no-touch approach during pancreatoduodenectomy on the mobilization of circulating tumour cells and clusters in pancreatic cancer (CETUPANC): randomized clinical trial. Padillo J, Fresno C, Suárez G, Blanco G, Muñoz L, Justo I, García MI et al. BJS Open. 2024 October 29. 8 (6):DOI:10.1093/bjsopen/zrae123. PMID:39485887.

Long-term outcomes after breast cancer liver metastasis surgery: A European, retrospective, snapshot study (LIBREAST STUDY). Cantalejo M, Ramia JM, Alvarez I, Kokas B, Blanco G, Muñoz E, Oláh A et al. SURGICAL ONCOLOGY- OXFORD. 2024 December 01. 57DOI:10.1016/j.suronc.2024.102129. PMID:39243418.

THESIS

Thesis title: «Mutation Tracking» en el DNS tumoral circulante para predecir enfermedad mínima residual, respuesta al tratamiento y recaída precoz en pacientes diagnosticados de adenocarcinoma de páncreas.
Doctoral candidate: María del Sol Huerta Álvaro
Director(s): Andrés Cervantes Ruipérez, Luis Sabater Orti, Pilar Codoñer Franch.
University: Universidad de Valencia
Date of the defense: 16 May 2024
Grade: Sobresaliente Cum Laude

Research Group on Personal Autonomy, Dependence and Severe Mental Disorders (TMAP)

Consolidated
Person Responsible: Rafael Tabarés Seisdedos

STRATEGIC AIMS

- Contribute to the prevention of signs of frailty and cognitive and functional impairment in populations at risk.
- Favor the identification of biomarkers and endophenotypes associated with cognitive deficits and functional impairment in people with severe mental disorders and other chronic diseases that occur with deterioration in these areas.
- Understand the unexpected associations between apparently different diseases such as Cancer and diseases of the Central Nervous System.
- Continue studies of the increased burden of disease due to mental disorders and neurological diseases such as dementia.
- Participate in expert groups to reach consensus on nutritional medicine and other clinical practices in modern psychiatry.

MAIN LINES OF RESEARCH

- Neurocognition, frailty, and social functioning in severe mental disorder and other diseases with chronic development.
- Direct and inverse multimorbidity in patients with complex diseases such as central nervous system disorders, cancer or metabolic diseases.
- Epidemiology and disability associated with severe mental disorder.
- Global Burden of Disease studies.
- Identification of biomarkers in severe mental disorders.
- Nutritional Psychiatry.
- Transdiagnostic cognitive impairment, pre-frailty or frailty, and decreased social functioning in severe mental disorder and other diseases with chronic development.
- Validation and identification of neurocognitive endophenotypes in severe mental disorder (MICEmi).

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- Leading Researcher:**
Rafael Tabarés Seisdedos. University
Vicente Balanza Martínez. University
Manuel Gómez Beneyto. Hospital
- Established Researcher:**
Manuel Girón Giménez. INCLIVA
José Salazar Fraile. INCLIVA
Patricia Correa Ghisays. University
Inmaculada Fuentes Dura. University
Gabriel Selva Vera. Hospital

- Recognised Researcher:**
Pablo Soldevila Matias. University
Jaume Fores Martos. University
Diego Macías Saint-Gerons. INCLIVA
Constanza Isabel San Martín Valenzuela. University
- First Stage Researcher:**
Joan Vicent Sánchez Orfí. INCLIVA
- Staff-Nurse:**
Sandra Mora Cercos. Hospital

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
0	2	0	0	0

TEAM INVOLVED IN



RESEARCH PROJECTS

Reference: PI23/00881
Title: *Estilos de vida y aptitud física y sus correlatos biológicos como marcadores de sínTomás de depresión y ansiedad en estudiantes universitarios: estudio de casos y controles anidado en la Cohorte UNILIFE-M.*
Principal Investigator: Vicente Balanza Martínez
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2026
Total budget: €104.060

Reference: PID2021-129099OB-100
Title: *MULTImorbilidad en personas con trastornos del Sistema Nervioso Central: una prioridad para la salud global desde los registros médicos*
Principal Investigator: Rafael Tabarés Seisdedos
Funding Body: Ministerio de Ciencia e Innovación
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €83.750

Reference: PROMETEO/CIPROM/2022/58
Title: LlandScape Of cancer multimorbidities in people with central nervous system disorder: aligning electronic Health Records, preclinical research and ommics data for translational science (SOROLLA project)
Principal Investigator: Rafael Tabarés Seisdedos
Funding Body: Generalitat Valenciana
Beneficiary institution: Universidad de Valencia
Duration: 2023-2026
Total budget: €424.900

Title: Convenio colaboración: redacción plan de acción en salud mental, drogodependencias y conductas adictivas: supuesto 2023-2026. Universitat de València y Generalitat Valenciana (presidencia).
Principal Investigator: Rafael Tabarés Seisdedos
Funding Body: Universitat de València and Generalitat Valenciana (presidencia)
Beneficiary institution: Generalitat Valenciana
Duration: 2023-2026

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
39	906,3	24,49
National collaborations	International collaborations	Corresponding author
14	23	11

Global burden and strength of evidence for 88 risk factors in 204 countries and 811 subnational locations, 1990-2021: a systematic analysis for the Global Burden of Disease Study 2021. Brauer M, Roth GA, Aravkin AY, Zheng P, Abate KH, Abate YH, Abbafati C et al. LANCET. 2024 May 18. 403 (10440):2162-2203. DOI:10.1016/S0140-6736(24)00933-4. PMID:38762324.

Global burden of 288 causes of death and life expectancy decomposition in 204 countries and territories and 811 subnational locations, 1990-2021: a systematic analysis for the Global Burden of Disease Study 2021. Naghavi M, Ong KL, Aali A, Ababneh HS, Abate YH, Abbafati C, Abbasgholizadeh R et al. LANCET. 2024 May 18. 403 (10440):2100-2132. DOI:10.1016/S0140-6736(24)00367-2. PMID:38582094.

Burden of disease scenarios for 204 countries and territories, 2022-2050: a forecasting analysis for the Global Burden of Disease Study 2021. Vollset SE, Ababneh HS, Abate YH, Abbafati C, Abbasgholizadeh R, Abbasian M, Abbastabar H et al. LANCET. 2024 May 18. 403 (10440):2204-2256. DOI:10.1016/S0140-6736(24)00685-8. PMID:38762325.

Global incidence, prevalence, years lived with disability (YLDs), disability-adjusted life-years (DALYs), and healthy life expectancy (HALE) for 371 diseases and injuries in 204 countries and territories and 811 subnational locations, 1990-2021: a systematic analysis for the Global Burden of Disease Study 2021. Diseases and Injuries Collaborators GBD2021. LANCET. 2024 May 18. 403 (10440):2133-2161. DOI:10.1016/S0140-6736(24)00757-8. PMID:38642570.

Global fertility in 204 countries and territories, 1950-2021, with forecasts to 2100: a comprehensive demographic analysis for the Global Burden of Disease Study 2021. Bhattacharjee NV, Schumacher AE, Aali A, Abate YH, Abbasgholizadeh R, Abbasian M, Abbasi M et al. LANCET. 2024 May 18. 403 (10440):2057-2099. DOI:10.1016/S0140-6736(24)00550-6. PMID:38521087

THESIS

Thesis title: Salud mental y estigma social en estudiantes universitarios
Doctoral candidate: Beatriz Atienza Carbonel
Director(s): Vicent Balanzá-Martínez
University: Universitat de València
Date of the defense: 23 April 2024
Grade: Doctorado en Medicina
Quality recognition/Award: Sobresaliente cum laude

Research Group on Cellular and Organic Physiopathology of Oxidative Stress

Consolidated
Person Responsible: Federico Vicente Pallardó Calatayud

STRATEGIC AIMS

- Development of new therapies for the treatment of neuromuscular diseases
- Development of new therapies for the treatment of neurodegenerative diseases
- Remarkable achievements are the extension to PCT phase of the European patent «Mass spectrometry-based methods for the detection of circulating histones H3 and H2B in plasma from sepsis or septic shock (ss) patients» (PCT/EP2017/078362) IN CHINA

MAIN LINES OF RESEARCH

- Development of new biomarkers in both adult and neonatal sepsis.
- Development of new therapeutic strategies for Friedreich's Ataxia.
- Epigenetic regulation in the pathophysiology of rare diseases.
- Epigenetic regulation of immunosuppression events in patients from Intensive Care Units.
- Pathophysiology of Friedreich's Ataxia and other neuromuscular diseases.
- Rare childhood epilepsies

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- Leading Researcher:**
Federico Vicente Pallardó Calatayud. University
- Established Researcher:**
Juan Antonio Navarro Langa (Emerging). INCLIVA
Carlos Roma Mateo. University
José Manuel Torres Ibañez. University
- Recognised Researcher:**
Marta Seco Cervera. University
Concepción Garcés Díaz. University
- First Stage Researcher:**
Patricia Rodríguez Tascón. University
Tamara Lapeña Luzón. University
- Staff-Collaborating Researcher:**
Alexandre Llorens Trujillo. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
1	1	0	0	1

TEAM INVOLVED IN



Emerging Researcher

Juan Antonio Navarro Langa
Our scientific interests are currently pursuing 3 main lines of research: i) Promotion and inhibition of ferroptosis (cell death driven by iron) in FRDA models, ii) Drug repositioning in diseases mediated by Polyglutamine Expansions and iii) Pharmacological Screen of fly models of human HSP7.
We are not alone in this task, we have stablished solid collaborations with Filippo Santorelli (University of Pisa) to generate a translational platform using *Drosophila* to model hereditary spastic paraplegia and with Patricia Maciel, Director of the ICVS - Life and Health Sciences Research Institute in Braga (Portugal), to corroborate fly and cells results in mouse models of Polyglutamine diseases.
Dr Navarro is a scientist focused on neurodegeneration with special interest in mitochondrial biology. His research has provided him with experience and skills in the study of aging, autophagy/mitophagy, lipid metabolism, oxidative stress, metal homeostasis, mitochondrial dynamics and ER stress. Furthermore, his research has a double vocation. On the one hand, it has been addressing basic questions regarding the neurobiology of diseases. On the other hand, it aims to translate this knowledge into results that can directly benefit patients. He will continue using *Drosophila melanogaster* to model neurodegenerative diseases and will expand his research portfolio to mammalian systems to increase and highlight the translational impact of the fly results.

RESEARCH PROJECTS

Reference: CDEI-04/20-C
Title: *Plan GenT: Drosophila melanogaster as model to study the impact of ferroptosis in Friedreich's Ataxia***Principal Investigator:** Juan Navarro Langa
Funding Body: *Conselleria de Sanidad Universal y Salud Pública*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2020-2025
Total budget: €117.500 + € 242.000 (PI Salary)

Reference: PI22/00507
Title: *Reposicionamiento de fármacos como tratamiento para la enfermedad de Huntington y la ataxia espinocerebelosa de tipo 3. Estudios en cultivos primarios de pacientes y en modelos animales transgénicos*
Principal Investigator: Federico V. Pallardó Calatayud and Juan Antonio Navarro Langa
Funding Body: *Instituto de Salud Carlos III - Cofinanciado FEDER*
Beneficiary Institution: *Universidad de Valencia*
Duration: 2023-2025
Total budget: €147.620

Reference: IFEQ22/00178
Title: *Sistema de espectrometría de masas acoplado a un sistema de cromatografía líquida de alta precisión*
Principal Investigator: Federico V. Pallardó Calatayud
Funding Body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2024
Total budget: €300.000

Reference: CIAICO/2023/248
Title: *Regulación de la expresión de frataxina mediante edición genética y epigenética dirigida y su impacto en el desarrollo de terapias para la ataxia de Friedreich.*
Principal Investigator: Pilar González Cabo
Funding Body: *Conselleria de Educación / Innovación, Universidades, Ciencia y Sociedad Digital /Empleo*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2024-2027
Total budget: €89.994

Reference: PID2020-119127RA-I00
Title: *Citotoxicidad mediada por macromoléculas nucleares: mecanismos moleculares y potencial para el desarrollo de biomarcadores de sepsis y choque séptico*
Principal Investigator: Carlos Romá Mateo
Funding Body: *Ministerio de Ciencia e Innovación*
Beneficiary Institution: *Universidad de Valencia*
Duration: 2021-2024
Total budget: €121.000

Title: Rastreo Farmacológico en modelos de *Drosophila* de Paraplejia Espástica Hereditaria 7. PharmaFlyHSP7. Referencia PI-2023-005
Principal Investigator: Juan Antonio Navarro Langa
Beneficiary Institution: Universitat de València y la Fundación para la investigación del Hospital Clínico Universitario de Valencia-Instituto de investigación Sanitaria INCLIVA.
Duration: 2024 - 2025.
Total Budget: 20000 €

Title: Pharmacological Screening in *Drosophila* and Cellular Models of Hereditary Spastic Paraplegia 7 (PharmaFlyHSP7). Ref: ASSOASL-HSP_2025_Navarro
Principal Investigator: Juan Antonio Navarro Langa
Funding agency: The French Fondation For Rare Diseases and the Association Strümpell-Lorrain HSP-France
Total budget: 25000 €
Funded Period: January 2025 - December 2026.

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
17	76,2	4,76
National collaborations	International collaborations	Corresponding author
7	8	9

Persistent Pulmonary Fibrotic Sequelae in Patients With Telomere Shortening One Year After Severe COVID-19. Mulet A, González P, Pallardó FV, Signes J. ARCHIVOS DE BRONCONEUMOLOGIA. 2024 January 01. 60 (1):62-64. DOI:10.1016/j.arbres.2023.11.003. PMID:37985282.

Alterations in leukocyte DNA methylome are associated to immunosuppression in severe clinical phenotypes of septic patients. Beltrán J, Casabó G, Osca R, Navarrete P, Rodriguez M, Nacher E, Ferrando C et al. Frontiers in Immunology. 2024 January 03. 141333705-1333705. DOI:10.3389/fimmu.2023.1333705. PMID:38235139.

Oxidative stress and metabolism meet epigenetic modulation in physical exercise. García JL, Cánovas I, Pallardó F. V. FREE RADICAL BIOLOGY AND MEDICINE. 2024 March 01. 213123-137. DOI:10.1016/j.freeradbiomed.2024.01.008. PMID:38199289.

Research Group on Nuclear Receptors in Cardiometabolic Pathology

Emergent
Person Responsible: Laura Piqueras Ruiz

STRATEGIC AIMS

- Identification of new mechanisms involved in angiogenesis and inflammation in obese patients
- Study and characterization of the role of the CCR4 receptor and its ligands CCL17 / TARCE, CCL22 / MDC and CKLF1 in angiogenesis and inflammation associated with obesity and in response to bariatric surgery
- Study and characterization of the role of the CCR9 receptor and its ligand CCL25 in angiogenesis and inflammation associated with morbid obesity
- Study of new agonists of GIPR and GLP1R in the development of abdominal aortic aneurysm
- To evaluate the effect of tirzepatide in an animal model of abdominal aortic aneurysm and to investigate the possible anti-inflammatory effect of tirzepatide in dysfunction endothelial

MAIN LINES OF RESEARCH

- Identification of new mechanisms involved in angiogenesis and inflammation in obese patients. Role of CCR4 chemokine receptor ligands and constitutive nuclear androstane receptors.
- Study of new agonists of GIPR and GLP1R in the development of abdominal aortic aneurysm.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Established Researcher:**
Laura Piqueras Ruiz. University Of Valencia
- **First Stage Researcher:**
Álvaro Gómez Martín. INCLIVA
- **Staff-Technician:**
Ángela Vea Badenes. INCLIVA
Julía Ferrol Navarro. University Of Valencia
María Mar García Guerrero. University Of Valencia

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
0	0	1	0	1

RESEARCH PROJECTS

Reference: PI21/00220
Title: *Estudio de nuevos ejes de quimiocinas como potenciales dianas de intervención en la obesidad y la resistencia a la insulina*
Principal Investigator: Laura Piqueras Ruiz, José Tomás Real Collado
Funding body: *Instituto de Salud Carlos III - Cofinanciado FEDER*
Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duración: 2022-2024
Presupuesto total: € 204.490

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
3	18,7	6,23
National collaborations	International collaborations	Corresponding author
3	0	3

Targeting systemic inflammation in metabolic disorders. A therapeutic candidate for the prevention of cardiovascular diseases?. Domingo E, Marques P, Francisco V, Piqueras L, Sanz MJ. Pharmacological Research 2024 February 01. 200107058-107058. DOI:10.1016/j.phrs.2024.107058. PMID:38218355.

Machine Learning Model in Obesity to Predict Weight Loss One Year after Bariatric Surgery: A Pilot Study. Nadal E, Benito E, Ródenas AM, Palanca A, Martínez S, Civera M, Ortega J et al. Biomedicines. 2024 June 01. 12 (6):DOI:10.3390/biomedicines12061175. PMID:38927382.

Key role of activated platelets in the enhanced adhesion of circulating leucocyte-platelet aggregates to the dysfunctional endothelium in early-stage COPD. Marques P, Bocigas I, Domingo E, Francisco V, Tarraso J, García Y, Morcillo EJ et al. Frontiers in Immunology. 2024 August 19. 151441637-1441637. DOI:10.3389/fimmu.2024.1441637. PMID:39229275.

Research group on Metabolic Diseases

Emergent
Person Responsible: Herminia González Navarro

STRATEGIC AIMS

- Study of the effect of inflammatory mediators of the lymphotoxin family and their receptors on the development of metabolic associated fatty liver disease
- Study of the cytokine LIGHT in the stability of the plaque during the progression of atherosclerosis
- Characterization of immune populations in human metabolic diseases

MAIN LINES OF RESEARCH

- Identification and characterization of tissular immune populations associated with metabolic diseases.
- Identification of novel cellular plasticity mechanisms involved in atheroma plaque stability.
- Novel biomarkers for the stratification of patients with diabetes and atherosclerosis.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Established Researcher:**
Herminia González Navarro. University
- **Recognised Researcher:**
Elena Jiménez Martí. University
- **First Stage Researcher:**
María Aguilar Ballester. INCLIVA
Gema Hurtado Genovés. INCLIVA
Susana Martín Vañó. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
2	0	1	0	0

RESEARCH PROJECTS

Reference: PI22/00062
Title: Identificación de nuevas dianas terapéuticas y mecanismos de la modulación de la inflamación en las enfermedades metabólicas
Principal Investigator: Herminia González Navarro (Sergio Martínez Hervás as collaborating researcher)
Funding Body: *Instituto de Salud Carlos III - Cofinanciado FEDER*
Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2025
Total budget: € 147.620

Reference: FI20/00017
Title: Mecanismos moleculares de las células inmunes en la enfermedad del hígado graso no alcohólica asociada a la resistencia a la insulina
Principal Investigator: María Aguilar Ballester
Funding Body: *Instituto de Salud Carlos III - Cofinanciado FEDER*
Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2021-2024
Total budget: €82.400

Reference: FPU20/04916
Title: Papel de la vía de señalización mediada por LIGHT en la reprogramación de las células de músculo liso vascular en la aterosclerosis
Principal Investigator: Gema Hurtado Genovés
Funding Body: *Ministerio de Universidades*
Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2021-2025

RESEARCH RESULTS

Invention: 2021. Compound comprising ruthenium(iii) and 2,2'-biimidazole (Runat-bi) and the therapeutic use thereof
Priority number: P202130624
Status: Granted in Spain
Principal Investigator: Elena Jiménez Martí

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
4	14,8	3,7
National collaborations	International collaborations	Corresponding author
3	1	4

Light deficiency in Apoe-/-mice increases atheroma plaque size and vulnerability by modulating local immunity. Hurtado G, Herrero A, Vinué A, Martín S, Aguilar M, Taberner A, Jiménez E et al. BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR BASIS OF DISEASE. 2024 April 01. 1870 (4):167052-167052. DOI:10.1016/j.bbadis.2024.167052. PMID:38336102.

Association of carotid atheroma plaque with IL-18 levels and with polymorphisms in the IL-18 receptor gene in a Mediterranean population. Palanca A, Bartual A, Cuenca C, Mayo OD, Ampudia FJ, González H, Ascaso JF et al. CLINICA E INVESTIGACION EN ARTERIOSCLEROSIS. 2024 July 01. 36 (4):210-217. DOI:10.1016/j.arteri.2023.12.005. PMID:38216380.

Quadruple therapies show a higher eradication rate compared to standard triple therapy for Helicobacter pylori infection within the LEGACy consortium. A multicenter observational study in European and Latin American countries. Medel P, Placencia DR, Fuentes E, Corsi O, Latorre G, Anton R, Jiménez E et al. United European Gastroenterology Journal. 2024 November 01. 12 (9):1190-1199. DOI:10.1002/ueg2.12605. PMID:39090833.

Treatment with 1.25% cholesterol enriched diet produces severe fatty liver disease characterized by advanced fibrosis and inflammation and impaired autophagy in mice. Taberner A, Aguilar M, Jiménez E, Hurtado G, Martín RM, Herrero A, Vinué Á et al. JOURNAL OF NUTRITIONAL BIOCHEMISTRY. 2024 December 01. 134109711-109711. DOI:10.1016/j.jnutbio.2024.109711. PMID:39111707.

Research Group on Rare Respiratory Diseases (RRD)

Emergent
Person Responsible: Francisco Dasí Fernández

STRATEGIC AIMS

Dr. Dasí’s group focuses on investigating the molecular and cellular aspects of rare respiratory diseases (RRDs) to understand their pathophysiological mechanisms. The group aims to identify new molecular targets for diagnosis, prognosis, and treatment with a special interest in discovering biomarkers in biological fluids. Additionally, the groups aims to translate their findings into gene therapy techniques for clinical applications. Finally, the group is dedicated to informing and collaborating with patients and families on advancements related to RRDs.

MAIN LINES OF RESEARCH

- Development of cellular models from cells of patients with RRD, which allow research in these diseases.
- The group is currently conducting active basic research on two rare respiratory diseases (RRDs); Alpha-1 Antitrypsin Deficiency (AATD) and primary ciliary dyskinesia (PCD).
- To characterize the molecular mechanisms (especially those aspects related to REDOX regulation) involved in the development of disease in AATD and PCD.
- To develop new therapeutic strategies based on gene therapy.
- To evaluate the diagnostic and/or prognostic value of circulating nucleic acids in plasma/ serum.
- To generate social awareness of RRD, through the scientific dissemination of biomedical advances and social and health policies aimed at improving the quality of life of patients.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- Established Researcher:**
Francisco Dasí Fernández. Hospital Selene Valero Moreno. University
- Recognised Researcher:**
Silvia Castillo Corullon. Hospital
- First Stage Researcher:**
Álvaro García Carrasco. University
- Staff-Nurse:**
Carlos Martínez Ferraro. University
- Staff-Technician:**
Joaquin Carrasco Luna. University
Maksym Kupchyk Tiurin. University

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
0	0	1	0	0

TEAM INVOLVED IN



RESEARCH PROJECTS

Title: Estudio de la utilidad clínica de las terapias antioxidantes en el déficit de alfa-1 antitripsina
Principal Investigator: Francisco Dasí
Funding body: Generalitat Valenciana
Beneficiary institution: Universitat de València
Duration: 3 years
Total budget: 89.625 €

Title: Terapias antioxidantes en el déficit de alfa-1 antitripsina
Principal Investigator: Francisco Dasí
Funding body: Sociedad Valenciana de Neumología
Beneficiary institution: IIS INCLIVA
Duration: 3 years
Total budget: 6.000 €

Title: Perfil de MicroRNAs en neumonitis por hipersensibilidad con características Fibrosantes Progresivas.
Principal Investigator: Alberto Martínez
Funding body: Sociedad Valenciana de Neumología
Beneficiary institution: Hospital General Universitario de Valencia
Duration: 3 years
Total budget: 6.000 €

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
19	61	3,21
National collaborations	International collaborations	Corresponding author
16	2	7

Redox Imbalance in Nasal Epithelial Cells of Primary Ciliary Dyskinesia Patients. Reula A, Castillo S, Armengot M, Herrera G, Escribano A, Dasí F. ANTIOXIDANTS. 2024 February 02. 13 (2):DOI:10.3390/antiox13020190. PMID:38397788.

Is bronchial asthma a risk factor for emotional well-being in adolescence? A comparative study. Valero S, Montoya I, Pérez M. PSYCHOLOGY & HEALTH. 2024 April 29. 1-18. DOI:10.1080/08870446.2024.2349644. PMID:38715417.

Associations between respiratory pathogens and lung function in primary ciliary dyskinesia: cross-sectional analysis from the PROVALF-PCD cohort. Rubbo B, Kant A, Zhang K, Allegorico A, Basilicata S, Boon M, Borrelli M et al. ERJ Open Research. 2024 September 01. 10 (5):DOI:10.1183/23120541.00253-2024. PMID:39351386.

Impact of Hypoxia on Neutrophil Degranulation and Inflammatory Response in Alpha-1 Antitrypsin Deficiency Patients. Magallón M, Castillo S, Bañuls L, Romero T, Pellicer D, Herrejón A, Navarro MM et al. ANTIOXIDANTS. 2024 September 02. 13 (9):DOI:10.3390/antiox13091071. PMID:39334730.

Genomic characterization of MRSA recovered from people with cystic fibrosis during two Spanish multicentre studies (2013 and 2021). Maruri A, Hernandez M, Barbero R, Michelena M, Pastor MD, Mondejar P, Solé A et al. Jac-Antimicrobial Resistance. 2024 October 17. 6 (5):DOI:10.1093/jacamr/dlae160. PMID:39429234.

Research Group on Healthy Aging (MiniAging)

Consolidated
Person Responsible: Consuelo Borrás Blasco

STRATEGIC AIMS

- To know the molecular mechanisms involved in aging and frailty processes
- To develop possible biomarkers to evaluate them
- To develop possible methods to evaluate them
- To develop appropriate intervention strategies
- To determine an index of quality of life in experimental animals
- To develop human imaging biomarkers for the diagnosis of frailty
- To study interventions to delay aging and prevent frailty
- Therapy with small extracellular vesicles
- Role of the antiapoptotic gene Bcl-xL

MAIN LINES OF RESEARCH

- Development of a quality-of-life index related to healthy aging in experimental animals, derived from intervention studies on aging. Frailty biomarkers based on ultrasound image analysis include echo intensity, fractals, and textures.
- Development of image biomarkers for diagnosing frailty, focusing on fragility biomarkers from ultrasound image analysis, which includes echo intensity, fractals, and textures.
- Interventions aimed at promoting healthy aging: stem cell-derived extracellular medicine, based on previous studies on stem cells and senescence. Examination of Bcl-xL as a longevity gene, referencing previous studies involving centenarians.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Consuelo Borrás Blasco. University
- **Recognised Researcher:**
Ana Díaz Cuevas. University
María Del Mar Dromant Jarque. University
Marta Inglés De La Torre. University
Cristina Mas Bagues. University
- **First Stage Researcher:**
Marta Arnal Forné. University
Javier Huete Acevedo. University

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
2	0	0	0	0

RESEARCH PROJECTS

Reference: PID2020-113839RB-I00
Title: *Efecto del tratamiento con vesículas extracelulares de células madre de grasa de ratones jóvenes sobre parámetros de envejecimiento y fragilidad en ratones de edad avanzada*
Principal Investigator: Consuelo Borrás Blasco
Funding Body: *Ministerio de Ciencia e Innovación*
Beneficiary Institution: *Universidad de Valencia*
Duration: 2021-2024
Total Budget: €181.500

Reference: CIAICO/2022/190
Title: *Estudio de la importancia de las vesículas extracelulares como mediadores de la comunicación intercelular en el envejecimiento y la fragilidad*
Principal Investigator: Consuelo Borrás Blasco
Funding Body: *Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital*
Beneficiary Institution: *Universidad de Valencia*
Duration: 2022-2024
Total Budget: €90.000

Reference: PI-2023-004-Exo-TCE
Title: *Biomarcadores en vesículas extracelulares plasmáticas en pacientes con traumatismo craneoencefálico.*
Principal Investigator: Rafael Badenes, Consuelo Borrás Blasco
Funding Body: INCLIVA, Universidad de Valencia
Beneficiary Institution: *Universidad de Valencia*
Duration: 2024-2025
Total Budget: 17.000€

Reference: AP-BIOMED2024-08-SENICTUS
Title: *Estudio de la senescencia celular como marcador pronóstico y diana terapéutica en el ictus isquémico agudo*
Principal Investigator: Consuelo Borrás Blasco
Funding Body:
Beneficiary Institution: *Universidad de Valencia*
Duration: 2025-2026
Total Budget: 4.000€

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
16	64,2	4,93
National collaborations	International collaborations	Corresponding author
9	3	10

Mitochondria: A new member involved in stem cell senescence. An extended commentary on «Mitochondria pleiotropism in stem cell senescence: Mechanisms and therapeutic approaches by Mas-Bargues C. [Free Radic. Biol. Med. (2023) Nov 1;208:657-671. doi:10.1016/j.freeradbiomed.2023.09.019]. Alique M, Mas C. FREE RADICAL BIOLOGY AND MEDICINE. 2024 March 01. 213426-429. DOI:10.1016/j.freeradbiomed.2024.01.048. PMID:38301973.

Novel Fibrillar and Non-Fibrillar Collagens Involved in Fibrotic Scar Formation after Myocardial Infarction. Ortega M, Fábrega MM, Molina T, Gavara J, de Dios E, Pérez N, Marcos V et al. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2024 June 01. 25 (12):DOI:10.3390/ijms25126625. PMID:38928330.

A mild increase in nutrient signaling to mTORC1 in mice leads to parenchymal damage, myeloid inflammation and shortened lifespan. Ortega A, Lebrero C, Sanz A, Calvo M, Deleyto N, de Prado L, Plata AB et al. Nature Aging. 2024 August 01. 4 (8):1102-1120. DOI:10.1038/s43587-024-00635-x. PMID:38849535.

Free radicals in Alzheimer’s disease: from pathophysiology to clinical trial results. Viña J, Borrás C, Mas C. FREE RADICAL BIOLOGY AND MEDICINE. 2024 November 20. 225296-301. DOI:10.1016/j.freeradbiomed.2024.09.051. PMID:39370055.

Role of Redox Homeostasis in the Communication Between Brain and Liver Through Extracellular Vesicles. Huete J,Mas C,Arnal M,Atencia S,Sanz J,Borrás C. ANTIOXIDANTS. 2024 December 01. 13 (12):DOI:10.3390/antiox13121493. PMID:39765821.

THESIS

Thesis title: Evaluación ecográfica de la arquitectura muscular antes y después de la implementación de un régimen de ejercicio físico dirigido, en una población de adultos con cierto grado de fragilidad
Type: Doctoral Thesis
Doctoral candidate: Jenny Soraya Cárdenas Herrán
Director(s): Consuelo Borrás Blasco
Date of the defense: 15 May 2024
University: Universitat de València
Grade: Cum Laude

Thesis title: Efecto del tratamiento con vesículas extracelulares de células madre de tejido adiposo de ratones jóvenes sobre parámetros de envejecimiento y longevidad en ratones de edad avanzada
Type: Doctoral Thesis
Doctoral candidate: Nekane Romero García
Director(s): Consuelo Borrás Blasco; Cristina Más Bargues
Date of the defense: 22 December 2024
University: Universitat de València
Grade: Cum Laude

Thesis title: Estudio de la importancia de las vesículas extracelulares como mediadores de la comunicación intercelular en patologías relacionadas con la edad: un enfoque traslacional
Type: Doctoral Thesis
Doctoral candidate: Marta Arnal Forné
Director(s): Consuelo Borrás Blasco
Date of the defense: 17th December 2024
University: Universitat de València

Research Group on Exercise, Nutrition and Healthy Lifestyle

Consolidated
Person Responsible: María Carmen Gómez Cabrera

STRATEGIC AIMS

- Investigate the physiological mechanisms of **skeletal muscle dysfunction** in aging, disuse, and pathological conditions.
- Identify **molecular and cellular pathways involved in muscle mass and strength loss** to better understand sarcopenia and related disorders.
- Develop and optimize **personalized physical exercise programs** tailored to individuals with varying functional limitations or disease states.
- Integrate **nutritional strategies with physical activity** to enhance muscle preservation and recovery.
- Explore and evaluate **pharmacological interventions** as adjuncts to improve muscle function where appropriate.
- Translate **basic research findings into clinically relevant interventions** to improve the quality of life in sarcopenic, frail, diabetic, and cancer cachexia patients, among others.
- Promote **multidisciplinary approaches** combining physiology, nutrition, exercise science, and pharmacology to address muscle dysfunction holistically.
- **Muscle Regeneration and Sarcopenia**
 - Develop strategies to **enhance the intrinsic myofiber self-repair mechanisms** and regenerative capacity to prevent sarcopenia and muscle wasting in frail individuals.
 - Elucidate the **molecular pathways involved in muscle atrophy**, focusing on the contribution of oxidative stress and disuse in clinical and preclinical models.
- **Exercise Biology and Redox Regulation in Skeletal Muscle**
 - Characterize **cell signaling pathways** activated during different modalities of physical exercise in skeletal muscle.
 - Analyze the role of **oxidative stress and antioxidant supplementation** in modulating exercise responses and protecting against muscle damage.
- **Translational Research and Clinical Application**
 - Use **molecular and cellular approaches in both animal and human models** to define the biological mechanisms modulated by exercise and nutrition.
 - Design **clinical trials** to translate basic research findings into interventions that enhance **quality of life** and promote **healthy aging**.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Established Researcher:** María Carmen Gómez Cabrera. University Juan Gambini Buchon. University Gloria Olaso González. University
- **Recognised Researcher:** Eva Tamayo Torres. INCLIVA Aitor Carretero Martínez. INCLIVA Esther García Domínguez. University Fernando Millán Domingo. University Kristine Stromsnes. University
- **First Stage Researcher:** Abril Gorgori González. University Silvana Javiera Soto Rodríguez. University Ángela García Correas. University Remus-Iulian Lupu. INCLIVA

MAIN LINES OF RESEARCH

- **Mitochondrial Therapeutics in Aging**
 - Investigate the role of **nicotinamide riboside (NR), piceid and harmol** as a mitotherapeutic agent to reverse age-associated energy collapse and improve mitochondrial function in skeletal muscle
 - Explore how glucose-**6-phosphate dehydrogenase (G6PD) activation** influences redox balance and energy metabolism, and assess its potential in preventing or reversing frailty.
- **Multimodal Lifestyle Interventions in Aging and Frailty**
 - Develop and evaluate **integrated interventions** combining multicomponent physical exercise programs with **nutritional supplementation** to reverse or prevent frailty.
 - Assess the **impact of high-intensity interval training (HIIT)** on physical function, muscle health in aging populations.
 - Study the **effects of glucosamine supplementation** on physical performance and musculoskeletal integrity in older adults.

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
5	3	0	0	0

RESEARCH PROJECTS

Reference: DIABFRAIL-LATAM-825546
Title: Scaling-up of and evidence-based intervention programme in older people with Diabetes and Frailty in LatinAmerica
Principal Investigator: Leocadio Rodríguez Mañas (M^a Carmen Gómez Cabrera as collaborating researcher)
Funding Body: European Commission
Beneficiary Institution: CIBER (*Fundación Investigación Hospital Clínico Universitario de Valencia as Third Party*)
Duration: 2019-2024
Total Budget: €273.720

Reference: RED2022-134800-T
Title: EXERNET-Red de Ejercicio Físico y Salud
Principal Investigator: M^a Carmen Gómez Cabrera
Funding Body: *Ministerio de Ciencia e Innovación*
Beneficiary Institution: *Universidad de Valencia*
Duration: 2023-2024
Total budget: €19.100

Reference: CIPROM/2022/56
Title: Boosting the intrinsic myofiber self-repair mechanisms in skeletalmuscle to prevent and treat frailty and sarcopenia
Principal Investigator: M^a Carmen Gómez Cabrera
Funding Body: *Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital*
Beneficiary Institution: *Universidad de Valencia*
Duration: 2023-2026
Total Budget: €544.500

Reference: PID2022-142470OB-100
Title: Promoción de la salud y prevención de la fragilidad a través de intervenciones dirigidas a la mitohormesis (miTHOR)
Principal Investigator: M^a Carmen Gómez Cabrera, G. Olaso-González.
Funding Body: *Ministerio de Ciencia e Innovación*
Beneficiary Institution: *Universidad de Valencia*
Duration: 2023-2026
Total Budget: €342.500

Reference: CB16/10/00435
Title: CIBER de Fragilidad y envejecimiento (CIBERFES)
Principal Investigator: M^a Carmen Gómez Cabrera
Funding Body: *Instituto de Salud Carlos III - Cofinanciado FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2017- actualidad
Total Budget: €40.000

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
12	118,8	10,8
National collaborations	International collaborations	Corresponding author
6	5	3

Multimodal cell atlas of the ageing human skeletal muscle. Lai YW, Ramírez I, Isern J, An J, Perdiguero E, Serrano AL, Li JX et al. Nature. 2024 April 22. 629 (8010):154-164. DOI:10.1038/s41586-024-07348-6. PMID:38649488.

The repeated bout effect evokes the training-induced skeletal muscle cellular memory?. Calvo M,Garcia E,Tamayo E,Soto S,Olaso G,Ferrucci L,de Cabo R et al. FREE RADICAL BIOLOGY AND MEDICINE. 2024 noviembre 20. 225247-254. DOI:10.1016/j.freeradbiomed.2024.09.047. PMID:39343184.

Glucose 6 phosphate dehydrogenase overexpression rescues the loss of cognition in the double transgenic APP/PS1 mouse model of Alzheimer’s disease. Correas AG, Olaso G, Roca M, Blanco MC, Nascimento C, Lahoz A, Rodriguez M et al. Redox Biology. 2024 September 01. 75103242-103242. DOI:10.1016/j.redox.2024.103242. PMID:38908073.

Molecular mechanisms of cancer cachexia. Role of exercise training. Tamayo E,Garrido A,de Cabo R,Carretero J,Gómez MC. MOLECULAR ASPECTS OF MEDICINE. 2024 October 01. 99101293-101293. DOI:10.1016/j.mam.2024.101293. PMID:39059039.

Diet and exercise in frailty and sarcopenia. Molecular aspects. Millán F,García E,Gambini J,Olaso G,Viña J,Gómez MC. MOLECULAR ASPECTS OF MEDICINE. 2024 December 01. 100101322-101322. DOI:10.1016/j.mam.2024.101322. PMID:39591800.

