

2023

SCIENTIFIC REPORT

INCLIVA | VLC
Biomedical Research Institute

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Fundación Investigación Hospital Clínico Universitario de Valencia

INCLIVA Health Research Institute

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1. Introduction	5
2. INCLIVA origin and structure	9
2.1 History	11
2.2 Organizational structure	12
2.3 Core facilities	17
3. INCLIVA global analysis	19
3.1 Scientific production global analysis	21
3.2 Financial resources	24
3.3 Cooperative research networks	28
3.4 Knowledge transfer activities	29
3.5 Gender perspective	38
4. Scientific activity	45
4.1 Scientific structure	47
4.2 Scientific translational programs	48
4.2.1 Overweight and cardiovascular and renal risk	48
4.2.2 Detection and control of ventricular dysfunction	51
4.2.3 Rare Diseases	53
4.2.4 Neurological Decline	55
4.2.5 Translational Oncology	58
4.2.6 Reproductive Medicine	60
4.2.7 Ageing and associated diseases	62
4.3 Research areas	67
4.3.1 Cardiovascular Area	69
4.3.2 Oncology Area	104
4.3.3 Metabolism and Organic Damage Area	140
4.3.4 Reproductive Medicine Area	195
4.3.5 Associated Clinical Groups Area	205
4.4 Other scientific contributions from scientific platforms	221
4.4.1 Biobank	221
4.4.2 Oncology Phase I Oncology Clinical Trials Unit	230
4.4.3 Spanish Clinical Research Network (SCReN), Clinical Research and Clinical Trials of the Clinical Trials Platform (UICEC INCLIVA)	232
4.4.4 Precision Medicine Unit	237
4.4.5 Bioinformatics Unit	240
4.4.6 Biostatistics Unit	244
5. Clinical trials and other studies	247
5.1 Activity of the Ethical Committee for investigation with medicinal products (CEIm)	249
5.2 Clinical research activity performed by Valencia Clínico-Malvarrosa Health Department	251
6. Initiatives for research promotion	257
6.1 Grants for external fellowships	259
6.2 Training and teaching activities	261
7. Communication	263
7.1 Highlights	265
7.2 Communication Indicators 2023	268
8. INCLIVA social initiatives	271
8.1 Philanthropic projects	276
8.2 Private philanthropic donations and acknowledgments	277
9. Publications list.	279





intro- duc- tion

INCLIVA SCIENTIFIC REPORT 2023

We are pleased to once again present the INCLIVA Annual Scientific Report, which summarizes the extensive scientific activity and achievements in 2023 of the research groups of the *Hospital Clínico Universitario de València* and the INCLIVA-affiliated groups of scientific excellence of the University of Valencia Faculty of Medicine and Dentistry and the Carlos Simón Foundation.

In 2023, 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.

An excellent research activity can be observed from the R&D projects and the scientific production carried out by the 37 consolidated groups and the 11 emerging groups. During 2023, six new emerging researchers in metabolism, oncology and cardiovascular areas, as well as in the creation of the associated clinical group in Otorhinolaryngology has been formally recognized.

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 36 new national and regional projects. In terms of the Carlos III Health Institute-funded call for personnel, INCLIVA staff have received overall two *Joan Rodés* scholarships, four *Río Hortega* scholarships, one intensification contract, one Bioinformatic Contract, one PFIS scholarship and two *Sara Borrell* scholarships. Furthermore, a national pre-doctoral scholarship and a postdoctoral scholarship (*Ramón y Cajal*) from the Ministry of Science and Innovation and the Ministry of Universities. Also, two grants from the Department of Innovation, Universities, Science and Digital Society of the Department of Health of the Generalitat Valenciana have been awarded.

Our researchers have been highly successful in competitive calls from the European Commission with funding of more than six million euros for projects (active in December 2023) in the fields of big data and artificial intelligence, oncology, nephrology, hypertension, digital innovation, among others. One of our main projects, AIDA (An Artificially Intelligent Diagnostic Assistant for gastric inflammation) is coordinated by INCLIVA over a four-year term and has secured over seven million euros in total funding.

It is important to note that INCLIVA has been partner of some important European Research Projects: BigMedilytics (lighthouse project), BigData@BetterHeart (IM2 project), Wellbased and BodyPass (EU). INCLIVA is a member of INNDIH, the E-DIH from the Valencia region. Another key achievement of 2023 is our participation in international networks such as the Big Data Value Association (BDVA/DAIRO),

1 introduction

the European infrastructure for translational medicine (EATRIS), the European high-capacity screening network (EU-OPENSREEN) and the Worldwide innovative networking (WIN) in personalized cancer medicine.

Regarding scientific output, our research staff published 689 articles in 2023 (405 with relevant authorship), with a cumulative impact factor of over 5.058,6 points (164 publications have more than 7 impact factor). From these, 64% are from the first quartile and 22,5% are from the first decil. Furthermore, 29,6% of scientific output involved international collaboration. A total of 40 doctoral theses were also defended in 2023, 10 of which received European mention.

Turning to clinical trials, our Drug Research Ethics Committee (CEIm) at the *Hospital Clínico Universitario de Valencia*, the first in the Valencian Community and among the first nationally to receive this certification, has been a review board of reference in 123 clinical studies since the new legislation was approved in 2016. During 2023 INCLIVA has initiated 173 new clinical studies and has participated in 533 active studies.

The Innovation Unit has been further consolidated both in INCLIVA and within the business community. The Reprodrugs project was selected as a high-impact initiative and received support from the Platform of the Carlos III Health Institute (ISCIII) for Dynamization and Innovation of the industrial capacities of the National Health System and its effective transfer to the productive sector (ITEMAS), to develop a slow-release transdermal haloperidol patch for patients with spinal muscular atrophy. Additionally, the unit has fostered innovative collaborations with companies and technology centers, actively engaging with four INCLIVA spin-offs.



Mr. Andrés Cervantes Ruipérez
INCLIVA Scientific Director

origin & struc- ture

INCLIVA SCIENTIFIC REPORT 2023

2.1. History

The *Hospital Clínico Universitario de 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 Health 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 Health 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 Health Research Institute for the next five years.



INCLIVA origin and structure

2.2. Organizational 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 *Conselleria de Sanidad* (Autonomous Public Health Department) of the Valencian Government

Vice-president: Mr. Álvaro Bonet, Chief Executive Officer of the *Hospital Clínico Universitario of Valencia* and of the Valencia Clínico – Malvarrosa Health Department

Board members

- Mrs. María Vicenta Mestre, Distinguished Dean of the University of Valencia
- Mrs. Amparo Ruiz, Distinguished Dean of the Faculty of Medicine of the University of Valencia
- Mr. Vicente Soler, President of the Social Council of the University of Valencia
- Mr. Juan Viña, President of Cañada Blanch Foundation
- Mr. Rafael Alcón Traver, President of Bancaja Foundation
- Mr. José Bernardo Noblejas Pérez, Valencia Chamber of Commerce, Industry and Navigation
- Mr. Bernardo Valdivieso, Autonomous Secretary of Efficiency and Health Technology of the *Conselleria de Sanidad* (Autonomous

Public Health Department) of the Valencian Government

- Mrs. Mariola Penadés General Director of Research and High Sanitary Inspection of the *Conselleria de Sanidad Universal y Salud Pública* (Autonomous Public Health Department) of the Valencian Government
- Mrs. Núria Vizcarro Boix, Valencian Council of Culture
- Mr. Carlos Simón, Scientific Director of the Carlos Simón Foundation
- Mr. Rubén Ventura, Fero Foundation
- Mrs. Bárbara Congost Mirón, FEDER (Spanish Federation of Rare Diseases) representative

Board members under own name

- Mr. Carlos Pascual de Miguel
- Mr. Joaquín Ortega Serrano
- Mr. Tomás Trénor Puig
- Mrs. Ana Lluch Hernández
- Mrs. Àngela Nieto Toledano

2.2.1.2 Board of Governors

President: Mr. Álvaro Bonet Pla, Chief Executive Officer of the *Hospital Clínico Universitario of Valencia* and of the Valencia Clínico – Malvarrosa Health Department

Vice-president: Mrs. Amparo Ruiz, Distinguished Dean of the Faculty of Medicine of University of Valencia

Vocals

- Mr. Andrés Cervantes Ruipérez, INCLIVA Scientific Director
- Mr. Vicente de Juan Martín, Managing Director

- Mrs. Ana Sanmartín Almenar, Primary Care Director of the *Hospital Clínico Universitario of Valencia* and of the Valencia Clínico – Malvarrosa Health Department
- Mrs. Ana Isabel Arizón, Medical Director of the *Hospital Clínico Universitario of Valencia* and of the Valencia Clínico – Malvarrosa Health Department
- Mrs. Mariola Penadés Director of Research and High Sanitary Inspection of the *Conselleria de Sanidad Universal y Salud Pública* (Autonomous Public Health Department) of the Valencian Government

- Mr. Pascual Medina Besó, Coordinator of Central Medical Research Unit of the Faculty of Medicine of University of Valencia
- Mr. Manuel Alós, Head of the Pharmacy Service of *Hospital Clínico Universitario of Valencia* and of the Valencia Clínico – Malvarrosa Health Department
- Mrs. Marisa Luisa Calabuig, President of Ethic Committee for Investigation with medicinal products
- Mr. Federico Pallardó, Professor of the Department of Physiology of the University of Valencia
- Mr. Carlos Simón, Scientific Director of the Carlos Simón Foundation
- Mrs. Maite Sáenz, Secretary General

2.2.1.3 Managing Director

Mr Vicente de Juan Martín, INCLIVA IIS Economic 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 Health 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. Josep Tabernero Caturla. Head of the Medical Oncology Service. Vall d'Hebrón Hospital.

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. Juan Carlos Lacal Sanjuán. Research Professor at the CSIC. Institute of Biomedical Research, Madrid
- Mr. Manuel Tena Sempere. Professor of University. Department of Cell Biology, Physiology and Immunology. University of Cordoba
- Mr. M Roser Torra Balcells. Nephrologist, *Fundació Puigvert*. Research line in the study of Hereditary Kidney Diseases
- 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 Peptomys SL
- Mrs. Pura Muñoz Cánoves Professor of Medicine, Department of Experimental and Health Sciences at Pompeu Fabra University. ICREA Research Professor

INCLIVA origin and structure

2.2.1.6 Internal Scientific Committee

- Mr. Andrés Cervantes Ruipérez, INCLIVA Scientific Director
- Mrs. Ana Sanmartín Almenar, Primary Care Director of the *Hospital Clínico Universitario of Valencia* and of the Valencia Clínico – Malvarrosa Health Department
- Mrs. Ana Isabel Arizón, Medical Director of the Hospital Clínico Universitario of Valencia and of the Valencia Clínico – Malvarrosa Health Department
- Mr. Julio Núñez, Associate Professor of the Department of Medicine of the University of Valencia, attached to the Scientific Direction
- Mr. Vicente Bodí, Full Professor of the Department of Medicine of the University of Valencia
- Mr. Josep Redón, INCLIVA Emeritus Researcher
- Mr. Federico Pallardó, Full Professor of the Department of Physiology of the University of Valencia
- Mrs. María Jesús Sanz Ferrando, Full Professor of the Department of Pharmacology at the University of Valencia
- Mrs. Ana Lluch Hernández, Emeritus Professor of the Department of Medicine of the University of Valencia
- Mrs. María del Mar Tormo Díaz, Hematologist at the *Hospital Clínico Universitario of Valencia* and of the Valencia Clínico – Malvarrosa Health Department Hematology Service
- Mrs. Gema Miñana Escrivá, Cardiology Associate Physician
- Mr. Felip Vilella Mitjana, researcher at INCLIVA
- Mrs. Isabel Gabaldón Sánchez, Valencia Clínico - Malvarrosa Health Department
- Mr. David Moro Valdezate, General Surgery Associate Physician
- Mrs. Laura Piqueras Ruiz, researcher at INCLIVA
- Mrs. Patricia Roselló, Pediatrics Associated Physician
- Mr. Sergio Martínez Hervás, Endocrinology and Nutrition Associated Physician
- Mrs. Herminia González Navarro, researcher at INCLIVA
- Mrs. Pilar Eroles Asensio, researcher at INCLIVA
- Mrs. M^a Cruz González Villaescusa, Neumology Associate Physician
- Mrs. Carmina Montoliu Félix, researcher at INCLIVA
- Mr. Raúl Gómez Gallego, researcher at INCLIVA
- Mr. F. Javier Chaves Martínez, researcher at INCLIVA
- Mr. Daniel Monleón Salvadó, researcher at INCLIVA
- Mrs. Desamparados Roda Pérez, Oncology Associate Physician
- Mr. Carlos Tornero Tornero, Head of the Anesthesia/ Reanimation Service

RESEARCH COMMISSION

President: Mr. Luis Sabater Ortí, Section Head of the General Surgery

Vocals:

- Mrs. Marta Peiró Signes, Scientific Subdirector at INCLIVA
- Mr. Julio Núñez Villota, Cardiology Associate Physician
- Mr. Jaime Signes-Costa, Neumology Service Head
- Mrs. Rosa Zaragoza Colom, researcher at INCLIVA
- Mr. Vicente José Bodí Peris, Professor of the Department of Medicine of the University of Valencia
- Mrs. M^a José Terol Castera, Hematology and Hemotherapy Associated Physician
- Mrs. Nuria Cabedo Escrig, researcher at INCLIVA
- Mrs. Pilar Rentero Garrido, coordinator of Precision Medicine Unit
- Mrs. Ana Belén Paes, researcher at INCLIVA
- Mr. José Luis Górriz Teruel, Head of the Nephrology Service
- Mr. Antonio Martínez Sabater, general supervisor at the Hospital Clínico Universitario de Valencia
- Mr. César Ríos Navarro, researcher at INCLIVA
- Mrs. Lorena Peiró Chova, researcher at Biobank