THESIS

Thesis title: Role of resveratrol and other natural components on lipid catabolism, mitochondrial function, and longevity
University: Universitat de València (Estudi General)
Doctoral candidate: STROMSNES, KRISTINE BAKKLUND
Director(s): GAMBINI BUCHÓN, JUAN; VIÑA RIBES, JOSÉ; Gimeno Mallench, Lucia
Date of the defense: 22 July 2024
Quality recognition/Award: Mención Europeo / Mención Internacional

Thesis title: Modulation of the Immune System by G6PD Activity, Diet, and Physical Exercise, and Their Potential Impact on Aging, Inflammation, and Cancer.
Doctoral candidate: TAMAYO TORRES EVA
Director(s): Julián Carretero Asunción, Mari Carmen Gómez Cabrera, Rafael de Cabo Moreno
Date of the defense: 30 May 2024
Grade: DOCTOR
Quality recognition/Award: Mención Internacional
Date of Quality recognition: 30/05/2024

Research Group on Epigenomics and Translational Epigenetics

Emergent
Responsible: José Luis García Giménez

STRATEGIC AIMS

Deepen the characterization of the epigenetic mechanisms that give phenotypic variability in human diseases, and that can give rise to diagnostic and prognostic biomarkers that can be implemented in precision medicine:

- Identification of epigenetic mechanisms and biomarkers in Rare Diseases
- Identification of epigenetic and proteomic biomarkers in sepsis and neonatal sepsis
- Comprehension of the mechanisms mediating the heterogeneity and complexity of sepsis by generating new organoid models

MAIN LINES OF RESEARCH

- Artificial intelligence for improved critically-ill patient management using epigenetic biomarkers.
- Clinical and biological data integration for molecular medicine.
- Identification of biomarkers for diagnosis, prognosis and monitoring of therapies in sepsis and septic shock.
- Identification of molecular mechanisms related to epigenetic dysregulation and oxidative stress in rare diseases.
- Mass spectrometry proteomics to identify blood circulating biomarkers.
- Organoids as models to evaluate tissue damage mediated by circulating histones.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Established Researcher:**
José Luis García Giménez. University
Javier Hernández Gil. (Emerging) INCLIVA
Nieves Carbonell Monleón. Hospital
Salvador Mena Molla. University
José Vicente Ferreres Franco. Hospital
- **First Stage Researcher:**
Beatriz Quevedo Sánchez. Hospital
David Bolado López De Andujar. Hospital
Georgia García Fernández. Hospital
Irene Canovas Cervera. INCLIVA
Elena Nácher Sendra. INCLIVA
María Rodríguez Gimillo. Hospital
- **Staff-Technician:**
Rosa Pura Calpe Fortea. University
Elena Climent Martínez. Primary Care
Enric Dolz Andrés. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
2	0	1	0	2

Emerging Researcher

Javier Hernández Gil.

The main objective of this research is focused on developing new radiopharmaceuticals for cancer detection and advanced therapies.

RESEARCH PROJECTS

Reference: INNTA3/2022/22
Title: Ayudas del Programa de Promoción del Talento
Principal investigator: José Luis García Giménez
Funding Body: Agencia Valenciana de Innovación (AVI)
Beneficiary institution: EpiDisease S.L.
Duration: 2022-2024
Total budget: €86.310

Reference: PI22/00481
Title: *Hacia la comprensión de la heterogeneidad de la sepsis. Pronóstico a corto y largo plazo mediante epigenómica, proteómica e inteligencia artificial*
Principal Investigator: José Luis García Giménez
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2025
Total budget: €183.920

Reference: PI22/00990
Title: *Biomarcadores de pronóstico de escoliosis idiopática en adolescentes*
Principal Investigator: Salvador Mena Mollá
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary institution: Universidad de Valencia
Duration: 2023-2025
Total budget: €123.420

Reference: DTS21/00193
Title: Test basados en péptidos spike-in y espectrometría de masas para la cuantificación de histonas circulantes y proteína APC, para el manejo clínico del paciente crítico
Principal Investigator: José Luis García Giménez
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2023 extended 2024
Total budget: €122.100

Reference: CPP2021-008643
Title: *Identificación y validación de biomarcadores mediante el uso de las ómicas y la Inteligencia Artificial para el diagnóstico temprano y mejora del manejo clínico de la sepsis*
Principal Investigator: Nieves Carbonell Monleón (José Luis García Giménez as collaborating researcher)
Entidad financiadora: Ministerio de Ciencia e Innovación
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €150.269

Reference: PID2021-127408OA-I00
Title: Desarrollo inteligente de “linfocitos T cargados con fármacos” en la lucha contra el cáncer
Principal Investigator: Javier Hernández Gil
Funding Body: Ministerio de Ciencia e Innovación
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2025
Total budget: €35.470

Reference: MFA/2022/014
Title: In vivo targeting and multimodal imaging of tumor with DNA-functionalized metal-organic frameworks nanomaterials.
Principal Investigator: Javier Hernández Gil (co-principal investigator)
Funding Body: Generalitat Valenciana
Beneficiary Institution: Universitat Politècnica de Valencia/Universitat de Valencia
Duration: 2022-2025
Total budget: €206.080

Reference: CIAICO/2023/168
Title: GRUPO DE INVESTIGACIÓN EN FISIOPATOLOGÍA Y BIOMARCADORES DE LA SEPSIS
Principal Investigator: José Luis García Giménez /Salvador Mena Mollá
Funding Body: Consellería de Educación/Innovación, Universidades, Ciencia y Sociedad Digital /Empleo
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2027
Total budget: €89.917

RESEARCH RESULTS

Invention: 2021. APC protein for the detection and prediction of septic shock
Priority number: EP21382173
Status: Europe, US China, Japan and Canada National Phase
Principal Investigator: José Luis García Giménez

Invention: 2016. Mass spectrometry-based methods for the detection of circulating histones h3 and h2b in plasma from sepsis or septic shock (ss) patients
Priority number: EP16382509.4
Status: Licensed
Principal Investigator: José Luis García Giménez

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
16	70,9	4,73
National collaborations	International collaborations	Corresponding author
7	6	9

Alterations in leukocyte DNA methylome are associated to immunosuppression in severe clinical phenotypes of septic patients. Beltrán J, Casabó G, Osca R, Navarrete P, Rodríguez M, Nacher E, Ferrando C et al. Frontiers in Immunology. 2024 January 03. 141333705-1333705. DOI:10.3389/fimmu.2023.1333705. PMID:38235139.

miRNAs Related to Immune Checkpoint Inhibitor Response: A Systematic Review. García JL,Saadi W,Ortega AL,Lahoz A,Suay G,Carretero J,Pereda J et al. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2024 February 01. 25 (3);DOI:10.3390/ijms25031737. PMID:38339019.

Oxidative stress and metabolism meet epigenetic modulation in physical exercise. García JL, Cánovas I, Pallardó F. FREE RADICAL BIOLOGY AND MEDICINE. 2024 March 01. 213123-137. DOI:10.1016/j.freeradbiomed.2024.01.008. PMID:38199289.

Clustering COVID-19 ARDS patients through the first days of ICU admission. An analysis of the CIBERESUCICOVID Cohort. Ceccato A, Forne C, Bos LD, Camprubi M, Areny A, Campana E, Quero S et al. CRITICAL CARE. 2024 March 21. 28 (1):91-91. DOI:10.1186/s13054-024-04876-5. PMID:38515193.

Circulating miR-28-5p is overexpressed in patients with sarcopenia despite long-term remission of Cushing's syndrome: a pilot study. Seco M, Ibáñez JS, Pallardo FV, García JL, Aulinas A, Martel L, Webb SM et al. Frontiers in Endocrinology. 2024 July 17. 151410080-1410080. DOI:10.3389/fendo.2024.1410080. PMID:39086897.

THESIS

Thesis title: The study of the formation of DNA damage by [2+2] photocycloaddition and its photo-repair by single or multiphoton absorption.
Doctoral candidate: Soler Orenes Juan Antonio
Director(s): L Lhiaubet Virginie; Javier Hernández Gil
University: Universidad Politécnica de Valencia.
Date of the defense: 20/12/2024

Thesis title: Pronóstico a corto y largo plazo de la sepsis adquirida en la comunidad: Factores predictivos clínicos y epigenéticos
Doctoral candidate: López-Cruz, Ian
Director(s): José Luis García Giménez y Arturo Artero Mora
University: Universitat de València
Date of the defense: 10/07/2024

Thesis title: Diseño y simulación del funcionamiento hemodinámico de fístulas arteriovenosas. implementación de un acceso vascular universal.
Doctoral candidate: Caballero Varón Valeriano
Director(s): José Luis García Giménez y Pascual Medina Besó
University: Universitat de València
Date of the defense: 17/12/2024

Thesis title: Regulación epigenética de la esclerostina y la ruta Wnt/b-catenina para la identificación de biomarcadores de fragilidad ósea
Doctoral candidate: De la Calva Ceinós
Director(s): José Luis García Giménez y Teresa Bas Hermida y Francisco Baixaulí García
University: Universitat de València
Date of the defense: 22/05/2024

Research Group in Medical Chemistry for Drug Development

Emergent
Person Responsible: Nuria Cabedo Escrig

STRATEGIC AIMS

- Peroxisome proliferator activator receptor (PPAR) ligands
- Dopamine receptor ligands
 - Serotonineric receptor ligands
 - Biomarkers of inflammation
 - Cytotoxic molecules for tumor cell lines

MAIN LINES OF RESEARCH

Development of new bioactive molecules as potential drug candidates:

- Mainly focused for the treatment of cardiometabolic diseases such as metabolic syndrome, obesity and type 2 diabetes.
- Also targeting other diseases of special relevance such as neurological diseases, cancer and rare diseases.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Nuria Cabedo Escrig. University
- **First Stage Researcher:**
Alvaro Bernabeu Sanchís. INCLIVA
Ainhoa Natividad García Martín. INCLIVA
Carlos Luís Villarroel-Vicente. INCLIVA
- **Staff-Collaborating Researcher:**
Diego Cortes Martínez. University
Jordi Ferri Ciscar. Hospital/ University
- **Staff-Technician:**
Laura Vila Dasí. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
1	0	0	0	1

RESEARCH PROJECTS

Reference: PI21/02045
Title: *Desarrollo de nuevos moduladores multidiaria de receptores nucleares y biomarcadores lipídicos para el tratamiento del síndrome metabólico y las comorbilidades asociadas*
Principal Investigator: Nuria Cabedo Escrig
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total Budget: €174.240

RESEARCH RESULTS

Invention: 2024. Prenylated tetrahydroquinolines and quinolines with ppar agonist activity
Priority number: EP24382406
Status: European Patent
Principal Investigator: Nuria Cabedo Escrig

Invention: 2017. Prenylated benzopyranes as PPAR agonists
Priority number: P201731470
Status: Granted in Europe
Principal Investigator: Nuria Cabedo Escrig

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
3	14,2	4,73
National collaborations	International collaborations	Corresponding author
0	3	2

Benzopyran hydrazones with dual PPARa/? or PPARa/d agonism and an anti-inflammatory effect on human THP-1 macrophages. García A, Vila L, Duplan I, Schiel MA, Enriz RD, Hennuyer N, Staels B et al. EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY. 2024 February 05. 265116125-116125. DOI:10.1016/j.ejmech.2024.116125. PMID:38185055.

Synthesis of a new 2-prenylated quinoline as potential drug for metabolic syndrome with pan-PPAR activity and anti-inflammatory effects. Villarroel C, García A, Zibar K, Schiel MA, Ferri J, Hennuyer N, Enriz RD et al. BIOORGANIC & MEDICINAL CHEMISTRY LETTERS. 2024 July 01. 106129770-129770. DOI:10.1016/j.bmcl.2024.129770. PMID:38677560.

N-Tosyl Hydrazone Benzopyran, a New Ligand of PPARa Obtained from Mapping the Conformational Space of Its Active Site. Schiel A, Tosso RD, Angelina E, García A, Hennuyer N, Cortes D, Cabedo N et al. Journal of Chemical Information and Modeling. 2024 December 25. 65 (1):298-311. DOI:10.1021/acs.jcim.4c01887. PMID:39720903.

THESIS

Thesis title: Synthesis of 2-alkyl benzopyran analogues of polycerasoidol as ppar agonists or agents against triple negative breast cancer
Doctoral candidate: Ainhoa Natividad García Martín
Director(s): Nuria Cabedo & Diego Cortes
University: University of Valencia
Date of the defense: 11th March 2024
Grade: Doctor (Internacional these)
Quality recognition/Award: Excellent *Cum Laude*

Thesis title: Targeting Metabolic Syndrome: Novel Benzopyrans and Quinolines as Peroxisome Proliferator-Activated Receptor Agonists
Doctoral candidate: Carlos Luis Villarroel Vicente
Director(s): Nuria Cabedo & Diego Cortes
University: University of Valencia
Date of the defense: 27th June 2024
Grade: Doctor (Internacional these)
Quality recognition/Award: Excellent

Research Group on Neurobiology and Molecular Physiopathology in Rare Diseases – NeuroFisER

Emergent
Person Responsible: Pilar González Cabo

STRATEGIC AIMS

- Physiopathology of Friedreich's ataxia: identification of new therapeutic targets that allow new treatments to be implemented
- Develop new strategies for advanced gene therapy: CRISPR/Cas9 system and anti-miRNAs
- Huntington's disease: use of nanobodies as a therapeutic tool for reduce mutant huntingtin levels and modify the course of the disease
- Development of a new study model for CANVAS Syndrome (Cerebellar Ataxia, Neuropathy, Vestibular Areflexia Syndrome): generation of iPSCs from skin biopsies of CANVAS patients, and their subsequent differentiation into sensory neurons
- Effect of COVID-19 infection on telomere length and its relationship with the evolution of idiopathic-type pulmonary fibrosis

MAIN LINES OF RESEARCH

- Characterization of the phenotype of different models of rare diseases contributing to the study of the pathophysiology to understand the molecular mechanisms underlying these diseases.
- Development of different pre-clinical therapeutic approaches, both pharmacological and genetic.
- Identification of biomarkers.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Established Researcher:**
Pilar González Cabo. University
- **First Stage Researcher:**
Lorena Baquero Anson. University
- **Staff-Collaborating Researcher:**
Rita Noverques Chermé. University
Marta Roldan Lázaro. INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
1	0	0	0	2

RESEARCH PROJECTS

Reference: PID2020-115190RB-I00
Title: *Relacionando cofilina, una proteína de unión a actina, con la desregulación del calcio: un enfoque de precisión para el tratamiento de la Ataxia de Friedreich*
Principal Investigator: Pilar González Cabo
Funding Body: *Ministerio de Ciencia e Innovación*
Beneficiary institution: *CIBER de Enfermedades Raras (CIBERER-ISCIII)*
Duration: 2021-2024
Total budget: €196.300

Reference: CIAICO/2023/248
Title: *Regulación de la expresión de frataxina mediante edición genética y epigenética dirigida y su impacto en el desarrollo de terapias para la ataxia de Friedreich.*
Principal Investigator: Pilar González Cabo
Funding Body: *Consellería de Educación/Innovación, Universidades, Ciencia y Sociedad Digital /Empleo.*
Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2024-2027
Total budget: €89.994

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
4	17,7	4,425
National collaborations	International collaborations	Corresponding author
2	1	3

UNVEILING THE RO60-RO52 COMPLEX. Rodríguez LR, de Julián JV, de la Rúa FR, Juste A, Maquieira A, Mohammad HA, Benmetir S et al. EXCLI Journal. 2024 January 01. 23888-903. DOI:10.17179/excli2024-7141. PMID:38983778.

Persistent Pulmonary Fibrotic Sequelae in Patients With Telomere Shortening One Year After Severe COVID-19. Mulet A, González P, Pallardó FV, Signes J. ARCHIVOS DE BRONCONEUMOLOGIA. 2024 January 01. 60 (1):62-64. DOI:10.1016/j.arbres.2023.11.003. PMID:37985282.

Regulatory drugs of glutamate transporter 1 (EAAT2/GLT-1) expression and activity: role in quenching oxidative damage. Domínguez D,Romero B,Roldán M,Baquero L,Noverques R,Pallardó F,Navarro JA et al. Redox Experimental Medicine. 2024 January 01. 2024 (1):DOI:10.1530/REM-24-0004.

In vivo cyclic overexpression of Yamanaka factors restricted to neurons reverses age-associated phenotypes and enhances memory performance. Antón A, Roldán M, Vallés L, Avila J, Hernández F. Communications Biology. 2024 May 24. 7 (1):631-631. DOI:10.1038/s42003-024-06328-w. PMID:38789561.

THESIS

Thesis title: Obtención y caracterización de un modelo de cardiomiocitos derivados de iPSC para el estudio de la cardiomiopatía en la ataxia de Friedreich.

Doctoral candidate: Tamara Lapeña Luzón

Director(s): Pilar González Cabo; Federico V. Pallardó Calatayud

University: University of Valencia (UV)

Date of the defense: 6 May 2024

Quality recognition/Award: Sobresaliente Cum Laudem

Research Group on Genetics and Biomarkers of Rare Diseases*

Consolidated
Person Responsible: Carmen Espinós Armero

STRATEGIC AIMS

- Molecular bases of rare movement disorders. We aim to determine the causative mutations using genome sequencing (short and long read) in patients belonging to a in depth phenotyped series. We aim to discover novel genes/mutations and mutational mechanisms, and broaden the clinical pictures.
- Wilson’s disease (WD). WD is caused by mutations in ATP7B, a copper transporter. Our goals are: (i) to identify the microRNA profile useful for prognosis; and (ii) to define the contribution of the microbiome to the clinical picture.
- Diagnosis of childhood epilepsy. We work with four cohorts: focal, generalised, structural and epileptic encephalopathy. Our goal is to establish the microRNA signature associated with each of these forms to improve the diagnosis and to make possible their stratification.

MAIN LINES OF RESEARCH

- Molecular bases of rare movement disorders. We aim to determine the causative mutations using genome sequencing (short and long read) in patients belonging to a in depth phenotyped series. We aim to discover novel genes/mutations and mutational mechanisms, and broaden the clinical pictures.
- Wilson’s disease (WD). WD is caused by mutations in ATP7B, a copper transporter. Our goals are: (i) to identify the microRNA profile useful for prognosis; and (ii) to define the contribution of the microbiome to the clinical picture.
- Diagnosis of childhood epilepsy. We work with four cohorts: focal, generalised, structural and epileptic encephalopathy. Our goal is to establish the microRNA signature associated with each of these forms to improve the diagnosis and to make possible their stratification.

GROUP MEMBERS

Staff in the period 10/12/2024 - 31/12/2024

- **Leading Researcher:** Carmen Espinós Armero. University
- **Recognised Researcher:** Esther Martínez Martínez. CIPF
- **First Stage Researcher:** Edna Ripollés Campos. CIPF
- **Staff-Technician:** Sofia Domenech Dauder. CIPF

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
1	1	0	0	0

RESEARCH PROJECTS

Reference: PI21/00103
Title: Estudios clínicos; bases genéticas y biomarcadores pronóstico en enfermedades raras neurodegenerativas
Principal Investigator: Carmen Espinós
Funding Body: Instituto de Salud Carlos III
Beneficiary Institution: Centro de Investigación Príncipe Felipe
Duration: 2022-24
Total budget: 208.120 Euros

Reference: CIAICO/2022/204
Title: Nuevos biomarcadores y tratamientos para la epilepsia infantil
Principal Investigator: Carmen Espinós
Funding Body: Generalitat Valenciana. Conselleria d’Innovació; Universitats; Ciència i Societat Digital
Beneficiary Institution: Centro de Investigación Príncipe Felipe
Duration: 2023-25
Total budget: 90.000 Euros

Reference: FPAA_Wilson
Title: Mejora del diagnóstico y del pronóstico de pacientes con la enfermedad de Wilson
Principal Investigator: Carmen Espinós
Funding Body: Fundació Per Amor a l’Art
Beneficiary Institution: Centro de Investigación Príncipe Felipe
Duration: 2023-25
Total budget: 160.088 Euros

* This group was created in December 2024, so this year's Scientific Report corresponds to one month.

Mixed Unit of Neurological Impairment

Consolidated
Person Responsible: Carmen Montoliu and Felipo Vicente

STRATEGIC AIMS

- Research into the molecular mechanisms of neurological deterioration.
- Identification of new therapeutic targets for treatment.
- Design and test new therapeutic procedures to reverse or prevent neurological deterioration.
- To transfer the identified therapeutic treatments to the clinic.
- To identify and put into clinical practice new early diagnostic procedures for neurological deterioration in patients.

MAIN LINES OF RESEARCH

- Detailed characterisation of alterations in attention, coordination, perception, spatial and working memory and other aspects of cognitive and motor function in cirrhotic patients with minimal hepatic encephalopathy (MHE).
- Identification of alterations in brain function using structural and functional MRI (oedema, brain atrophy, alterations in structure and connectivity of neural tracts) in patients with MHE.
- Identification of alterations in brain function using neurophysiological techniques (EEG, brain mapping, etc.) in patients with MHE. Analysis of their usefulness for the diagnosis of MHE.
- Characterisation of immunophenotype changes associated with the development of MHE in cirrhotic patients. Identify changes in molecular and cellular events in the immune response associated with MHE: changes in gene expression, miRNAs, activation of signalling pathways in lymphocytes and monocytes and in extracellular components.
- To evaluate the effects of rifaximin treatment on neurological, immunological and brain structure and function alterations analysed by MRI.
- Identification of peripheral markers of MHE. Identification of metabolites useful for early diagnosis of MHE. Search for inflammation-related markers as possible indicators of the presence of MHE.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Carmen Montoliu Félix. INCLIVA
Carmen Espinós. INCLIVA
José Tomás Real. INCLIVA
Sergio Martínez. INCLIVA
Vicente Felipo Orts. CIPF
Regina Rodrigo. CIPF
Established Researcher:
Amparo Urios. INCLIVA
Andrea Cabrera. INCLIVA
Mª Pilar Ballester. INCLIVA
José Ballester. INCLIVA
Desamparados Escudero. INCLIVA
Paloma Lluch. INCLIVA
Marta Llansola. CIPF
Mar Martínez. CIPF.
Recognised Researcher:
Paula Izquierdo Atarejos. INCLIVA
Joan Tosca. INCLIVA
Cristina Montón. INCLIVA
Gergana Ivaylova Mincheva. CIPF
M. Carmen Castro. CIPF
First Stage Researcher:
Concepción Gómez. INCLIVA
Adrià López. INCLIVA
Andrea Palomares. CIPF
Yaiza Arenas Ortiz. CIPF
Sheyla Velasco. CIPF
Staff-technicians:
María Oliver. INCLIVA
Laura Ávila. INCLIVA

RESEARCH PROJECTS

Reference: CIPROM/2021/082
Title: Molecular mechanisms of the neurological (cognitive and motor) alterations in hyperammonemia and hepatic encephalopathy. Therapeutic implications
Principal Investigator: Vicente Felipo
Coordinating Entity: FCIPF
Funding Entity: Conselleria de Educacio. Generalitat Valenciana.
Programme/grant: Ayuda para Grupos de Investigación de Excelencia. Programa Prometeo
Duration: 2022-2025

Reference: PI23/00062
Title: Mecanismos que conducen al deterioro cognitivo y motor leve en pacientes con enfermedad hepática: Papel de los cambios en la microbiota, el sistema inmunitario y las vesículas extracelulares
Principal Investigator: Carmina Montoliu and Mª Pilar Ballester
Coordinating Entity: INCLIVA
Funding Entity: Instituto de Salud Carlos III. (FIS) Ministerio de Sanidad y Consumo, co-financiado con Fondos FEDER
Programme/grant: Proyectos de Investigación en Salud
Duration: 01/01/2024 - 31/12/2026

Reference: PI-2023-001. Acrónimo: NeurObes
Title: Validación clínica de la cirugía bariátrica como tratamiento de la obesidad mórbida en la disfunción neurológica asociada a la enfermedad hepática metabólica e implementación de una estrategia multimodal de precisión para la identificación de perfiles de respuesta terapéutica
Principal Investigator: Carmina Montoliu (UV) / Mª Pilar Ballester (INCLIVA)
Funding Entity: PROGRAMA VLC-BIOCLINIC. Sub-programa Proyectos de Investigación Traslacional Conjuntos
Duration: 2024
Total Budget: 20000 €

Reference: PID2020-113388RB-I00
Title: Mecanismos moleculares de las alteraciones neurológicas (cognitivas y motoras) en hiperamonemia y encefalopatía Hepatica. Implicaciones terapéuticas
Principal Investigator: Vicente Felipo y Marta Llansola
Funding Entity: : Ministerio de Ciencia e Innovación
Duration: Septiembre 2021 – Agosto 2024
Total Budget: 302,500 euros

Title: Effects of golexanolone on neuroinflammation and hepatic fibrosis and inflammation in rats with cholestasis and hepatic encephalopathy due to bile duct ligation (BDL)
Principal Investigator: Vicente Felipo
Funding Entity: Umecrine Cognition AB. Sweden
Duration: 2022 – Marzo 2024
Total Budget: 38,482 euros

Title: Effects of golexanolone on L-DOPA-induced dyskinesia in a model of Parkinson's disease in rats
Principal Investigator: Vicente Felipo
Funding Entity: Umecrine Cognition AB. Sweden
Duration: 88,346 euros
Total Budget: Febrero 2023 – Abril 2024

Title: Study to assess if golexanolone could slow the progression of the pathology in a rat model of Parkinson's disease. 4 weeks of treatment
Principal Investigator: Vicente Felipo
Funding Entity: Umecrine Cognition AB. Sweden
Duration: Diciembre 2023 – Diciembre 2025
Total Budget: 86,686 euros

Title: Study to assess if golexanolone could slow the progression of the pathology in a rat model of Parkinson's disease. 8 weeks of treatment
Principal Investigator: Vicente Felipo
Funding Entity: Umecrine Cognition AB. Sweden
Duration: Marzo 2024 – Abril 2025
Total Budget: 95,608 euros

Title: Study to assess if golexanolone could slow the progression of the pathology in a rat model of Parkinson's disease. 2 weeks of treatment
Principal Investigator: Vicente Felipo
Funding Entity: Umecrine Cognition AB. Sweden
Duration: Abril 2024 – Diciembre 2025
Total Budget: 66,028 euros

Title: Study to analyze additional mechanisms involved in the beneficial effects of golexanolone in the 6-OHDA rat model of parkinson's disease
Principal Investigator: Vicente Felipo
Funding Entity: Umecrine Cognition AB. Sweden
Duration: Diciembre 2024 – Diciembre 2025
Total Budget: 32,038 euros

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
15	87,6	5,84
National collaborations	International collaborations	Corresponding author
9	6	10

Casanova-Ferrer F, Gallego JJ, Fiorillo A, Urios A, Ríos MP, León JL, Ballester MP, Escudero-García D, Kosenko E, Belloch V, Montoliu C. Improved cognition after rifaximin treatment is associated with changes in intra- and inter-brain network functional connectivity. J Transl Med. 22(1):49. (2024) doi: 10.1186/s12967-023-04844-7. PMID: 38217008.

Arenas YM, Pérez-Martinez G, Montoliu C, Llansola M, Felipo V. Extracellular vesicles from L. paracasei improve neuroinflammation, GABA neurotransmission and motor incoordination in hyperammone-mic rats. Brain Behav Immun. 123:556-570. (2024) doi: 10.1016/j.bbi.2024.10.002. PMID: 39384052.

Arenas YM, Montoliu C, Llansola M, Felipo V. A transient blood IL-17 increase triggers neuroinflammation in cerebellum and motor incoordination in hyperammonemic rats. J Neuroinflammation. 21(1):314. (2024) doi: 10.1186/s12974-024-03310-5. PMID: 39616376.

Mincheva G, Moreno-Manzano V, Felipo V, Llansola M. Extracellular vesicles from mesenchymal stem cells improve neuroinflammation and neurotransmission in hippocampus and cognitive impairment in rats with mild liver damage and minimal hepatic encephalopathy. Stem Cell Res Ther. 2024 Dec 18;15(1):472. doi: 10.1186/s13287-024-04076-6. PMID: 39696620; PMCID: PMC11656658.

Bäckström T, Doverskog M, Blackburn TP, Scharschmidt BF, Felipo V. Allopregnanolone and its antagonist modulate neuroinflammation and neurological impairment. Neurosci Biobehav Rev. 2024 Jun;161:105668. doi: 10.1016/j.neubiorev.2024.105668. Epub 2024 Apr 10. PMID: 38608826.

THESIS

Thesis title: Extracellular vesicles from mesenchymal stem cells reverse neuroinflammation and cognitive and motor impairment in rats with mild liver damage.

Doctoral candidate: Gergana Mincheva Gáneva

Director(s): Vicente Felipo y Marta Llansola

University: Universidad de Valencia

Date of the defense: 29 January 2024

Quality recognition/Award: Sobresaliente Cum laude

Thesis title: E Mecanismos cerebrales de las alteraciones neurológicas en pacientes con encefalopatía hepática mínima. Efectos del tratamiento con rifaximina

Doctoral candidate: Franc Casanova Ferrer

Director(s): Amparo Urios y Carmina Montoliu

University: Universidad de Valencia

Date of the defense: 25 October 2024

Quality recognition/Award: Sobresaliente Cum laude

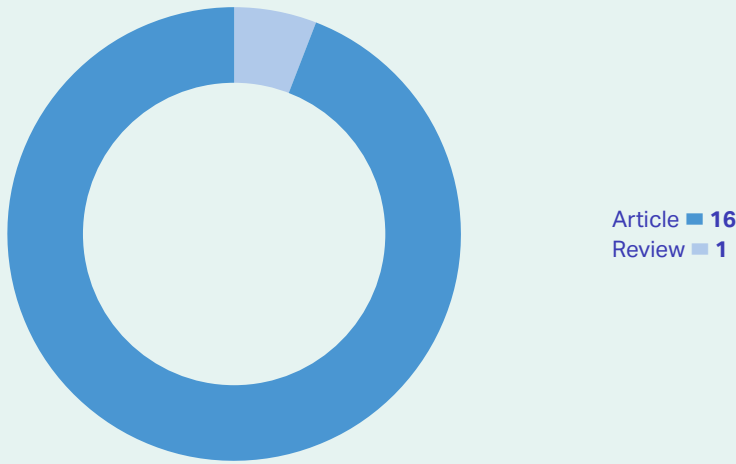
4.3.4 Reproductive Medicine Area

Groups

- Research Group on Women’s Health
- Research Group on Reproductive Medicine
- Research Group on Therapies Against Endometriosis and Endometrial Cancer
- Research Group on Maternal Fetal Communication
- Research Group on Molecular Diagnosis of Gynaecological Tumours
- Mixed Unit of Medicine Reproductive

Number of publications	IF	Average IF	National collaborations	International collaborations	Corresponding author
17	215,10	6,145	4	13	7

D1	Q1	Q2	First author	Last author
8	14	2	8	6



Research Group on Women’s Health

Consolidated
Person Responsible: Antonio Cano Sánchez

STRATEGIC AIMS

- The group is positioned in the field of healthy ageing, particularly in what relates women, with special interest to frailty, where it has collaborated in the support of INCLIVA in the project ADVANTAGE
- We have collaborated to position the reference site of the Valencia Region within EIPAH, the partnership of the European Commission
- Moreover, we have participated in the application to different European projects with groups from different European countries, including an application to the Maire Curie grants

MAIN LINES OF RESEARCH

- In healthy ageing in the female we are continuing our interest on osteoporosis but also have added frailty and functional decline. The group is consolidating the CARMEN cohort.
- There is a new area of interest on the use of ICT to promote women’s health with regard to endometriosis: - To analyze the role of microRNA and vascularization regulators and pain mechanisms. Role of the TNF cytokine family
- To analyze the initial atherogenesis and selective estrogen receptor modulators

GROUP MEMBERS

Staff in the period 01/01/2024 - 30/09/2024

- **Leading Researcher:**
Antonio Cano Sánchez. University Of Valencia
Juan José Tarin Folgado. University Of Valencia.
- **Recognised Researcher:**
María Loreto Suay Llopis. University Of Valencia.
- **Staff-Technicians:**
Aitana Empar Monllor Tormos. Hospital
Alicia García Vigara. Hospital

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
5	16,4	3,28
National collaborations	International collaborations	Corresponding author
1	4	4

Association between anxiety and frailty in postmenopausal women. García A, Fernández J, Chedraui P, Monllor A, García MA, Tarin JJ, Artero A et al. GYNECOLOGICAL ENDOCRINOLOGY. 2024 March 09. 40 (1):2329714-2329714. DOI:10.1080/09513590.2024.2329714. PMID:38499020.

Physical activity to reduce the burden of frailty after menopause: effectiveness and adherence rate of a resource saving exercise plan. García A, Fernández J, Carbonell JA, Sánchez ML, Monllor A, García MA, Tarín JJ et al. MENOPAUSE-THE JOURNAL OF THE MENOPAUSE SOCIETY. 2024 July 01. 31 (7):634-640. DOI:10.1097/GME.0000000000002372. PMID:38743912.

Allelic variants of the estrogen receptor genes and frailty phenotype in postmenopausal women. Monllor A, García A, Morgan O, García MA, Tarín JJ, Cano A. CLIMACTERIC. 2024 May 03. 27 (3):314-320. DOI:10.1080/13697137.2024.2306269. PMID:38318796.

Effect of fezolinetant on sleep disturbance and impairment during treatment of vasomotor symptoms due to menopause. Shapiro CMM, Cano A, Nappi RE, Santoro N, English ML, Mancuso S, Morga A et al. MATURITAS. 2024 August 01. 186107999-107999. DOI:10.1016/j.maturitas.2024.107999. PMID:38749864.

Fezolinetant impact on health-related quality of life for vasomotor symptoms due to the menopause: Pooled data from SKYLIGHT 1 and SKYLIGHT 2 randomised controlled trials. Cano A, Nappi RE, Santoro N, Stute P, Blogg M, English ML, Morga A et al. BJOG-AN INTERNATIONAL JOURNAL OF OBSTETRICS AND GYNAECOLOGY. 2024 August 01. 131 (9):1296-1305. DOI:10.1111/1471-0528.17773. PMID:38320967.

Research Group on Reproductive Medicine

Consolidated
Person Responsible: Carlos Antonio Simón Vallés

STRATEGIC AIMS

- Our activity predominantly involves research in the field of Reproductive Medicine and women’s health, with a particular focus on factors that cause infertility, and other gynecological and obstetric pathologies
- One of our aims is the characterization at single cell resolution of the human uterus, that will provide unprecedented insight at transcriptomic, genomic and spatial changes of this important female organ not only throughout the menstrual cycle but also across lifespan. The comparison in healthy and diseased conditions are also in the scope.

MAIN LINES OF RESEARCH

- Adult stem cells in the human endometrium: We have identified the existence of human endometrial stem cells, and we have demonstrated the therapeutic potential of autologous bone marrow CD133+ stem cells in the treatment of non-curable endometrial pathologies such as Asherman’s syndrome or endometrial atrophy
- Molecular diagnosis of myometrial tumors: Our previous work has demonstrated the genomic differential characterization of myomas and leiomyosarcomas. We aim to shift the diagnostic and therapeutic focus of uterine leiomyomas and leiomyosarcomas through genomic characterization
- Study of endometrial receptivity and perform the Cell Atlas of the human uterus: we discovered the transcriptomic signature of human endometrial receptivity. Now, we are part of the International Human Cell Atlas initiative to create the first human cell atlas of the uterus
- The endometrial microbiome in human reproduction: Our research group has described the existence of the endometrial microbiome and its clinical implications on the reproductive outcome. We investigate the impact of uterine microbiome dysbiosis and its clinical impact
- The maternal implication in the origin of pre-eclampsia: Our research has provided evidence that endometrial decidualization resistance is implicated in the origin of this disease. This finding offers a new perspective based on the maternal contribution to gestation, aiming to develop a tool that will diagnose pre-eclampsia

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Carlos Antonio Simón Vallés. Carlos Simón Foundation
- **Established Researcher:**
Inmaculada Moreno Gimeno. Carlos Simón Foundation
- **Recognised emerging researcher:**
Aymara Mas Perucho INCLIVA
- **Recognised Researcher:**
Javier SantaMaría Costa Carlos Simón Foundation
Tamara Garrido Gomez Carlos Simón Foundation
Petr Volkov Carlos Simón Foundation
María Cristina Carbajo García Carlos Simón Foundation
Stuart P Atkinson Carlos Simón Foundation
Teresa Cordero Cucart Carlos Simón Foundation
Nerea Castillo Marco Carlos Simón Foundation
Ghjuvan Grimaud Carlos Simón Foundation
Beatriz Rosón Burgo Carlos Simón Foundation
Sara López Martínez Carlos Simón Foundation
- **First Stage Researcher:**
María Del Carmen Graciano España Carlos Simón Foundation
Carla Montagud Almarcha INCLIVA
José Pascual Serrano Serrano Carlos Simón Foundation
Irene Muñoz Blat Carlos Simón Foundation
Marta González Monfort Carlos Simón Foundation
Paula Punzón Jiménez INCLIVA
Sandra Boldú Fernández INCLIVA
Bruno Tosón INCLIVA
- **Staff-administrative:**
Jaime Herrero Hernandez Carlos Simón Foundation
- **Staff-technicians:**
Yolanda Castelló Martínez Carlos Simón Foundation
María Lloret Pérez Carlos Simón Foundation
Jaime Llera Oyola Carlos Simón Foundation
Esther Lara Cuesta Carlos Simón Foundation
Alba Vives Gómez Carlos Simón Foundation
Esther Tercero Atencia Carlos Simón Foundation

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
5	3	0	0	3

EMERGING RESEARCHER

Aymara Mas Perucho

The main objective of this research is focused on understanding those factors that contribute to the pathophysiology of myometrial tumors at the molecular level.