Commission Management Unit: Mrs. María Domínguez

INNOVATION COMMISSION

President: Mr. Andrés Cervantes Ruipérez, INCLIVA Scientific Director

Commission Management: Ms. Elena Carrió Argos, Head of UAI

- Mr. Vicente de Juan Martín, Managing Director
- Mr. Jorge Navarro Pérez, Medical Director of the *Hospital Clínico Universitario de Valencia* and of the Valencia Clínico – Malvarrosa Health Department (January to September)
- Ms. Ana Isabel Arizón, Medical Director of the *Hospital Clínico Universitario of Valencia* and of the Valencia Clínico – Malvarrosa Health Department (September to December)
- Mrs. Patricia Fernández Saiz, Scientific Subdirector at INCLIVA
- Mrs. Maite Sáenz González, Secretary General at INCLIVA
- Mr. Miguel Puche Torres, Clinical researcher with experience in the field of innovation
- Mr. Jose Luis García, Basic researcher with experience in the field of innovation
- Mr. Rubén Artero Allepuz, Basic researcher with experience in the field of innovation
- Mrs. Consuelo Borrás Blasco, Basic researcher with experience in the field of innovation
- Mr. Felip Vilella Mitjana, Basic researcher with experience in the field of innovation
- Mrs. Carolina Mir Sánchez, Clinical researcher with experience in the field of innovation
- Mrs. María Teresa Sánchez, Clinical researcher with experience in the field of innovation
- Mrs. Carmina Montoliu, Clinical researcher with experience in the field of innovation
- Ms. Marta Viciano, UAI manager
- Ms. Rita Pastor, UAI manager

2.2.1.7. Ethics Committee for Investigation with Medicinal Products

President: Mrs. M^a Luisa Calabuig Muñoz, Specialist of the Hematology Department

Vice-president: Mr. Esteban Morcillo Sánchez, Clinical pharmacologist

Technical Secretary: Mr. Manuel Alós Almiñana, Head of the Pharmacy Department

Vocals:

- Mr. Diego V. Cano Blanquer, Hospital Pharmacist
- Mr. José Luis Trillo Mata, Primary Care Pharmacist
- Mr. David Juan López Ortega, Law Degree
- Mrs. Carmen Celda Ortega, Nurse
- Mr. Luis González Luján, Primary Attention doctor
- Mrs. Stephanie García Botello, general surgery specialist.
- Mrs. Patricia Roselló Millet, Specialist of the Pediatrics Department
- Mrs. M^a Jesús Puchades Montesa, Specialist of the Nephrology Department
- Mr. José Alejandro Pérez Fidalgo, Specialist of the Oncology Department
- Mrs. Tania Fleitas Kanonnikoff, Specialist of the Oncology Department
- Mr. Antonio Peláez Hernández, Allergy Specialist
- Mr. Francisco Dasí Fernández, Stabilized Miguel Servet Researcher
- Mr. Ángel Martínez Brotons, Assistant Physician of Cardiorhythmology of Cardiology Department
- Mrs. Carolina Mir Sánchez, Primary Care Team Family Physician
- Mr. Antonio Ordóñez Sardaña, lay member.
- Mr. Rafael Barajas Cenobio, Responsible for Quality and Data Protection INCLIVA
- Mrs. Laura Carbonell López, specialist in Gynecology and Obstetrics

Administrative Secretary: Mrs. Sofia Galant, Mr. Carlos Balles-teros

Administrative: Mrs. Maialen Llopis, Mrs. Ester Penadés

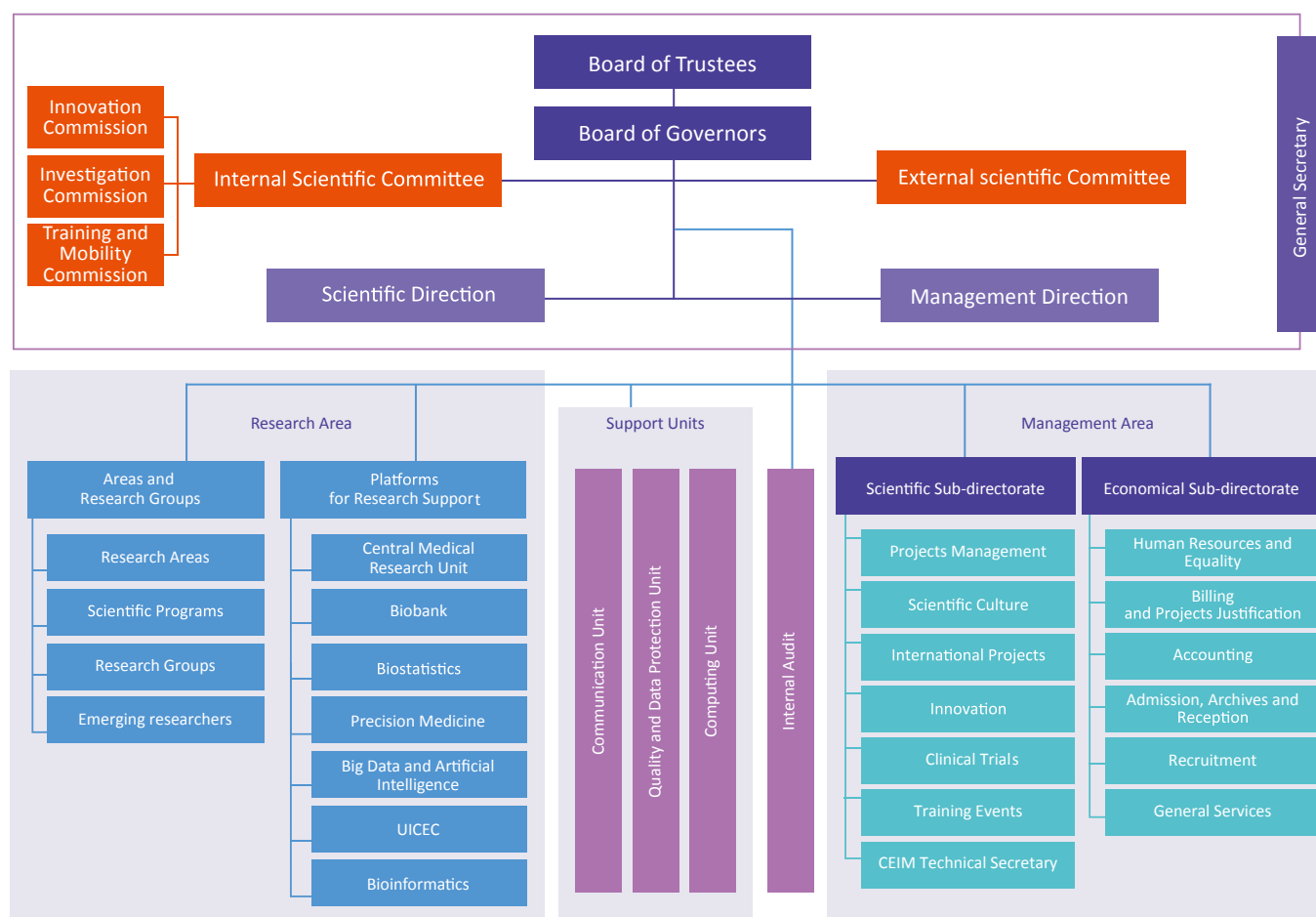
INCLIVA origin and structure

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).



Government structure

Advisory structure

ADMINISTRATIVE AREA:

- Managing Director: Vicente de Juan
- Budget Control and Economic Management: Consuelo López
- Human Resources and Equality Unit: Ruth Cano, Anabel Gil, Lucía Toledo, Mar Chanza
- Invoicing and Project Justify: Vera Marín, Lorena Munuera
- Accounting: M^a José Rosalén, M^a Pilar Boix
- Records Unit: Alicia Belenguer
- Purchasing Unit: Isabel Gomis, Karen Iglesias, Alejandro García Marinas.
- General Services Unit: Cristina García
- Receptionists: Inmaculada Montalt, Alicia Gumiel

SCIENTIFIC MANAGEMENT AREA:

- Scientific Subdirector and Project Management: Marta Peiró y Patricia Fernández
- Scientific Culture Unit: Natividad Paz
- International Projects Unit: Ana Ferrer, Ana Duarte, Eugenia Flores, Miriam Gamero
- National Projects Unit: Raquel Llorens, María Domínguez
- Innovation Management Unit: Rita Pastor, Marta Viciano y Elena Carrió
- Clinical Trials Management Unit: Alexandra Pons, M^a Carmen Román

- Clinical Trials Platform: Ana Portolés, Mercedes Peris, Mireya Ferrandis, Carlos Peris, Patricia Caunedo
- Training and Events Unit: Cristina García, Natividad Paz, Clara Soriano
- CEIm Administrative Management: Sofía Galant, Maialen Llopis, Carlos Ballesteros
- Data Quality and Protection: Rafael Barajas, María Domínguez
- Scientific Production Unit: Patricia Mañas
- Communication: Alexandra Muñoz, Arantxa Martín

COMPUTING UNIT:

- Head of Information Systems and High Performance Computing: Miguel Herreros
- Software engineer and IT system administrator: Enrique Herreros
- Computer technicians: Ángel Antonio Hernández, Antonio Macías, Francisco Sánchez, Germán Sánchez

SECRETARY GENERAL

- Head: Maite Saenz
- Technician: Lorena Munuera, Irene Collado

2.3. Core facilities

RESEARCH SUPPORT PLATFORMS

- Animal Housing and Experimental Operating Theaters Unit
- Biomedical imaging and metabolomics Section
- Flow Cytometry and Cell Culture Section
- Multigenic Analysis Unit
- Microscopy Unit
- Personal Autonomy, Dependence and Severe Mental Disorders Assessment Unit

INCLIVA PLATFORMS

- Biobank
- Bioinformatics Unit
- Biostatistics Unit
- Body Composition Unit
- Cytogenetics Laboratory
- Precision Medicine Unit
- Mass Spectrometry Unit
- High Performance Liquid Chromatography (HPLC) Unit



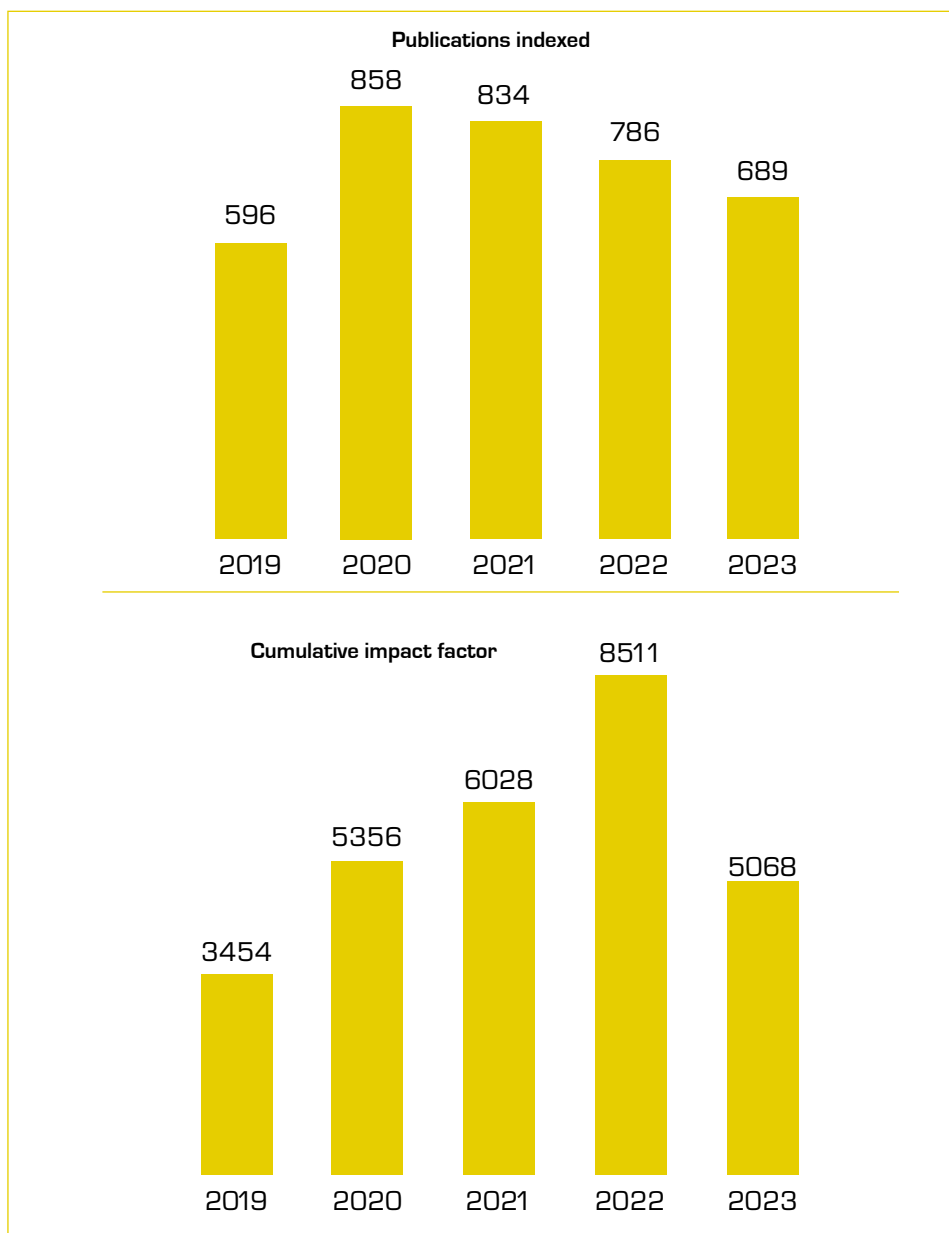
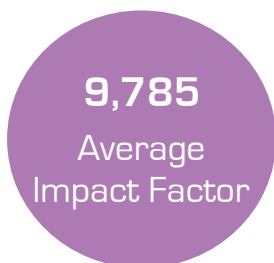
global analy- sis

INCLIVA SCIENTIFIC REPORT 2023

3.1 Scientific production global analysis

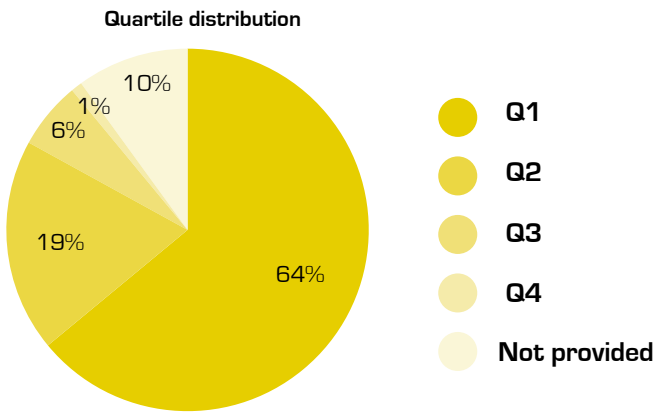
As in previous year, INCLIVA continued in 2023 with the upward trend in the quality of scientific production. For this year data was only extracted from consolidated groups. The number of publications this year is 689 with a cumulative impact factor of 5.068,6 which translates into an average impact factor 9,785.