RESEARCH PROJECTS

Reference: MS19/00162 *
Title: Integrative cellular and molecular insights of myometrial tumors: from benchside to bedside
Principal Investigator: Aymara Mas Perucho
Funding Body: Instituto de Salud Carlos III
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2020-2024
Total budget: €40.000

Reference: PI21/00235
Title: Estudio del impacto del microbioma endometrial sobre el endometrio humano en condiciones fisiológicas y patológicas a nivel de célula única
Principal Investigator: Inmaculada Moreno Gimeno
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2022-2024
Total budget: €169.279

Reference: CIAPE/2022/7 *
Title: Identificación de células iniciadoras de tumores como diana de los fibromas uterinos (TIC-TUF)
Principal Investigator: Aymara Mas Perucho
Funding Body: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2024
Total budget: €9.000

Reference: PID2022-140744OB-I00
Title: Identificación de dianas celulares y moleculares maternas a nivel de célula única para la predicción temprana y tratamiento de preeclampsia (PREdict)
Principal Investigator: Carlos Simón Vallés, Tamara Garrido Gómez
Funding Body: Ministerio de Ciencia e Innovación
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2026
Total budget: €383.750

Reference: PI23/00536 *
Title: Heterogeneidad tumoral inferida por secuenciación de célula única: nuevas aproximaciones terapéuticas frente a tumores uterinos.
Principal Investigator: Aymara Mas Perucho
Funding Body: Instituto de Salud Carlos III
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2026
Total budget: €226.875

Reference: GA nº:101080219-2
Title: Preventing lifetime obesity by early risk-factor identification, prognosis and intervention (EPROBES)
Principal Investigator: Manuel Tena (Carlos Simón Vallés as collaborating researcher)
Funding Body: European Commission
Beneficiary Institution: Universidad de Valencia
Duration: 2023-2028
Total budget: €480.072

Reference: CIPROM/2022/41
Title: Deciphering a microbial footprint leading to onset and long-term risk of preeclampsia (PREMIC)
Principal Investigator: Carlos Simón Vallés
Funding Body: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Beneficiary Institution: Universidad de Valencia
Duration: 2023-2026
Total budget: €600.000

Title: Effect of CD133 Bone Marrow Derived Stem Cells on the maternal-fetal interface in patients with Asherman Syndrome.
Principal Investigator: Xavier SantaMaría Costa
Funding Body: The American Society for Reproductive Medicine
Beneficiary Institution: Fundación Carlos Simón
Duration: 2023-2025
Total budget: € 18338.53

Reference: INVEST/2022/478
Title: Investigación clínica traslacional en salud materno-fetal
Principal Investigator: Carlos Simón Vallés
Funding Body: Conselleria d'Educació, Cultura, Universitats i Ocupació
Beneficiary Institution: Fundación Carlos Simón
Duration: 2022-2024
Total budget: € 264871.36

*In December, Aymara Más projects move to “Research Group on Molecular Diagnosis of Gynaecological Tumours”

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
10	59,1	5,91
National collaborations	International collaborations	Corresponding author
3	7	7

Normothermic Machine Perfusion Systems: Where Do We Go From Here?. López S, Simón C, SantaMaría X. TRANSPLANTATION. 2024 January 01. 108 (1):22-44. DOI:10.1097/TP.0000000000004573. PMID:37026713.

Effect of aging on the human myometrium at single-cell resolution. Punzon P, Machado A, Pérez R, Llera J, Grases D, Galvez M, Sibai M et al. Nature Communications. 2024 January 31. 15 (1):945-945. DOI:10.1038/s41467-024-45143-z. PMID:38296945.

The impact of implementing a non-invasive preimplantation genetic testing for aneuploidies (niPGT-A) embryo culture protocol on embryo viability and clinical outcomes. Sakkas D, Navarro L, Ardestani G, Barroso G, Bisioli C, Boynukalin K, Cimadomo D et al. HUMAN REPRODUCTION. 2024 July 26. 39 (9):1952-1959. DOI:10.1093/humrep/deae156. PMID:39059790.

Aging promotes accumulation of senescent and multiciliated cells in human endometrial epithelium. Loid M, Obukhova D, Kask K, Apostolov A, Meltsov A, Tserpelis D, van den Wijngaard A et al. Human Reproduction Open. 2024 August 24. 2024 (3):DOI:10.1093/hropen/hoae048. PMID:39185250.

Culture time to optimize embryo cell-free DNA analysis for frozen-thawed blastocysts undergoing noninvasive preimplantation genetic testing for aneuploidy. Ardestani G, Banti M, García CM, Navarro L, Van ZYL, Castellón JA, Simón C et al. FERTILITY AND STERILITY. 2024 September 01. 122 (3):465-473. DOI:10.1016/j.fertnstert.2024.04.037. PMID:38718960.

THESIS

Thesis Title: Molecular diagnosis of uterine leiomyoma by next generation sequencing
Doctoral Candidate: ALBA MACHADO LOPEZ
Directors: Carlos Antonio Simón Vallés; Aymara Mas Perucho; Diana María Valbuena Parilla.
Date of Defense: 23 January 2024

Thesis Title: Deciphering interactions at the single-cell level of the human uterus microbiome in health and disease (PRELIMINAR).
Doctoral Candidate: Bruno Tosón
Directors: Inmaculada Moreno Gimeno; Carlos Antonio Simón Vallés; Mercedes Costell Rosselló.
Date of Defense: 24 October 2024

Research Group on Therapies Against Endometriosis and Endometrial Cancer

Emerging
Person Responsible: Raúl Gómez Gallego

STRATEGIC AIMS

- To refine the development of homologous and heterologous animal models initiated in the laboratory so that they allow to reproduce endometriosis in a more physiological way, reflecting the pain and infertility associated with it in order to achieve greater transferability of the findings in these to the clinic
- On these optimized endometriosis animal models, evaluate whether immunomodulatory compounds, such as those currently marketed for clinical use in the non-hormonal treatment of osteoporosis, are effective in the remission of pain as well as in the improvement of fertility
- To narrow down the molecular mechanisms involved in improving the parameters under study in order to refine therapeutic targets
- To evaluate the clinical feasibility of early non-invasive diagnosis of endometriosis through the combined analysis of multiple biomarkers

MAIN LINES OF RESEARCH

- Development of animal models of pain and infertility associated with endometriosis and testing of the therapeutic role of immunomodulators in them.
- Dysregulation of the angiogenic component in the appearance and maintenance of endometriosis.
- Early non-invasive diagnosis of endometriosis through combined analysis of multiple biomarkers.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Established Researcher:**
Raúl Gómez Gallego INCLIVA
- **Staff-Collaborating Researcher:**
Francisco Bonilla Bartret. Hospital M^a José Fernández Ramirez Hospital Cesar Lizan Tudela. Hospital.
- **Staff-Technicians:**
Carles Antúnez Muñoz INCLIVA

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
0	0	0	0	1

RESEARCH PROJECTS

Reference: PI20/01835
Title: *Evaluación del potencial papel terapéutico de la inhibición de RANK en modelos optimizados de dolor e infertilidad asociados a endometriosis*
Principal Investigator: Raúl Gómez Gallego
Funding body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2021-2023 extended 2024
Total budget: €98.010

Reference: CNS2023-145222
Title: *Refinement and validation of endometriosis associated pain models as a platform for drug testing (REDONE).*
Principal Investigator: Raúl Gómez Gallego
Funding body: *Ministerio de Ciencia e Innovación*
Beneficiary institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2024-2026
Total budget: €199.997,05

THESIS

Thesis Title: Desarrollo de un modelo murino de infertilidad asociada a endometriosis
Doctoral Candidate: Ana Isabel Santos Llamas
Directors: Gómez Gallego, Raúl; Tejada Giráldez, Miguel Ángel
Date of Defense: 07/06/2024
University: Universidad de Valencia

Research Group on Maternal Fetal Communication

Emerging
Person Responsible: Felipe Vilella Mitjana

STRATEGIC AIMS

- Project origin of diseases: functional capacity of miRNAs secreted into endometrial fluid in obese and type 2 diabetic patients to determine if they are capable of modifying mouse embryos transcriptomically and/or epigenetically
- Project Transcriptomic and epigenetic modifications in human embryos: obtain the target genes of miRNA miR-30d in human embryos to have a list of regions potentially susceptible to methylation. These regions will be used to design the PCRs of the bisulfite regions by miSeq sequencing.
- Project Function of DNA and RNA contained in extracellular vesicles secreted by the human endometrium on the pre-implantation embryo: it has been described that the endometrial fluid is secreted by a series of populations of extracellular vesicles (apoptotic bodies, microvesicles and exosomes) that represent a conveyance. We propose that these vesicles contain biomolecules of different natures, specifically focusing on the different types of RNAs and DNA, and that their composition in these chemical species varies throughout the menstrual cycle and depending on the subpopulation of vesicles that is analyzed.
- Project Ovarian aging and rejuvenation: based on our expertise in reproductive biology, this new line aims to explore the molecular mechanisms underlying ovarian aging and to develop innovative strategies to promote ovarian rejuvenation. By applying single-cell sequencing, we aim to map age-related changes in ovarian tissue and assess reprogramming techniques to extend female reproductive longevity and fertility potential.

MAIN LINES OF RESEARCH

- Maternal-Fetal Communication.
- Study of endometrial receptivity, search for new minimally invasive methods for predicting endometrial receptivity.
- Ovarian aging and rejuvenation, with a focus on extending reproductive longevity and improving fertility outcomes through single-cell analysis and reprogramming technologies

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Established Researcher:**
Felipe Vilella Mitjana INCLIVA
Francisco Raga Baixauli Hospital
- **Recognised Researcher:**
Lorenzo Abad De Velasco Hospital Ana Monteagudo Sánchez Carlos Simón Foundation
Diego Amoros Cerdan Carlos Simón Foundation
- **First Stage Researcher:**
Javier González Fernández University Sofía Zaragozano Martínez Carlos Simón Foundation
- **Staff-Technicians:**
Anna Quirant Pellin Carlos Simón Foundation
Ana Ochando Hernandez Carlos Simón Foundation

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
1	0	0	0	0

RESEARCH PROJECTS

Reference: PI21/00528
Title: *Caracterización transcriptómica de la implantación embrionaria humana a nivel de célula única usando un endometrio 3D en un chip de microfluidica*
Principal Investigator: Felip Vilella Mitjana
Funding Body: *Instituto de Salud Carlos III-Co-financed FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2024
Total budget: €90.750

Reference: 101080219
Title: *Preventing lifetime obesity by early risk-factor identification, prognosis and intervention. eprObes.*
Principal Investigator: Felip Vilella Mitjana
Funding Body: *European Commission*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2028
Total budget: €111.393,35

Reference: CIAICO/2022/242
Title: Identificación de células progenitoras en el tejido endometrial humano
Principal Investigator: Felip Vilella Mitjana
Funding Body: *Conselleria de Educació, Universidades y Empleo*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2025
Total budget: €90.000

Reference: CNS2022-135696
Title: Identificación de células progenitoras en el endometrio humano y demostración de su capacidad regenerativa (EndoProg)
Principal Investigator: Felipe Vilella Mitjana
Funding Body: *Agencia Estatal de la Investigación*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2025
Total budget: €108.700

Reference: CIGE/2023/217
Title: Estudio de los mecanismos moleculares y epigenéticos que impulsan el envejecimiento ovárico.
Principal Investigator: Ana Monteagudo Sánchez
Funding Body: *Conselleria de Educació, Universidades y Empleo*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2024-2025
Total budget: €20.000

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
4	42,4	10,6
National collaborations	International collaborations	Corresponding author
1	3	1

The impact of DNA methylation on CTCF-mediated 3D genome organization. Monteagudo A,Noordermeer D,Greenberg MVC. NATURE STRUCTURAL & MOLECULAR BIOLOGY. 2024 March 01. 31 (3):404-412. DOI:10.1038/s41594-024-01241-6. PMID:38499830.

Aging promotes accumulation of senescent and multiciliated cells in human endometrial epithelium. Loid M, Obukhova D, Kask K, Apostolov A, Meltsov A, Tserpelis D, van den Wijngaard A et al. Human Reproduction Open. 2024 August 24. 2024 (3):DOI:10.1093/hropen/hoae048. PMID:39185250.

The impact of the embryonic DNA methylation program on CTCF-mediated genome regulation. Monteagudo A, Albert JR, Scarpa M, Noordermeer D, Greenberg MVC. NUCLEIC ACIDS RESEARCH. 2024 August 24. 52 (18):10934-10950. DOI:10.1093/nar/gkae724. PMID:39180406.

An Analysis of the Digestive and Reproductive Tract Microbiota in Infertile Women with Obesity. Bellver J, González M, González S, Toson B, Labarta E, Castillón G, Maríani G et al. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2024 December 01. 25 (23):DOI:10.3390/ijms252312600. PMID:39684312.

Research Group on Molecular Diagnosis of Gynaecological Tumours*

Emerging
Person Responsible: Aymara Mas Perucho

STRATEGIC AIMS

- Our main research is focused on gynaecological oncology, with a particular interest on myometrial and ovarian tumours.
- We aim to transform prognostic and therapeutic strategies by targeting distinct cellular subpopulations rather than addressing the tumour mass as a whole.
- We also aim to develop predictive models based on liquid biopsy for early differential diagnosis, in order to avoid the risk of occult dissemination of malignant tumours.

MAIN LINES OF RESEARCH

- Development of diagnostic predictive models based on liquid biopsy techniques. This involves comparing transcriptomic profiles from uterine and ovarian tissues and extrapolating the findings by identifying circulating genetic material in plasma and facilitating the differential diagnosis of gynecological tumors.
- Assessment of uterine tumor heterogeneity through single-cell sequencing, aimed at generating a high-resolution map of the tumor microenvironment (TME) and refining an organoid-based experimental model.
- Molecular profiling of the human uterus at single-cell resolution to explore its roles in health and disease. Building on our recent publication in Nature Communications, we aim to expand this research by achieving spatially precise analysis of myometrial tumors using high-plex spatial transcriptomics and proteomics across whole tissue sections.

GROUP MEMBERS

Staff in the period 10/12/2024 - 31/12/2024

- **Established Researcher:**
Aymara Mas Perucho INCLIVA
- **First Stage Researcher:**
Sandra Boldú Fernández INCLIVA
Paula Punzón Jiménez INCLIVA
- **Staff-Technicians:**
Esther Lara Cuesta Carlos Simón Foundation

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
2	0	0	0	0

RESEARCH PROJECTS

Reference: MS19/00162
Title: *Integrative cellular and molecular insights of myometrial tumors: from benchside to bedside*
Principal Investigator: Aymara Más Perucho
Funding Body: *Instituto de Salud Carlos III*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2020-2024
Total budget: €40.000

Reference: CIAPE/2022/7
Title: *Identifying tumour initiating cells as target of uterine fibroids (TIC-TUF).*
Principal Investigator: Aymara Más Perucho
Funding Body: *Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2024
Total budget: €9.000

Reference: PI23/00536
Title: *Heterogeneidad tumoral inferida por secuenciación de célula única: nuevas aproximaciones terapéuticas frente a tumores uterinos.*
Principal Investigator: Aymara Más Perucho
Funding Body: *Instituto de Salud Carlos III*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2024-2026
Total budget: €226.875

*This group was created in December 2024, so this year's Scientific Report corresponds to one month.

Mixed Unit of Medicine Reproductive

Consolidated
Person Responsible: Carlos Antonio Simón Vallés

STRATEGIC AIMS

- Our activity predominantly involves research in the field of Reproductive Medicine and women’s health, with a particular focus on factors that cause infertility, and other gynecological and obstetric pathologies
- One of our aims is the characterization at single cell resolution of the human uterus, that will provide unprecedented insight at transcriptomic, genomic and spatial changes of this important female organ not only throughout the menstrual cycle but also across lifespan. The comparison in healthy and diseased conditions are also in the scope

MAIN LINES OF RESEARCH

- Adult stem cells in the human endometrium: We have identified the existence of human endometrial stem cells, and we have demonstrated the therapeutic potential of autologous bone marrow CD133+ stem cells in the treatment of non-curable endometrial pathologies such as Asherman’s syndrome or endometrial atrophy
- Molecular diagnosis of myometrial tumors: Our previous work has demonstrated the genomic differential characterization of myomas and leiomyosarcomas. We aim to shift the diagnostic and therapeutic focus of uterine leiomyomas and leiomyosarcomas through genomic characterization
- Study of endometrial receptivity and perform the Cell Atlas of the human uterus: we discovered the transcriptomic signature of human endometrial receptivity.. Now, we are part of the International Human Cell Atlas initiative to create the first human cell atlas of the uterus
- The endometrial microbiome in human reproduction:. Our research group has described the existence of the endometrial microbiome and its clinical implications on the reproductive outcome. We investigate the impact of uterine microbiome dysbiosis and its clinical impact
- The maternal implication in the origin of pre-eclampsia:. Our research has provided evidence that endometrial decidualization resistance is implicated in the origin of this disease. This finding offers a new perspective based on the maternal contribution to gestation, aiming to develop a tool that will diagnose pre-eclampsia

- Maternal–embryonic communication: The maternal–embryonic communication research line focuses on understanding the intricate cellular and molecular dialogues that occur between the mother and the embryo during the preimplantation stage. Specifically, the team investigates how maternal factors can genetically influence the preimplantation embryo, reshaping our understanding of early human development and its long-term outcomes.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Carlos Antonio Simón Vallés. FCS
- **Established Researcher:**
Felipe Vilella Mitjana. INCLIVA
Aymara Más Perucho. INCLIVA
- **Recognised Researcher:**
Francisco Raga Baixauli. INCLIVA
Inmaculada Moreno Gimeno. FCS
Tamara Garrido Gomez. FCS
Javier SantaMaría Costa. FCS
Lorenzo Abad De Velasco. INCLIVA
Ana Monteagudo Sanchez. FCS
Diego Amoros Cerdan. FCS
Teresa Cordero Cucart. FCS
María Cristina Carbajo García. FCS
Petr Volkov. FCS
- **First Stage Researcher:**
Paula Punzón Jiménez. INCLIVA
Sandra Boldú Fernández. INCLIVA
Carla Montagud Almarcha. INCLIVA
Javier González Fernández. FCS
Sofía Zaragozano Martinez. FCS
José Pascual Serrano Serrano. FCS
María Del Carmen Graciano España. FCS
Marta González Monfort. FCS
Irene Muñoz Blat. FCS
- **Staff-administrative:**
Jaime Herrero Hernandez. FCS
Adrian González Fernández. FCS
- **Staff-Collaborating Researcher:**
Francisco José Bonilla Bartret. INCLIVA
Mª José Fernández Ramirez. INCLIVA
- **Staff-technicians:**
Ana Ochando Hernandez. FCS
Anna Quirant Pellin. FCS
María Lloret Pérez. FCS
Rut Campos Jiménez. FCS
Yolanda Castelló Martínez. FCS
Jaime Llera Oyola. FCS
Esther Lara Cuesta. FCS

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
5	3	0	0	3

RESEARCH PROJECTS

Reference: MS19/00162
Title: *Integrative cellular and molecular insights of myometrial tumors: from benchside to bedside*
Principal Investigator: Aymara Mas Perucho
Coordinating Entity: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Funding Entity: *Instituto de Salud Carlos III*
Programme/grant: Contratos Miguel Servet
Duration: 2020-2024

Reference: PI21/00235
Title: *Estudio del impacto del microbioma endometrial sobre el endometrio humano en condiciones fisiológicas y patológicas a nivel de célula única*
Principal Investigator: Inmaculada Moreno Gimeno
Coordinating Entity: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Funding Entity: *Instituto de Salud Carlos III-Co-financed FEDER*
Programme/grant: Proyectos de I+D+I en Salud
Duration: 2022-2024

Reference: PI21/00528
Title: Caracterización transcriptómica de la implantación embrionaria humana a nivel de célula única usando un endometrio 3D en un chip de microfluidica
Principal Investigator: Felipe Vilella Mitjana
Coordinating Entity: Fundación Investigación Hospital Clínico Universitario de Valencia
Funding Entity: Instituto de Salud Carlos III
Programme/grant: Proyectos de I+D+I en Salud
Duration: 2022–2024

Reference: CIAPE/2022/7
Title: Identificación de células iniciadoras de tumores como diana de los fibromas uterinos (TIC-TUF)
Principal Investigator: Aymara Mas Perucho
Coordinating Entity: Fundación Investigación Hospital Clínico Universitario de Valencia
Funding Entity: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Programme/grant: Subvenciones para la captación de proyectos europeos u otros programas de carácter internacional
Duration: 2023–2024

Reference: PID2022-140744OB-I00
Title: Identificación de dianas celulares y moleculares maternas a nivel de célula única para la predicción temprana y tratamiento de preeclampsia (PREdict)
Principal Investigator: Carlos Simón Vallés, Tamara Garrido Gómez
Coordinating Entity: Fundación Investigación Hospital Clínico Universitario de Valencia
Funding Entity: Ministerio de Ciencia e Innovación
Programme/grant: Proyectos de Generación de Conocimiento
Duration: 2023–2026

Reference: PI23/00536
Title: Heterogeneidad tumoral inferida por secuenciación de célula única: nuevas aproximaciones terapéuticas frente a tumores uterinos
Principal Investigator: Aymara Mas Perucho
Coordinating Entity: Fundación Investigación Hospital Clínico Universitario de Valencia
Funding Entity: Instituto de Salud Carlos III
Programme/grant: Proyectos de I+D+I en Salud
Duration: 2024–2026

Reference: CIGE/2023/217
Title: Estudio de los mecanismos moleculares y epigenéticos que impulsan el envejecimiento ovárico
Principal Investigator: Ana Monteagudo Sánchez
Coordinating Entity: Fundación Investigación Hospital Clínico Universitario de Valencia
Funding Entity: Consellería de Educación, Innovación, Universidades, Ciencia y Sociedad Digital, Empleo
Programme/grant: Subvenciones para grupos de investigación emergentes
Duration: 2024–2025

Reference: GA nº: 101080219-2
Title: Preventing lifetime obesity by early risk-factor identification, prognosis and intervention (EPROBES)
Principal Investigator: Manuel Tena (Carlos Simón Vallés as collaborating researcher)
Coordinating Entity: Universidad de Valencia
Funding Entity: European Commission
Programme/grant: Horizon Europe – Health Cluster
Duration: 2023–2028

Reference: CIPROM/2022/41
Title: Deciphering a microbial footprint leading to onset and long-term risk of preeclampsia (PREMIC)
Principal Investigator: Carlos Simón Vallés
Coordinating Entity: Universidad de Valencia
Funding Entity: Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital
Programme/grant: Subvenciones del programa Prometeo para grupos de investigación de excelencia
Duration: 2023–2026

Reference: N/A
Title: Effect of CD133 Bone Marrow Derived Stem Cells on the maternal–fetal interface in patients with Asherman Syndrome **Principal Investigator:** Xavier SantaMaría Costa
Coordinating Entity: Fundación Carlos Simón
Funding Entity: The American Society for Reproductive Medicine **Programme/grant:** KY Cha Award 2023
Duration: 2023–2025

Reference: INVEST/2022/478
Title: Investigación clínica traslacional en salud materno-fetal
Principal Investigator: Carlos Simón Vallés
Coordinating Entity: Fundación Carlos Simón
Funding Entity: Conselleria d'Educació, Cultura, Universitats i Ocupació **Programme/grant:** Programa INVESTIGO
Duration: 2022–2024

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
10	59,1	5,91
National collaborations	International collaborations	Corresponding author
3	7	3

Normothermic Machine Perfusion Systems: Where Do We Go From Here?. López S, Simón C, SantaMaría X. TRANSPLANTATION. 2024 January 01. 108 (1):22-44. DOI:10.1097/TP.0000000000004573. PMID:37026713.

Effect of aging on the human myometrium at single-cell resolution. Punzon P, Machado A, Pérez R, Llera J, Grases D, Galvez M, Sibai M et al. Nature Communications. 2024 January 31. 15 (1):945-945. DOI:10.1038/s41467-024-45143-z. PMID:38296945.

The impact of implementing a non-invasive preimplantation genetic testing for aneuploidies (niPGT-A) embryo culture protocol on embryo viability and clinical outcomes. Sakkas D, Navarro L, Ardestani G, Barroso G, Bisioli C, Boynukalin K, Cimadomo D et al. HUMAN REPRODUCTION. 2024 July 26. 39 (9):1952-1959. DOI:10.1093/humrep/deae156. PMID:39059790.

Aging promotes accumulation of senescent and multiciliated cells in human endometrial epithelium. Loid M, Obukhova D, Kask K, Apostolov A, Meltsov A, Tserpelis D, van den Wijngaard A et al. Human Reproduction Open. 2024 August 24. 2024 (3):DOI:10.1093/hropen/hoae048. PMID:39185250

Culture time to optimize embryo cell-free DNA analysis for frozen-thawed blastocysts undergoing noninvasive preimplantation genetic testing for aneuploidy. Ardestani G, Banti M, García CM, Navarro L, Van ZYL, Castellón JA, Simón C et al. FERTILITY AND STERILITY. 2024 septiembre 01. 122 (3):465-473. DOI:10.1016/j.fertnstert.2024.04.037. PMID:38718960.

THESIS

Thesis title: Molecular diagnosis of uterine leiomyoma by next generation sequencing
Doctoral candidate: Machado López, Alba
Director(s): Simón Vallés, Carlos (Director), Aymara Mas Perucho, (Codirector); Diana Valbuena Perilla (Codirector)
University: University of Valencia
Date of the defense: 23/01/2024

Thesis title: Deciphering interactions at the single-cell level of the human uterus microbiome in health and disease
Doctoral candidate: Bruno Toson
Director(s): Simón Vallés, Carlos; Moreno Gimeno, Inmaculada
University: University of Valencia
Date of the defense: 24/10/2024

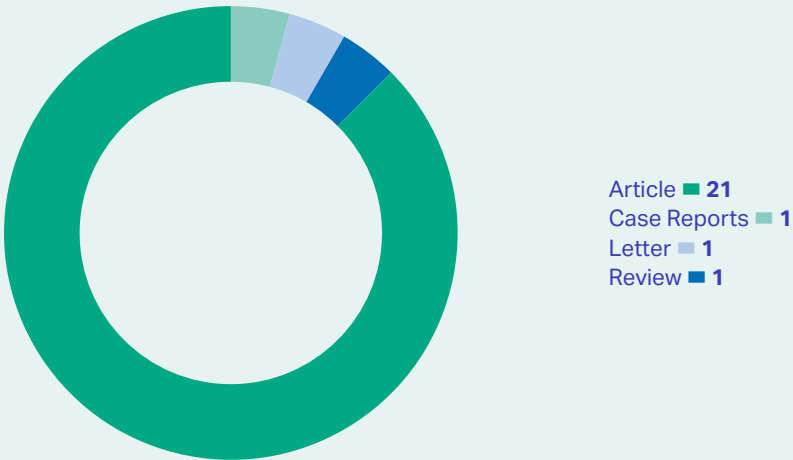
4.3.5 Associated Clinical Groups Area

Groups

- Research Group in Care. INVESTENF-INCLIVA
- Associated Clinical Group in Urology
- Associated Clinical Group in Digestive Medicine
- Associated Clinical Group in Traumatology and Orthopedics
- Associated Clinical Group in Neurology
- Associated Clinical Group in Pharmacy
- Clinical Associated Group in Nuclear Medicine
- Clinical Associated Group in Otorhinolaryngology

Number of publications	IF	Average IF	National collaborations	International collaborations	Corresponding author
24	82,40	2,497	11	8	12

D1	Q1	Q2	First author	Last author
8	15	20	8	10



Clinical Associated Group in Care. INVESTENF-INCLIVA

Clinical Associated
Person Responsible: Cintia Borja Herrero

STRATEGIC AIMS

- Contribute with scientific nursing evidence to improve pediatric nursing care
- Conduct research in pediatric nursing to disseminate new knowledge
- Work for the Quality and Safety of pediatric nursing care

MAIN LINES OF RESEARCH

- Care in aging, fragility and chronicity.
- Child and adolescent health care.
- Mental Health Care.
- Skin care and skin integrity.
- Nursing care and quality of life in patients with hematologic cancer.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Cintia Borja Herrero. Primary Care
- **Recognised Researcher:**
Laura Fernández Puerta. Hospital
Nuria Gregori Flor. Hospital
Rut Navarro Martínez. University
Raquel Valera Lloris. University
Evelin Balaguer López. Hospital
Montse Cañabate Ros. Hospital
Pablo García Molina. University
Antonio Martínez Sabater. Hospital
Ivan Julian Rochina. Hospital
Laura Almudéver Campo. Primary Care
- **First Stage Researcher:**
Juan Ramon De Moya Romero. Hospital
Purificación Ferreros Gomez. Hospital
José Antonio Pedron Barbera. Hospital
Alexis Caballero Bonafe. Hospital
Paula Segura Daroca. Hospital
- **Staff-Collaborating Researcher:**
Beatriz García Carrera. Hospital
Blanca Gisela Pardo Sievers. University
- **Staff-Nurse:**
Ana Boyero Granades. Hospital
Raquel Castello Manzano. Hospital
Dolores Cervera López. Hospital
José Manuel Civera Gómez. Hospital
Sara Lerma García. Hospital
Patricia Martínez Belenguer. Hospital
Coral Pastor Redondo. Hospital
Andrea Peinado Vila. Hospital
Estrella Ponz Requena. Hospital
Manuel Ruescas López. University
Raquel Sánchez Balanza. Hospital
Anabela Espinosa Briones. Hospital

Nuria Garrido Zafra. University
Sonia Mora Navarro. Hospital
María Luisa Muñoz Illescas. Primary Care
M^a Del Carmen Rodriguez Dolz. Hospital
Victoria Alejandra López Callejon. Primary Care
Laura Plá Marzo. INCLIVA
María Angeles Montal Navarro. University
M^a Carmen Barbera Ventura. Primary Care
María Dolores Cantero López. Primary Care
María Pilar Bernabeu Adrian. Primary Care

- **Staff-Technician:**
David Palanca Broseta. Hospital

Researchers financed by competitive public calls or networks				
R1	R2	R3	R4	STAFF
0	2	0	0	1

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
28	158,5	5,66

National collaborations	International collaborations	Corresponding author
17	11	10

Spanish adaptation and validation of the ALS Depression Inventory-12 (ADI-12) in patients with Amyotrophic Lateral Sclerosis. Sancho D, Cubero L, Privado J, García E, Ros MC, Navarro E, Ortí J. ARCHIVES OF MEDICAL RESEARCH. 2024 January 01. 55 (1):102936-102936. DOI:10.1016/j.arcmed.2023.102936. PMID:38141272.

The therapeutic relationship from the perspective of patients and nurses in the first days of admission: A cross-sectional study in acute mental health units. El K, Moreno AR, Cañabate M, García JA, Lluch MT, Muñoz E, Pérez JJ et al. International Journal of Mental Health Nursing. 2024 February 01. 33 (1):134-142. DOI:10.1111/inm.13227. PMID:37743558.

Hematopoietic Stem Cell Transplantation Impact on Patients' Perceived Quality of Life: A Longitudinal Study. Ortolá P, Santacatalina E, Chover E, Merelles A, Ballestar ML, Martínez A. NURSING REPORTS. 2024 March 01. 14 (1):197-211. DOI:10.3390/nursrep14010016. PMID:38251194.

Descriptive study on substance uses and risk of sexually transmitted infections in the practice of Chemsex in Spain. del Pozo P, Baca E, Martínez A, Chover E, Gea V, Curto J, Czapla M et al. Frontiers in Public Health. 2024 May 10. 121391390-1391390. DOI:10.3389/fpubh.2024.1391390. PMID:38799691.

Psychometric properties of the Spanish version of the media health literacy questionnaire (MeHLit-SV). Navas N, Juárez R, Martínez A, Gea V, Chover E, Echaniz E, Ruiz de Viñaspre R et al. Frontiers in Public Health. 2024 September 24. 121440386-1440386. DOI:10.3389/fpubh.2024.1440386. PMID:39381769.

Associated Clinical Group in Urology

Clinical Associated
Person Responsible: José María Martínez Jabaloyas

STRATEGIC AIMS

- Study the use of metabolics in urine and tissue in patients with prostate cancer
- Study the use of perform biopsy liquid in bladder cancer using digital PCR

MAIN LINES OF RESEARCH

- Liquid biopsy in bladder cancer.
- Usefulness of metabolomic analysis in the diagnosis and prognosis of prostate cancer.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
José María Martínez Jabaloyas. Hospital
- **Recognised Researcher:**
Jorge Panach Navarrete. University
- **Staff-Technician:**
José Pascual Gimeno Ferrer. INCLIVA
Ana Castello Porcar. Primary Care
Marcos Antonio Lloret Durá. Primary Care

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
5	7,2	1,44
National collaborations	International collaborations	Corresponding author
-	-	5

Comparison between open and minimally invasive pyeloplasty in infants: A systematic review and meta-analysis. Ortiz D,Panach J,Valls L,Martínez JM. Journal of Pediatric Urology. 2024 April 01. 20 (2):244-252. DOI:10.1016/j.jpurol.2023.11.017. PMID:38065760.

Metabolic analysis using HR-MAS in prostate tissue for prostate cancer diagnosis. Panach J, González V, Morales JM, García F, Sales MA, Monleón D, Martínez JM. PROSTATE. 2024 May 01. 84 (6):549-559. DOI:10.1002/pros.24670. PMID:38212952.

Response to «Outcomes of infants undergo-ing laparoscopic pyeloplasty: A single-center experience». Panach J,Valls L,Jabaloyas JMM. UROLOGIA JOURNAL. 2024 May 01. 91 (2):452-453. DOI:10.1177/03915603241232748. PMID:38345248.

Prospective comparison of two methods for cor-rect ureteral stent placement in pediatric laparo-scopic pyeloplasty. Panach J, Valls L, Martínez JM. Journal of Pediatric Urology. 2024 August 01. 20 (4):7301-7305. DOI:10.1016/j.jpurol.2024.05.001. PMID:38760259.

Combination of Tractography and Percutaneous Endoscopy for Nephrostomy Tube Reinsertion. Panach J, Negueroles M, Martínez JM. ARCHIVOS ESPANOLES DE UROLOGIA. 2024 September 01. 77 (8):934-936. DOI:10.56434/j.arch.esp.urol.20247708.132. PMID:39385491.

Associated Clinical Group in Digestive Medicine

Clinical Associated
Person Responsible: Isabel Pascual Moreno

STRATEGIC AIMS

- Diagnosis and treatment of minimal hepatic encephalopathy, hepatocarcinoma, portal hypertension and NASH
- Diagnosis and treatment of functional digestive pathology
- Diagnosis and treatment of pancreatic pathology
- Establish a translational research team in inflammatory bowel, pancreatic and liver diseases

MAIN LINES OF RESEARCH

- Ano-rectal function in IBD.
- Blood Immune profile in liver cancer and cirrhosis.
- Caustic ingestion: risk stratification and diagnostic modalities.
- Endoscopic treatment in Zencker diverticulum and pancreatic disease.
- Evaluation of different therapies in hepatocarcinoma.
- Evaluation of new treatment strategies in acute and chronic pancreatitis.
- Evaluation of prognostic factors in acute and chronic pancreatitis.
- Inflammatory markers and immune regulation in IBD.
- Liver disease: alcohol, virus and autoimmune.
- Local biologic treatment of IBD.
- Natural history of acute and chronic pancreatitis.
- Stem cell treatment in fistulizing inflammatory bowel disease (IBD).
- Studies in healthy population of the physiological motor characteristics of the upper and lower digestive tract.
- Therapeutic endoscopic ultrasound: different drainages and gastro-jejunostomy with lumen apposing metal stents.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Isabel Pascual Moreno. Hospital
- **Established Researcher:**
Marta Maia Bosca Watts. Hospital
Paloma Lluch García. Hospital
Andrés Peña Aldea. Hospital
Vicente Sanchiz Soler. Hospital
Joan Tosca Cuquerella. Hospital
- **Recognised Researcher:**
Pilar Mas Mercader. Hospital

- Marta Ponce Romero. Primary Care
Ana Sanahuja Martínez. Primary Care
- **First Stage Researcher:**
Eva Romero González. Primary Care
Carles Suria Bolufer. Primary Care
- **Staff-Collaborating Researcher:**
María Rosario Anton Ausejo. Hospital
Consuelo Galvez Castillo. Primary Care
Pablo Roberto Navarro Cortés. Primary Care
Sherly Violeta Hernandez. Primary Care
Rosa Ana Villagrasa Manzano. Primary Care
- **Staff-Nurse:**
Amparo Ruiz Alvarez. Hospital
Nuria Casasús Moya. Primary Care
- **Staff-Technician:**
Lorena Boronat Cifre. INCLIVA
Desamparados Giménez Chovi. INCLIVA

RESEARCH PROJECTS

Reference: CIPROM2021/044
Title: Pharmacology of the hepato-gastrointestinal tract: analysis of cellular and molecular targets for the treatment of fibrosis
Principal Investigator: Juan Vicente Esplugues Mota and M^a Dolores Barrachina Sancho (Maia Boscá as collaborating researcher)
Funding Body: *Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital*
Beneficiary Institution: *University of Valencia*
Duration: 2022-2025
Total Budget: €539.240

Reference: PI22/01157
Title: Papel de los GPCRS sensores de metabolitos en la enfermedad inflamatoria intestinal: implicación de la microbiota intestinal
Principal Investigator: Jesus Cosin Roger (Maia Boscá as collaborating researcher)
Funding Body: *Instituto de Salud Carlos III - Cofinanced FEDER*
Beneficiary Institution: *University of Valencia*
Duration: 2023-2025
Total Budget: €111.320

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
16	71,4	5, 1
National collaborations	International collaborations	Corresponding author
11	3	4

Longitudinal outcomes of obeticholic acid therapy in ursodiol-nonresponsive primary biliary cholangitis: Stratifying the impact of add-on fibrates in real-world practice. Gómez E, Montero JL, Molina E, García L, Casado M, Fuentes J, Simón MA et al. ALIMENTARY PHARMACOLOGY & THERAPEUTICS. 2024 June 01. 59 (12):1604-1615. DOI:10.1111/apt.18004. PMID:38690746.

Subcutaneous Infliximab Cutoff Points in Patients With Inflammatory Bowel Disease: Data From the ENEIDA Registry. Iborra M, Caballol B, Garrido A, Huguet JM, Mesonero F, Ponferrada Á, Arias L et al. JOURNAL OF CROHNS & COLITIS. 2024 September 05. 19 (1):DOI:10.1093/ecco-jcc/jjae127. PMID:39171615.

Long-term benefit of ustekinumab in ulcerative colitis in clinical practice: ULISES study. Chaparro M, Hermida S, Acosta D, Fernández A, Barreiro M, Hernández Á, Arroyo M et al. ALIMENTARY PHARMACOLOGY & THERAPEUTICS. 2024 September 17. 60 (10):1325-1338. DOI:10.1111/apt.18230. PMID:39287363.

Sex-Related Differences in the Phenotype and Course of Inflammatory Bowel Disease: SEXEII Study of ENEIDA. Gargallo CJ, Ricart E, Iglesias E, de Francisco R, Gisbert JP, Taxonera C, Mañosa M et al. CLINICAL GASTROENTEROLOGY AND HEPATOLOGY. 2024 November 01. 22 (11):2280-2290. DOI:10.1016/j.cgh.2024.05.013. PMID:38782172.

Recompensation after TIPS reduces the incidence of hepatocellular carcinoma and increases survival in patients with cirrhosis. Sánchez J, González S, Poyatos P, Escudero MD, Montón C, Carbonell JA, Casula E et al. LIVER INTERNATIONAL. 2024 November 01. 44 (11):3072-3082. DOI:10.1111/liv.16095. PMID:39221765.