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



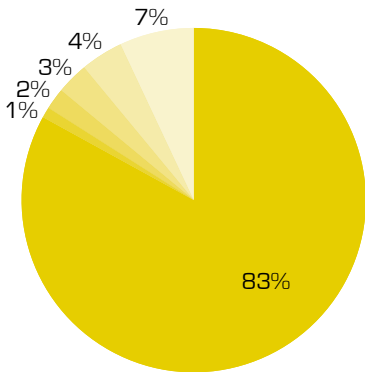
3 global analysis

The distribution by quartiles within their thematic categories is shown below. In 2023, about 87% of the papers that were published in indexed journals belong to the first and second quartiles of their corresponding thematic categories:

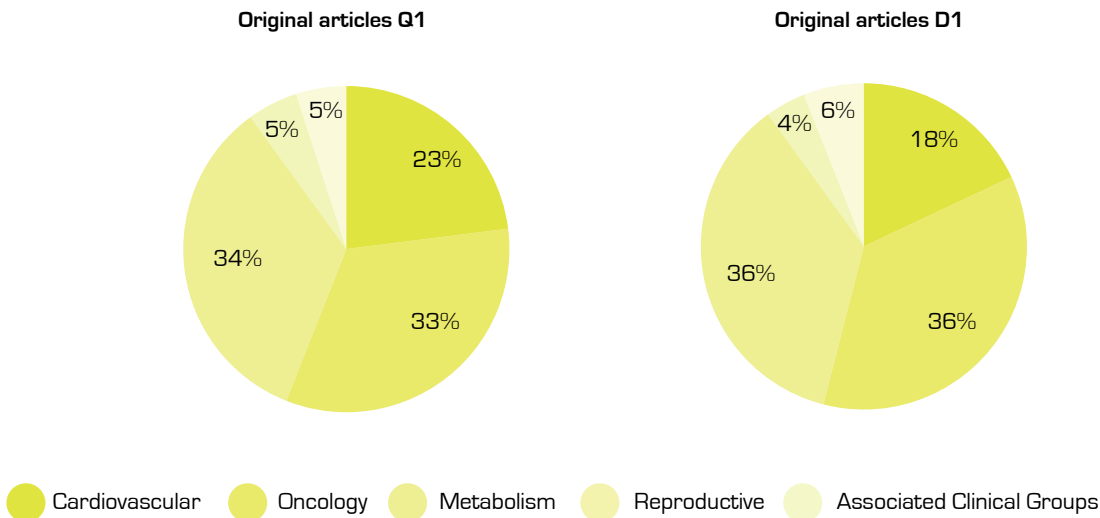


The number and percentage of scientific publications according to category are:

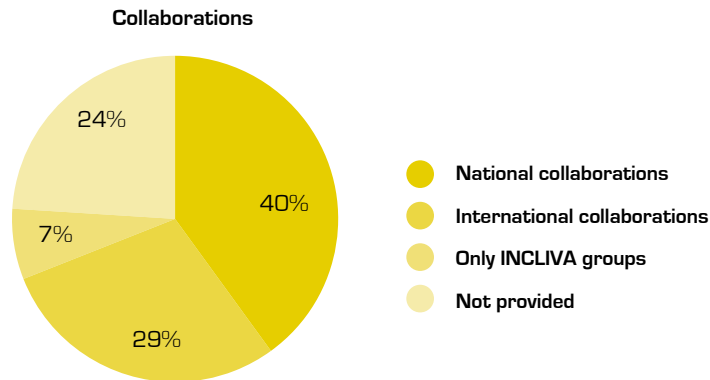
Category	Value
Articles	570
Case reports	6
Correction	12
Editorial Material	19
Letter	27
Review	47



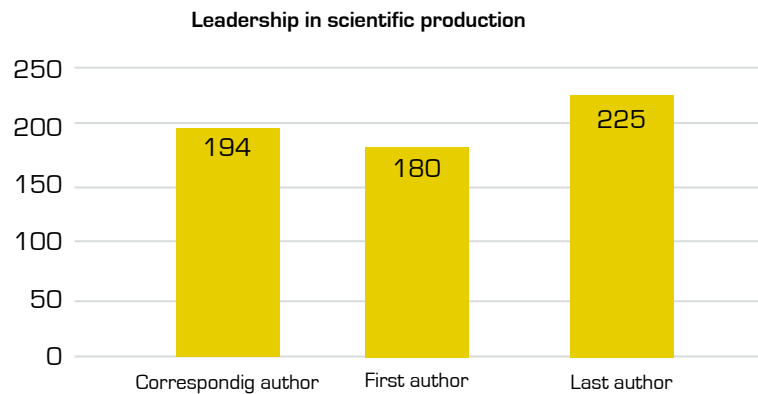
The percentage of originals in first decile and first quartile publications in 2023 are:



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 2023 is listed below:



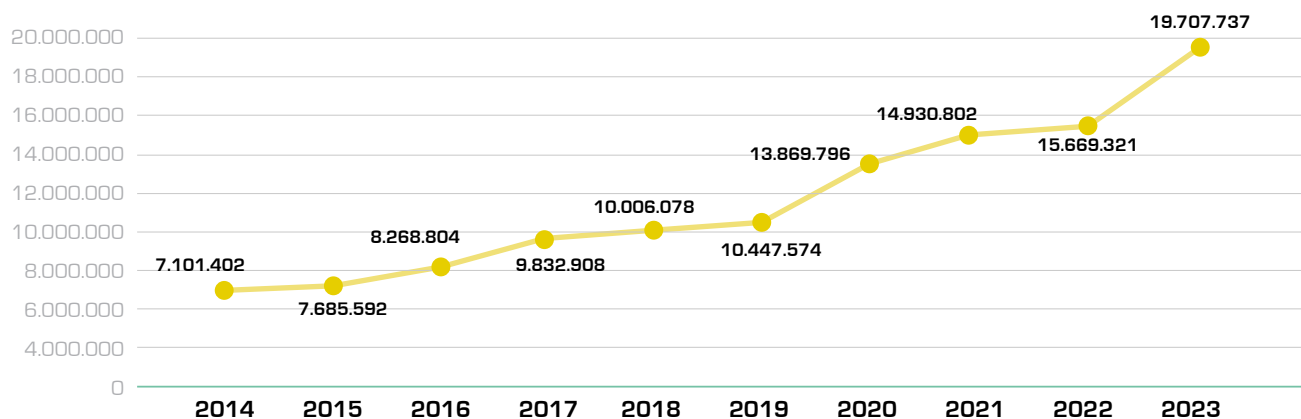
Another key performance indicator is the leadership role in scientific publications. The chart below shows the number of published articles in which INCLIVA researchers sign as corresponding author, first and last author.