Associated Clinical Group in Traumatology and Orthopedics

Clinical Associated
Person Responsible: Antonio Silvestre Muñoz

STRATEGIC AIMS

- Non-invasive imaging in orthopedics
- New prosthesis fixation systems applied to Traumatology
- Mechanisms of inflammation and oxidative stress in bone pathologies

MAIN LINES OF RESEARCH

- Cellular mechanisms to regulate the inflammatory response in chronic inflammatory diseases.
- Cellular oxidative stress and its relationship with idiopathic femoral osteonecrosis.
- Diagnosis and monitoring of the diabetic foot using infrared thermography.
- Local mechanical stimulation of mesenchymal cells for osteogenic and chondrogenic differentiation in regenerative medicine.
- Protection strategies against osteoarticular deterioration.
- Rehabilitation to improve results after a randomized prospective study of total knee arthroplasty.
- Robotics for precision in orthopedic reconstructive surgery.
- Sequentiality of muscle contraction: importance in the early detection of lumbopelvic dysfunction, cervical and shoulder girdle.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Antonio Silvestre Muñoz. Hospital
- **Established Researcher:**
Pablo Renovell Ferrer. Primary Care
Rosa María Cibrian Ortiz De Anda. University
- **Recognised Researcher:**
Laura Pino Almero. Primary Care
Mª Rosario Salvador Palmer. University

RESEARCH PROJECTS

Title: Diseño vástago cementado Taperloc
Principal Investigator: Roy Emerson, Robert Aldinger, Antonio Silvestre, Glyn Jones and Herman Botero
Funding Body: Zimmer-Biomet
Beneficiary Institution: Zimmer-Biomet
Duration: 2018-2025

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
7	17,9	3,58
National collaborations	International collaborations	Corresponding author
2	4	4

Nicotinamide riboside, pterostilbene and ibudilast protect motor neurons and extend survival in ALS mice. López R, Salvador R, Oriol M, Moreno P, Dellinger RW, Estrela JM, Obrador E. Neurotherapeutics. 2024 January 01. 21 (1):DOI:10.1016/j.neurot.2023.10.011. PMID:38241160.

New Insights into the Pro-Inflammatory and Osteoclastogenic Profile of Circulating Monocytes in Osteoarthritis Patients. Guillem P, Marín M, Rouleau M, Silvestre A, Blin C, Ferrándiz ML, Guillén MI et al. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2024 February 01. 25 (3):DOI:10.3390/ijms25031710. PMID:38338988.

Acute Effects of In-Hospital Resistance Training on Clinical Outcomes in Patients Undergoing Total Knee Arthroplasty. Núñez R, López L, López R, Cuenca F, Suso L, Silvestre A, Casaña J et al. AMERICAN JOURNAL OF PHYSICAL MEDICINE & REHABILITATION. 2024 May 01. 103 (5):401-409. DOI:10.1097/PHM.0000000000002366. PMID:38063321.

Efficiency assessment of follow-up methodology of patients with knee replacement to predict post-surgical functionality: a protocol for randomised control PROKnee trial. Valenzuela CS, Tabares R, Rubio AP, Correa P, Pedrero JF, Muñoz AS. BMJ Open. 2024 May 07. 14 (5):DOI:10.1136/bmjopen-2023-077942. PMID:38719321.

Profiles of muscle-specific oxygenation responses and thresholds during graded cycling incremental test. Sendra C, Encarnacion A, Salvador R, Murias JM, Priego JI. EUROPEAN JOURNAL OF APPLIED PHYSIOLOGY. 2024 September 11. 125 (1):237-245. DOI:10.1007/s00421-024-05593-1. PMID:39259396.

THESIS

Thesis title: Modulation of the immune system by G6PD activity, diet and physical exercise, and its potential impact on aging, inflammation and cancer
Doctoral candidate: Eva Tamayo Torres
Director(s): Juan Carretero Asunción, Mª Carmen Gómez Cabrera, Rafael de Cabo Moreno
University: Universidad de Valencia
Date of the defense: 30/05/2024

Thesis title: Understanding the molecular causes of muscle atrophy in Myotonic dystrophy type 1
Doctoral candidate: Nerea Moreno Cervera
Director(s): Ruben Artero Allepuz, Ariadna Bargiela Schonbrunn
University: Universidad de Valencia
Date of the defense: 01/06/2024
Quality recognition/Award: Sobresaliente Cum laude

Thesis title: Manejo terapéutico de las fracturas vertebrales osteoporóticas: Caracterización de pacientes ingresados en un hospital terciario de Valencia.
Doctoral candidate: Víctor Martín Gorgojo
Director(s): Antonio Silvestre Muñoz y Antonio Martín Benlloch
University: Universidad de Valencia
Date of the defense: 01/12/2024
Quality recognition/Award: Sobresaliente Cum laude

Associated Clinical Group in Neurology

Clinical Associated
Person Responsible: José Miguel Lainez Andrés

STRATEGIC AIMS

- Cognitive impairment and dementia
- Cerebrovascular diseases
- Demyelinating diseases
- Epilepsy
- Extrapyramidal pathology
- Pain/headaches

MAIN LINES OF RESEARCH

- Cognitive impairment and dementia
- Cerebrovascular diseases
- Demyelinating diseases
- Epilepsy
- Extrapyramidal pathology
- Pain/headaches

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
José Miguel Lainez Andrés. Hospital
- **Recognised Researcher:**
Raquel Chamarro Lazaro. Hospital
Rosario Gil Gimeno. Hospital
Ana Piera Balbastre. Hospital
Alejandro Ponz De Tienda. Hospital
- **Staff-Collaborating Researcher:**
José Andrés Dominguez Morán. Hospital
Jésica García Ull. Hospital
Francisco Gascón Giménez. Hospital
Begoña López Pesquera. Hospital
Ana Pareja Martínez. Hospital
José María Salom Juan. Hospital
José Miguel Santonja Llabata. Hospital
David García López. Hospital
- **Staff-Nurse:**
Miriam Iborra Perales. INCLIVA

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
3	9,2	3,06
National collaborations	International collaborations	Corresponding author
3	0	1

EEG before chimeric antigen receptor T-cell therapy and early after onset of immune effector cell-associated neurotoxicity syndrome. Hernani R, Aiko M, Victorio R, Benzaquén A, Pérez A, Piñana JL, Hernández JC et al. CLINICAL NEUROPHYSIOLOGY. 2024 July 01. 163132-142. DOI:10.1016/j.clinph.2024.04.014. PMID:38733703.

Migraine treatment consensus document of the Spanish Society of Neurology (SEN), Spanish Society of Family and Community Medicine (SEMFYC), Society of Primary Care Medicine (SEMERGEN) and Spanish Association of Migraine and Headache (AEMICE) on migraine treatment. Belvís R, Irimia P, González N, García J, Pozo P, López A, Morollón N et al. MEDICINA CLINICA. 2024 August 30. 163 (4):1-10. DOI:10.1016/j.medcli.2024.02.006. PMID:38643025.

Clinical characteristics and impact on patient-reported outcomes and quality of life of people with ambulatory secondary progressive multiple sclerosis: DISCOVER study. Oreja C, Meca JE, Díaz J, Ara JR, Hernández MÁ, Gracia J, Alonso AM et al. Multiple Sclerosis And Related Disorders. 2024 October 01. 90105787-105787. DOI:10.1016/j.msard.2024.105787. PMID:39142050.

Associated Clinical Group in Pharmacy

Clinical Associated
Person Responsible: Manuel G. Alós Almiñana

STRATEGIC AIMS

- Pharmacokinetics and Biopharmacy
- Economic evaluation of medicines and health technologies
- Anti-infective optimization program

MAIN LINES OF RESEARCH

- Implementation of a new therapeutical drug monitoring system in a clinical analytical laboratory. for pharmacokinetic control of antibiotic, antifungal and antineoplastic agents in the hospitalized patient, with the aim of optimal and rational use of pharmacological treatment
- Observational Study of population pharmacokinetic model of voriconazole in allogeneic stem cell transplantation.. Study approved by the Agencia Española del medicamento y Productos Sanitarios with code CSV-VOR-2014-01
- Study of pharmacokinetics of caspofungin in patients under hemodiafiltration. Study approved by the Agencia Española del Medicamento y Productos Sanitarios with code MER-CAS-2013-01.
- Study of pharmacokinetics of Ceftolozane in critical patients. Study pending of approval by the Agencia Española del Medicamento y Productos Sanitarios with code CEFT-TCRR-2017.
- Study of Physico-chemical stability of a new mycophenolate mofetil intravenous solution in polypropilene infusion bag at different storage conditions.
-Study of Physico-chemical stability of a new ophthalmic eyedrop formulation at different storage conditions.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- **Leading Researcher:**
Manuel G. Alós Almiñana. Hospital
- **Established Researcher:**
María Teresa Torrecilla Junyent. Hospital
- **Recognised Researcher:**
Carmen Carrion Carrion. Hospital
Francisco Ferriols Lisart. Hospital
Rafael Ferriols Lisart. Hospital
- **Staff-Collaborating Researcher:**
Verónica Guillot Yacyszyn. INCLIVA
José Enrique Muñoz Cebriá. INCLIVA
Diego Vicente Cano Blanquer. Hospital

- Carlos Ezquer Garín. INCLIVA
Mercedes Jiménez Heredia. Hospital
Raquel Pardillo Armuña. INCLIVA
Eva María Del Rio Losada. INCLIVA
- **Staff-Nurse:**
María José Colubí Martínez. INCLIVA
Elena Molina Quesada. INCLIVA
- **Staff-Technician:**
María Del Mar Mallea Durbán. INCLIVA
Bárbara Michell Muñoz Ponce. INCLIVA
Raúl Torrejón Bastante. INCLIVA

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
1	-	-
National collaborations	International collaborations	Corresponding author
1	0	1

Atezolizumab Plus Bevacizumab Treatment for Unresectable Hepatocellular Carcinoma: Real-life Experience from a Single Tertiary Centre in Spain and ALBI Score as a Survival Prognostic Factor. Ballester MP, Abril C, Merino V, Alós M, Segarra G, Tosca J, Montón C et al. Cancer Diagnosis & Prognosis. 2024 September 01. 4 (5):623-630. DOI:10.21873/cdp.10373. PMID:39238615.

Clinical Associated Group in Nuclear Medicine

Clinical Associate
Person Responsible: Rafael Diaz Exposito

STRATEGIC AIMS

- Development and implementation of PET-CT in different tumour pathologies with special attention to the implementation of the combined use with intravenous contrast as well as the implementation of planning with radiotherapy for different tumour pathologies
- Development of radio-guided surgery in different pathologies
- Development of the treatment of tumours and liver metastases with radioembolisation

MAIN LINES OF RESEARCH

- Radioembolisation of hepatocarcinoma using 90-Ytrium and 166Holmium-labelled resin microspheres.
- Selective detection of sentinel node in patients with gynaecological tumours using hybrid tracer (indocyanine green-radiopharmaceutical)
- Utility of PET-MRI in patients with multiple sclerosis
- Development of CXCR4-specific PET imaging agents in neuroendocrine tumours by using a multidisciplinary approach (Smart_PET_tracers)
- Digital management of variables, automated creation of structured reports and exploitation of nuclear medicine data

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- Leading Researcher:**
Rafael Diaz Exposito. Hospital
- Recognised Researcher:**
Monica Romero Otero. Hospital
- First Stage Researcher:**
Laura Blanco Verdejo. Hospital
Carolina Castillo Arias. Hospital
Nicolas Alberto Colombo Vina. Hospital
- Staff-Collaborating Researcher:**
Laura Casas Fernández. Hospital
Andrea Palazon Palazon. Hospital
Carmen Redal Peña. Hospital
María Toscano Sánchez. Hospital
John Orozco Cortés. Hospital

THESIS

Thesis title: «Contribution of intraoperative scintigraphy in the diagnosis of primary hyperparathyroidism»
Type: Doctoral
Doctoral candidate: John Orozco Cortés
Director(s): Dr. Joaquín Ortega Serrano
University: Valencia
Date of the defense: 20 June 2024
Grade: Cum laude

Clinical Associated Group in Otorhinolaryngology

Clinical Associate
Person Responsible: Jaime Marco Algarra

STRATEGIC AIMS

The group's research objectives are related to the auditory performance acquired through implantable hearing devices, both cochlear and bone conduction stimulation. The fundamental focus of research currently focuses on new indications for these devices, such as unilateral hearing loss, binaurality and the connection between devices from different families, such as the connection between a cochlear implant and a hearing aid. Another interest in this group focuses on the study of the radiological image of the cochlear implant to determine its exact position within the cochlea and relationship with the neural response and auditory performance

MAIN LINES OF RESEARCH

- Neurophysiological function of stimulation with a cochlear implant depending on the position of the electrode guide.
- Study of binaurality acquired through implantable devices.
- Study of hearing performance by connecting devices between both ears with bimodal stimulation (cochlear implant and hearing aid).
- Study of the evolution of the Oticon Medical osseointegrated implant.

GROUP MEMBERS

Staff in the period 01/01/2024 - 31/12/2024

- Leading Researcher:**
Jaime Marco Algarra. Hospital
- Staff-Collaborating Researcher:**
Mª De La Paz Martínez Beneyto. Hospital
Antonio Morant Ventura. Hospital
Miguel Orts Alborch. Hospital
Tomás Pérez Carbonell. Hospital
Ignacio Pla Gil. Hospital

JOURNAL PUBLICATIONS

Number of Publications	IF	Average FI
2	0,9	0,9
National collaborations	International collaborations	Corresponding author
1	-	1

Variation of electrical impedance over 5 years post-implantation and relationship with the maximum comfort level (MCL) in adults with cochlear implants. González CE, Ventura AM, Gil IP, Redó MA, Carbonell TP, Algarra JM. Acta Otorrinolaringologica Espanola. 2024 January 01. 75 (1):23-30. DOI:10.1016/j.otorri.2023.04.005. PMID:38224870.

Bilateral Antrochoanal Polyp in an Adult, a Rare Cause of Bilateral Nasal Blockage: Report of a Case and Review of the Literature. Clara,Espina, Felip Ferrer,Baixauli, María Aragonés,Redó, Tomás,Pérez-Carbonell, Jaime,Marco-Algarra. Clinical Rhinology. 2024 November 16. 15 (1):48-50. DOI:10.5005/jp-journals-10013-1401.

4.4 Other scientific contributions from scientific platforms

4.4.1. Spanish Clinical Research Network (SCReN), Clinical Research and Clinical Trials of the Clinical Trials Platform (UICEC INCLIVA)

Team	Luis Sabater Ortí. Hospital. INCLIVA Verónica Guillot Yacyszyn. INCLIVA Sofía Galant Parrado. INCLIVA
PI	Andrés Cervantes Ruipérez. Hospital. University
Associated Members	Hired Members Ana Portolés Monzón. INCLIVA Mercedes Peris Costá. INCLIVA Marta Martínez Muniesa. INCLIVA Esteban Jesús Morcillo Sánchez. Hospital. INCLIVA José Enrique Muñoz Cebriá. INCLIVA Julio Núñez Villota. Hospital. INCLIVA

UICEC participates in all activities related with the correct development of observational studies and clinical trials, in accordance with the applicable legal regulations and the standards of good clinical practice.

Currently, the portfolio of services includes, among others, the following activities:

1. Methodological and regulatory support: Study design; drafting and review of all documentation (protocol, Patient Information Sheet – Informed Consent, etc.); economic feasibility assessment and funding search; design of the Case Report Form (CRF); and identification and selection of participating sites.
2. Start-up: Management of approvals from competent authorities (AEMPS and Ethics Committee), contract management with participating sites, processing of civil liability insurance, and registration and maintenance of the study on clinicaltrials.gov and REEC.
3. Monitoring: Development of the monitoring plan; conduct of the initiation visit, monitoring visits, and close-out visit; and preparation of the corresponding reports.
4. Study conduct: Overall study management (medication management, biological sample management, report review, adverse event reporting, etc.); preparation and maintenance of the Trial Master File; preparation and maintenance of the Investigator File; preparation and maintenance of the Pharmacy File; notifications to regulatory agencies; submission of amendments to regulatory authorities; and preparation of annual and final reports.

Activities developed

During 2024, UICEC has collaborated with the development of the following clinical trials, interventional and observational studies:

Clinical Trials /Interventional Studies

Study: REPO-HFpEF-II Title: Reposicionamiento farmacológico basado en el mecanismo en un subtipo de insuficiencia cardíaca con fracción de eyección conservada EUDRACT: 2022-003111-28 Sponsor: Dr. Núñez Villota Phase: II	
Study: KEEP-ON Title: Ensayo clínico fase III, multicéntrico, abierto y aleatorizado para evaluar la eficacia del Ciclosilicato de Sodio y Zirconio (Lokelma) en comparación con el tratamiento estándar para controlar la hiperpotasemia en pacientes con enfermedad renal crónica (ERC) y antecedentes de insuficiencia cardíaca. EUDRACT: 2020-003229-47 Sponsor: INCLIVA Phase: III	

Study: PULMESCELL-2 Title: Ensayo clínico fase II para establecer la seguridad del uso de células mesenquimales troncales fe-tales alogénicas de cordón umbilical expandidas en pacientes prematuros con displasia broncopulmonar. Pulmescell-2 EUDRACT: 2022-002653-26 Sponsor: Fundación para la Investigación Biomédica Hospital Ramón y Cajal (FIBIO) Phase: II	
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Study: RML-TB Title: Multicentre Controlled Open Randomized Clinical Trial to evaluate the efficacy and safety profile of an anti-TB drug combination based on High Dose Rifampicin, High Dose Moxifloxacin and Linezolid daily for DS AFB smear positive pulmonary TB patients during the initial 8 weeks of treatment. EUDRACT: 2021-001626-22 Sponsor: Vall d’Hebron Institut de Recerca (VHIR) Phase: II	
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Study: RAPIDO Title: Randomized Multicentre Phase III study of short course radiation therapy followed by prolonged pre-operative chemotherapy and surgery in primary high risk rectal cancer compared to standard chemo-radiotherapy and surgery and optional adjuvant chemotherapy EUCRACT: 2010-023957-12 Sponsor: UMCG, Groningen, The Netherlands Phase: III	
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Study: HaploMUDStudy Title: Matched unrelated vs. haploidentical donor for allogeneic stem cell transplantation in patients with acute leukemia with identical GVHD prophylaxis – a randomized prospective European trial Sponsor: University Medical Center Hamburg-Eppendorf Investigator Initiated Trial (IIT) (financial support by DKMS) Phase: Non Observational with no drugs study	
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Study: PANGASBLUM Title: Pancreatic anastomosis following pancreatoduodenectomy: pancreatogastrostomy versus bLumgart’s anastomosis. A randomized, prospective, multicenter study Sponsor: Fundación Investigación Hospital Clínico Universitario de Valencia Phase: Non Observational with no drugs study	
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Study: ECACIKAGEL Title: Ensayo Clínico Aleatorizado triple ciego para la evaluación de la seguridad y eficacia de CikaGel® en el tratamiento de las úlceras de pierna en pacientes sin Enfermedad Arterial Periférica Sponsor: Georges Klein Phase: Clinical trial with Medical Device	
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Study: ASTARTÉ Title: Temociclina vs Meropenem para el tratamiento de la bactiremia por enterobacterales resistentes a cefAlósprorinas de tercera generación: ensayo aleatorizado y pragmático EUCRACT: 2020-000064-39 Sponsor: Fundación Pública para la Gestión de la Investigación en Salud de Sevilla (FISEVI) Phase: III	
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Study: CIRCULATE-SPAIN-01 Title: Phase II randomized trial to assess the effect of intensive vs standard adjuvant chemotherapy in local-ised colon cancer with circulating tumor DNA EUDRACT: 2021-000507-20 Sponsor: Fundación Investigación Hospital Clínico Universitario de Valencia Phase: II	
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Study: FOVOCIP Title: Un ensayo aleatorizado multicéntrico de fosfomicina frente a ciprofloxacino para la neutropenia febril en pacientes hematológicos: eficacia y seguridad microbiológica EUCRACT: 2021-000354-25 Sponsor: Fundación para la Investigación y la Innovación Biosanitaria del Principado de Asturias (FINBA) Phase: III	
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Study: SHORTEN
Title: Eficacia y seguridad de 7 versus 14 días de tratamiento antibiótico para la bacteriemia producida por *Pseudomonas aeruginosa*: un ensayo clínico multicéntrico, aleatorizado (SHORTEN-2) con un análisis DOOR/RADAR
EUCRACT: 2021-003847-10
Sponsor: FISEVI
Phase: IV

Study: EARLY-GENE
Title: EARLY treatment with Candesartan vs Placebo in asymptomatic GENETic carriers of Dilated Cardiomyopathy (EARLY-GENE trial)
EUCRACT: 2021-004577-30
Sponsor: FUNDACION INVESTIGACION BIOMEDICA HOSPITAL PUERTA DE HIERRO MAJADAHONDA
Phase: III

Study: DAPA-DP
Title: Un estudio aleatorizado, abierto, cruzado, paralelo, de 2 secuencias, 2 períodos, 2 tratamientos. Se propone un estudio cruzado para que cada paciente pueda controlarse, debido a la alta variabilidad de la membrana peritoneal de cada individuo, que afecta el transporte peritoneal de sodio y agua.
EUCRACT: 2023-505571-78-00
Sponsor: INCLIVA
Phase: IV

Study: EPCS-01-22
Title: Resultados de las anastomosis colorrectales con la nueva grapadora circular motorizada en comparación con las grapadoras circulares manuales. Un ensayo controlado multicéntrico aleatorizado
EUCRACT: No aplica. Investigación clínica con productos sanitarios
Sponsor: INCLIVA
Phase: No aplica. Investigación clínica con productos sanitarios
Study: SENEKA

Title: Ensayo clínico aleatorizado, multicéntrico, abierto, de grupos paralelos, para definir la mejor estrategia para el manejo de la insuficiencia cardíaca y la enfermedad renal crónica en pacientes ancianos con o con alto riesgo de hiperpotasemia en España mediante la optimización del uso de iSRAA con CSZ: Estudio SENEKA
EUCRACT: 2024-513971-42-00
Sponsor: INCLIVA
Phase: III

Study: COMPRESSION-HF
Title: Terapia compresiva de miembros inferiores en pacientes con insuficiencia cardíaca descompensada y predominio de congestión sistémica tisular
EUCRACT: No aplica. Investigación clínica con productos sanitarios
Sponsor: INCLIVA
Phase: No aplica. Investigación clínica con productos sanitarios

Study: FLUDEX
Title: Phase III randomized, double-blind, multicenter clinical trial evaluating the efficacy and safety of dexamethasone compared to placebo in patients with severe influenza infection. (FLUDEX assay)
EUCRACT: 2023-506391-27-00
Sponsor: ISABIAL
Phase: III

Study: TAILOR/3
Title: Evaluation of a dual-hormone artificial pancreas with closed-loop glucose control versus singlehormone with carbohydrate recommendations under unannounced exercise and meal challenge inadults with type 1 diabetes
EUCRACT: No aplica. Investigación clínica con productos sanitarios
Sponsor: UPV
Phase: No aplica. Investigación clínica con productos sanitarios

Study: IBV-SO IBV-TA
Title: Protocolo de medida para la recogida de datos para la mejora del modelo de estimación de la saturación de oxígeno en sangre y presión arterial
EUCRACT: No aplica. Investigación clínica con productos sanitarios
Sponsor: Instituto de biomecánica de Valencia – IBV
Phase: No aplica. Investigación clínica con productos sanitarios

Observational studies

Study: DNO-IBR-2018-01
Title: Virology and immunology of cytomegalovirus (CMV) infection in patients with haematological malignancies in the time of new biotherapies
Sponsor: Fundación Investigación Hospital Clínico Universitario de Valencia
Phase: EPA-AS

Study: GOLD 0 -DLCO 1
Title: GOLD 0 - DLCO 1: A look beyond obstruction. Is spirometry sufficient in COPD screening?
Sponsor: Fundación Investigación Hospital Clínico Universitario de Valencia
Phase: No-EPA

Study: HK-01-21
Title: Evidencia en la vida real del uso de patiomer para el tratamiento de pacientes con hiperpotasemia crónica en una región de España
Sponsor: Fundación Investigación Hospital Clínico Universitario de Valencia
Phase: EPA-OD

Study: TRAINNING
Title: Efectos de un programa de entrenamiento físico supervisado en pacientes con insuficiencia cardíaca y función sistólica preservada e incompetencia cronotrópica sobre capacidad funcional.
Sponsor: INCLIVA
Phase: No-EPA

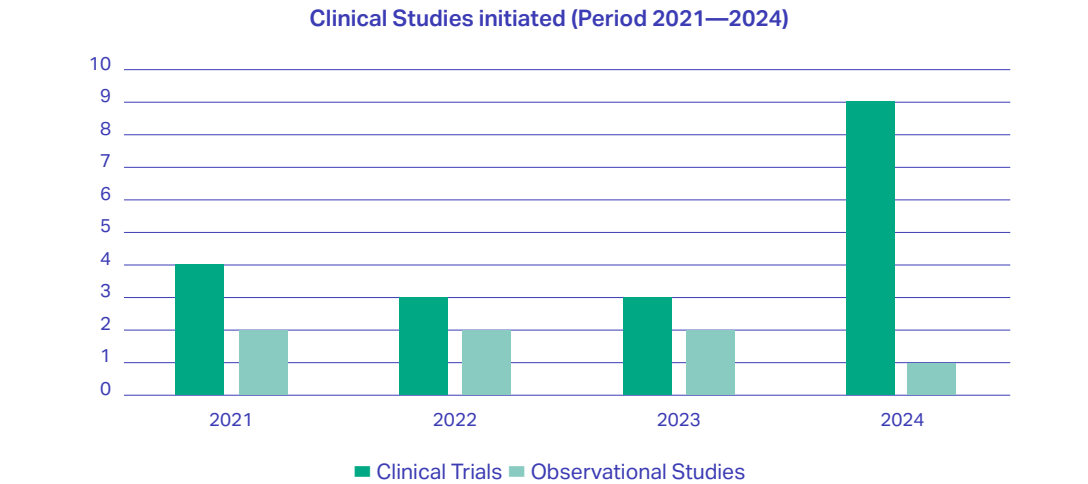
Study: BRI
Title: Efectos del bloqueo de rama izquierda sobre capacidad funcional, disincronía electromecánica y función cardíaca en población general sin patología cardiovascular.
Sponsor: INCLIVA
Phase: No-EPA

Study: 3D-PANC
Title: ¿Es la tecnología de imagen en tres dimensiones superior a la tomografía computerizada para evaluar la respuesta al tratamiento neoadyuvante en los pacientes con adenocarcinoma de páncreas borderline o localmente avanzado?
Sponsor: INCLIVA
Phase: Proyecto de Investigación

Unit activity during last 4 years

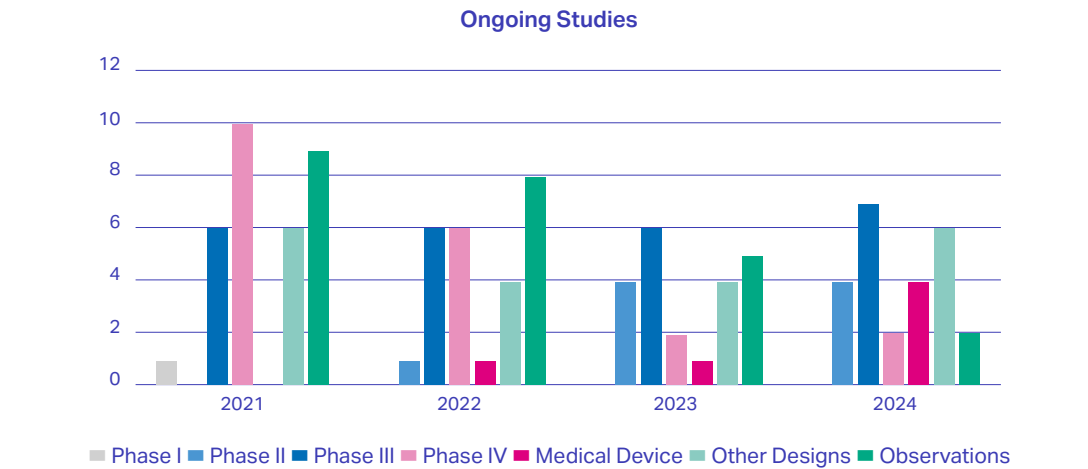
During the last four years, the unit has initiated 27 studies (19 clinical trials and 8 observational studies). The following table shows its distribution by year.

Year	Clinical trials	Observational Studies	Total
2021	4	2	6
2022	3	2	5
2023	3	2	5
2024	9	1	10



As accumulative activity, new and ongoing studies, the Unit has an average of 26 active studies, per year. Their distribution by type of study and year is detailed in the following table:

	2022	2023	2024	2021
Phase I	0	0	0	1
PhaseII	1	4	4	0
Phase III	6	6	7	6
Phase IV	6	2	2	10
Medical Device	1	1	4	0
Other Designs	4	4	6	6
Observationals	8	5	2	9
Total	26	22	25	32



Research Projects

Reference: PT23/00103
Title: Spanish Clinical Research Network (SCReN)
Principal Investigator: Andrés Cervantes Ruipérez
Funding Body: Instituto de Salud Carlos III-Co-financed FEDER
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2023-2025

4.4.2 Biobank

biobanco@INCLIVA.es

Team

Scientific Director

Clara Alfaro Cervelló. Hospital. University.

Coordinator/Responsible

Lorena Peiró Chova. INCLIVA

Biobank Laboratory Responsible

Olga Bahamonde Ponce. INCLIVA

Technicians

Marta Belda Moscardó. INCLIVA

Àngela Bañuls Alemany. INCLIVA

Laura Blasco Maza. INCLIVA

Activities Developed

Incorporation of samples in pre-existing collections within the biobank regime in 2024:

Oncological Node:

- Collection of solid tumors: 15 new sample donations
- Collection of peripheral blood and derivative products in patients suffering from breast cancer (including cases of Aurk-Seom project): 395 new sample donations
- Collections of peripheral blood and derivative products in patients suffering from lung cancer: 403 new sample donations
- Collection of peripheral blood and derivative products in patients suffering from melanoma: 3 new sample donations
- Collection of peripheral blood and derivative products in patients suffering from gastrointestinal cancer (including colorectal, pancreatic, cholangiocarcinoma, and gastric cancer, and cases of TFK project): 1121 new sample donations
- Collection of peripheral blood and derivative products in patients suffering from head and neck tumors: 215 new sample donations
- Collections of peripheral blood and derivative products in patients suffering from brain tumors: no new sample donations
- Collections of peripheral blood and derivative products in patients suffering from gynecological tumors (including cases of Aurk-Seom project): 6 new sample donations
- Collections of peripheral blood and derivative products in patients suffering from sarcoma: no new sample donations
- Collections of peripheral blood, derivative products and urine in patients suffering from bladder cancer: 15 new sample donations
- Hereditary Cancer Collection: peripheral blood and derivative products in patients suffering from this pathology: 7 new sample donations

Immunological Diseases Node:

- Collection of peripheral blood and derivative products in patients suffering from Systemic Lupus Erythematosus or other autoimmune diseases: 30 new sample donations

Cardiovascular Node:

- Collection of peripheral blood and derivative products and urine in patients suffering from Hyperaldosteronism: no new sample donations
- Collection of peripheral blood and derivative products in patients suffering from Hypertension: no new sample donations
- Collection of peripheral blood and derivative products and urine in patients suffering from Acute heart failure: no new sample donations
- Collection of peripheral blood and derivative products in patients suffering from ST-segment elevation myocardial infarction: 133 new sample donations
- Collection of peripheral blood and derivative products in patients suffering from acute coronary syndrome: 44 new sample donations
- Collection of peripheral blood and derivative products in patients suffering from atrial fibrillation: no new sample donations

Endocrinology Node:

- Collection of peripheral blood and derivative products and urine in patients suffering from endocrine diseases (DM1, DM2 and controls): 9 new sample donations

Reproductive Medicine Node:

- Single Cell Cryopreserved Human Endometrial Sample Collection; viable cells from endometrial biopsy or from endometrial fluid taken from women at different phases of their menstrual cycle: no new sample donations

Other collections:

- Collection of peripheral blood and derivative products in patients suffering from sepsis gravis, septic shock and non-septic patients from ICU: 84 new sample donations
- Collection of peripheral blood and derivative products in patients suffering from Multiple Esclerosis: no new sample donations
- Collection of peripheral blood and derivative products and urine in standard population (including cases of Obenoutec subcollection): 19 new sample donations
- Collection of peripheral blood and derivative products in patients suffering from COVID-19 disease and follow-up: no new sample donations
- Collection of peripheral blood and derivative products in patients suffering from Pulmonary Emphysema disease: 25 new sample donations
- COVID-19 Vaccinated Collection; peripheral blood mononuclear cells from standard population vaccinated against COVID-19 disease: no new sample donations

Incorporation of new collections within the biobank regime in 2024:

No new sample collections have been incorporated in 2024.

In summary, 2524 new sample donations have been received, 13581 samples have been processed, and 40004 aliquots have been stored in 2024 at INCLIVA Biobank facilities from collections within biobank regime.

In addition, Biobank has surplus diagnostic samples from the HCUV Pathology and Hematology services that may be used in research provided they have the corresponding Biobank Informed Consent.

Incorporation of samples in pre-existing collections outside the biobank regime in 2024. The collections are outside the organizational structure of the biobank, and they are generated in the scope of projects and/or private clinical trials. The biobank manages the storage and custody and traceability of the samples, as well as the processing and shipment of the same in almost all cases.

- Amadix Study: processing, conservation and shipment of processed samples for the *PancreaDIX study: study for the development and validation of a genetic fingerprint for the diagnosis of pancreatic cancer and precursor lesions*. AMD-CPA-2016-01: 4 new sample donations.
- Renas Study: custody of samples for the study: *Effect of CPAP on the deterioration of renal function in early stages of chronic kidney disease*. 195/2015: custody of 2 cryoboxes.
- Rolando Study: custody of samples for translational study within the framework of the ROLANDO trial: *Multicenter and uncontrolled phase II clinical trial to evaluate the safety and efficacy of the combination of Olaparib and Pegylated Liposomal Doxorubicin (DLP) in patients with peritoneal carcinoma primary ovarian and resistant platinum fallopian tubes*. GEICO-1601 ROLANDO: custody of 7 cryoboxes.
- European LEGACy Project: custody of samples for this project: custody of 7 cryoboxes.
- ALFAΩMEGA/PEGASUS Study: custody of samples for this clinical trial: custody of 3 cryoboxes.
- iPROVE-O2 Study: custody of samples for the clinical trial: *Effects on surgical site infection of an individualized perioperative open lung ventilatory strategy with high versus conventional inspiratory oxygen fraction (iPROVEO2). A comparative, prospective, multicenter, randomized controlled trial*: custody of 10 cryoboxes.
- Diabetic Nephropathy study: processing, conservation and shipment of processed samples for the study: *Early detection of histological lesions in nephrectomy pieces of diabetic patients. Anatomoclinical correlation. Analysis of the expression of Klotho in healthy kidney tissue vs tumor tissue*: 4 new sample donations.
- NIKOLE Study (GEICAM/2018-03): processing, conservation and shipment of processed samples for the clinical trial: *Characterization of innate immune system in patients with luminal advanced breast cancer*: no new sample donations.

- TRANSPAIRE Study: conservation of samples for the study: *Radiofrequency-assisted pancreatic transection vs endostapler*: 3 new sample donations.
- Cytosorb Study: processing, conservation and shipment of processed samples for the study: *Hemoabsorption with Cytosorb vs usual clinical practice to analyze its effect on kidney damage biomarkers in asystole donation controlled with ECMO*: custody of 2 cryoboxes.
- CONREN study: processing, conservation and shipment of processed samples for the study: *Congestion as a catalyst for the progression of chronic kidney disease*: 242 sample donations.
- GSK3511294 Study: processing, conservation and shipment of processed samples for the clinical trial: *A 52-week, randomised, double-blind, placebo-controlled, parallelgroup, multi-centre study of the efficacy and safety of GSK3511294 adjunctive therapy in adult and adolescent participants with severe uncontrolled asthma with an eosinophilic phenotype*: 2 sample donations (FINISHED STUDY).
- OBERON Study: processing, conservation and shipment of processed samples for the clinical trial: *A Phase III, Multicentre, Randomised, Double-blind, Chronic-dosing, Parallel-group, Placebo-controlled Study to Evaluate the Efficacy and Safety of Two Dose Regimens of MEDI3506 in Participants With Symptomatic Chronic Obstructive Pulmonary Disease (COPD) With a History of COPD Exacerbations (OBERON)*: 21 sample donations.
- HIPRA-HH-14 Study: processing, conservation and shipment of processed samples for the clinical trial: *A Phase IIb/III, Double-Blind, Randomised, Active-Controlled, Multi-Center, Non-Inferiority Clinical Trial, to assess the safety and immunogenicity of a booster vaccination with an adapted recombinant protein RBD fusion homodimer candidate (PHH-1V81) against SARS-CoV-2, in adults vaccinated against COVID-19*: 128 sample donations (FINISHED STUDY).
- CIRCULATE-SPAIN-01 Study: processing, conservation and shipment of processed samples for the clinical trial: *Phase II randomized trial to assess the effect of intensive vs standard adjuvant chemotherapy in localized colon cancer with circulating tumor DNA*: 272 sample donations.
- AFM-24-102 Study: processing, conservation and shipment of processed samples for the clinical trial: *A phase 1/2a open label, multicenter study to assess the safety, tolerability, pharmacokinetics, and efficacy of AFM24 in combination with atezolizumab in patients with selected advanced/metastatic EGFR-expression cancers*: 9 sample donations. (FINISHED STUDY).
- HFB-200301-01 Study: processing, conservation and shipment of processed samples for the clinical trial: *A pase I, open-label, multi-center, dose escalation and expansión study of HFB200301 (TNFR2 agonist antibody) in adult patients with advanced solid tumors*: 55 sample donations. (FINISHED STUDY).
- SMART Study (University Medical Centre Groningen): processing, conservation and shipment of processed samples for this study: 15 sample donations. (FINISHED STUDY).
- IC-DM2 Study: processing, conservation and shipment of processed samples for the study: *Systematic screening for heart failure in patients with type 2 diabetes mellitus*: 249 sample donations.
- GOLD Study: custody of external samples for the study: *GOLD 0 - DLCO 1: A look beyond the obstruction: Is spirometry sufficient in COPD screening?*: custody of 1 cryobox with external samples.
- PI21/00693 and VERO Study: management (reception, processing, conservation, registration, etc.) of external samples for these two projects: *Immune biomarker profiling as a tool to identify gastric cancer patients subsidiary of immunotherapy; Prognostic and predictive value of response of the gastric cancer microenvironment in young people. VERO project*: 37 sample donations.
- 4D-Tools Study: processing, conservation and shipment of processed samples for the study: *New techniques and biomarkers for diagnosis/prognosis of pathologies of the ascending aorta through image techniques*: 32 sample donations.
- AGILE Study: processing, conservation and shipment of processed samples for the clinical trial: *A Multi-centre, Single Arm, Open-label Extension Study to Evaluate the Long-term Safety of GSK3511294 (Depemokimab) in Adult and Adolescent Participants With Severe Asthma With an Eosinophilic Phenotype From Studies 206713 or 213744GSK3511294*: 10 sample donations
- ATYR1923-C-004 (SARCOIDOSIS) Study: processing, conservation and shipment of processed samples for the clinical trial: *A Phase 3, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety of Intravenous Efzofitimod in Patients With Pulmonary Sarcoidosis*: 42 sample donations
- GB44332 ARNASA Study: processing, conservation and shipment of processed samples for the clinical trial: *A Phase III, Randomized, Double-Blind, Placebo-Controlled, Multicenter Study to Evaluate the Efficacy and Safety of Astegolimab in Patients With Chronic Obstructive Pulmonary Disease*: 38 sample donations
- TILIA Study: processing, conservation and shipment of processed samples for the clinical trial: *A Phase III, Multicentre, Randomised, Double-blind, Parallel-group, Placebo-controlled Study to Evaluate the Efficacy and Safety of Tozorakimab (MEDI3506) in Patients Hospitalised for Viral Lung Infection Requiring Supplemental Oxygen (TILIA)*: 7 sample donations
- HFB-301001-01 Study: processing, conservation and shipment of processed samples for the clinical

- trial: A Dose Escalation Study of HFB301001 (OX40 Agonist Antibody) in adult patients with advanced solid tumors: 2 sample donations. (FINISHED STUDY).
- HFB-200603-01 Study: processing, conservation and shipment of processed samples for the clinical trial: A Phase 1a/1b, Open-Label, Multi-Center, Dose Escalation and Expansion Study of HFB200603 (anti-BTLA antibody) as a Single Agent and in Combination with Tislelizumab (anti-PD-1 antibody) in Adult Patients with Advanced Solid Tumors: 49 sample donations. (FINISHED STUDY).
 - ACTUATE 1801 Study: processing, conservation and shipment of processed samples for the clinical trial: Phase 1/2 Study of 9-ING-41, a Glycogen Synthase Kinase-3 Beta (GSK-3β) Inhibitor, as a Single Agent and Combined With Chemotherapy, in Patients With Refractory Hematologic Malignancies or Solid Tumors: 6 sample donations. (FINISHED STUDY).
 - 1346-0014 Study: processing, conservation and shipment of processed samples for the clinical trial: An open label, single arm, extension trial to examine long-term safety of BI 425809 once daily in patients with schizophrenia who have completed previous BI 425809 Phase III trials.(CONNEX-X): 4 sample donations.
 - 1346-0012 Study: processing, conservation and shipment of processed samples for the clinical trial: A phase III randomized, double-blind, placebo-controlled, parallel group trial to examine the efficacy and safety of BI 425809 once daily over 26 week treatment period in patients with schizophrenia (CONNEX-2): 5 sample donations.