3 global analysis

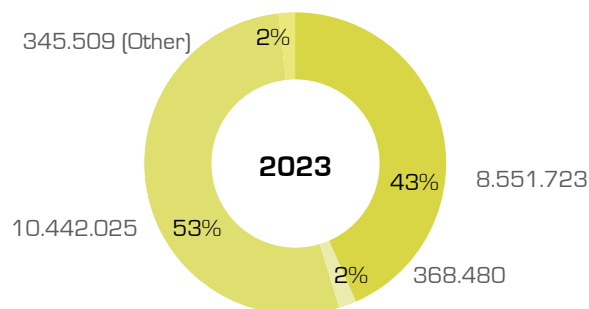
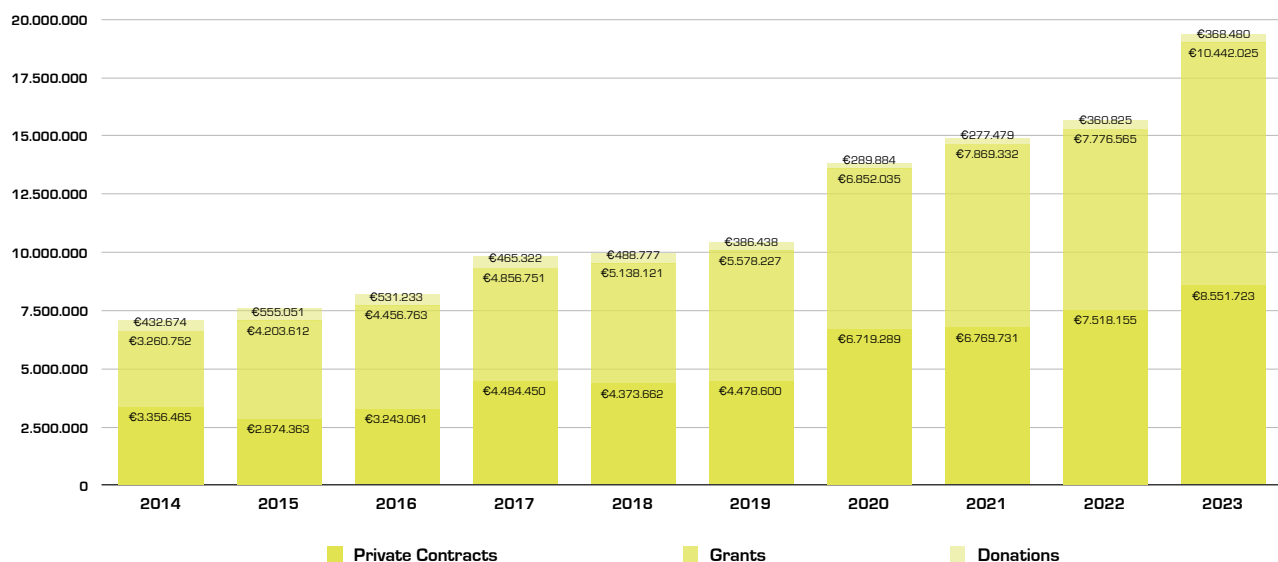
3.2. Financial resources

INCLIVA's funding during 2023 totaled €19.707.737. 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 2023.



The analysis of the income obtained by the Foundation in its last fiscal year (2023) is shown in the table.

INCOME	AMOUNT	OVERHEADS	TOTAL
TURNOVER	6.893.953,20	1.657.769,67	8.551.722,87
DONATIONS	334.401,12	34.078,99	368.480,11
GRANTS	8.721.246,91	493.943,21	9.215.190,12
CAPITAL GRANTS	1.226.834,38		1.226.834,38
FINANCIAL	342.694,28		342.694,28
EXTRAORDINARY	2.814,76		2.814,76
TOTAL INCOME	17.521.944.65	2.185.791.87	19.707.736.52

Also used as a source of information the Annual Accounts of 2023 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	118.004,80
SUPPLIES	1.576.974,75
OTHER FUNCIONAL EXPENSES (ACTIVITY)	3.840.386,91
STAFF COSTS	9.651.407,29
OTHER FUNCIONAL EXPENSES (STRUCTURAL)	558.397,72
EXTRAORDINARY EXPENSES	236.589,06
INVENTORY ITEM DONATION EXPENSES	17.528,59
AMORTIZATION OF FIXED ASSETS	1.485.079,30
TOTAL EXPENSES	17.484.368,42

3 global analysis

Finally, this is the balance sheet of the foundation in official format, extracted from the Annual Accounts of 2023:

ASSETS			FISCAL YEAR	FISCAL YEAR
			2023	2022
A)	NON-CURRENT ASSETS		14.591.004,45	16.887.219,94
	I.	Intangible assets	2.295.355,86	2.358.857,93
	2.	Concessions	2.263.104,62	2.353.336,42
	3.	Patents, licences, trademarks and similar rights	5.100,21	5.521,51
	5.	Computer Software	27.151,03	0,00
	III.	Investment property	5.938.261,56	5.989.060,62
	1.	Land and buildings	835.238,96	0,00
	2.	Technical facilities and other tangible fixed assets	5.103.022,60	5.972.680,62
	3.	Fixed assets in progress and advances	0,00	16.380,00
	VI.	Deferred tax assets	6.357.387,03	8.539.301,39
	1.	Other government loans	1.114.593,27	1.592.291,02
	2.	Other government loans group and associated companies	107.006,20	362.455,10
	3.	Other loans from private entities	172.500,00	418.377,38
	4.	Other loans from private entities group and associated companies	0,00	100.000,00
	5.	Other European Union loans	4.963.287,56	6.066.177,89
B)	CURRENT ASSETS		39.772.408,21	37.436.524,47
	III.	Trade and other receivables	5.999.245,02	4.817.935,36
	1.	Trade and other receivables	5.843.847,46	4.659.582,58
	2.	Trade and other receivables group and associated companies	155.397,56	158.352,78
	IV.	Current Investments in group companies and associates	9.063.124,78	14.785.902,39
	1.	Other government loans	5.262.686,02	10.004.515,78
	2.	Other government loans group and associated companies	3.800.438,76	4.781.386,61
	VI.	Prepayments for current assets	10.044.964,36	16.416,00
	2.	Credits to entities	28.248,36	0,00
	5.	Other financial assets	10.016.716,00	16.416,00
	VII.	Short-term periodicities	318,18	63.207,45
	VIII.	Cash and cash equivalents	14.664.755,87	17.753.063,27
	1.	Cash	14.664.755,87	17.753.063,27
TOTAL ASSETS (A + B)			54.363.412,66	54.323.744,41