Incorporation of new collections outside the biobank regime in 2024:

- AIDA Study: processing, conservation and shipment of processed samples for the study: An Artificially Intelligent Diagnostic Assistant for gastric inflammation: 6 sample donations.
- NOUS-209-01-00 Study: processing, conservation and shipment of processed samples for the clinical trial: A Phase I/IIa, Multicenter, Open-Label Study of Nous-209 Genetic Vaccine for the Treatment of Microsatellite Unstable Solid Tumors: 6 sample donations.
- EOCR2-22 AUDREY Study: processing, conservation and shipment of processed samples for the clinical trial: A global mUlticenter phase 1/2 trial of EO4010, a novel microbial-Derived peptide theRapeutic vaccine, in combination with nivolumab and/or bevacizumab, for trEatment of patients with previouslY treated metastatic colorectal carcinoma with protocol code EO CRC2-22: 31 sample donations.
- IST7 Study: processing, conservation and shipment of processed samples for the clinical trial: Randomized, Double-Blind, Placebo-Controlled, Phase 2 Study to Investigate the Efficacy and Safety of MBS2320 in Patients With Idiopathic Pulmonary Fibrosis (IPF) with protocol code IST-07: 1 sample donation.
- PROSPERO Study: processing, conservation and shipment of processed samples for the clinical trial: A phase III, multicenter, randomized, double-blind, parallel-group, chronic-dose, placebo-controlled extension trial to evaluate the long-term efficacy and safety of tozorakimab in patients with chronic obstructive pulmonary disease (COPD) and a history of exacerbations -PROSPERO, code D8534C00001: 18 sample donations.

In summary, 1298 new sample donations have been received, 4002 samples have been processed and 7571 aliquots have been stored in 2024 at INCLIVA Biobank facilities from studies outside biobank regime. In addition, 6157 aliquots have been supplied to these studies in 2024.

Transfer of samples from within the biobank regime in 2024

Project	Ref./Agency	Principal Researcher, Institution	Samples
BBI_03/2020 Usefulness of liquid biopsy and organoids in the management and treatment of pancreatic adenocarcinoma: towards Precision Medicine	NA, INCLIVA	Marisol Huerta, HCUV / INCLIVA	Pancreatic cancer: 361 plasma aliquots and 12 DNA aliquots.
BBI_10/2021 TuMiCC. TUmor Mlcroenvironment-derived factors in localized Colon Cancer: clinical impact and therapeutic implications.	GCAEC20030CERV, AECC	Andrés Cervantes, HCUV / UV / INCLIVA	Colorectal cancer: 14 DNA aliquots.

Project	Ref./Agency	Principal Researcher, Institution	Samples
BBI_15/2021 Adaptative immunity of B and T lymphocytes against SARS-CoV-2 after vaccination of patients at risk of severe COVID-19 disease.	PI21/00563, ISCIII	David Navarro, HCUV / INCLIVA	COVID-19 Vaccinated Collection: 122 viable cells aliquots.
BBI_02/2023 Clinico-biological and genetic risk factors for thrombosis in myelofibrosis.	PI21/00538, ISCIII	Juan Carlos Hernández Boluda, INCLIVA	Chronic Myeloproliferative Syndromes Collection: 15 peripheral blood tubes and 15 DNA aliquots.
BBI_04/2023 Towards the comprehension of sepsis heterogeneity. Short-term and long-term prognosis by means of epigenomics, proteomics and artificial intelligence.	PI22/00481, ISCIII	José Luis García Giménez, INCLIVA	Sepsis and septic shock: 7 plasma aliquots.
BBI_06/2023 Renal Congestion in Acute Heart Failure and Cardiorenal Syndrome: Non-Invasive Assessment by Renal Vascular Doppler.	PI20/00392, ISCIII	Julio Núñez Villota, INCLIVA	Acute Heart Failure: 120 plasma aliquots, 5 serum aliquots, and 123 DNA aliquots.
BBI_13/2023 Identification and validation of biomarkers through the use of omics and artificial intelligence for early diagnosis and improvement of clinical management of sepsis.	CPP2021-008643, Agencia Estatal de Investigación	Nieves Eburne Carbonell Monleón, INCLIVA	Sepsis and septic shock (including UMI controls): 45 plasma aliquots.
BBI_14/2023 Integrative genomic, digital imaging and clinical information towards Precision Oncology Optimization – INGENIO. Task 4.3.: Comprehensive genomic and immune disection of pan-cancer long term survivors to checkpoint inhibitor treatment.	PMP21/00107, PMP21/00137 PMP21/00171, ISCIII	Andrés Cervantes Ruipérez, INCLIVA	Oncologic Node (Solid Tumors Collection): 13 DNA aliquots.
BBI_15/2023 Biomarkers study in liquid biopsy for early diagnosis in hereditary breast cancer predisposition syndromes (HBCS).	NA, Support for SEOM Section Research Projects to the Familiar and Hereditary Cancer Section 2022.	María Isabel Chirivella González, INCLIVA	Hereditary Cancer Collection: 72 plasma aliquots and 1 PBMC aliquot.
BBI_16/2023 Detection and monitoring of ctDNA in locally advanced head and neck squamous cancer (HNSCC) treated with chemoradiotherapy with radical intent.	NA, Guardant Health, Inc	Gema Bruixola Campos, INCLIVA	Head and Neck Cancer: 2048 plasma aliquots.
BBI_17/2023 Sensor development for early diagnosis of breast cancer.	NA, INCLIVA	Juan Miguel Cejalvo Andújar, INCLIVA	Breast Cancer: 100 plasma aliquots. Standard Population: 26 plasma aliquots.

Project	Ref./Agency	Principal Researcher, Institution	Samples
<i>BBI_19/2023</i> <i>Detection of resistance and tumor progression mechanisms and identification of new therapeutic targets through genomic and epigenomic análisis of circulating tumor DNA in advanced colorectal cancer. METACC Project.</i>	NA, Ayudas Predoctorales AECC 2024	Noelia Tarazona Llaveró, INCLIVA	Colon Cancer: 1761 plasma aliquots, and 36 DNA aliquots. Standard Population: 168 plasma aliquots.
<i>BBI_20/2023</i> <i>Study of the oxidative stress/ metabolic diseases relationship. Analysis of total antioxidant capacity as a potential biomarker of oxidative stress in serum from Diabetes Mellitus patients.</i>	2023.144, Bioquochem SL	María Díaz González, Bioquochem SL	Endocrine-metabolic Diseases (DM): 30 serum aliquots. Standard Population: 30 serum aliquots.
<i>BBI_21/2023</i> <i>Immune biomarker profiling as a tool to identify gastric cancer patients subsidiary of immunotherapy.</i>	PI221/00693, ISCIII	Tania Fleitas Kanonnikoff, INCLIVA	Gastric cancer: 2 PBMC aliquots.
<i>BBI_22/2023</i> <i>Prognostic and predictive value of response of the gastric cancer microenvironment in young people. VERO project.</i>	NA, Becas 2022 Grupo Español Multidisciplinar en Cáncer Digestivo (GEMCAD)	Tania Fleitas Kanonnikoff, INCLIVA	Gastric cancer: 1 PBMC aliquot.
<i>BBI_01/2024</i> <i>Evaluation of a proposal for implementing pharmacogenetics in the national health system for mental and cardiovascular health.</i>	PMP22/00134, ISCIII	María José Herrero, UV/ IIS La Fe	No samples delivered.
<i>BBI_02/2024</i> <i>Monitoring of measurable residual disease (MRD) using high-sensitivity techniques in patients treated with CART19 therapy.</i>	PI049066, ThermoFisher (OncomineResearch Grant Project)	Mónica López Guerra, IDIBAPS	Hematology Disease (LAL-B): 1 DNA, and 1 RNA aliquot.
<i>BBI_03/2024 (BBI_09/2023)</i> <i>Evaluation of the incidence, causes and impact of hypophosphatemia in patients undergoing CAR-T therapy in the HCUV. PhosphoCART.</i>	3411 (2022), Fundación Senefro (Sociedad Española de Nefrología)	Isidro Antonio Torregrosa Maicas, INCLIVA	Transplantation and Lymphoproliferative Syndromes (CAR-T therapy): 108 plasma aliquots.
<i>BBI_04/2024</i> <i>The role of AXL in modulating treatment resistance and tumor microenvironment in Triple Negative and HER2+ Breast Cancer.</i>	PI23/00848, ISCIII	Juan Miguel Cejalvo Andújar, HCUV / INCLIVA	Breast cancer: 3 viable cells aliquots.
<i>BBI_05/2024 (RVB23037STS)</i> <i>Wholomics Multi Cancer Early Detection Study.</i>	NA, Wholomics GmbH	Patrick Strasser, Wholomics GmbH	Cancer, endocrine-metabolic, and cardiovascular diseases: 206 serum aliquots.
<i>BBI_06/2024</i> <i>Diabetes and its associated complications. DIACOM.</i>	NA, INCLIVA	Herminia González and Sergio Martínez, UV / INCLIVA	Endocrine-metabolic diseases (DM): 181 serum aliquots and 186 PBMC aliquots.

Project	Ref./Agency	Principal Researcher, Institution	Samples
<i>BBI_07/2024</i> <i>The clinical performance evaluation of the HistShock kit for the diagnosis and prognosis of sepsis and septic shock. E.92.</i>	EXP-00162444/SoE-20221017, CDTI	Eva María García López and José Luis García Giménez, Epidisease SL	No samples delivered.
<i>BBI_08/2024</i> <i>The role of oxidative stress and the NRF2 pathway in determining resistance to first-line chemoimmunotherapy (CIT) in patients with KRAS-mutated advanced non-small cell lung cancer (NSCLC).</i>	PI22/01173, ISCIII	Valentina Gambardella, INCLIVA	Lung cancer: 11 OCT tissue samples.
<i>BBI_09/2024</i> <i>Multiple Trisomies in Chronic Lymphocytic Leukemia.</i>	NA, Institute of Applied Biosciences	Kostas Stamatopoulos, Institute of Applied Biosciences, Centre for Research and Technology Hellas (INAB/CERTH)	Hematology Disease (chronic lymphoproliferative syndromes): 2 viable cells aliquots.
<i>BBI_10/2024</i> <i>Multidisciplinary dissection of the chemotherapy resistance mechanisms in triple negative breast cancer: A step towards improved clinical care.</i>	Coordinated Project AECC 2021.	Coordinator: Ángel Rodríguez Nebreda, IRB Barcelona; Local PI: Juan Miguel Cejalvo/Ana Lluch, INCLIVA	No samples delivered.
<i>BBI_13/2024</i> <i>Cytotoxicity induced by nuclear macromolecules: molecular mechanisms and potential for the development of sepsis and septic shock biomarkers (NUCLEOSEPSIS).</i>	PID2020-119127RA-I00, Agencia Estatal de Investigación – Ministerio de Ciencia e Innovación.	Carlos Roma Mateo, Universitat de València	No samples delivered.
<i>BBI_14/2024_RVB24017CPR</i> <i>Characteristics of suicide attempts in personality disorders in the Elda Health Department (STPE22), project framed within the European project «TrePsy - Towards new treatments of psychiatric disorders - a systems-oriented approach».</i>	NA, Horizon Europe, Grant Agreement nº 101079256.	Jorge Manzanares Robles, Instituto de Neurociencias UMH-CSIC	No samples delivered.
<i>BBI_15/2024</i> <i>Functional characterization of germline variants in hereditary myeloid neoplasms (GERMVAR).</i>	PDI2022-136660OB-I00, Ministerio de Ciencia, Innovación y Universidades.	Alejandra San Juan, IIS La Fe	Hematology Disease (myeloid neoplasms): 2 viable cells aliquots.
<i>BBI_16/2024 (Addendum BBI_04/2023)</i> <i>Towards the comprehension of sepsis heterogeneity. Short-term and long-term prognosis by means of epigenomics, proteomics and artificial intelligence.</i>	PI22/00481, ISCIII	José Luis García Giménez, INCLIVA	Sepsis and septic shock: 104 plasma aliquots. Standard population: 6 plasma aliquots.

In summary, 5938 aliquots were transferred in 2024.

In addition, the following specialized technical services have been provided by INCLIVA biobank in 2024:

- **SERBB_01/2024:** 20 viable PBMC isolations and counting for the project «*The role of AXL in modulating treatment resistance and tumor microenvironment in Triple Negative and HER2+ Breast Cancer*» PI Juan Miguel Cejalvo Andújar, INCLIVA (PI23/00848, ISCIII).
- **SERBB_02/2024:** plasma isolation from Streck tubes for the project «*Liquid biopsy biomarker study for early diagnosis of hereditary breast cancer predisposition syndromes (HBCS)*» PI Isabel Chirivella, INCLIVA (Beca SEOM, Familial and Hereditary Cancer Section).
- **SERBB_03/2024:** plasma isolation from Streck tubes (Liquid biopsy in lung cancer, AVENIO).
- **SERBB_04/2024:** PBMC isolation and DNA extraction from external peripheral blood samples for the TuMiCC project «Tumour microenvironment-derived factors in localized colon cancer: clinical impact and therapeutic implications», AECC.
- **SERBB_05/2024:** DNA isolation and temporary custody of plasma and DNA samples from Brno for the project «*Prognostic Biomarkers of Idiopathic Scoliosis in Adolescents*» PI Salvador Mena Mollá, INCLIVA (PI22/00990, ISCIII).

Publications

Note that these are 2024 scientific publications derived from the use of samples or services provided by the biobank.

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5. Sánchez-Simarro Á, Panizo N, Giménez E, Albert E, Montomoli M, Sanchis I, Kanter J, Górriz JL, Navarro D. Dynamics of SARS-CoV-2 Spike Receptor-Binding Domain-Targeted Specific Peripheral Memory B Cells in Patients With End-Stage Chronic Kidney Disease Undergoing Replacement Therapy Following COVID-19 Vaccination. J Med Virol. 2025 May;97(5):e70382. doi: 10.1002/jmv.70382. PMID: 40326950.
6. Cabeza-Segura M, García-Micó B, Cervantes A, Castillo J. Generation, Expansion, and Biobanking of Gastrointestinal Patient-Derived Organoids from Tumor and Normal Tissues. Methods Mol Biol. 2024;2777:123-133. doi: 10.1007/978-1-0716-3730-2_9. PMID: 38478340.
7. Martínez-Castedo B, Camblor DG, Martín-Arana J, Carbonell-Asins JA, García-Micó B, Gambardella V, Huerta M, Roselló S, Roda D, Gimeno-Valiente F, Cervantes A, Tarazona N. Minimal residual disease in colorectal cancer. Tumor-informed versus tumor-agnostic approaches: unraveling the optimal strategy. Ann Oncol. 2025 Mar;36(3):263-276. doi: 10.1016/j.annonc.2024.12.006. Epub 2024 Dec 13. PMID: 39675560.
8. Santana-Hernández S, Suárez-Olmos J, Servitja S, Berenguer-Molins P, Costa-García M, Comerma L, Rea A, Perera-Bel J, Menendez S, Arpí O, Bermejo B, Martínez MT, Cejalvo JM, Comino-Méndez I, Pascual J, Alba E, López-Botet M, Rojo F, Rovira A, Albanell J, Muntasell A. NK cell-triggered CCL5/IFNγ-CXCL9/10 axis underlies the clinical efficacy of neoadjuvant anti-HER2 antibodies in breast cancer. J Exp Clin Cancer Res. 2024 Jan 3;43(1):10. doi: 10.1186/s13046-023-02918-4. PMID: 38167224; PMCID: PMC10763072.

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4.4.3. Precision Medicine Unit

medicinaprecision@INCLIVA.es

Team

PI

Andrés Cervantes Ruipérez. Hospital. University

Coordinator

Pilar Rentero Garrido. INCLIVA

Collaborating researchers

Desamparados Roda Pérez. Hospital
Valentina Gambardella. INCLIVA

Technicians

Enrique Seda García. INCLIVA
Laura González Castillo. INCLIVA
Laura Olivares Ordóñez. INCLIVA
Sebastián Blesa Luján. INCLIVA

The Precision Medicine Unit was stablished in March 2018. Since then, the group have developed a robust and wide portfolio of services to support research at INCLIVA.

To date, the unit closely collaborates with the Oncology Phase I Clinical Trial Unit. Together we have developed an integrated screening system to support personalized patient care and hence implementing the latest techniques into the clinical practice. In addition, the unit currently collaborates in several research projects from different groups at INCLIVA.

The group integrates professional profiles from multiple disciplines (Medical Oncology, Molecular Biology, Bioinformatics and Biochemistry) with large professional experience in Human Genetics and Genomics.

Functions

Our mission is to impulse, promote and execute quality translational research offering support in Molecular Biology as well as in Data Analysis techniques to the scientific community.

Laboratory Equipment

- Two massive sequencers with Illumina chemistry: MiSeq and NextSeq550
- iScan System to scan Illumina microarrays
- nanoString n-Counter platform
- Bio-Rad ddPCR (QX-200)
- Chromium Single Cell System (10X Genomics)
- Glomax Discovery System (Promega)
- Maxwell RSC (Promega)
- Quantitative thermalcycler (CFX96 Bio-Rad)
- Standard thermalcyclers
- TapeStation system to visualize DNA and RNA
- Laminar cabins, centrifuges, heat blocks, ovens, etc.

Location

- INCLIVA, 4th floor, Menéndez y Pelayo 4, acc.

Services

1. Next-Generation Sequencing (NGS):
 - Design, development, validation and sequencing of custom gene panels
 - Exome sequencing and analysis
 - Whole-genome sequencing
 - Sequencing small genomes «*de novo*»
 - RNA-sequencing (total RNA, poly(A) fraction, rRNA depleted...)
 - Microtranscriptome sequencing (smallRNA/miRNA...)
2. Microarrays:
 - Genotyping arrays
 - Methylation arrays
3. Digital PCR (Droplet Digital PCR BIORAD)
4. NanoString platform

5. Chromium Single Cell System (10X genomics)
6. Other molecular biology techniques:
 - Nucleic acid isolation
 - Nucleic acid quantification (absorbance and fluorescence)
 - Luminiscence analysis
 - Uniplex and Multiplex PCR
 - Quantitative PCR
7. Additional services:
 - Advice and methodological support in writing protocols, research project proposals, scientific papers
 - Mentoring of bachelor, master and doctorate students
 - On demand training
 - Consulting services

Developed activities

4000 oncologic patients have been molecularly tested to select the best treatment

Research Projects

Reference: 101095359 - AIDA
Title: An Artificially Intelligent Diagnostic Assistant for gastric inflammation (AIDA)
Principal Investigator: Tania Fleitas Kanonnikoff
Funding Body: *European Commission*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2026
Total budget: €1.138.750 (Total: 6,334,803.75)

Title: Estudio de biomarcadores en biopsia líquida para diagnóstico precoz en síndromes hereditarios de predisposición a cáncer de mama (SHCM)
Principal Investigator: Isabel Chirivella González
Funding Body: *Sociedad Española de Oncología Médica (SEOM)*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2024
Total budget: €20.000

Reference: ICI20/00009
Title: Circulating tumor DNA based decision for adjuvant treatment in colon cancer stage II-III (CIRCULAN-TE-SPAIN)
Principal Investigator: Andrés Cervantes Ruipérez
Funding Body: *Instituto de Salud Carlos III*-Co-financed FEDER
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2021-2024
Total budget: €1.039.970

Title: Precision medicine in oncology: development of new technological approaches for personalized treatments in Immunotherapy
Principal Investigator: Desamparados Roda and Sheila Zúñiga
Funding Body: *Fundación FERO*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2024
Total budget: €300.000

Title: *Valor pronóstico y predictivo de respuesta del microambiente del cáncer gástrico en personas jóvenes. Proyecto VERO*
Principal Investigator: Tania Fleitas Kanonnikoff
Funding Body: *GEMCAD - Grupo Español Multidisciplinar en Cáncer Digestivo*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2024
Total budget: €20.000

Title: Tumor microenvironment-derived factors in localized colon cancer: clinical impact and therapeutic implications (TUMMIC)
Principal Investigator: Andrés Cervantes Ruipérez
Funding Body: *Fundación AECC (Asociación Española Contra el Cáncer)*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2020-2025
Total budget: €992.996

Title: *Carcionogénesis colorrectal: la interacción el microambiente tumoral y las células madre. Impacto en el tratamiento personalizado*
Principal Investigator: Noelia Tarazona Llaveró
Funding Body: *Fundación Mutua Madrileña*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2020-2023
Total budget: €130.000

Reference: PI22/02000
Title: Hacia la medicina de precisión en el colangiocarcinoma: la relevancia de la radiogenómica que define el perfil molecular de un paciente individual en busca de nuevas oportunidades de tratamiento.
Principal Investigator: Desamparados Roda
Funding Body: *Instituto de Salud Carlos III*-Co-financed FEDER
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2025
Total budget: € 98.494

Reference: PI22/01173
Title: El papel del estrés oxidativo y la vía NRF2 en determinar resistencia a quimioinmunoterapia de primera línea en pacientes con cáncer de pulmón no microcitico avanzado KRAS mutado.
Principal Investigator: Valentina Gambardella
Funding Body: *Instituto de Salud Carlos III*-Co-financed FEDER
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2025
Total budget: € 111.320

Publications

Targeting HER2-mutant metastatic cervical cancer with neratinib: Final results from the phase 2 SUMMIT basket trial. Friedman CF, D’Souza A, Roufai DB, Tinker A, de Miguel M, Gambardella V, Goldman J et al. GYNECOLOGIC ONCOLOGY. 2024 febrero 01. 181162-169. DOI:10.1016/j.ygyno.2023.12.004. PMID:38211393.

Phase 1, first-in-human study of TYRP1-TCB (RO7293583), a novel TYRP1-targeting CD3 T-cell engager, in metastatic melanoma: active drug monitoring to assess the impact of immune response on drug exposure. Spreafico A, Couselo EM, Irmisch A, Bessa J, Au G, Bechter O, Svane IM et al. Frontiers in Oncology. 2024 marzo 21. 141346502-1346502. DOI:10.3389/fonc.2024.1346502. PMID:38577337.

ctDNA whole exome sequencing in pancreatic ductal adenocarcinoma unveils organ-dependent metastatic mechanisms and identifies actionable alterations in fast progressing patients. Huerta M, Martín J, Gimeno F, Carbonell JA, García B, Martínez B, Robledo F et al. TRANSLATIONAL RESEARCH. 2024 septiembre 01. 271105-115. DOI:10.1016/j.trsl.2024.05.003. PMID:38782356.

Phase I/Ib Trial of Inavolisib Plus Palbociclib and Endocrine Therapy for PIK3CA-Mutated, Hormone Receptor-Positive, Human Epidermal Growth Factor Receptor 2-Negative Advanced or Metastatic Breast Cancer. Jhaveri KL, Accordino MK, Bedard PL, Cervantes A, Gambardella V, Hamilton E, Italiano A et al. JOURNAL OF CLINICAL ONCOLOGY. 2024 noviembre 20. 42 (33):3947-3956. DOI:10.1200/JCO.24.00110. PMID:39236276.

4.4.4. Biomarker Analysis Unit

Team

Coordinator

Carmina Montoliu Félix

Technicians

Amparo Urios Luch
María Oliver Ferrándiz

The Biomarker Analysis Unit is a core facility created in 2024. The Biomarker Analysis platform, equipped with state-of-the-art technology, is primarily aimed at the detection and quantification of biomarkers in various types of samples, both human and from animal models (serum, plasma, urine, tissue extracts, blood, tears, saliva, extracellular vesicles, etc.).

Functions

The potential usefulness of biomarker determinations using SIMOA technology is applicable to a wide range of scientific and technological fields: neurology, oncology, cardiology, inflammation, and infectious diseases. One of the main applications of biomarker identification lies within the field of neurology: the study of neurofilaments, which are relevant to conditions such as multiple sclerosis and Alzheimer’s disease, or the search for biomarkers in biological fluids for the diagnosis and prognosis of cognitive decline associated with various pathologies. It is also relevant in the field of oncology, where SIMOA technology is being applied to cancer diagnosis through assays detecting tumour-derived extracellular vesicles.

Equipment

SIMOA HD-X Analyzer is an ultra-sensitive platform based on Single Molecule Array® technology, which allows for biomarker detection at femtogram per millilitre (fg/ml) sensitivity levels—greater than those of conventional ELISA kits. The SIMOA HD-X is fully automated and offers the following advantages: i) High sensitivity, 1,000 times higher than that offered by current immunoassays; ii) Accuracy: the results obtained have a CV <10%; iii) Automation, decreases assay time and variability derived from manual operation; iv) Flexibility, there is the possibility to design your own antibody assays against specific analytes; v) Simultaneity, allows multiplex option and measure up to 6 analytes in the same sample.

Services

SIMOA system offers a portfolio of over 80 assays. In addition, there is the option to develop a customised assay.

The use of the SIMOA HD-X system and biomarker analysis is applicable to various biological samples through the following assays:

- Single-plex assays (SIMOA BEAD-BASED ADVANTAGE ASSAYS)
- Multiplex assays (SIMOA MULTIPLEX BEAD-BASED ADVANTAGE ASSAYS)

Research Projects

Reference: PI23/00062

Title: Mecanismos que conducen al deterioro cognitivo y motor leve en pacientes con enfermedad hepática: Papel de los cambios en la microbiota, el sistema inmunitario y las vesículas extracelulares.

Principal Investigator: M^a del Carmen Montoliu Félix

Funding Body: Instituto de Salud Carlos III-Co-financed FEDER

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2024-2026

Total budget: € 252.500

Publications

A transient blood IL-17 increase triggers neuroinflammation in cerebellum and motor incoordination in hyperammonemic rats. Arenas YM, Montoliu C, Llansola M, Felipo V. Journal of Neuroinflammation. 2024 noviembre 30. 21 (1):314-314. DOI:10.1186/s12974-024-03310-5. PMID:39616376.

4.4.5. Molecular, Cellular, and In Vivo Analysis Unit

Team

Coordinators

Juan Antonio Navarro Langa
Arturo López Castel

The Molecular, Cellular, and In Vivo Analysis Unit is a cross-disciplinary research support platform that offers its services to any researcher with the aim of promoting, supporting, and conducting high-quality translational research. The platform is equipped with unique and exclusive scientific-technological instruments for sample analysis, available for use by both INCLIVA Foundation staff and personnel from other public and private institutions.

Functions

The unit provides researchers with high-precision, high-sensitivity, and high-performance infrastructure. It is equipped for the separation and counting of large particles, precise DNA quantification, a cryo-sectioning system for biological samples with freezing and disinfection options, and a confocal laser scanning microscopy system.

Equipment

COPAS FP1000 Large-Particle Flow Cytometer
QuantStudio™ 5 Real-Time PCR System by Applied Biosystems
Leica CM1950 Cryostat – Cryo-sectioning Service for Biological Samples
Zeiss LSM 800 Confocal Laser Scanning Microscope

Services

Use of the COPAS FP-1000 large-particle flow cytometry system
Use of the QuantStudio™ 5 real-time PCR system by Applied Biosystems
Use of the Leica CM1950 Cryostat
Use of the Zeiss LSM 800 confocal laser scanning microscope

Research Projects

Reference: CDEI-04/20-C

Title: Obtención de mutantes de Drosophila para el gen DFH mediante movilización de elementos transponibles.

Principal Investigator: Juan Antonio Navarro Langa

Funding Body: Consellería de Sanidad

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2020-2025

Total budget: € 117.500

Reference: PI22/00507

Title: Reposicionamiento del Ácido Clavulánico como tratamiento para la enfermedad de Huntington y la ataxia espinocerebelosa de tipo 3. Estudios en cultivos primarios de pacientes y en modelos animales transgénicos.

Principal Investigator: Juan Antonio Navarro Langa y Federico Vicente Pallardó Calatayud

Funding Body: Instituto de Salud Carlos III-Co-financed FEDER

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2023-2025

Total budget: € 147.620

Publications

Decoding Nucleotide Repeat Expansion Diseases: Novel Insights from Drosophila melanogaster Studies. Atienzar S, Kat M, López A. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2024 noviembre 02. 25 (21):DOI:10.3390/ijms252111794. PMID:39519345.

4.4.6. Biostatistics Unit

Team

Coordinator

Juan Antonio Carbonell Asins. INCLIVA

Technicians

Carlos Peña de los Santos. INCLIVA

The Biostatistics Unit is a core facility created in 2022. The unit is mainly dedicated to collaborate in different research projects, providing statistical advice and support to researchers in the design, workflow implementation, development of their research projects.

Functions

Our mission is to drive, promote and execute quality clinical and translational research through methodological and analytical support.

Equipment

INCLIVA has a computing facility with 100 cores, 400GB of RAM memory 80TB of redundant network storage and 20TB of fast non-redundant local storage to the nodes for high I/O processes such as those applied to omics data analysis.

Services

- Design of clinical and epidemiological studies
- Sample size estimation
- Simulation techniques
- Supervised and unsupervised analysis techniques
- Predictive modelling
- Advice and methodological support to write protocols, research project proposals, articles, doctoral/ MSc/BSc thesis
- Data mining and exploratory analysis of databases
- Graphical representation of research results
- Curation and analysis of databases
- Consulting

Research Projects

Reference: 101095359 - AIDA

Title: An Artificially Intelligent Diagnostic Assistant for gastric inflammation. AIDA

Principal Investigator: Tania Fleitas Kanonnikoff

Funding Body: European Commission

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2023-2026

Total budget: €6.334.803,75 (INCLIVA: €1.138.750)

Title: *Impacto pronóstico y predictivo del microbioma y el microambiente inmune tumoral en el cáncer gástrico avanzado en pacientes jóvenes (menores de 50 años): proyecto VERO-2»*

Principal Investigator: Tania Fleitas Kanonnikoff

Funding Body: GILEAD

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2023-2026

Total budget: €50.000

Title: Factores derivados del microambiente tumoral en cáncer de colon localizado: impacto clínico e implicaciones terapéuticas

Principal Investigator: Andrés Cervantes Ruipérez

Funding Body: Grupos coordinados AECC. Fundación Científica de la Asociación Española Contra el Cáncer

Duration: 2020-2025

Total budget: €32.970,0

Title: Plataforma ISCIII de soporte para la Investigación Clínica. Unidad de Investigación Clínica y Ensayos Clínicos de INCLIVA

Principal Investigator: Andrés Cervantes Ruipérez

Funding Body: Plataformas de apoyo a la investigación en ciencias de la salud. Instituto Salud Carlos III

Duration: 2021-2024

Total budget: €199.650,0

Title: Valor pronóstico y predictivo de respuesta del microambiente del cáncer gástrico en personas jóvenes. Proyecto VERO

Principal Investigator: Tania Fleitas Kanonnikoff

Funding Body: GRUPO ESPAÑOL DE INVESTIGACION EN CANCER DIGESTIVO (GEMCAD)

Duration: 2022-2024

Total budget: €20.000,0

Title: Inmunoterapia en cáncer gastroesofágico. Hacia una nueva estrategia terapéutica a través de la inhibición de las proteínas HCK y/o FGR implicadas en la atenuación de la respuesta inmune

Principal Investigator: Tania Fleitas Kanonnikoff

Funding Body: XX Convocatoria de Ayudas a la Investigación en Salud Mutua Madrileña. Fundación Mutua Madrileña

Duration: 2023-2026

Total budget: €110.000,0

Title: El papel de AXL en la modulación de la resistencia a tratamiento y del microambiente tumoral en cáncer de mama Triple Negativo y HER2+

Principal Investigator: Juan Miguel Cejalvo Andújar

Funding Body: Proyectos de Investigación en Salud. Instituto Salud Carlos III

Duration: 2024-2026

Total budget: €151.875,0

Title: El papel del estrés oxidativo en la resistencia a inhibidores selectivos de KRAS G12C en pacientes con cáncer de pulmón avanzado no microcítico

Principal Investigator: Valentina Gambardella

Funding Body: Beca SEOM para proyectos de investigación en cáncer de pulmón (TAKEDA / Janssen). Fundación Sociedad Española de Oncología Médica SEOM

Duration: 2024-2025

Total budget: €20.000,0

Title: Validación clínica de la cirugía bariátrica como tratamiento de la obesidad mórbida en la disfunción neurológica asociada a la enfermedad hepática metabólica e implementación de una estrategia multimodal de precisión para la identificación de perfiles de respuesta terapéutica (NeurObes)

Principal Investigator: María Pilar Ballester Ferré

Funding Body: VLC-BIOCLINIC. Fundacion Investigacion Hospital Clinico Valencia. Universidad De Valencia

Duration: 2024-2025

Total budget: €10.000,0

Publicactions

José Luis Piñana, Juan A Carbonell-Asins, Dolores Gómez, Juan Montoro, Ariadna Pérez, Rafael Hernani, Pedro Chorão, Juan Carlos Hernández-Boluda, David Navarro, Carlos Solano. Community-Acquired Respiratory Virus Infections: A Threat to Long-Term survivors after Allogeneic Stem Cell Transplant? Clinical infectious diseases: an official publication of the Infectious Diseases Society of America. December 2024. Clinical Infectious Diseases. DOI: 10.1093/cid/ciae602

B. Martínez-Castedo, D.G. Camblor, J. Martín-Arana, J.A. Carbonell-Asins,•B. García-Micó, V. Gambardella,•M. Huerta,•S. Roselló, D. Roda, F. Gimeno-Valiente, A. Cervantes, N. Tarazona. Minimal residual disease in colorectal cancer. Tumor-informed versus tumor-agnostic approaches: unraveling the optimal strategy. Annals of oncology. December 2024. Official journal of the European Society for Medical Oncology. DOI: 10.1016/j.annonc.2024.12.006.

Sandra Torres-Ruiz, Iris Garrido-Cano, Ana Lameirinhas, Octavio Burgués, Cristina Hernando, María Teresa Martínez, Federico Rojo, Begoña Bermejo, Marta Tapia, Juan Antonio Carbonell-Asins, Carlos Javier Peña, Ana Lluch, Juan Miguel Cejalvo, Eduardo Tormo, Pilar Eroles. MiRNA-449 family is epigenetically repressed and sen-

sitizes to doxorubicin through ACSL4 downregulation in triple-negative breast cancer. August 2024. Cell death discovery. DOI: 10.1038/s41420-024-02128-7.

Georg Semmler, Sonia Alonso López, Mónica Pons, Lente Sabela, Elton Dajti, María Griemsmann, Alberto Zanetto, Lukas Burghart, Stefanie Hametner-Schreil, Lucas Hartl, Marisa Manzano, Sergio Rodríguez-Tajes, Paola Zanaga, Michael Schwarz, María L Gutiérrez, Mathias Jachs, Anna Pocurull, Benjamín Polo, Dominik Ecker, Beatriz Mateos, Sonia Izquierdo, Yolanda Real, Lorenz Balcar, Juan A Carbonell-Asins, Michael Gschwantler, Francesco P. Russo, Francesco Azzaroli, Benjamín Maasoumy, Thomas Reiberger, Xavier Forns, Joan Genesca, Rafael Bañares, Mattias Mendorfer. Long-term outcome and risk stratification in compensated advanced chronic liver disease after HCV. July 2024. Hepatology. DOI: 10.1097/hep.0000000000001005

Ariadna Pérez, Dolores Gómez, Juan Montoro, Pedro Chorão, Rafael Hernani, Manuel Guerreiro, Marta Vilalba, Eliseo Albert, Juan Antonio Carbonell-Asins, Juan Carlos Hernández-Boluda, David Navarro, Carlos Solano, José Luis Piñana. Are any specific respiratory viruses more severe than others in recipients of allogeneic stem cell transplantation? A focus on lower respiratory tract disease. May 2024. Bone marrow transplantation. DOI: 10.1038/s41409-024-02304-4.

Marisol Huerta, Jorge Martín-Arana, Francisco Gimeno-Valiente, Juan Antonio Carbonell-Asins, Blanca García-Micó, Belén Martínez-Castedo, Fabián Robledo-Yagüe, Daniel G Camblor, Tania Fleitas, Miguel García Bartolomé, Clara Alfaro-Cervelló, Marína Garcés-Albir, Dimitri Dorcaratto, Elena Muñoz-Forner, Víctor Seguí, Isabel Mora-Oliver, Valentina Gambardella, Susana Roselló, Luis Sabater, Desamparados Roda, Andrés Cervantes, Noelia Tarazona. ctDNA whole exome sequencing in pancreatic ductal adenocarcinoma unveils organ-dependent metastatic mechanisms and identifies actionable alterations in fast progressing patients. May 2024. Translational research: the journal of laboratory and clinical medicine. DOI: 10.1016/j.trsl.2024.05.003.

Alicia García-Vigara, Julio Fernández-Garrido, Juan-Antonio Carbonell-Asins, M Luz Sánchez-Sánchez, Aitana Monllor-Tormos, Miguel-Ángel García-Pérez, Juan J Tarín, Antonio Cano. Physical activity to reduce the burden of frailty after menopause: effectiveness and adherence rate of a resource saving exercise plan. May 2024. Menopause (New York, N.Y.). DOI: 10.1097/gme.0000000000002372.

Sandra Torres-Ruiz, Iris Garrido-Cano, Ana Lameirinhas, Octavio Burgués, Cristina Hernando, María Teresa Martínez, Federico Rojo, Begoña Bermejo, Marta Tapia, Juan Antonio Carbonell-Asins, Carlos Javier Peña, Ana Lluch, Juan Miguel Cejalvo, Eduardo Tormo, Pilar Eroles. MiRNA-449 family is epigenetically repressed and sensitizes to doxorubicin through ACSL4 downregulation in triple-negative breast cancer. May 2024. Nature. DOI: 10.21203/rs.3.rs-4149302/v1.

María Pilar Ballester, Juan Antonio Carbonell-Asins, Thomas Reiberger. Value of Ammonia Testing in Clinical Practice. April 2024. Clinical gastroenterology and hepatology: the official clinical practice journal of the American Gastroenterological Association. DOI: 10.1016/j.cgh.2024.03.019.

4.4.7 . Bioinformatics Unit

Team

Coordinator

Sheila M. Zúñiga Trejos

Technicians

Francisco Martínez Picó

Francisco José Català

The unit is mainly dedicated to collaborating on various research projects, providing advice and support to researchers in the design, implementation of workflows, development of computational strategies and data analysis.

Equipment

INCLIVA has its own Data Processing Center (DPC) which houses different servers with a total capacity of 350 CPUs, 700 execution threads, 6.5 TB of ECC RAM, ~350 TB of redundant HDD storage, 20 TB of solid-state storage (SSD) and more than 600 TB of secondary storage for backups. In addition, the DPC has servers with CUDA parallelized computing capabilities supported by two Nvidia A40 GPUs.

Activity

In 2024, 768 samples were analysed for diagnostic purposes for the Phase I Clinical Trial Unit and the Haematology Department in 139 different services. In addition, we analysed 339 samples in 50 different services related to multiple projects.

Furthermore, Jorge Martín Arana successfully defended his PhD thesis last year, a work co-supervised by Andrés Cervantes and Sheila Zúñiga.

Research Projects

Title: Personal técnico de apoyo bioinformático. Acción estratégica en salud 2023.
Beneficiario: Francisco José Català Senent
Funding Body: *Instituto de Salud Carlos III*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2024-2025
Total budget: €60,000

The unit has supported the following projects

Project	Funding Body	Principal Researcher	Supporting Activities
PI23/00536. Heterogeneidad tumoral inferida por secuenciación de célula única: nuevas aproximaciones terapéuticas frente a tumores uterinos	<i>Instituto de Salud Carlos III. AES2023</i>	Aymara Màs	Analysis of snRNASeq samples
PI21-00528. Caracterización transcriptómica de la implantación embrionaria humana a nivel de célula única usando un endometrio 3D en un chip de microfluidica	<i>Instituto de Salud Carlos III. AES2021</i>	Felipe Vilella	Analysis of scRNASeq data
ICI20/00009. Circulating Tumor DNA based decision for adjuvant treatment in colon cancer stage II-III (CIRCULANTE-SPAIN)	<i>Instituto de Salud Carlos III-Co-financed FEDER</i>	Andrés Cervantes	Analysis of 121 samples with custom gene panel to identify SNVs and small indels in FFPE tumor samples
PI20/1107. Neuroblastoma: mechanotherapeutic strategies based on 3D model and patient derived tumor with vitronectin rich microenvironment. 2020-2025	<i>Instituto de Salud Carlos III-Co-financed FEDER</i>	Rosa Noguera	Analysis of 256 samples in 26 services during 3 years with a custom gene panel to identify SNVs, small indels and CNVs in FFPE tumor samples

Project	Funding Body	Principal Researcher	Supporting Activities
2021/049. Factores clínico-biológicos y genéticos asociados al riesgo de trombosis en la Mielofibrosis	Instituto de Salud Carlos III-Co-financed FEDER	Juan Carlos Hernández Boluda	Development and validation of a panel for cDNA capture in a customized panel and analysis of 45 samples. 16 different services for three years.
2020/184. Carcinogénesis colorrectal: la interacción del microambiente tumoral y las células madre. Impacto en el tratamiento personalizado. 2020-2024	Fundación Mutua Madrileña	Noelia Tarazona	Development and validation of a gene panel for methylation analysis and analysis of 20 samples. Analysis of 5 samples with a custom gene panel
IMP/00019. Infraestructura de Medicina de Precisión asociada a la Ciencia y la Tecnología. IMPaCT – Data. 2020-2024	Instituto de Salud Carlos III-Co-financed FEDER	Alfonso Valencia (BSC). Coordinator INCLIVA - Sheila Zúñiga	To develop a common, interoperable and integrated system for data collection and analysis
PI21/0068. Caracterización y abordaje de la enfermedad mínima residual en cáncer de colon localizado: un paso hacia la medicina de precisión	Instituto de Salud Carlos III. AES2021	Andrés Cervantes	Analysis of gene panels based on NGS, RNASeq and smallRNAs.
PI21/00693. Perfil de biomarcadores inmunes como herramienta para la identificación de pacientes con cáncer gástricos subsidiarios de inmunoterapia	Instituto de Salud Carlos III. AES2021	Tania Fleitas	Exomes and RNASeq data analyses.
Utilidad de la biopsia líquida y organoides en el manejo y tratamiento de adenocarcinoma de páncreas: hacia una medicina de precisión	Mutua Madrileña	Andrés Cervantes	Exome data analysis in tumor tissues and liquid biopsies.
Estudio de biomarcadores en biopsia líquida para diagnóstico precoz en síndromes hereditarios de predisposición a cáncer de mama (SHCM)	Beca SEOM 2022	Isabel Chirivella	Gene panels based on NGS in tumor tissues and liquid biopsies.
2023/026. Estudio de la microbiota en el paciente CAR-T		Rafael Hernani	Analysis of 70 samples. Shot-gun tetagenomics
2023/2024. Análisis de exomas en pacientes con cáncer de cabeza y cuello		Andrés Cervantes. Gema Bruixola	330 exome analysis for three years

Publications

Huerta M, Martín-Arana J, Gimeno-Valiente F, Carbonell-Asins JA, García-Micó B, Martínez-Castedo B, Robledo-Yagüe F, Camblor DG, Fleitas T, García Bartolomé M, Alfaro-Cervelló C, Garcés-Albir M, Dorcaratto D, Muñoz-Forner E, Seguí V, Mora-Oliver I, Gambardella V, Roselló S, Sabater L, Roda D, Cervantes A, Tarazona N. ctDNA whole exome sequencing in pancreatic ductal adenocarcinoma unveils organ-dependent metastatic mechanisms and identifies actionable alterations in fast progressing patients. Transl Res. 2024 Sep;271:105-115. doi: 10.1016/j.trsl.2024.05.003. Epub 2024 May 21. PMID: 38782356.

4.4.8. Body Composition Unit

Team

Coordinator
Miguel Civera Andrés

Technicians

Blanca Alabadí Pardiñes
Ning Yun Wu Xiong

The Body Composition Unit carries out activities that have gained particular importance in recent years due to their close relationship with the development, morbidity, and mortality of various high-prevalence pathologies in our healthcare system. The assessment of body composition and morphofunctionality provides a more comprehensive view of an individual's health status and allows for better tailoring of interventions or medical treatments.

Functions

The unit offers researchers access to various techniques such as Total Body Densitometry, Bone Densitometry, Multifrequency Bioimpedance, Single-Frequency Bioimpedance, Nutritional Ultrasound, and Dual-Energy X-ray Absorptiometry (DEXA) for the diagnosis of conditions such as malnutrition, obesity, sarcopenia, sarcopenic obesity, frailty, and osteoporosis/osteopenia.

Equipment

- Hologic Horizon Wi Densitometer
- INBODY 770 Multifrequency Bioelectrical Impedance Analyzer
- Akern NutriLab® Single-Frequency Bioelectrical Impedance Analyzer
- Mindray Z50 Ultrasound Machine
- Jamar® Hydraulic Hand Dynamometer

Services

- Diagnosis of osteoporosis through hip and spine bone densitometry.
- Diagnosis of sarcopenia using hand dynamometry, functional testing, and total body densitometry to assess muscle mass.
- Diagnosis of sarcopenia using hand dynamometry, functional testing, and multifrequency/single frequency bioimpedance for muscle mass evaluation.
- Estimation of skeletal muscle morphofunctional parameters using nutritional ultrasound.
- Comprehensive assessment of body composition and muscular morphofunctionality (total body densitometry, bioimpedance, nutritional ultrasound, and functional tests).

Research projects

Reference: INNEST/2024/409
Title: Desarrollo de una metodología avanzada para evaluación morfofuncional integral en paciente obeso.
Principal Investigator: Miguel Cierva Andrés
Funding Body: Agencia Valenciana de Innovación
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2024-2026
Total budget: € 144.764,61

Publications

Relation Between Ultrasonographic Measurements of the Biceps Brachii and Total Muscle Mass in Older Hospitalized Persons: A Pilot Study. Alabadi B, Bastijns S, Cock AM, Civera M, Real JT, Perkisas S. Journal Of Frailty, Sarcopenia And Falls. 2024 marzo 01. 9 (1):25-31. DOI:10.22540/JFSF-09-025. PMID:38444541.

Nutrition-Based Support for Osteoporosis in Postmenopausal Women: A Review of Recent Evidence. Alabadi B, Civera M, Moreno B, Cruz AJ. INTERNATIONAL JOURNAL OF WOMENS HEALTH. 2024 abril 18. 16693-705. DOI:10.2147/IJWH.S409897. PMID:38650834.

SEA 2024 Standards for Global Control of Vascular Risk. Mostaza JM, Pintó X, Armario P, Masana L, Real JT, Valdivielso P, Arrobas T et al. CLINICA E INVESTIGACION EN ARTERIOSCLEROSIS. 2024 mayo 01. 36 (3):133-194. DOI:10.1016/j.arteri.2024.02.001. PMID:38490888.

New Perspectives for Low Muscle Mass Quantity/Quality Assessment in Probable Sarcopenic Older Adults: An Exploratory Analysis Study. Besora M, Llauradó E, Hoevel CJT, Sepúlveda C, Queral J, Bernal G, Pérez L et al. Nutrients. 2024 mayo 15. 16 (10):DOI:10.3390/nu16101496. PMID:38794734.

Ultrasound Cut-Off Values for Rectus Femoris for Detecting Sarcopenia in Patients with Nutritional Risk. Roman DD, Almeida JMG, Guerrero DB, Rolo GG, Martín A, Martín DP, García Y et al. Nutrients. 2024 mayo 21. 16 (11):DOI:10.3390/nu16111552. PMID:38892486.

Machine Learning Model in Obesity to Predict Weight Loss One Year after Bariatric Surgery: A Pilot Study. Nadal E, Benito E, Ródenas AM, Palanca A, Martínez S, Civera M, Ortega J et al. Biomedicines. 2024 mayo 25. 12 (6):DOI:10.3390/biomedicines12061175. PMID:38927382.

Tratamiento médico nutricional en la esclerosis lateral amiotrófica: ¿Actuamos o reaccionamos? Un caso clínico y revisión multidisciplinar. López JJ, Díaz C, Castillo T, Larrad A, Gastaldo R, Juarros S, Leunda L et al. Nutricion Hospitalaria. 2024 junio 27. 41 (3):712-723. DOI:10.20960/nh.05189. PMID:38726604.

Improving the nutritional care of oncology patients - Validation of a multidisciplinary protocol in the Spanish clinical setting. Almeida JMG, Pareja I, Jiménez RF, Pérez YL, Garrido MJ, Padin CA, Alfaro JJ et al. Nutricion Hospitalaria. 2024 julio 01. 41 (4):758-765. DOI:10.20960/nh.05043. PMID:38967309.

4.4.9. Analytical Liquid Chromatography Unit

Team

Coordinator
Nuria Cabedo Escrig. UV

Technicians
Laura Vila Dasí

Technicien

The mission of the Analytical Liquid Chromatography platform is to provide services or support to public or private entities in the Clinical, Pharmaceutical, Agrochemical, or Food sectors. The platform’s services are available to personnel from the INCLIVA Foundation as well as from other public and private institutions.

Functions

The unit’s staff has over 15 years of experience in various chromatographic techniques, as well as in the identification and quantification of metabolites. The team includes highly specialized personnel proficient in both laboratory sample preparation techniques and sample analysis.

Equipment

Ultra-High Performance Liquid Chromatography system (UHPLC, Nerexa model, Shimadzu) coupled with a triple quadrupole mass spectrometry detector (LCMS-8040 model, Shimadzu).

Services

- Sample preparation and extraction.
- Identification and/or quantification of selected organic compounds (targeted) (analytes, MW: 50 – 2,000 Da) in complex samples using UHPLC–MS/MS, including:
- Natural or synthetic products (flavonoids, steroids, fatty acids, alkaloids, etc.)
- Drugs and/or their structural derivatives
- Drugs of abuse and narcotics
- Insecticides or herbicides
- Biomarkers
- Data analysis of samples examined by Ultra-High Performance Liquid Chromatography coupled with Tandem Mass Spectrometry (UHPLC–MS/MS)
- Consulting for projects based on UHPLC–MS/MS

Research projects

- Development of new multitarget modulators of nuclear receptors and lipid biomarkers for the treatment of metabolic syndrome and associated comorbidities (PI21/02045). IP: Nuria Cabedo. Funding organism: Instituto de Salud Carlos III. Period: 01/01/2022-31/12/2025 (INCLIVA). 144.000 €.
- Evaluación del potencial papel terapéutico de la inhibición de RANK en modelos optimizados de dolor e infertilidad asociados a endometriosis (PI20/01835). IP: Raúl Gómez. Funding organism: Instituto de Salud Carlos III. Period: 01/01/2022-31/12/2025 (INCLIVA). 98.010 €.
- Identificación de nuevas dianas terapéuticas y mecanismos de la modulación de la inflamación en las enfermedades metabólicas (PI22/00062). IP: Herminia González y Sergio Martínez. Funding organism: Instituto de Salud Carlos III. Period: 01/01/2023-31/12/2025 (INCLIVA). 147.620,00 €.

Publicaactions

Ainhoa García, Laura Vila, Isabelle Duplan, María Ayelen Schiel, Ricardo D. Enriz, Nathalie Hennuyer, Bart Staels, Nuria Cabedo, Diego Cortes. Benzopyran hydrazones with dual PPAR α / γ or PPAR α / δ agonism and an anti-inflammatory effect on human THP-1 macrophages. European Journal of Medicinal Chemistry 265 (2024) 116125. PMID: 38185055. DOI: 10.1016/j.ejmech.2024.116125.

Alida Taberner-Cortés, María Aguilar-Ballester, Elena Jiménez-Martí, Gema Hurtado-Genovés, Rosa M. Martín-Rodríguez, Andrea Herrero-Cervera, Ángela Vinué, Susana Martín-Vañó, Sergio Martínez-Hervás, Herminia González-Navarro. Treatment with 1.25% cholesterol enriched diet produces severe fatty liver disease characterized by advanced fibrosis and inflammation and impaired autophagy in mice. *Journal of Nutritional Biochemistry* 134 (2024) 109711.

4.4.10. Mass Spectrometry Unit

Team

Coordinator

José Luis García Giménez. UV

Collaborating Researcher

Javier Hernández Gil. INCLIVA

The Mass Spectrometry Unit is a core facility created in 2024. The unit is a cross-disciplinary platform supporting research, offering a portfolio of services accessible to any researcher. Its mission is to drive, promote, and conduct high-quality translational research by providing support in pharmacology, clinical studies, and proteomics.

Functions

The Unit provides mass spectrometry-based methodologies with a high capacity to identify and quantify with high precision and sensitivity a wide variety of molecules, even at extremely low concentrations (sub-femtomol). Its high specificity allows differentiation of structurally similar compounds, while its multiplexing capability facilitates the simultaneous analysis of multiple analytes in a single injection.

Equipment

- Hybrid LC-MS3 Mass Spectrometry System with Triple Quadrupole and Linear Ion Trap QTrap 6500+.
- High-precision M5 MicroLC Sciex Micro-Liquid Chromatography System.
- State-of-the-art data acquisition and processing system: SciexOS.
- Open-source software for reviewing quantification results with a unified interface for calibration curves, quantification data, and spectra for peak reintegration, with support for time-scheduled MRM (Skyline). Redundant data storage system.

Services

- Methodological advice and support in writing protocols, research projects, articles, undergraduate/master's theses, and doctoral dissertations.
- Enzymatic digestion of samples from various biological matrices.
- Sample preparation for LC-MS using SPE purification.
- Protein characterization via LC-MS peptide fingerprinting: MRM.
- Protein identification via LC-MS peptide fingerprinting: DDA.
- Data analysis using quantification software (Skyline and SciexOS).
- On-demand training in sample preparation protocols for both proteins and small molecules.
- Mass spectrometry-based project consulting.

Research projects

- Proyecto. DTS24/00094, *Proteómica cuantitativa por espectrometría de masas para la identificación temprana de biomarcadores predictivos de eventos adversos en el síndrome coronario agudo. Programa de Desarrollo Tecnológico en Salud. José LUIS García Giménez. (Instituto de Investigación Sanitaria INCLIVA). 01/01/2025- 31/12/2026. Investigador principal.*
- Proyecto. PI22/00481, *Hacia la comprensión de la heterogeneidad de la sepsis. Pronóstico a corto y largo plazo mediante epigenómica, proteómica e inteligencia artificial. Ministerio de Ciencia e Innovación. (Instituto de Investigación Sanitaria INCLIVA). 01/01/2023- 31/12/2025. 183.920 €. Investigador principal.*
- Proyecto. CIAICO/2023/168, *GRUPO DE INVESTIGACIÓN EN FISIOPATOLOGÍA Y BIOMARCADORES DE LA SEPSIS. Consellería de Educación, Cultura, Universidades y Empleo. (INCLIVA). 01/11/2024-31/08/2027. 89.700 €. Investigador principal. José Luis García Giménez y Salvador Mena Mollá*
- Proyecto CIAPOT/2024/019. *Contractació de personal de suport vinculat a un projecte de transferència tecnològica (APOTI/2025). Investigador Principal. José Luis García Giménez 01/07/2025-30/06/2027 36.000,00 €*

Publicactions

Alterations in leukocyte DNA methylome are associated to immunosuppression in severe clinical phenotypes of septic patients. Beltrán J, Casabó G, Osca R, Navarrete P, Rodríguez M, Nacher E, Ferrando C et al. *Frontiers in Immunology*. 2024 enero 03. 141333705-1333705. DOI:10.3389/fimmu.2023.1333705. PMID:38235139.

miRNAs Related to Immune Checkpoint Inhibitor Response: A Systematic Review. García JL, Saadi W, Ortega AL, Lahoz A, Suay G, Carretero J, Pereda J et al. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2024 febrero 01. 25 (3):DOI:10.3390/ijms25031737. PMID:38339019.

Oxidative stress and metabolism meet epigenetic modulation in physical exercise. García JL, Cánovas I, Pallardó F. *FREE RADICAL BIOLOGY AND MEDICINE*. 2024 marzo 01. 213123-137. DOI:10.1016/j.freeradbiomed.2024.01.008. PMID:38199289.

Special Issue «The Role of Non-Coding RNAs Involved in Cardiovascular Diseases and Cellular Communication». Climent M, García JL. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2024 mayo 30. 25 (11):DOI:10.3390/ijms25116034. PMID:38892220.

A miRNA-based epigenetic molecular clock for biological skin-age prediction. Roig JV, García JL, Mena S. *ARCHIVES OF DERMATOLOGICAL RESEARCH*. 2024 junio 01. 316 (6):326-326. DOI:10.1007/s00403-024-03129-3. PMID:38822910.

Environmentally sensitive fluorescence of the topical retinoid adapalene. Soler JA, Monari A, Miranda MA, Hernández J, Lhiauget V. *Frontiers in Chemistry*. 2024 julio 08. 121438751-1438751. DOI:10.3389/fchem.2024.1438751. PMID:39040091.

Circulating miR-28-5p is overexpressed in patients with sarcopenia despite long-term remission of Cushing's syndrome: a pilot study. Seco M, Ibáñez JS, Pallardó FV, García JL, Aulinas A, Martel L, Webb SM et al. *Frontiers in Endocrinology*. 2024 julio 17. 151410080-1410080. DOI:10.3389/fendo.2024.1410080. PMID:39086897.

Study of microRNAs in Gingival Crevicular Fluid as Periodontal Diseases Biomarkers: Systematic Review. Cosín M, Alminana PJ, García JL, López A. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2024 julio 29. 25 (15):DOI:10.3390/ijms25158274. PMID:39125843.

Physical Activity and Epigenetic Aging in Breast Cancer Treatment. Moulton C, Grazioli E, Ibáñez JS, Murri A, Cerulli C, Silvestri M, Caporossi D et al. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2024 agosto 06. 25 (16):DOI:10.3390/ijms25168596. PMID:39201283.

Photosensitizing Properties of the Topical Retinoid Drug Adapalene. Soler JA, Rodríguez GM, Hernández J, Miranda MA, Andreu I, Lhiauget V. *CHEMICAL RESEARCH IN TOXICOLOGY*. 2024 noviembre 30. 37 (12):2013-2021. DOI:10.1021/acs.chemrestox.4c00384. PMID:39614821.



5 CLINICAL TRIALS AND OTHER STUDIES

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5. Clinical trials and other studies

5.1. Activity of the Ethical Committee for investigation with medicinal products (CEIm)

The Ethical Committee for Investigation with Medicinal Products are an independent board with a multidisciplinary composition whose main purpose is to oversee the protection of the rights, safety and well-being of subjects participating in clinical studies and biomedical research projects. As a result of its activity along 2024, the CEIm has processed a total of 35 studies (clinical trials and observational studies): 35 were positively valued.

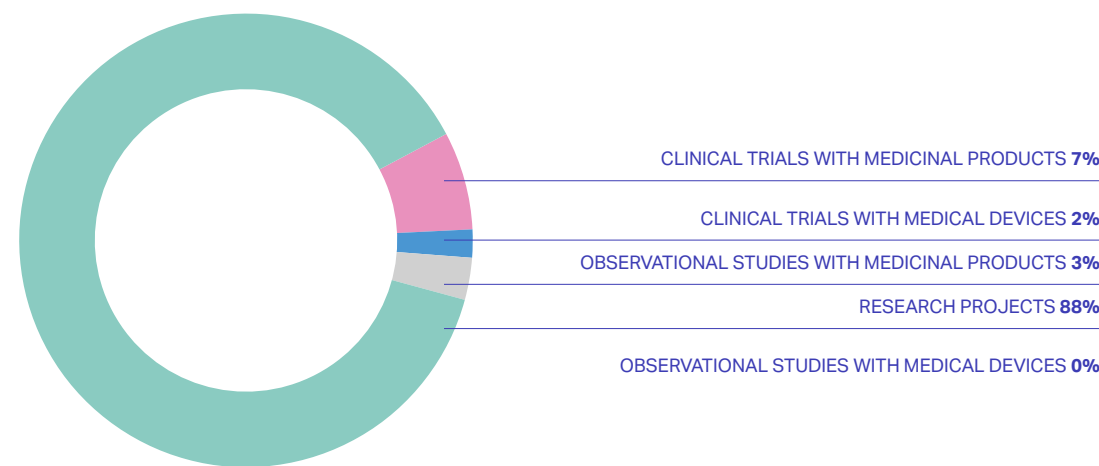
In addition, 28 clinical trials transitioned from the SIC-CEIC platform to CTIS have been reviewed.

Of the 35 approved studies, 16 were approved in the first evaluation and 19 after requesting clarification to the promoter.

Of the 25 clinical trials with drugs evaluated, anyone has been evaluated through the Voluntary Harmonisation Procedure (VHP) process.

The following table shows the number of clinical trials and other studies according to their typology.

TYPE OF EVALUATED STUDIES	2024
CLINICAL TRIALS WITH MEDICINAL PRODUCTS	25
Phase 0	0
Phase I	6
Phase II	10
Phase III	9
Phase IV	0
CLINICAL TRIALS WITH MEDICAL DEVICES	5
CLINICAL TRIALS WITH SUPPLEMENT	0
OBSERVATIONAL STUDIES WITH MEDICINAL PRODUCTS	1
OBSERVATIONAL STUDIES WITH MEDICAL DEVICES	4
RESEARCH PROJECTS	245
TOTAL	280



Distribution of the clinical studies depending on the department where they are performed is the following:

CLINICAL TRIALS BY DEPARTMENT	Nº
Cardiology	6
Digestive Medicine	1
Hematology	1
Infectious Diseases	1
Internal Medicine	2
Maxillofacial surgery	1
Nephrology	2
Neumology	2
Oncology	11
Rheumatology	2
Tutelage	6
TOTAL	35

Distribution of the research projects depending on the department where they are performed is the following:

RESEARCH PROJECTS BY DEPARTMENT	Nº
Anesthesiology and Reanimation	5
Angiology and Vascular Surgery	1
Cardiology	17
Dermatology	2
Digestive Medicine	15
Emergencies	3
Endocrinology and Nutrition	7
General Surgery	21
Gynecology	12
Hematology	5
INCLIVA Research Groups	26
Intensive Medicine	1
Internal Medicine	9
Maxillofacial surgery	1
Microbiology	8
Nephrology	3
Neumology	8
Neurology	1
Neurosurgery	2
Nuclear Medicine	1
Nursery	3
Oncology	24
Orthopedic and Traumatology Surgery	9
Otorhinolaryngology	4
Pathological Anatomy	5
Pediatrics	14
Primary Care	10
Phychiatry	4

Preventive medicine	1
Rheumatology	1
Urology	2
Others	20
TOTAL	245

5.2. Clinical research activity performed by Valencia-Clínico Malvarrosa Health Department

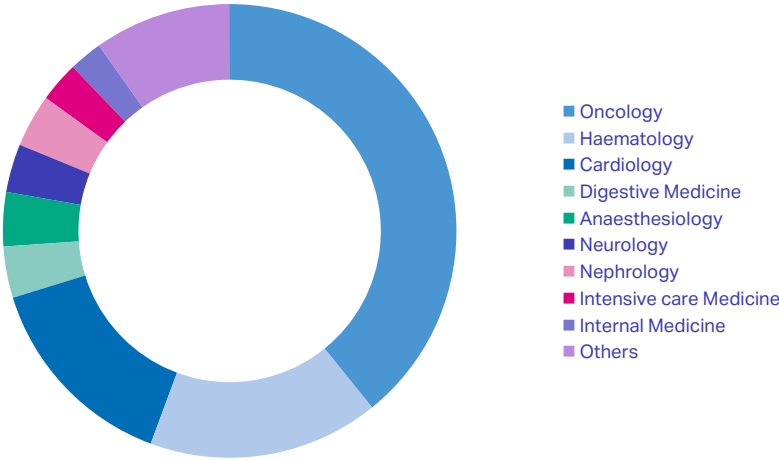
5.2.1. Activity during 2024

INCLIVA Health Research Institute manages the clinical studies (trials, observational studies, and research projects) carried out by the *Hospital Clínico Universitario de Valencia* and the Valencia Clínico-Malvarrosa Health Department researchers.

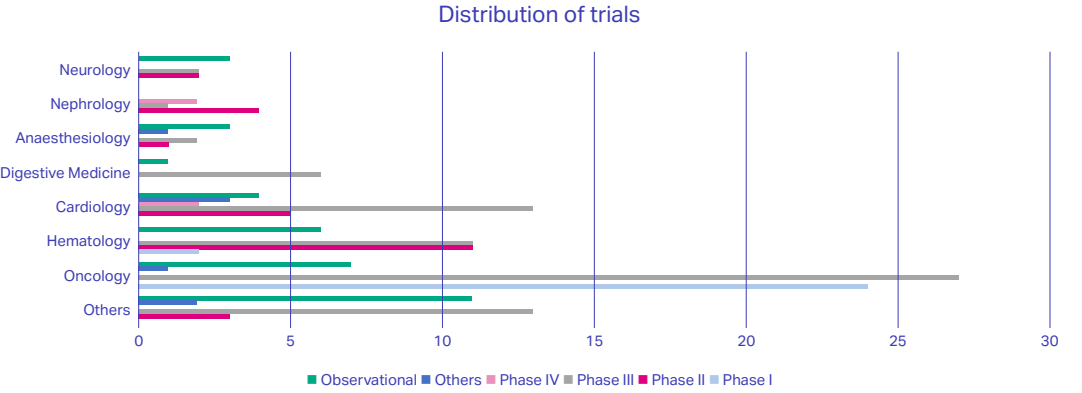
As a result of its activity along 2024, the INCLIVA has managed a total of 189 studies (clinical trials and observational studies).

The distribution of these trials by phase is: Phase I: 26; Phase II: 42; Phase III: 75, Phase IV: 4, Observational studies: 35, others: 7. The following table shows the number of clinical trials and other studies according to their phase and department. The followen information refers to signed contracts.

	Phase I	Phase II	Phase III	Phase IV	Others	Observa- tional	TOTAL
Others	0	3	13	0	2	11	29
Oncology	24	16	27	0	1	7	75
Haemathology	2	11	11	0	0	6	30
Cardiology	0	5	13	2	3	4	27
Digestive Medicine	0	0	6	0	0	1	7
Anaesthesiology	0	1	2	0	1	3	7
Nephrology	0	4	1	2	0	0	7
Neurology	0	2	2	0	0	3	7
TOTAL	26	42	75	4	7	35	189



The Department of Medical Oncology leads the number of trials assested to INCLIVA. It is followed by the departments of Hematology and Cardiology. These three services make over 69 % of the total processed trials.



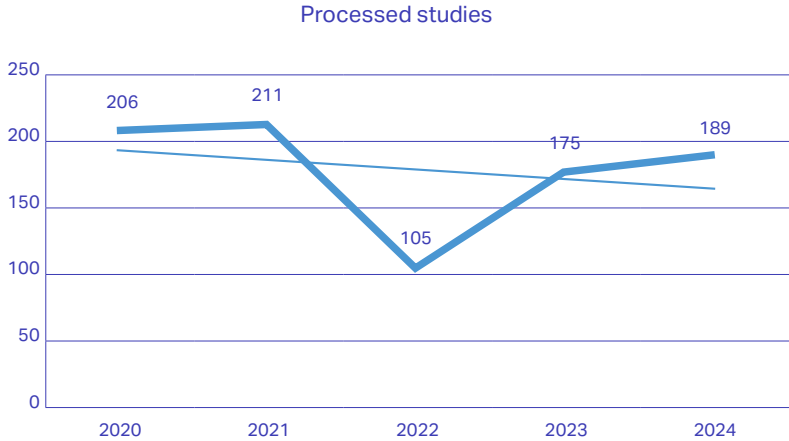
Regarding the distribution of studies per promoter, 16 trials are considered as Independent Clinical Research (trials from associations, groups, foundations, and private individuals), 1 of which have been promoted by researchers from the *Hospital Clínico Universitario de Valencia* and INCLIVA and the rest of them have been promoted by the pharmaceutical industry.

PROMOTOR	Nº
HOSPITAL CLÍNICO UNIVERSITARIO DE VALENCIA RESEARCHERS AND INCLIVA	1
INDEPENDENT CLINICAL RESEARCH	25
COMERCIAL RESEARCH	163

5.2.2. Assessment activity during last 5 years

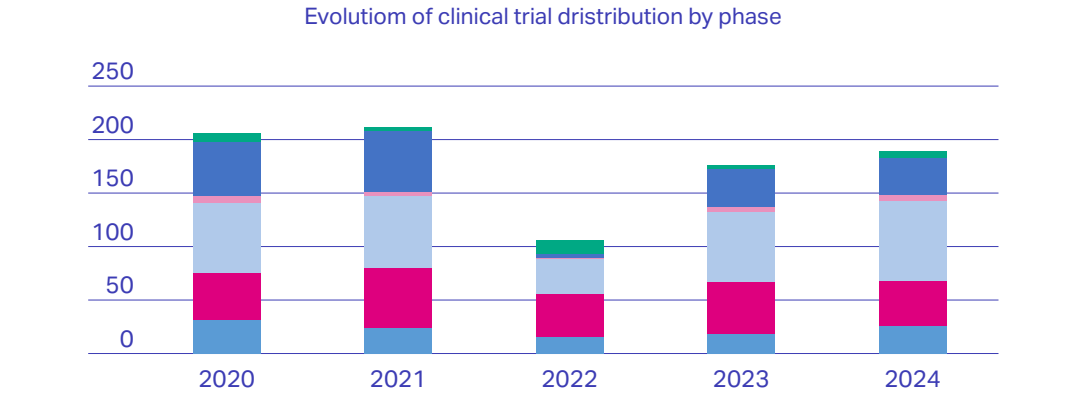
The table below shows the number of studies processed yearly.

Year	Processed studies
2020	206
2021	211
2022	105
2023	175
2024	189



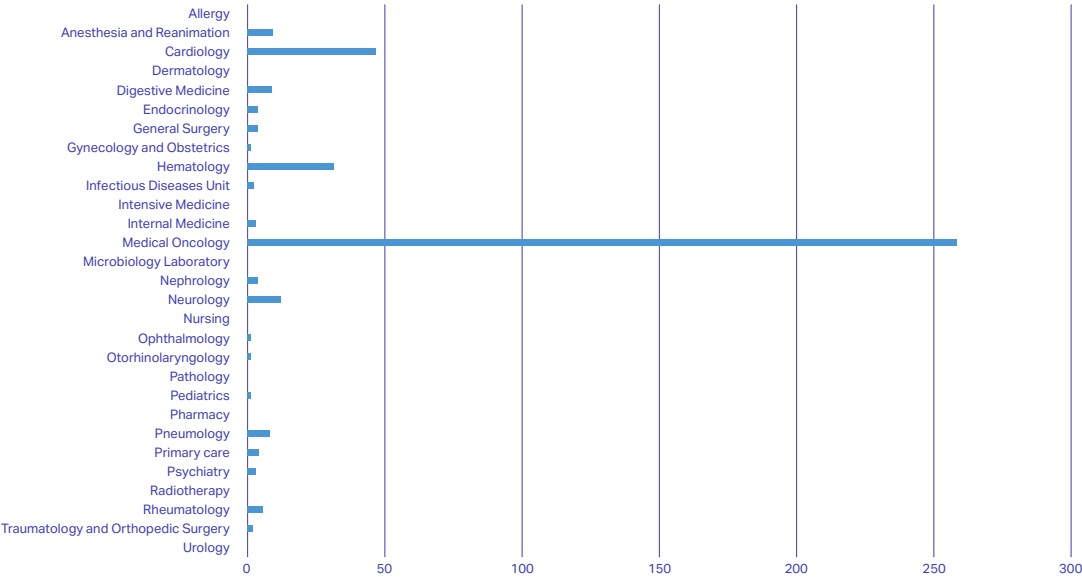
One of INCLIVA's main goals is to develop clinical research at its early stages, thus contributing to translational research that moves scientific knowledge from bench to bedside. With this regard, during the period 2020-202, Phase I and Phase II trials are prioritized and its number remains stable as shown in the table and graph below.

PHASE	2020	2021	2022	2023	2024
Phase I	33	24	15	19	26
Phase II	43	56	41	49	42
Phase III	64	67	31	65	75
Phase IV	8	3	2	4	4
Observational	50	57	4	36	35
Others	8	4	12	2	7



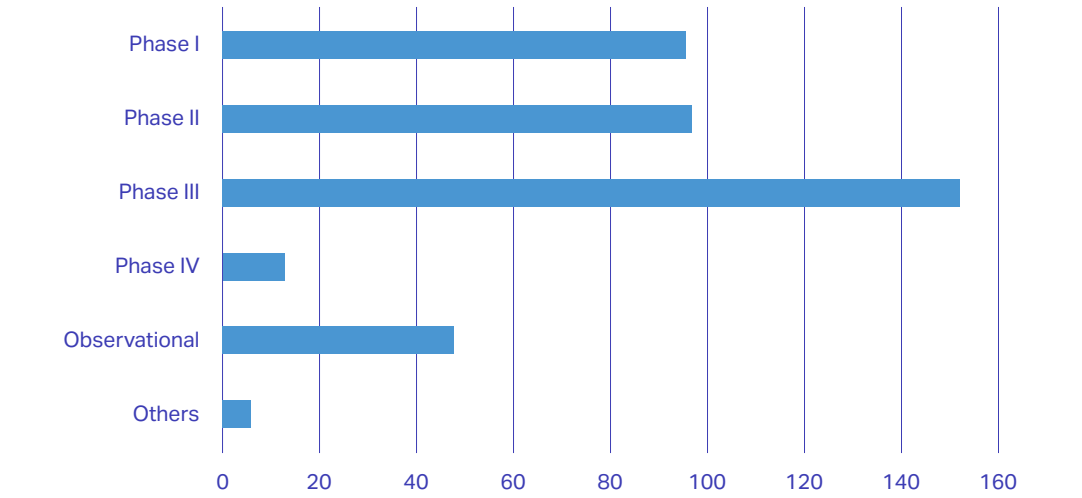
5.2.3. Ongoing studies

During 2024, 412 studies have been active. The distribution of clinical trials per department analyzed below uses a semilogarithmic scale due to the great difference between the Department of Medical Oncology and the rest of the Departments.