EQUITY AND LIABILITIES			FISCAL YEAR	FISCAL YEAR
			2023	2022
A)	EQUITY		20.930.603,45	19.562.182,56
	A-1)	Capital and reserves without valuation adjustments	16.051.702,90	13.828.334,80
	I.	Endowments	617.482,67	617.482,67
	II	Reserves	13.210.852,13	11.496.103,53
	2.	Other reserves		
	IV.	Profit/(loss) for the period	2.223.368,10	1.714.748,60
	A-3)	Grants, donations or gifts and legacies received	4.878.900,55	5.733.847,76
B)	NON-CURRENT LIABILITIES		9.587.547,68	11.311.436,15
	II.	Non-current payables	9.587.547,68	11.311.436,15
	5.	Other financial liabilities	8.872.743,67	10.826.981,05
	6.	Other short-term debts with group companies and associates	714.804,01	484.455,10
C)	CURRENT LIABILITIES		23.845.261,53	23.450.125,70
	II	Current provisions	593.843,46	493.084,63
	1.	Other provisions	98.030,75	98.030,75
	2.	Other provisions with group companies and associates	495.812,71	395.053,88
	III.	Current payables	18.499.003,28	16.652.347,16
	5.	Other financial liabilities	16.774.522,12	13.741.966,43
	6.	Other short-term debts with group companies and associates	1.724.481,16	2.910.380,73
	V.	Beneficiaries-Creditors	490.374,93	3.256.523,90
	VI.	Trade creditors and other accounts payable	4.262.039,86	3.048.170,01
	1.	Suppliers	32.703,89	109.704,82
	3.	Other payables	252.433,99	284.253,88
	4.	Personnel (salaries payable)	-377,46	-11,29
	5.	Current tax liabilities	0,00	74,32
	6.1	Public entities, other	3.552.445,63	2.451.877,54
	7.	Advances from customers	424.833,81	202.270,74
TOTAL EQUITY AND LIABILITIES (A + B + C)			54.363.412,66	54.323.744,41

3 global analysis

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	CIBERdem	<i>ciberdem</i>	CB07/08/0018
	Mrs. Empar Lurbe i Ferrer	CIBERobn	<i>ciberobn</i>	CB06/03/0039
	Mr. Francisco Javier Chorro Gascó	CIBERcv	<i>cibercv</i>	CB16/11/00486
	Mr. Juan Sanchis Forés	CIBERcv		CB16/11/00420
Metabolism and Organ Damage	Mr. Federico V. Pallardó Calatayud	CIBERer	<i>ciberer</i>	CB06/07/0073
	Mr. Juan Nacher Roselló	CIBERsam	<i>ciber sam</i>	CB07/09/006
	Mr. Rafael Tabarés Seisdedos	CIBERsam		CB07/09/0021
	Mr. José Viña Ribes	CIBERfes	<i>ciberfes</i>	CB16/10/00435
Oncology	Mr. Andrés Cervantes Ruipérez	CIBERonc	<i>ciberonc</i>	CB16/12/00473
	Mrs. Rosa Noguera Salvá	CIBERonc		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
8	86,945

- García-Campelo R, Sullivan I, Arriola E, Insa A, Juan Vidal O, Cruz-Castellanos P, Morán T, Reguart N, Zugazagoitia J, Dómine M. SEOM-GECP Clinical guidelines for diagnosis, treatment and follow-up of small-cell lung cancer (SCLC) (2022). Clin Transl Oncol. 2023 Sep;25(9):2679-2691. doi: 10.1007/s12094-023-03216-3. Epub 2023 Jul 7. Erratum in: Clin Transl Oncol. 2023. 25(9):p. 2760-2762. doi: 10.1007/s12094-023-03290-7. PMID: 37418123; PMCID: PMC10425483. IF: 3,4
- Ayala de la Peña F, Antolín Novoa S, Gavilá Gregori J, González Cortijo L, Henao Carrasco F, Martínez Martínez MT, Morales Estévez C, Stradella A, Vidal Losada MJ, Ciruelos E. SEOM-GEICAM-SOLTI clinical guidelines for early-stage breast cancer (2022). Clin Transl Oncol. 2023 Sep;25(9):2647-2664. doi: 10.1007/s12094-023-03215-4. Epub 2023 Jun 16. Erratum in: Clin Transl Oncol. 2023. 26(2):p. 555-556. doi: 10.1007/s12094-023-03334-y. PMID: 37326826; PMCID: PMC10425528. IF: 3,4
- Sánchez-Heras AB, Ramon Y Cajal T, Pineda M, Aguirre E, Graña B, Chirivella I, Balmaña J, Brunet J; SEOM Hereditary Cancer Working Group and AEGH Hereditary Cancer Committee. SEOM clinical guideline on heritable TP53-related cancer syndrome (2022). Clin Transl Oncol. 2023. 25(9):p. 2627-2633. doi: 10.1007/s12094-023-03202-9. Epub 2023 May 3. PMID: 37133731; PMCID: PMC10425559. IF: 3,4
- Rábade-Castedo C, de Granda-Orive JI, Riesco-Miranda JA, De Higes-Martínez E, Ramos-Pinedo A, Cabrera-César E, Signes-Costa Miñana J, García Rueda M, Pastor-Esplá E, Jiménez-Ruiz CA. Clinical Practice Guideline of Spanish Society of Pneumology and Thoracic Surgery (SEPAR) on Pharmacological Treatment of Tobacco Dependence 2023. Archivos de Bronconeumología. 2023. 59(10):p.651-661. doi: 10.1016/j.arbres.2023.07.024. IF: 8
- Yoshino T, Cervantes A, Bando H, Martinelli E, Oki E, Xu RH, Mulansari NA, Govind Babu K, Lee MA, Tan CK, Cornelio G, Chong DQ, Chen LT, Tanasanvimon S, Prasongsook N, Yeh KH, Chua C, Sacdalan MD, Sow Jenson WJ, Kim ST, Chacko RT, Syaiful RA, Zhang SZ, Curigliano G, Mishima S, Nakamura Y, Ebi H, Sunakawa Y, Takahashi M, Baba E, Peters S, Ishioka C, Pentheroudakis G. Pan-Asian adapted ESMO Clinical Practice Guidelines for the diagnosis, treatment and follow-up of patients with metastatic colorectal cancer. ESMO Open. 2023. 8(3):101558. doi: 10.1016/j.esmoop.2023.101558. Epub 2023 May 24. PMID: 37236086; PMCID: PMC10220270. IF: 7,300
- Pérez-Fidalgo JA, Ortega E, Ponce J, Redondo A, Sevilla I, Valverde C, Isern Verdum J, de Alava E, Galera López M, Marquina G, Sebío A. Uterine sarcomas: clinical practice guidelines for diagnosis, treatment, and follow-up, by Spanish group for research on sarcomas (GEIS). Ther Adv Med Oncol. 2023. 28(15):17588359231157645. doi: 10.1177/17588359231157645. PMID: 37007636; PMCID: PMC10052607. IF: 4,900
- Cervantes A, Adam R, Roselló S, Arnold D, Normanno N, Taïeb J, Seligmann J, De Baere T, Osterlund P, Yoshino T, Martinelli E; ESMO

3 global analysis

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2. Martinelli E, Arnold D, Cervantes A, Stintzing S, Van Cutsem E, Tabernero J, Taieb J, Wasan H, Ciardiello F. European expert panel consensus on the clinical management of BRAFV600E-mutant metastatic colorectal cancer. *Cancer Treat Rev.* 2023 Apr;115:102541. doi: 10.1016/j.ctrv.2023.102541. Epub 2023 Mar 11. IF:11,800.
3. Alvarez FJ, Blanco M, Signes J, Pastor E, García JL, Soto JG, Callejas FJ, Romero PJ, Riesco JA, Jiménez CA. Consensus document on asthma and smoking of the Regional Asthma Forum of SEPAR. *Adicciones.* 2023. 35(1):p. 67-84. IF:3,000.
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Intitutional Documents	IF
7	124,9