The distribution of ongoing trials and other studies according to their typology are the following:

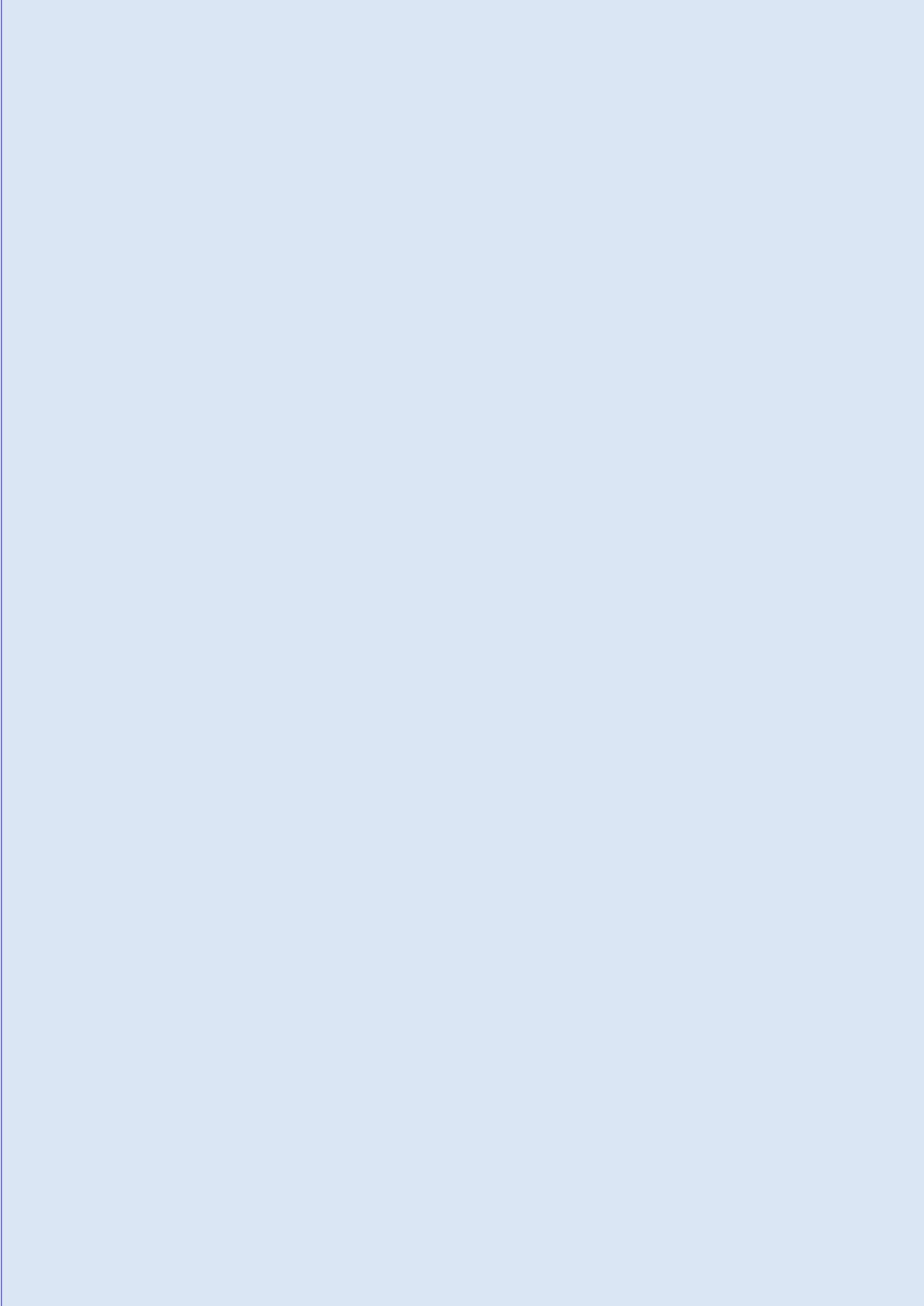
Other	6
Observational	48
Phase IV	13
Phase III	152
Phase II	97
Phase I	96





6 INITIATIVES FOR RESEARCH PROMOTION

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6. Initiatives for research promotion

6.1. Grants for external fellowships, Trainee students, Outgoing and Incoming Internships and new initiatives

To allow researchers to acquire new knowledge for clinical and research techniques, every year INCLIVA sponsors its Grants for research internships in centers of excellence. In 2024 the number of grants funded was 25.

List of beneficiaries and destination centers of the IIS INCLIVA Training Stays Grants during 2024:

Cristina Albanell Fernández. Hospital Sant Joan de Deu. Barcelona (SPAIN).
Carla Cambra Alberó. Hospital Interzonal General de Agudos “Profesor Dr. Luis Güemes» Haedo-Buenos Aires (ARGENTINA).
Elena Carmona Lloret. Hospital Dr. Negrin. Gran Canaria (SPAIN).
Carolina Castillo Arias. Hospital Clínic de Barcelona. (SPAIN).
Lorenzo Climent Penadés. E.SAC de Ponent, H. Son Espases. Palma de Mallorca(SPAIN).
Maríam García Alfaro. Hospital Universitari German Trias i Pujo. Badalona – Barcelona (SPAIN).
Jorge García Mayor. Hospital Universiatrio de Bellvitge. L’ Hospitalet de Llobregat- Barcelona (SPAIN).
Nerea Araceli García Rubio. Centro de Dia Ditem. Buenos Aires (ARGENTINA).
Patricia Garrido Orozco. Hospital San Carlos de Bariloche. Rio Negro (ARGENTINA).
Patricia Godoy Morales. Centro de Salud Frutillar. Hospital Bariloche. (ARGENTINA).
Marta González Monfort. Stanford University School of Medicine (EEUU).
Diego Iraola Viana. Hospital Universiatrio de Bellvitge. L’ Hospitalet de Llobregat- Barcelona (SPAIN).
Patrycja Klimczak. Helsinki Institute of Life Science. Helsinki (FINLAND).
Lucía López Muñoz. Hospital Dr. Negrin. Gran Canaria (SPAIN).
David Martí Aguado. University of California San Diego (EEUU).
María Martín Aragón García. Hospital II-1 Santa Clotilde. Loreto (PERÚ)
Alberto Monferrer Escudero. Instituto de Psicoanálisis Multifamiliar.(ARGENTINA).
Irene Monleón Guinot. University of Glasgow.Escocia (UNITED KINGDOM).
Irene Muñoz Blat. Universidad de Stanford(EEUU).
Sara Palomares Casasús. Cleveland Clinico. Ohio (EEUU).
María Pascual González. University of Pittsburgh Medical Center.(EEUU).
Paula Punzón Jiménez. Cancer Research UK Cambridge Institute (UNITED KINGDOM).
Paula Sala Ivars. University College London. (UNITED KINGDOM).
Jaime Valero García. University of Pittsburgh Medical Center.(EEUU).
Isaac Vieco Martí. University of Glasgow.Escocia (UNITED KINGDOM).

OUTGOING INTERNSHIPS

Researchers from our IIS INCLIVA that during 2024 carried out external internships in national or foreign centers are shown in the following table:

Celeste Moya Valera. Instituto Tecnológico de Informática (ITI) – Universidad Politécnica de Valencia (UPV). (SPAIN).She completed two internships at the same center during 2024.
Belén Martínez Castedo. Institute of Biomedical Research in Malaga (IBIMA)/Centro de Investigaciones Médico Sanitarias (CIMES). Málaga, (SPAIN).
Bruno Toson. I2SysBio (Instituto de Biología Integrativa de Sistemas). Paterna-Valencia (SPAIN).
Celeste Moya Valera. University of Cambridge (UNITED KINGDOM).

INCOMING INTERNSHIPS

The incoming researchers in 2024 are shown in the following table:

Sandra Popa. Fellowships within the ICF and ESMO Fellowship Programme - OncoHelp Onology Center Timisoara - ROMANIA - Research Group of Innovative Diagnostic and Therapeutical Developments in Solid Tumors- InDeST.
Paola Mejía. Fellowships within the ICF and ESMO Fellowship Programme-Instituto Nacional de Enfermedades Neoplásicas de PERÚ- Research Group of Innovative Diagnostic and Therapeutical Developments in Solid Tumors- InDeST.
Celia García Conejo. Universidad de Málaga- SPAIN- in the Research Group on Heart Failure.
Wiam Saadi. Universidad Djilali Bounaama, Khemis Miliana- ARGELIA- in the Research Group on Epigenom-

ics and Translational Epigenetics.

Marcos Jesús Heredia Vallejos. Instituto Nacional de Enfermedades Neoplásicas de -PERÚ- in the Research Group of Innovative Diagnostic and Therapeutical Developments in Solid Tumors- InDeST.

Susan Yecina Quispe Sánchez. Instituto Nacional de Enfermedades Neoplásicas de -PERÚ- in the Research Group of Innovative Diagnostic and Therapeutical Developments in Solid Tumors- InDeST.

Christopher Cerdá. Centro Universitario contra el Cáncer, UANL- MEXICO- in the Research Group of Innovative Diagnostic and Therapeutical Developments in Solid Tumors- InDeST.

Mette Overgaard Holm. Hospital Universitario de Aalborg, Aalborg, -DENMARK in the Research Group on Cardiometabolic Risk and Diabetes.

TRAINEE STUDENTS

There is a table attached that includes the number of students of Vocational Qualification, Degree or Master accepted during 2024 in INCLIVA. They have carried out training practices in different research groups:

- 19 Bachelor Degree students at the University of Valencia (including TFD students).
- 8 Bachelor Degree students at the Polytechnic University of Valencia (including TFD students).
- 8 Master's Degree students at the University of Valencia (including TFM students).
- 8 Master's Degree students at the Polytechnic University of Valencia (including TFM students).
- 24 Bachelor Degree students from other universities (including TFD students).
- 14 Master's Degree students from other universities (including TFM students).
- 33 Higher Vocational Qualification students of public and/or private centers of the Valencian Community (including dual professional education students).

TFD and TFM

In 2024, no call for TFD and TFM tutoring was published. TFD and TFM students were accepted, but outside of the call for applications.

A list of available positions was published on our website, but not as part of a call for applications.

6.2 Training and teaching activities

COURSES

Title: Programa Formativo Servicio de Anestesia y Reanimación HCUV. Año 2024.

Date:4/2/2024 - 11/26/2024

Organised by: Badenes Quiles, Rafael

Group Name: Research Group on Anesthesiology and Reanimation

Research Area: Metabolism and Organic Damage

Title: Jornadas formativas - UCI de Anestesia (UCIA).

Date:6/17/2024 - 6/28/2024

Organised by: Badenes Quiles, Rafael

Group Name: Research Group on Anesthesiology and Reanimation

Research Area: Metabolism and Organic Damage

Title: Programa Sanofi 2024.

Date:3/1/2024 - 11/30/2024

Organised by: Bonanad Lozano, Clara

Group Name: Group on Translational Research in Ischemic Heart Disease

Research Area: Cardiovascular

Title: 5ª Edición Anatomía Quirúrgica Aplicada de la mama y sus regiones ganglionares. Principios básicos de la Oncoplastia en mama.

Date:1/12/2024 - 1/12/2024

Organised by: Buch Villa, Elvira

Group Name: Research Group on Breast Cancer Biology

Research Area: Oncology

Title: 3ª Ed. Curso de Estadística Aplicada a la Medicina.

Date:4/15/2024 - 4/25/2024

Organised by: Carbonell Asins, Juan Antonio

Group Name: INCLIVA Management

Title: 1ª Ed. Curso de Estadística avanzada aplicada a la Medicina

Date:10/15/2024 - 10/24/2024

Organised by: Carbonell Asins, Juan Antonio

Group Name: INCLIVA Management

Title: Programa Formativo en Innovación 2024. Sesión 1. Patentabilidad de las invenciones biotecnológicas.

Date:2/27/2024 - 2/27/2024

Organised by: Carrio Argos, María Elena

Group Name: INCLIVA Management

Title: Programa Formativo en Innovación 2024. Sesión 2. El proceso de innovación: de la idea a la práctica. Valorización de la idea.

Date:4/16/2024 - 4/16/2024

Organised by: Carrio Argos, María Elena

Group Name: INCLIVA Management

Title: Programa Formativo en Innovación 2024. Sesión 3. El proceso de innovación: de la idea a la práctica. La transferencia a la empresa

Date:4/22/2024 - 4/22/2024

Organised by: Carrio Argos, María Elena

Group Name: INCLIVA Management

Title: Programa Formativo en Innovación 2024. Sesión 4. Taller de búsqueda de patentes.

Date:6/11/2024 - 6/11/2024

Organised by: Carrio Argos, María Elena

Group Name: INCLIVA Management

Title: Programa formativo en Innovación 2024. Sesión 5: Diferentes modelos de negocio en biotecnología de la salud.

Date:9/25/2024 - 9/25/2024

Organised by:Carrio Argos, María Elena

Group Name: INCLIVA Management

Title: I Workshop Nasofibrolaringoscopia Cirugia Endocrina.

Date:6/20/2024 - 6/20/2024

Organised by: Cassinello Fernández, Norberto

Group Name: Research Group on General and Digestive Surgery

Research Area: Metabolism and Organic Damage

Title: REUNION KICK OFF PROYECTO HOPE

Date:11/8/2024 - 11/8/2024

Organised by: Chirivella González, Isabel

Group Name: Research Group on Breast Cancer Biology

Research Area: Oncology

Title: 3ª Edición Curso Beart: cadera y sacroilíacas.

Date:3/8/2024 - 3/9/2024

Organised by: De La Morena Barrio, Isabel

Group Name: Without Group

Title: 1º Curso en Medicina Nuclear e Imagen Molecular: La Imagen Molecular en trastornos neurológicos del movimiento.

Date:1/31/2024 - 1/31/2024

Organised by: Diaz Exposito, Rafael

Group Name: Clinical Associated Group in Nuclear Medicine

Research Area: Clinical Associated Groups

Title: 1º Curso en Medicina Nuclear e Imagen Molecular: Terapia Metabólica.

Date:2/28/2024 - 2/28/2024

Organised by: Diaz Exposito, Rafael

Group Name: Clinical Associated Group in Nuclear Medicine

Research Area: Clinical Associated Groups

Title: 1º Curso en Medicina Nuclear e Imagen Molecular: Cirugía Radioguiada: nuevas técnicas en localización molecular.
Date:3/6/2024 - 3/6/2024
Organised by: Diaz Exposito, Rafael
Group Name: Clinical Associated Group in Nuclear Medicine
Research Area: Clinical Associated Groups

Title: 1º Curso en Medicina Nuclear e Imagen Molecular: Mieloma Múltiple enfoque teórico practico en Medicina Nuclear.
Date:4/9/2024 - 4/9/2024
Organised by: Diaz Exposito, Rafael
Group Name: Clinical Associated Group in Nuclear Medicine
Research Area: Clinical Associated Groups

Title: 2º Curso de Formación Continuada en Medicina Nuclear e Imagen Molecular: Marcaje celular.
Date:9/25/2024 - 9/25/2024
Organised by: Diaz Exposito, Rafael
Group Name: Clinical Associated Group in Nuclear Medicine
Research Area: Clinical Associated Groups

Title: 2º Curso de Formación Continuada en Medicina Nuclear e Imagen Molecular: Actualización de la PET-TC en cáncer de mama.
Date:11/27/2024 - 11/27/2024
Organised by: Diaz Exposito, Rafael
Group Name: Clinical Associated Group in Nuclear Medicine
Research Area: Clinical Associated Groups

Title: 2º Curso de Formación Continuada en Medicina Nuclear e Imagen Molecular: Actualización de la PET-TC en pediatría.
Date:12/18/2024 - 12/18/2024
Organised by: Diaz Exposito, Rafael
Group Name: Clinical Associated Group in Nuclear Medicine
Research Area: Clinical Associated Groups

Title: How to improve your scientific presentations
Date:10/28/2024 - 11/14/2024
Organised by: Fernández Saiz, Patricia
Group Name: INCLIVA Management

Title: Curso de Redacción de Artículos científicos
Date:10/1/2024 - 11/20/2024
Organised by: Fernández Saiz, Patricia
Group Name: INCLIVA Management

Title: Cómo elaborar un proyecto de investigación en ciencias de la salud”
Date:10/16/2024 - 10/31/2024
Organised by: Fernández Saiz, Patricia
Group Name: INCLIVA Management

Title: Curso Ciclo de Vida de Proyectos Europeos. 1ª sesión: Contexto
Date:1/9/2024 - 1/9/2024
Organised by: Ferrer Albero, Ana
Group Name: INCLIVA Management

Title: Curso Ciclo de Vida de Proyectos Europeos. 2ª sesión: Tipos de participación
Date:1/23/2024 - 1/23/2024
Organised by: Ferrer Albero, Ana
Group Name: INCLIVA Management

Title: Curso Ciclo de Vida de Proyectos Europeos. 3ª sesión: Definición Proyecto
Date:2/6/2024 - 2/6/2024
Organised by: Ferrer Albero, Ana
Group Name: INCLIVA Management

Title: Curso Ciclo de Vida de Proyectos Europeos. 4ª sesión: Búsqueda de oportunidades
Date:2/20/2024 - 2/20/2024
Organised by: Ferrer Albero, Ana
Group Name: INCLIVA Management

Title: Curso Ciclo de Vida de Proyectos Europeos. 5ª sesión: Preparación propuesta I.
Date:3/12/2024 - 3/12/2024
Organised by: Ferrer Albero, Ana
Group Name: INCLIVA Management

Title: Curso Ciclo de Vida de Proyectos Europeos. 6ª sesión: Preparación propuesta II.
Date:3/26/2024 - 3/26/2024
Organised by: Ferrer Albero, Ana
Group Name: INCLIVA Management

Title: Curso Ciclo de Vida de Proyectos Europeos. 7ª sesión: Gestión Proyecto I
Date:4/9/2024 - 4/9/2024
Organised by: Ferrer Albero, Ana
Group Name: INCLIVA Management

Title: Curso Ciclo de Vida de Proyectos Europeos. 8ª sesión: Gestión Proyecto II
Date:4/23/2024 - 4/23/2024
Organised by: Ferrer Albero, Ana
Group Name: INCLIVA Management

Title: Curso Ciclo de Vida de Proyectos Europeos. 9ª sesión: Evaluación.
Date:4/30/2024 - 4/30/2024
Organised by: Ferrer Albero, Ana
Group Name: INCLIVA Management

Title: In-Hospital Training. 10 junio 2024
Date:6/10/2024 - 6/10/2024
Organised by: Figueroa Almanzar, Santiago
Group Name: Without Group

Title: Clinical Observational Program: Cáncer Gástrico.
Date:4/4/2024 - 4/5/2024

Organised by: Fleitas Kanonnikoff, Tania Carolina
Group Name: Translational Research Group on Esophagogastric Cancer
Research Area: Oncology

Title: Preceptorship avanzado sobre cáncer gástrico.
Date:5/22/2024 - 5/23/2024
Organised by: Fleitas Kanonnikoff, Tania Carolina
Group Name: Translational Research Group on Esophagogastric Cancer
Research Area: Oncology

Title: Preceptorship Cáncer Gástrico. 2ª Edición
Date:11/25/2024 - 11/26/2024
Organised by: Fleitas Kanonnikoff, Tania Carolina
Group Name: Translational Research Group on Esophagogastric Cancer
Research Area: Oncology

Title: Uso Clínico de Hemostáticos de trombina “Flo seal”, sellantes de gel “Coseal” y parches “Hemopatch” en Cirugía Torácica. Presentación de casos clínicos.
Date:4/29/2024 - 4/29/2024
Organised by: Galan Gil, Genaro
Group Name: Research Group on Histopathology and Tissue Engineering
Research Area: Oncology

Title: Curso “Desafíos en la cirugía de la pared torácica”
Date:9/26/2024 - 9/26/2024
Organised by: Galan Gil, Genaro
Group Name: Research Group on Histopathology and Tissue Engineering
Research Area: Oncology

Title: XI Workshop Internacional de Ecografía y Resonancia Anorrectal.
Date:6/12/2024 - 6/14/2024
Organised by: Garcia Botello, Stephanie
Group Name: Research Group on General and Digestive Surgery
Research Area: Metabolism and Organic Damage

Title: X Workshop Internacional de Ecografía y Resonancia Anorrectal.
Date:2/7/2024 - 2/9/2024
Organised by: Garcia Botello, Stephanie
Group Name: Research Group on General and Digestive Surgery
Research Area: Metabolism and Organic Damage

Title: Actualización en manejo de lesiones cutáneas.
Date:4/17/2024 - 4/24/2024
Organised by: Garcia Molina, Pablo
Group Name: Clinical Associated Group in Care. INVESTENF-INCLIVA
Research Area: Clinical Associated Groups

Title: Programa Formativo sobre Dermatitis Atópica en Atención PriMaría y Urgencias del Área de Salud del HCUV.
Date:1/1/2024 - 2/28/2024
Organised by: González Delgado, Victor Alejandro
Group Name: Without Group

Title: Preceptorship Cardiorrenal (10 a 12 septiembre 2024).
Date:9/10/2024 - 9/12/2024
Organised by: Górriz Teruel, José Luis
Group Name: Research Group on Renal Disease
Research Area: Cardiovascular

Title: Preceptorship Cardiorrenal (1 a 3 de octubre 2024).
Date:10/1/2024 - 10/3/2024
Organised by: Górriz Teruel, José Luis
Group Name: Research Group on Renal Disease
Research Area: Cardiovascular

Title: Preceptorship Cardiorrenal (24 a 26 septiembre 2024).
Date:9/24/2024 - 9/26/2024
Organised by: Górriz Teruel, José Luis
Group Name: Research Group on Renal Disease
Research Area: Cardiovascular

Title: Preceptorship Cardiorrenal (5 a 7 noviembre 2024).
Date:11/5/2024 - 11/7/2024
Organised by: Górriz Teruel, José Luis
Group Name: Research Group on Renal Disease
Research Area: Cardiovascular

Title: Plan de gestión de datos para AES2022
Date:6/20/2024 - 6/20/2024
Organised by: Llorens Chiralt, Raquel
Group Name: INCLIVA Management

Title: II Curso semipresencial de RCP avanzada pediátrica y neonatal.
Date:5/2/2024 - 5/18/2024
Organised by: Lopez-Prats Lucea, José Luis
Group Name: Research Group on Pediatric Nutrition
Research Area: Cardiovascular

Title: Programa formativo en diferencias en manejo clínico, resultados en salud y optimización del tratamiento preventivo en pacientes tras un Síndrome Coronario Agudo en un programa de rehabilitación cardiaca vs. Seguimiento convencional.
Date:7/22/2024 - 9/13/2024
Organised by: Marcos Garces, Victor
Group Name: Group on Translational Research in Ischemic Heart Disease
Research Area: Cardiovascular

Title: Proyecto FORMATE360
Date:1/1/2024 - 5/31/2024

Organised by: Martinez Garcia, Fernando
Group Name: Research Group on the Study of Cardiometabolic and Renal Risk
Research Area: Cardiovascular

Title: Programa Diabetes 2024.
Date:6/11/2024 - 6/11/2024
Organised by: Navarro Pérez, Jorge
Group Name: Cardiometabolic Research Group on Primary Care
Research Area: Cardiovascular

Title: Medical expert Training es ESD/POEM y suturas
Date:10/23/2024 - 10/24/2024
Organised by: Peña Aldea, Andrés
Group Name: Without Group

Title: Training Course 1-2 febrero 2024
Date:2/1/2024 - 2/2/2024
Organised by: Pla Martí, Vicente
Group Name: Research Group on General and Digestive Surgery
Research Area: Metabolism and Organic Damage

Title: EMEA Instructional Course: Building Confidence in Performing Colorectal Surgery, 28th February 2024 - 1st March 2024
Date:2/28/2024 - 3/1/2024
Organised by: Pla Martí, Vicente
Group Name: Research Group on General and Digestive Surgery
Research Area: Metabolism and Organic Damage

Title: In-Hospital Training: Minimal Invasive Colorectal Surgery 10-12 April 2024.
Date:4/10/2024 - 4/12/2024
Organised by: Pla Martí, Vicente
Group Name: Research Group on General and Digestive Surgery
Research Area: Metabolism and Organic Damage

Title: In-Hospital Training: Oncology Colorectal Surgery.
Date:6/19/2024 - 6/20/2024
Organised by: Pla Martí, Vicente
Group Name: Research Group on General and Digestive Surgery
Research Area: Metabolism and Organic Damage

Title: Curso de Inmersión en la técnica Totalmente Extraperitoneal (TEP) para el tratamiento de la hernia inguinal.
Date:3/6/2024 - 3/6/2024
Organised by: Pou Santonja, Guillermo
Group Name: Research Group on General and Digestive Surgery
Research Area: Metabolism and Organic Damage

Title: Fabricación Aditiva en el Sector Sanitario. Curso Práctico.
Date:3/8/2024 - 3/8/2024

Organised by: Puche Torres, Miguel
Group Name: Research Group on Histopathology and Tissue Engineering
Research Area: Oncology

Title: Módulo de formación continuada Cirugía de pared abdominal
Date:6/11/2024 - 6/11/2024
Organised by: Sabater Orti, Luis
Group Name: Research Group on General and Digestive Surgery
Research Area: Metabolism and Organic Damage

Title: 12ª Ed. Curso Anatomía Quirúrgica aplicada hepatobiliopancreática
Date:11/14/2024 - 11/14/2024
Organised by: Sabater Orti, Luis
Group Name: Research Group on General and Digestive Surgery
Research Area: Metabolism and Organic Damage

Title: Proyecto de Sesiones formativas en Neoplasias Linfoproliferativas y Terapias CAR-T en el Servicio de Hematología y Hemoterapia del Hospital Clínico Universitario de Valencia.
Date:6/28/2024 - 11/22/2024
Organised by: Solano Vercet, Carlos
Group Name: Research Group on Hematopoietic Transplantation
Research Area: Oncology

Title: Preceptorship: Procedimiento y seguimiento paciente CAR-T.
Date:9/17/2024 - 9/17/2024
Organised by: Solano Vercet, Carlos
Group Name: Research Group on Hematopoietic Transplantation
Research Area: Oncology

Title: 4ª Ed. Curso LLC.
Date:5/27/2024 - 6/24/2024
Organised by: Terol Castera, Mª José
Group Name: Research Group on Lymphoproliferative Disorders
Research Area: Oncology

SOCIAL DISSEMINATION DAYS

Title: XXI Reunión Monográfica de Coordinadores de Trasplantes: Donación en asistolia. Retos y controversias
Date:2/8/2024 - 2/9/2024
Organised by: Badenes Quiles, Rafael
Group Name: Research Group on Anesthesiology and Reanimation
Research Area: Metabolism and Organic Damage

Title: II Encuentro con pacientes de Cáncer de mana
Date:2/6/2024 - 2/6/2024
Organised by: Hernando Meliá, Cristina
Group Name: Research Group on Breast Cancer

Biology
Research Area: Oncology

SCIENTIFIC CONFERENCES

Title: Jornada Update en Lípidos: Ahora sí que no hay motivos para no optimizar. Una mirada más allá de lo visible a los ojos.
Date:1/31/2024 - 1/31/2024
Organised by: Bonanad Lozano, Clara
Group Name: Group on Translational Research in Ischemic Heart Disease
Research Area: Cardiovascular

Title: Jornada de Amiloidosis para Atención PriMaría: Creación de Amiloal Multidisciplinar
Date:2/26/2024 - 2/26/2024
Organised by: Bonanad Lozano, Clara
Group Name: Group on Translational Research in Ischemic Heart Disease
Research Area: Cardiovascular

Title: Jornada “Proyecto Luccass”: Liderazgo del cardiólogo clínico en habilidades comunicativas, soft skills y humanización de la medicina.
Date:6/28/2024 - 6/28/2024
Organised by: Bonanad Lozano, Clara
Group Name: Group on Translational Research in Ischemic Heart Disease
Research Area: Cardiovascular

Title: Jornada “Temas en salud de la mujer”. Endometriosis
Date:5/20/2025 - 5/20/2025
Organised by: Cano Sanchez, Antonio
Group Name: Without Group

Title: Presentación de Ayudas 2024 de IVACE+i en Salud.
Date:4/15/2024 - 4/15/2024
Organised by: Carrio Argos, María Elena
Group Name: INCLIVA Management

Title: La Importancia de la Nutrición: Actividad para Pacientes y Familiares de Pacientes con Cáncer Renal y Cáncer de Próstata
Date:12/4/2024 - 12/4/2024
Organised by: Chirivella González, Isabel
Group Name: Research Group on Breast Cancer Biology
Research Area: Oncology

Title: EORTC-GITCG Autumn Meeting 2024 – Valencia.
Date:11/15/2024 - 11/16/2024
Organised by: Fleitas Kanonnikoff, Tania Carolina
Group Name: Translational Research Group on Esophagogastric Cancer
Research Area: Oncology

Title: Actualización de las novedades en Enfermedades Autoinmunes presentadas en el

Congreso Americano 2024
Date:12/5/2024 - 12/5/2024
Organised by: Forner Giner, Mª José
Group Name: Research Group on the Study of Cardiometabolic and Renal Risk
Research Area: Cardiovascular

Title: Jornada Individualización de cuidados en personas con VIH
Date:11/21/2024 - 11/21/2024
Organised by: Galindo Puerto, Mª José
Group Name: Research Group on the Study of Cardiometabolic and Renal Risk
Research Area: Cardiovascular

Title: I Jornada sobre Cierre Percutáneo de Orejuela Izquierda: Enfoque multidisciplinar
Date:2/19/2024 - 2/19/2024
Organised by: Garcia Blas, Sergio
Group Name: Research Group on Clinical Cardiology
Research Area: Cardiovascular

Title: Jornada formativa para pacientes con Esclerosis Múltiple. ConversEMos 3.0.
Date:6/10/2024 - 6/10/2024
Organised by: Gascon Gimenez, Francisco
Group Name: Clinical Associated Group in Neurorology
Research Area: Clinical Associated Groups

Title: Comunicación social de la ciencia para personal investigador.
Date:4/10/2024 - 4/10/2024
Organised by: Martin Lopez, María Aranzazu
Group Name: INCLIVA Management

Title: Jornada de actualización en ecografía vascular
Date:9/13/2024 - 9/13/2024
Organised by: Martinez Hervás, Sergio
Group Name: Research Group on Cardiometabolic Risk and Diabetes
Research Area: Cardiovascular

Title: IV Jornada de Investigación en Atención PriMaría.
Date:5/14/2024 - 5/14/2024
Organised by: Navarro Pérez, Jorge
Group Name: Cardiometabolic Research Group on Primary Care
Research Area: Cardiovascular

Title: V Jornada INCLIVA de Investigación en Atención PriMaría.
Date:10/7/2024 - 10/7/2024
Organised by: Navarro Pérez, Jorge
Group Name: Cardiometabolic Research Group on Primary Care
Research Area: Cardiovascular

Title: Proyecto para la mejora del proceso asistencial en Insuficiencia Cardiaca. Plan Detección Precoz IC.
Date:1/1/2024 - 3/31/2025
Organised by: Nuñez Villota, Julio
Group Name: Research Group on Heart Failure
Research Area: Cardiovascular

Title: Jornada: Etapas y desafíos en las EERR Neurológicas.
Date:6/5/2024 - 6/5/2024
Organised by: Pallardo Calatayud, Federico Vicente
Group Name: Research Group on Cellular and Organic Physiopathology of Oxidative Stress
Research Area: Metabolism and Organic Damage

Title: Jornada “Revisión y nuevas indicaciones para Prótesis biosintéticas absorbibles”.
Date:6/4/2024 - 6/4/2024
Organised by: Sabater Orti, Luis
Group Name: Research Group on General and Digestive Surgery
Research Area: Metabolism and Organic Damage

INCLIVA Seminars / Meet the Expert

Title: Webinar: Nuevas guías FA AHA 2023 y consensos actuales. Nuevas guías Enfermedad Arterial Periférica. Foco en lípidos y nuevas opciones terapéuticas.
Date:2/19/2024 - 2/19/2024
Organised by: Bonanad Lozano, Clara
Group Name: Group on Translational Research in Ischemic Heart Disease
Research Area: Cardiovascular

Title: Webinar Nuevas Guías IC 2023 explícamelo fácil. ¿Qué es el Síndrome Cardiorrenal? ¿Existen en ambas entidades diferencias fisiopatológicas entre sexos?
Date:3/27/2024 - 3/27/2024
Organised by: Bonanad Lozano, Clara
Group Name: Group on Translational Research in Ischemic Heart Disease
Research Area: Cardiovascular

Title: Cardiovascular Virtual Topics INCLIVA_Ruta SCA Hospital Clínico de Valencia.
Date:4/3/2024 - 5/8/2024
Organised by: Bonanad Lozano, Clara
Group Name: Group on Translational Research in Ischemic Heart Disease
Research Area: Cardiovascular

Title: Seminario INCLIVA: Dra. Consuelo Borrás. “Medicina regenerativa y envejecimiento”.
Date:6/11/2024 - 6/11/2024
Organised by: Borrás Blasco, Consuelo
Group Name: Research Group on Healthy Aging
Research Area: Metabolism and Organic Damage

Title: Seminario INCLIVA Dra. Alba Sanchis Juan: “Insights from large-scale genome sequencing of rare disease cohorts”
Date:1/12/2024 - 1/12/2024
Organised by: Chaves Martinez, Felipe Javier
Group Name: Genomics and Diabetes Unit
Research Area: Cardiovascular

Title: Seminario INCLIVA Dra. Ana Mª Gómez: Implicación del calcio intracelular en arritmias cardíacas.
Date:7/15/2024 - 7/15/2024
Organised by: González Cabo, Pilar
Group Name: Research Group on Neurobiology and Molecular Physiopathology in Rare Diseases - NeuroFisER
Research Area: Metabolism and Organic Damage

Title: Seminario INCLIVA Franc Casanova: Mecanismos cerebrales de las alteraciones neurológicas en pacientes con encefalopatía hepática mínima. Efectos del tratamiento con rifaximina.
Date:9/19/2024 - 9/19/2024
Organised by: Montoliu Félix, María Del Carmen
Group Name: Research Group on Neurological Impairment
Research Area: Metabolism and Organic Damage

Title: Seminario INCLIVA: Dra. Tania Romacho. “El receptor GABA A como nueva diana terapéutica en el hígado graso”.
Date:5/3/2024 - 5/3/2024
Organised by: Piqueras Ruiz, Laura
Group Name: Research Group on Nuclear Receptors in Cardiometabolic Pathology
Research Area: Metabolism and Organic Damage

Title: Seminario INCLIVA: Dra. Mª Jesús Sanz. “Nuevos actores inmunológicos en hipercolesterolemia priMaría y desarrollo de arteriosclerosis”.
Date:5/24/2024 - 5/24/2024
Organised by: Sanz Ferrando, María Jesus
Group Name: Research Group on Inflammation
Research Area: Metabolism and Organic Damage

Title: Seminario INCLIVA Dr. Miguel Fernández de Sanmamed Gutiérrez: “New tools for cancer immunotherapy development”
Date:2/21/2024 - 2/21/2024
Organised by: Tarazona Llaveró, Noelia
Group Name: Research Group on Myeloid Neoplasms
Research Area: Oncology

Title: Seminario INCLIVA Dr. Iñaki Comino Méndez. “Innovative strategies for enhancing detection sensitivity of circulating tumourcomponents in early breast cancer”.
Date:4/10/2024 - 4/10/2024
Organised by:TARAZONA LLAVERO, NOELIA

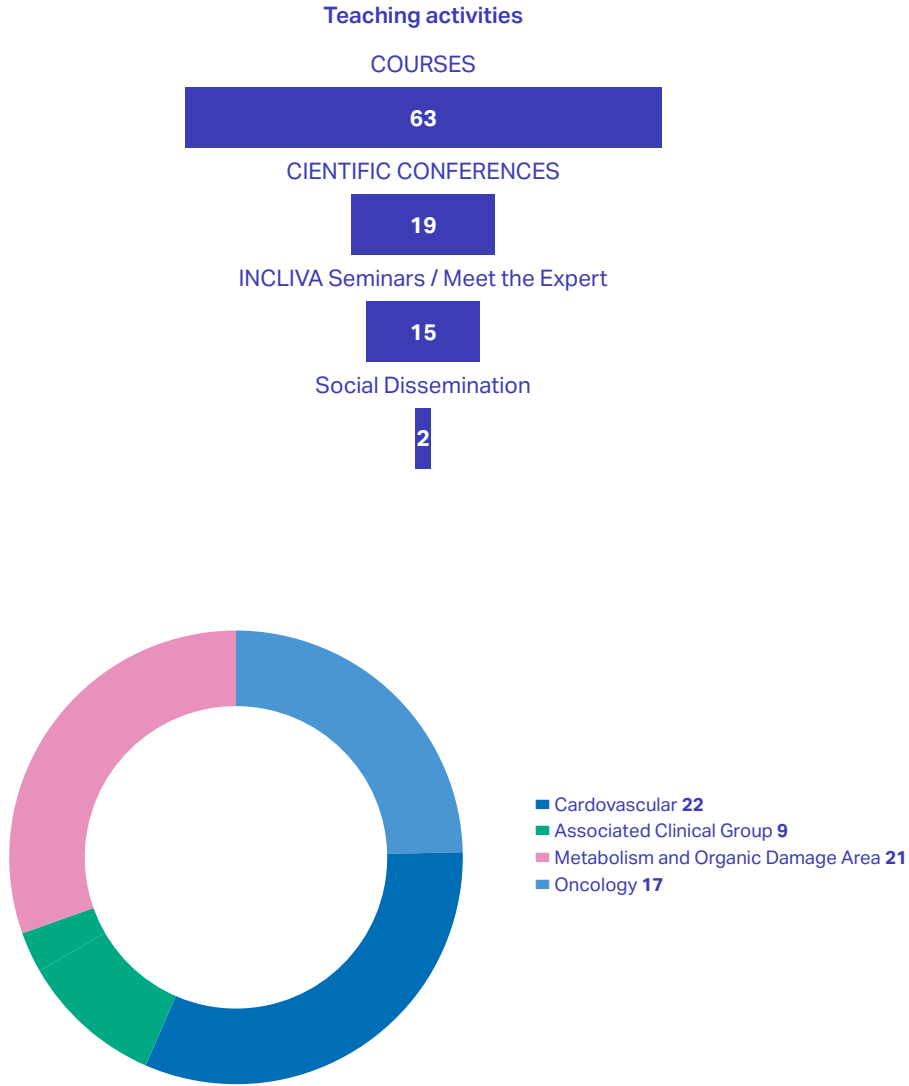
Group Name: Research Group on Myeloid Neoplasms
Research Area: Oncology

Title: Seminario INCLIVA Dra. Raquel Pérez López: “Mejorando el Tratamiento del Cáncer Colorrectal con Análisis Computacional de Imágenes Médicas”.
Date:5/29/2024 - 5/29/2024
Organised by: Tarazona Llaveró, Noelia
Group Name: Research Group on Myeloid Neoplasms
Research Area: Oncology

Title: Seminario INCLIVA: Dr. José Viña: “Terapia de la Enfermedad de Alzheimer prodrómica: el momento de la esperanza”
Date:11/12/2024 - 11/12/2024
Organised by: Viña Ribes, José
Group Name: Research Group on Aging and Physical Activity
Research Area: Metabolism and Organic Damage

Title: Seminario INCLIVA Daniel González Cambor: “Bioinformática de los Microarrays de Metilación: Aplicación a la Caracterización Metilómica del Cáncer Colorrectal Metastásico”
Date:10/23/2024 - 10/23/2024
Organised by: Zúñiga Trejos, Sheila
Group Name: INCLIVA Management

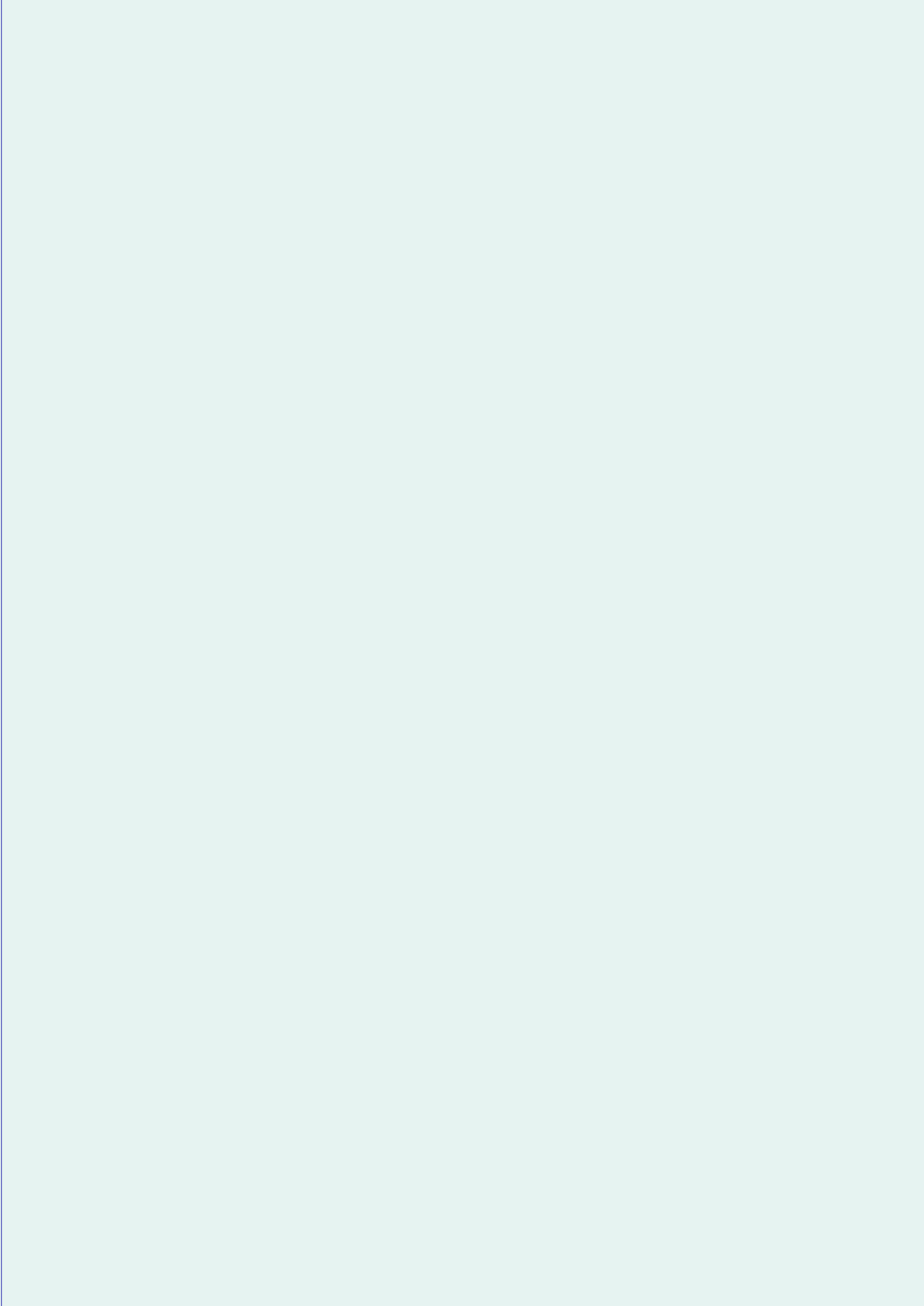
Title: Seminario INCLIVA Jorge Martín Arana: “New Bioinformatic Approaches in Liquid Biopsy as the Preferential Sample for the Study of Minimal Residual Disease and Progression in Localized Colon Cancer Patients”
Date:11/13/2024 - 11/13/2024
Organised by: Zúñiga Trejos, Sheila
Group Name: INCLIVA Management





7 COMUNICA- TION

INCLIVA SCIENTIFIC REPORT 2024



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January

Vicente de Juan appointed new president of REGIC (Network of Clinical Research Management Organizations).

An INCLIVA study evaluates the impact of iron metabolism parameters in patients treated with dapagliflozin for heart failure and reduced ejection fraction.

A study concludes that in patients with acute myocardial infarction, the detection of a certain degree of necrosis in the papillary muscles of the left ventricle by cardiac magnetic resonance imaging is associated with a higher likelihood of death, arrhythmias, and heart failure.

INCLIVA develops a pilot project for real-time integration of health data in the Clínico-Malvarrosa Health Department in Valencia.

INCLIVA receives over €3 million in support from the Strategic Action in Health of the Carlos III Institute.

LEGACy highlights the importance of international collaboration in improving gastric cancer prevention and personalized treatment.

February

A study identifies cellular and molecular changes in the uterus as possible age-associated obstetric risk factors.

INCLIVA and Hospital Clínico de València hold a second meeting with breast cancer patient associations to inform about the latest advances in research.

INCLIVA organizes an interactive open day on childhood cancer

INCLIVA sets up a Women's Leadership Program with the support of Caixa Popular.

Family and friends of Alicia Conesa donate €22,000 to INCLIVA for research in triple-negative breast cancer.

INCLIVA and Fisabio participate in a European project to reduce breast cancer risk.

An INCLIVA project will advance understanding of pre-eclampsia to promote early detection and improve clinical management.

INCLIVA: over a decade supporting research into rare diseases.

March

AtheroNET brings 85 European experts together in Valencia to promote collaborative efforts in addressing cardiovascular diseases such as atherosclerosis.

The Palleter Fallas association «Tens Temps» project will raise funds for INCLIVA's active aging research line.

An INCLIVA study links iron deficiency with worse outcomes in rehabilitation programs for heart failure patients.

An INCLIVA study shows the dual effect of epicardial fat in acute myocardial infarction patients.

April

INCLIVA coordinates a trial investigating the best treatment for frail elderly people after acute myocardial infarction.

INCLIVA and the UPV sign an agreement for the joint promotion of innovation in the health field.

An INCLIVA study explains the molecular basis of primary ciliary dyskinesia, a rare respiratory disease.

INCLIVA analyzes the effect of erythropoietin on the brain and its potential as a treatment for neurological and psychiatric diseases

INCLIVA evaluates the safety and tolerability of blinatumomab administered subcutaneously to treat acute lymphoblastic leukemia in adults.

May

INCLIVA and the UV analyze the anti-inflammatory effect of the cytokine LIGHT to reduce atherosclerosis severity.

María Pilar Ballester, Rut Meseguer, and Tamara Lapeña: winners of the 2nd Annual INCLIVA Women Researcher Awards.

INCLIVA develops an advanced diagnostic model using AI to predict kidney damage and activity flares in systemic lupus erythematosus patients.

INCLIVA participates in a study on the importance of the therapeutic relationship between nursing staff and patients in mental health units.

A study by Doctor Peset Hospital through Fisabio and INCLIVA reveals that time-restricted eating improves glycemic control in overweight patients.

INCLIVA analyzes the mechanisms underlying the development and progression of Friedreich's ataxia to develop effective treatments.

INCLIVA and the UV analyze current knowledge and challenges in endometriosis treatment and research in a workshop aimed at women affected by this condition.

The «*Personalized physical exercise, the key to aging well*» project promoted by INCLIVA and the VCF Foundation shows physical and emotional improvements in participants.

INCLIVA participates in an international meta-analysis on treating older patients with acute myocardial infarction.

June

Early diagnosis and a multidisciplinary approach in the transition from pediatric to adult care are key in treating rare neurological diseases.

INCLIVA participates in two studies on myelofibrosis to identify the risk of leukemia and improve patient survival prediction.

A study uses network meta-analysis methodology to determine the most effective anti-VEGF doses for treating retinopathy of prematurity.

INCLIVA participates in a trial to determine the optimal dose of an antibody for treating essential thrombocythemia and myelofibrosis.

Hospital Clínico de Valencia becomes a member of the European Organization of Cancer Institutes.

INCLIVA experts highlight the central role of artificial intelligence in approaches to oncology, from research to clinical practice.

July

INCLIVA and the Carlos Simón Foundation collaborate in pioneering research to identify genetic markers facilitating early and differential diagnosis of uterine tumors.

INCLIVA organizes a conference with ASEDEC+I+A to enhance cardiologists' communication skills and improve the doctor-patient relationship.

INCLIVA to conduct two research projects, on the influence of early experiences on mental health and the use of artificial intelligence in oncology.

INCLIVA and the Carlos Simón Foundation collaborate on a study using single-cell sequencing to identify the origin of uterine fibroids.

INCLIVA participates in a European project to promote primary prevention of colorectal cancer.

An INCLIVA study analyzes data on the daily routines of breast cancer patients using mobile devices and applications.

September

The ENDOLUNG trial shows that Ibrilatazar brings new hope in the treatment of endometrial cancer.

INCLIVA develops various research lines to improve early diagnosis, treatment strategies and prognosis of sepsis.

The National Thematic Network on Myotonic Dystrophy Type 1 (RED-DM) showcases advances in therapy development in an online session open to the public.

INCLIVA and Hospital Clínico de València hold an open day as part of a national initiative to raise awareness of sarcoma.

Researchers from INCLIVA and IIS La Fe identify lipids as potential early biomarkers of Alzheimer's disease.

A pioneering study by INCLIVA and FUVAMA reveals that diets rich in oranges or tangerines can modulate genome expression, and opens new avenues for improving human health.

October

Partners of the European MELIORA project meet in Valencia to promote breast cancer prevention through innovation in digital health.

INCLIVA presents the Integra Cloud project at the European Big Data Value Forum in Budapest.

INCLIVA holds the 5th Annual Primary Care Research Conference to promote national projects and innovative ideas in this healthcare area.

An INCLIVA study describes the effect of stress during adolescence on the thalamus, a brain region affected in psychiatric illnesses such as depression and schizophrenia.

The TuMiCC project on the tumor microenvironment in colon cancer celebrates its fourth anniversary with significant progress in understanding chemotherapy resistance in a subgroup of patients.

A new study reveals a promising therapy with a molecule that blocks microRNAs to treat myotonic dystrophy type 1.

INCLIVA conducts a study assessing improvements in the life quality of patients with widespread pain using noninvasive neuromodulation techniques.

INCLIVA participates in the JACARDI General Assembly in Paris, which aims to reduce the incidence of cardiovascular disease and diabetes in Europe.

INCLIVA develops innovative projects in breast cancer to understand the tumor microenvironment, promote more personalized and effective therapies and improve patient quality of life.

INCLIVA holds a conference to connect tech SMEs and researchers and promote novel initiatives in the healthcare sector.

An innovative project on iron deficiency in acute coronary syndrome patients from INCLIVA-Hospital Clínico de València receives a grant from the 8th Annual Young Researchers Awards.

An INCLIVA study analyzes Klotho alpha and FGF23 as potential biomarkers in patients aged over 64 years after acute coronary syndrome to predict new heart problems.

November

INCLIVA is investigating new therapeutic targets for the early diagnosis of kidney damage in diabetic patients.

Andrés Cervantes, one of the most cited researchers of 2024 for his impact in clinical medicine.

INCLIVA's Phase I Oncology Clinical Trials unit has conducted more than 200 trials in 1,114 patients to improve treatment efficacy.

An international study shows that the drug semaglutide, administered for diabetes and obesity, protects the kidneys in obese people with kidney disease.

December

The ADAMPA clinical trial supports patient self-management of high blood pressure as a strategy to improve hypertension control.

INCLIVA research finds a prognostic biomarker for neuroblastoma in liquid biopsy.

INCLIVA participates in an international clinical trial of a new treatment for resistant hypertension.

A study analyzes the influence of the period before and during pregnancy on the risk of developing obesity in adulthood.

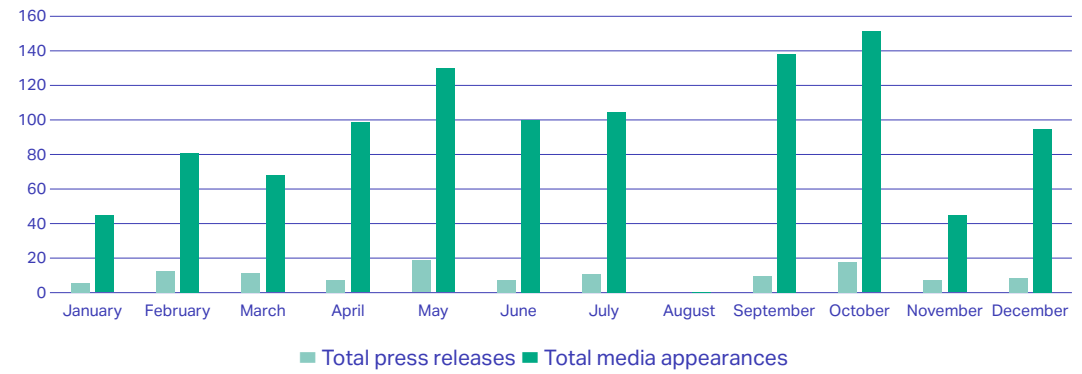
INCLIVA receives €630,000 from the IVACE+i 2024 call for proposals to develop three innovative projects.

INCLIVA uses liquid biopsy to analyze the molecular alterations that cause treatment resistance in metastatic colorectal cancer.

7.2. Communication Indicators 2024

Press Office

During 2024, INCLIVA issued a total of 122 press releases on the Web.



	jan-24	feb-24	mar-24	abr-24	may-24	jun-24	jul-24	aug-24	sep-24	oct-24	nov-24	dic-24
Total press releases	6	13	12	8	19	8	11	0	10	18	8	9
Total media appearances	45	81	68	99	130	100	105	1	138	151	45	95

Social media users 2024

	f	X	in	o
	Facebook	X	LinkedIn	Instagram
	7.461	6.409	20.581	2.917

INCLIVA Website 2024



Website users	Website sessions	Website new sessions
139.769	270.595	132.931

Outreach 2024

Issued press releases	Newspieces on INCLIVA's website	News on Radio	News on TV
75	122	17	18

In 2024, INCLIVA's Scientific Culture and Innovation Unit (UCC+I) has passed the procedure to renew its registration in the Network of Scientific Culture and Innovation Units (UCC+I) accredited by the Spanish Foundation for Science and Technology (FECYT).

The UCC+I act as intermediaries between the institutions that host them and the citizens with the main objective of promoting scientific, technological and innovation culture, through activities of different types: scientific communication, dissemination, training, etc.

In 2024, INCLIVA, as UCC+I, has carried out different activities to disseminate science, such as visits by students from different educational levels and conferences aimed at patients, and has been one of the organisers of the video competition «De major vull ser com» and the cycle of scientific talks «Ciencia y Cañas».

INCLIVA also organised the European Research Night, together with Fisabio, the Universitat Politècnica de València, the Universitat de València and the CSIC Delegation in the Valencian Community, in the Turia Garden in Valencia. This scientific dissemination event brought together more than 200 researchers from these entities and around 3,000 attendees of all ages.

This event is part of the European initiative European Researchers' Night, which takes place simultaneously in 400 cities to bring science closer to society with the aim of trying to encourage children's interest in scientific careers and to share with the public the work carried out by researchers.





8 SOCIAL INITIATIVES

INCLIVA SCIENTIFIC REPORT 2024



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8. INCLIVA Social Initiatives

In 2024, INCLIVA Biomedical Research Institute launched an awareness campaign concerning the importance of health research to ensure excellence in public healthcare, and thus save more lives each year

Under the slogan *Support for Research* as part of its Patronage Plan, INCLIVA underscores the key role of research in achieving medical advances that translate into improved quality of life for all citizens.

Below are some highlights of this campaign:

INCLIVA sets up a Women's Leadership Program with the support of Caixa Popular



INCLIVA Biomedical Research Institute has set up an annual **Women's Leadership Program** in collaboration with **Caixa Popular** bank, an honorary ambassador of INCLIVA for its support of biomedical research.

The two organizations signed a collaboration **agreement** setting out the regulatory framework for this Program.

The collaboration agreement is a three-year, renewable agreement which includes a contribution of €90,000 from the financial institution.

The Women's Leadership Program has **three lines of action: training, visibility and new partnerships, and leadership.**

The **training line** is centered on a **training package** for pre- and post-doctoral researchers, which

includes several courses: preparing R&D&I projects in health; writing scientific articles (online and face-to-face modalities), and oral presentations.

The **visibility and new partnerships line** includes **organizing awards** for INCLIVA researchers from the Institute's Women for Research Network to promote research and innovation in the early stages of the research careers of female research institute staff or those affiliated with one of its research groups.

Finally, through the **leadership line**, four female researchers will be added each year into the **«Futura Project»** on women's empowerment and leadership in science. This will be conducted through a professional development program that combines coaching methodology with science, aimed at breaking down the stereotypes that prevent women from progressing at the same pace as men.

Family and friends of Alicia Conesa donate to INCLIVA for triple-negative breast cancer research



Family and friends of Alicia Conesa visited INCLIVA after her death and donated the funds raised via various initiatives promoted by Alicia Conesa to support triple-negative breast cancer research.

Alicia Conesa contacted INCLIVA in January 2024 with a plan to launch her own charity campaign to increase awareness of triple-negative breast cancer and raise funds for research into the disease. Throughout 2023 and early 2024, she had managed to raise €22,000, which she was no longer able to present in person to INCLIVA.

Alicia Conesa, who previously collaborated with INCLIVA through the Las Triples Association, firmly believed in the power of science to help people like her overcome their chronic illness. «All the strength I have will go into doing things like this. It's a matter of sowing the seeds, and although you don't know who will reap the rewards, the important thing is that they are reaped,» she said.

Additionally, her family launched a charity race in 2024, also donating these proceeds to funding triple-negative breast cancer research at INCLIVA.

The «Personalized physical exercise, the key to aging well» project promoted by INCLIVA and the VCF Foundation shows physical and emotional improvements in participants



The «Personalized physical exercise, the key to aging well» project promoted jointly by the INCLIVA Biomedical Research Institute and the Valencia Football Club Foundation, has shown both physical and emotional benefits in participants, who perceived a clear improvement in quality of life and a more optimistic attitude in their day-to-day life.

The project recruited ten people aged over 70 linked to Valencia FC (former footballers and club members) with functional frailty or pre-frail state. Over the course of nine months, they completed a training program of twice-weekly sessions com-

bining resistance, strength, coordination, balance, and flexibility exercises at the Valencia FC facilities using chairs, elastic bands, and balls.

At the end of the program, the data confirmed multiple benefits for participants, who perceived a noticeable increase in physical and emotional life quality: improved muscle mass distribution; decreased body fat; increased independence for instrumental activities of daily living; lower risk of falls; increased walking speed; improved palmar pressure strength; and a shift from frailty to robustness.

Asleuval donates €10,000 to cell therapy research for patients treated with hematopoietic stem cell transplant



The association of patients in the Valencian Community with leukemia, lymphoma, myeloma, and other blood diseases (Asleuval) has donated €10,000 to INCLIVA to support the research project «Antiviral Cell Therapy in Patients Treated with Allogeneic Hematopoietic Stem Cell Transplants»

This type of transplant sometimes represents the only curative treatment option for several serious hematological diseases, such as acute leukemia, certain lymphomas, and myelodysplastic syndromes.

Allogeneic HSCT (Hematopoietic Stem Cell Transplant) is a procedure which transfers hematopoietic stem cells (stem cells from bone marrow, peripheral blood, or umbilical cord blood that can produce blood cells) from donor to recipient. The term 'allogeneic' means that the stem cells come

from a donor other than the individual receiving the transplant. Allogeneic HSCT is performed mainly to replace the defective hematopoietic system of the recipient with a healthy one from the donor.

The donation will support a **phase I/II clinical trial which will assess the safety and efficacy of the new ATMP product (VIROTCEL project) in preventing and treating cytomegalovirus (CMV) infection**, still a major cause of morbidity and mortality after allogeneic hematopoietic stem cell transplantation. Although preventive and prophylactic strategies have improved prognosis, they may not effectively control infection that is refractory or associated with myelosuppression (reduced bone marrow production of blood cells, including red and white blood cells and platelets) or nephrotoxicity (which occurs when kidney cells are damaged due to exposure to toxic substances).

The Plaza del Pilar Falla donates 7,500 euros to INCLIVA for breast cancer research



At the end of 2023, the Plaza del Pilar Falla launched the 'Maldo x INCLIVA' project to raise funds for breast cancer research through different charity activities, including sales of the Maldo charity doll, created by the Falla artist Paco Torres. This limited-edition doll—only 500 units were made—is a replica of one of the *ninots* (figures) from his large monument.

'Maldo x INCLIVA' followed the theme of the 2024 Falla Plaza del Pilar, whose original initiative pro-

posed using voodoo to make the negative disappear from our lives, clarifying with the Falla that that the best way to practice voodoo on cancer to beat it is through research.

The donation was given by the Fallas lady of honor, Nuria Blasco, the president, José Javier López, the Fallas monument artist, Paco Torres, and the charity representative, Antonia López.

The Las Triples Association continues to support INCLIVA for triple-negative breast cancer research



The Las Triples Association (triple-negative breast cancer association) has presented INCLIVA with a €31,620 donation for triple-negative breast cancer research. The funds were raised during the 2024 Triple Challenge through various sports activities organized throughout Spain, including a charity walk and archery competition.

The donation will go toward the «Multidisciplinary dissection of resistance mechanisms in triple-negative breast cancer: a step toward personalized medicine» project carried out by INCLIVA's Breast Cancer Biology Research Group.

The goal of this association is to continue «increasing the total amount on the INCLIVA website donation tracker and reach €33,000 before the end of the year».

The Las Triples Association was founded on 3 March 2022 (marking International Triple Negative Breast Cancer Day) as the first triple-negative association in Spain. The association is made up of women who have previously had or currently have this diagnosis and are in different stages of treatment. They are united by a common goal: to achieve more research.

Its objectives are fourfold: first, to raise funds for triple-negative breast cancer research; second, to help speed up the commercialization of drugs already approved by the European Medicines Agency to advance the development of specific treatments; third, to guarantee countrywide equality of access to testing and treatments; and finally, to spread awareness of and information about this breast cancer subtype.

Corazón Solidario contra el Cáncer donates €11,200 to INCLIVA, raised through the 3rd Annual Fallas Solidarity Campaign



Corazón Solidario contra el Cáncer (hearts in solidarity against cancer) has donated €11,200 to INCLIVA, raised through the Solidarity against Cancer Badge campaign supported by the Central Fallas Board. This donation will be used for the project on neuroblastoma (the most common extracranial solid tumor in children) led by Dr. Rosa Noguera, coordinator of the Pediatric Solid Tumor Translational Research Group at INCLIVA.

During the event, diplomas and badges were presented in gratitude to the Fallas committees and organizations that collaborated in the campaign, with a special tribute to the Fallas committees participating in various cancer research fundraising activities throughout the year. The Fallas badges were designed by the artist Raúl Martínez Ruíz, aka Chuky, under the name «La Mareta,» in honor of the Virgin of the Forsaken.

Thirty Fallas committees from the city of Valencia

and other towns such as Llíria participated in the event, as did organizations from outside the Fallas sphere such as the Colegio Trinitarias Valencia school, the Sueca Cancer Patients Association (ADOPS), the El Altet Pharmacy, Raúl Martínez's Chuky Studio, and individuals such as Juani García Portolés, Lucía and Jordan, and Sofía Llopis Hernández.

Corazón Solidario contra el Cáncer is a joint project launched in Valencia in 2020 by Chus García and Carmen Caballero and joined by friends from other NGOs. It functions with the support of partners and collaborating companies and by developing and participating in charity events. In addition, the organization has created a small online store selling products designed by its members to provide alternative ways to participate in this collaborative cancer research project. All the profits obtained are donated to INCLIVA, allocated to various oncology research groups.

The Palleter Fallas association «Tens Temps» project has raised funds for INCLIVA's active aging research line



The «Tens Temps» (you have time) project of the Palleter-Erudit Orellana Falla, which in 2024 pays tribute to older adults, has raised funds for the research group in aging and physical exercise (Grupo de Investigación en Envejecimiento y Ejercicio físico) of the INCLIVA Biomedical Research Institute at the Hospital Clínico Universitario de Valencia (coordinated by Dr. José Viña).

Under the slogan «Live well to age better,» the project organized a series of activities from 10 to 14 March focused on senior citizens.

The Fallas monument featured a reference to involving older adults in new technologies with an application aimed at raising awareness of the importance of nutrition, developed in a collaboration between Dr. Borrás of the INCLIVA research group,

the Universitat Politècnica de València and the Met-ric Salad organization.

The Palleter Gincana App, which asked users nutrition-related questions, could be accessed with QR codes located at the site of the Falla, designed by artist Manolo García Leonart.

Paz Moreno, president of the Palleter-Erudit Orellana Falla, explained: «Our Fallas model includes participation in charity projects that help improve our society, as we believe that research is essential for developing and improving quality of life – for this reason, it we have already collaborated in the past with INCLIVA. As well as paying tribute to our elders, our ultimate aim is to help make their lives better.»

8.1 Philanthropic Projects



Le Cadó Foundation

The Le Cadó Foundation was created in 2010 under the leadership of its president, Elvira Monferrer Dau-di. This initiative seeks to unite efforts and resources to support research into this cancer type, currently the fourth leading cause of death in women.

The *Le Cadó* Foundation collaborates with INCLIVA in funding the research project «Study of breast cancer in young women aged under 35 years,» led by Dr. M^a Teresa Martínez Martínez. Other researchers also participating include Dr. Isabel Chirivella (physician specializing in genetic diagnosis) and the entire team led by oncologists Dr. Ana Lluch and Dr. Pilar Eroles.



Amunt contra el càncer

Based in Denia in the Alicante province, Amunt Contra el Càncer provides various services and carries out initiatives aimed at improving the life quality of cancer patients and their families. This association organizes informational talks, provides psychological support for patients, and promotes various activities to raise funds for research, donating at total of €53,250 this year.



Corazón Solidario Initiative

Corazón Solidario is an association resulting from a joint venture between five colleagues who after working with various NGOs decided to join forces to raise funds for the fight against cancer. All profits from this association go to INCLIVA.



Las Triples Association

The Las Triples Association works to support triple-negative breast cancer research, raise awareness about this type of cancer, and disseminate current knowledge. This association has collaborated with INCLIVA since 2022, supporting the research of Dr. Juan Miguel Cejalvo and Dr. Pilar Eroles.

8.2 Private philanthropic donations and acknowledgments

On behalf of INCLIVA, we want to thank all the people who have helped our research through their donations, for their support and solidarity. For us, this collaboration means much more than an economic contribution: it is the encouragement we need to keep investigating and working in research.

Sandra	Florez Correa	Ester	Manzanera
Sahro	Villarroya	German	López Agustí
David	Martinetti	Ana	Alcaraz González
José	Carbonell Palazon	Ines	Moreno Duran
Diana	Pérez Molina	María	José Gómez Martin
María Del Mar	Sánchez Martínez	Andrea	Genovés Ferrero
Sandra	Gil	Eduardo	Pérez López
Lucas	Molina Bravo	Patricia	Mendoza
Ana Belén	Carpio Almela	Ana	Ruedas
Paqui	Dólera Meseguer	Salvador	Martí Plá
Catalina	Marmol Rios	Aitana	Tordera Seva
Susana	Bosch Sánchez	Juan	González Ortín
María José	Contreras Pérez	María	Nieto Nieto
Marisa	Marmol Oliva	Máxima	Nieto
Joaquin	García Fernández	Begoña	Vives Martorell
Jesús	García Torrano	Erundina	Palomar Saldaña
Verónica	Vidal Nicolás	José Nicolás	Jiménez Montes
María Luisa	Pérez Dolera	Elena	López López
Juan	Conesa López	Ana Belén	Martínez Rodríguez
Teresa	López Hernández	Antonia	Gallart Navarro
Paqui	García Vidal	Ana	Toro Cruz
Isabel María	Moreno Guillen	José Felix	Regaño Dionis
Purificacion	Monreal Monreal	José Carlos	Caballero Turiño
Estefanía	Lison Gambin	Soraya	García
M.dolores	Martínez López	Antonio	Caballero Turiño
Laura	Palazon	Irene	Caballero Muñoz
María Del Carmen	García Vidal	María	Lerín Aguado
María Del Carmen	Martínez García	Adrián	Escobar Fernández
Sonia	Conesa Pérez	Cati	García
Antonio	García Pina	Cleofe Colegio	Oliva Conesa
Juani	Guerrero Hernández	Sagrada Familia	
María Luisa	Gómez Marmol	María Inmaculada	Pellicer Niclós
Juan Antonio	Campoy Vidal	Carolina	Jorda Fornes
Antoni	Marmol Pérez	Juani	García Portoles
Antonio José	Gómez Mármol	David	Martinetti
Luz María	Vicente Pérez	Miguel	Verdoy Folch
Francisca	Pérez Dolera	Olivia	Roldán Asensi
Jesus	Contreras Golzavez	María Angeles	Auñon García
Juan José	Vicente Riquelme	Damián Y Reme	López Riquelme
Cristóbal	Aguilar Martínez	Patricia	Fernández López
María José	Martínez Marín	Sergi	Delgado Puig
Francisco Y Juanita	López Riquelme	Rosa Isabel	Fernández De Miranda
Mari Carmen	Hervás Martínez	José Antonio	Garnes Rodríguez
Joséfa	Riquelme Oliva	Cristina	Mengual García
María Luisa	Oliva Lozano	María Salud	Dólera Asensio
Eloy	Carbonell Palazón	Carolina	Santos Moya
Natalia	Baleriola Torres	Enriqueta	García Martínez
Carmen María	Iniesta López	Estefanía	San Nicolás
María Luisa	Pérez Dolera	Juan José	Marín lilan
Manuel Salvador	Fernández Zhunio	Virginia	Pérez Fernández
Ascensión	López Nieto	Alejandro	Marín Pérez

Juan José	Marín Pérez	Eulogio	Exposito Martínez
Virginia	Marín Pérez	María Fuensanta	Mondejar Martínez
Encarna	García Torrano	Esperanza	Dolerá López
Pilar	Rivera Lozano	María José	Fernández Gil
Estela	Pérez Trigueros	Zara	Meseguer Gil
Charo	Meseguer Espinardo	Raquel	Conesa Garrido
Noelia	Illán Blaya	Pablo	Peñalver Sánchez
Cristina	Bermejo López	Javier	Oliva Conesa
David	Sabater Rubio	Raul	Almela
Maribel	Berná Riquelme	María	Lorente
Antonio	Pérez García	Javier	López-Hazas Tarragato
Verónica	Belmonte Poveda	Joaquin	Romero Piqueras
Lara	González Belmonte	María Teresa	Pérez Fernández
María Isabel	Poveda Riquelme	Anabel	López
Salvador	Puche Marti	Cari	López Hernández
M Carmen	Moreno Pellicer	Ismael	Box Molina
Aurora	Martínez Martínez	Alicia	Box Mármol
María Rosa	Martínez Alcolea	Inmaculada	Cascales Nicolás
Juana	Mármol Pérez	María José	Conesa Cascales
Juan Manuel	López Marmol	Pedro	Aguilar Oliva
José Manuel	Zamora Parrado	María Dolores	Del Olmo Sánchez
Consuelo	Soler Monreal	Lazaro	Figueroba López
Paqui	García Fernández	Enriqueta	Dinnbier Escuder
Juan Antonio	Navarro Morenilla	Consuelo	Pérez Rivera
María Dolores	Rodríguez Deval	Dori	Pérez Medina
Francisca	Sánchez Jiménez	Luz María	Vicente Riquelme
Noelia	Zapata Jiménez	María	Bonache
Ana María	Pérez García	Toñi	Rodríguez
Marcelino	Asunción Fernández	Francisco	Bravo Vidal
María Mercedes	Hernández Aguado	Sara	Pérez Gómez
Anabel	Pérez Carbonell	Claudia	Larrosa Sequeira
Laura	García Soto	Gustavo	Cabrera Benítez
José	Galindo Martínez	Elisabel	Illan Gil
María Dolores	Villegas Vera	Francisco Manuel	Martínez Ataz
Tamara	Ruiz Linares	Isabel María	Jiménez Hernández
María José	Pérez Martínez	Triana	Conesa Jiménez
Alfonso	Contreras Pérez	Marta	Valero Latorre
Diana	Rivera Pérez	Antonio	Bernal Díaz De Liaño
Juani	Pastor Piñero	Juan Antonio	Cascales Romero
Luz Adriana	Gonzales Valderrama	Concepción	Nicolás Mayor
Remedios	Mondejar Martínez	Mari Carmen	Punzano Gómez
Irene	Campuzano Pérez	María Isabel	Piñeiro Palazon
Adoración	Mármol Pérez	Cleofe	Pérez
Leandro	Gómez	José	López Martínez
Domingo	Gil Gil	Ginés	Martínez Sánchez
Isamari	Palazón Ramirez	Irene	Pérez Medina
Noemi	Ramírez Glindon	José	Campuzano Rivera
Rubén	Palazon Martínez	María Fuensanta	Mondejar Martínez
José	López Peñalver	Estefanía	San Nicolás Fernández
Francisca	Peñalver Parada	Lucia	Reina Díaz
José	López López	Bernarda	Díaz Solano
José Juan	Marín Hidalgo	José	Dólera Meseguer
Vanesa	Carpes Rodríguez	Julia	Sarabia Bayona
Basilisa	Vidal Fernández	Juandedios	Conesa López
Juana María	Bernal Rubira	Laura	Lucas Bernal
José	Cano Dolera	María Luisa	Pérez Belmonte
Encarna	Cano Rosaura	Jorge	Carbonell Palazón

Marta	López Cánovas	Sara	Rufanges Zorita
Mari Ángeles	Molina Cánovas	Susana	Castillo García
Ana Belén	Dólera Molina	Mercedes	Iglesias Ballester
Jorge	Visera Rodríguez	Juan José	Ballester
María Angeles	Ruiz Galera	Clotilde	Soriano Mañes
José Miguel	Campillo Gambín	Nuria	Tenas Marín
Cristela	Martínez Ramírez	Santa	Catalán Calvo
Salvador	Ruiz	Beatriz	Martí Fernández
Cristina	Gil Asuncion	Purificacion	Fuster Roig
Fina	Asuncion Fernández	María Pilar	Arnalte Hervas
Encarna	Asuncion Fernández	María Amparo	Martínez Gómez
Encarna	Piñero Palazón	María Amparo	Martínez Gómez
Francisca Isabel	Piñero López	Elisa	Alonso Yuste
Isabel	Pérez López	Lidia	Martín Latorre
María Pilar	Bernal Gomariz	Blanca	Marín Forés
Isabel	Pérez Gomariz	Andrea	Rufete Selma
Gabriel	Cutillas Bernal	Dario	Rico
Amaya	Aguilar Abad	Ana	Zorita Herreras
Paco Pitulo	López Meseguer	Nerea	Rozalén Esteve
Dolores	Asunción Fernández	José	Garibo Guillen
Andrés	Velázquez Martín	Iris	Ladera
Teresa	Fernández López	Neus	Galindo Rodríguez
María	Salmerón Baños	Sonia	Palasí Fernández
Alfonso	Pozo Rabadán	Miguel	Tortajada Cinteros
Lidia Pilar	Correas Arévalo	Ana María	Pascual
Laura	Ruiz Marmol	Ainara	Ochandio
Sandra	Bernal Ponce	Beatriz	Belda
Claudia	Almela	Ana María	Elena Yus
Luisa	Marmol Pérez	Alicia	Escriba Gregori
Juan Antonio	Campoy Gómez	Mari Carmen	Mañes Mañes
Manuel	Molina Dengra	German	Blay Soriano
Javier	Piñero Pérez	Teresa	Aparicio Marín
Lorena	López Mas	Marina	García-Cuenca Moreno
Lorena	López Mas	María José	Gómez Murria
José Antonio	Cutillas	Santiago	Cuevas Durà
Amanda	Alvarez	Nuria	Tenas Marín
Lucia	Lozano Palazon	Mireia	Rubio Escriba
Isa	Palazon Pérez	Silvana	De La Plaza Gargoles
Noemi	Piñero Palazon	Isabel	Gargoles Castillo
Consuelo	Palazón Fernández	Sara	Martínez Rios
Beatriz María	Ballesta	Alejandro	Herrero Somolinos
María Victoria	Montalvo Martínez	Zaida	Queralt Pseudo
Lucas	Lozano Palazón	María José	Sánchez González
Manolo	López Salcedo	Francisco	Nicolas Garrido
María Isabel	Gonzálvez Ortega	Pepi	Merchan Cid
Elena	Huerta Martínez	Olga	Martynova
Jesus	Aznar Martínez	Isabel	Queralt Pseudo
David	Martinetti	Mercedes	Burgos Armero
María Dolores	De La Cruz Torres	María José	Blasco Navarro
Olivia	Roldán Asensi	Juana	Moya Ibarzo
Jorge	Carbonell Palazon		
Anna	Huerta		
Susana	Bosch Sanhez		
Fernando	Bolós Doñate		
Maribel	Morro Ros		
M Asunción	Forés Rivas		
Carmina	Piquer Salcedo		

Corporate donations
Falla Venezuela - Agustin Sales
Falla Plaza Pintor Segrelles
Falla Pza. Dr. Berenguer Ferrer
Falla Camino De Barcelona
Falla Maestro Rodrigo
Falla Juan De Aguilo
Falla Alemania El Bachiller
Falla A. C. Tres Forques-Cuenca
Falla El Pilar
Turrillo Global Services
Horno Cañizares SL
Yagu Futurta SL
Falla Malaga
Falla Pintor Goya
Falla Norman Bethune
Falla Villanueva De Castellon
AC Falla Luis Mayans
Falla Pintor Jacomart
AC Falla Sagunt - Sant Guillen
(Pilar Barberá Cerverá)
Falla Olivereta Cerda i Rico
Falla Virgen Fuensanta
Falla Ecuador - Alcalde Gurrea
Falla Daroca - Padre Viñas
Falla Sagunto - Padre Urbano
AC Falla Portal De Valldigna - Salinas
Falla José Maestre - El Cid
AC Falla Nador Milagrosa
AC Falla Gayano Lluch
AC Falla Huerto San Valero Av Plata
AC Falla Visitacion Oriola
AC Falla Fray Pedro Vives Bilbao
Colegio Santísima Trinidad
ADOPS, Pacientes con Cáncer
Industrias Hoteleras Sendra, SA
Only You Valencia
Reyco Soneja SI
Compresores Antonio Gil SL
Reparación Instrumentos Dani Tarrega
Bingbingzhang



9 PUBLICATIONS

INCLIVA SCIENTIFIC REPORT 2024

9. Publication List

List of 697 scientific publications derived from the activity of the IIS.

1.

Normothermic Machine Perfusion Systems: Where Do We Go From Here?. López S, Simón C, SantaMaría X. TRANSPLANTATION. 2024 January 01. 108 (1):22-44. DOI:10.1097/TP.0000000000004573. PMID:37026713.

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