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3 global analysis

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Consensus statement	IF
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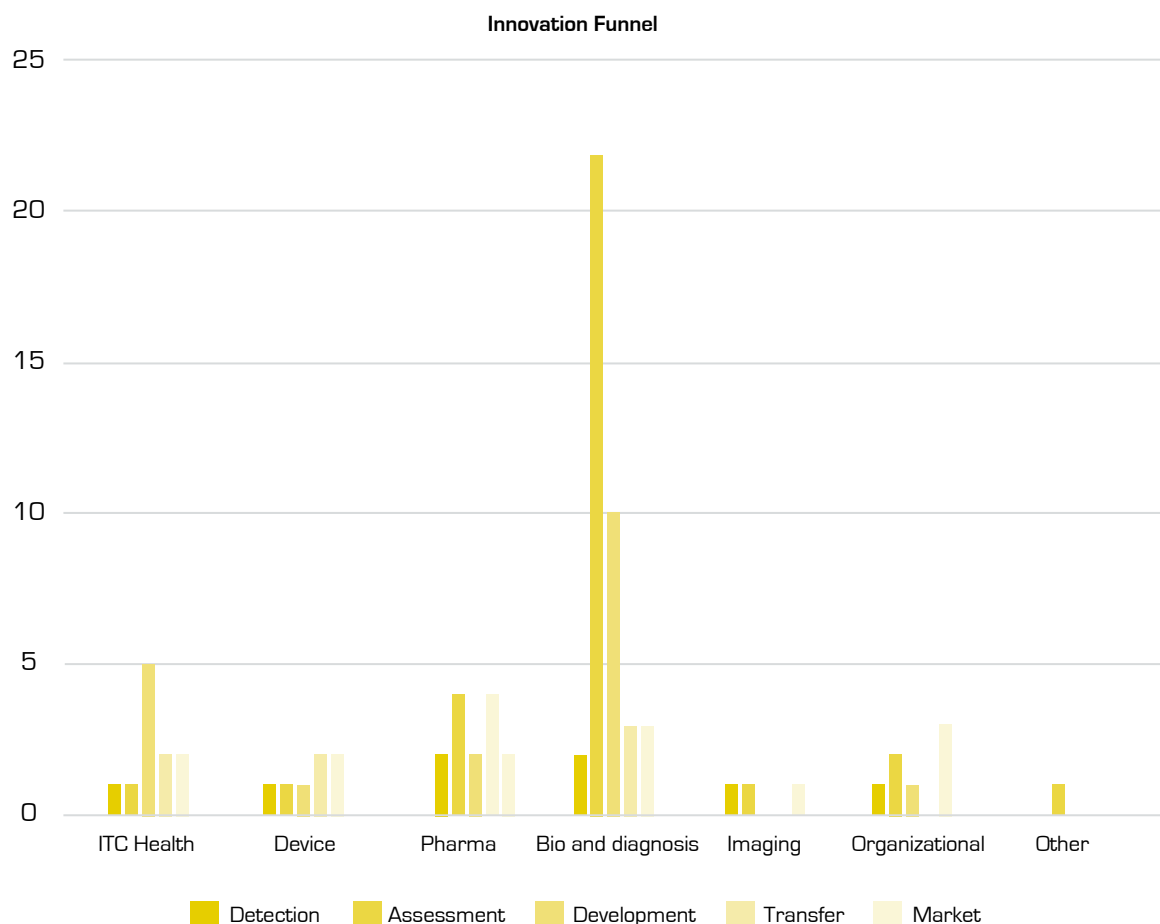
3.4.2. Innovation and Knowledge transfer

The Innovation Unit of INCLIVA supports INCLIVA professionals with the development of translational research, which is one of the main objectives of INCLIVA. In this way, a greater impact into society can be achieved. The unit promotes innovation and collaboration with research centres and industrial partners. The unit is responsible of the so-called innovation funnel, evaluating the viability of the innovative ideas at different stages to ensure that only the best ideas are launched to the market. Then, the main services are the following:

- Identification and analysis of ideas.
- Evaluation and management of intellectual property rights
- Commercialisation and technology transfer to the market
- Project management of innovation projects
- Training activities to promote innovation culture.

Consequently, INCLIVA innovation funnel in 2023 is shown in Table:

Innovation Funnel	ITC Health	Device	Pharma	Bio and diagnosis	Imaging	Organizational	Other	Total
Detection	1	1	2	2	1	1		8
Assessment	1	1	4	22	1	2	1	32
Development	5	1	2	10	0	1		19
Transfer	2	2	4	3	0	0		11
Market	2	2	1	3	1	3		12



3 global analysis

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 were active on 2023:

Invention	Priority number	IP/% INCLIVA	Status
2023. Development and Validation of the AMMON-OHE model to risk stratify cirrhoticoutpatients for occurrence of overt hepatic encephalopathy	UK2303652.8	50%	PCT extension
2022. <i>Dispositivo de Lubricación Intrauretral pediátrica</i>	U202230442	100%	Granted in Spain
2022. Method for assessing the activity of nicotinamida N-Methyl Transferase	EP22382866	10%	PCT extension
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%	PCT extension
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. Moxifloxacin for use in the treatment of spinal muscular atrophy	P201930436	23%	Granted in Spain
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%	PCT extension
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-prosthesisation of limbs and other percutaneous applications	P201631218	2,5%	Granted in Europe and US 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 autonomic, national and international funding calls. In 2023, 12 innovation projects were granted for a total of €1.570.503,44.

INNOVATION COMPETITIVE PROJECTS	TOTAL AMMOUNT (€)
<i>"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" Beca AEC (Asociación Española de Cirujanos).</i>	10.000,00 €
<i>INNTA1/2023/38 Agente de Innovación INCLIVA para la promoción de la innovación y transferencia del conocimiento II. (AVI - Promoción del Talento)</i>	130.276,67 €
<i>INNTA1/2023/39 Agente de Innovación INCLIVA para la formación de espacios de cocreación hospitalarios con agentes del SVHI. (AVI - Promoción del Talento)</i>	137.976,77 €
<i>APOTI 2023 CIAPOT2022/9 Desarrollo de estrategias para el silenciamiento génico de Musashi2 en Distrofia Miotónica. (GVA- APOTI)</i>	36.000,00 €
<i>PI23/00062 (i2024_07) 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</i>	252.500,00 €
<i>PI23/00536 (i2024_08) Heterogeneidad tumoral inferida por secuenciación de célula única: nuevas aproximaciones terapéuticas frente a tumores uterinos</i>	226.875,00 €
<i>PI23/01150 (i2024_09) 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</i>	71.250,00 €
<i>PI23/01179 (i2024_10) Caracterización de vesículas extracelulares para la identificación de biomarcadores de daño renal incipiente en pacientes diabéticos albuminúricos y no albuminúricos. Estudio clínico-experimental</i>	165.000,00 €
<i>PI23/01468 (i2024_11) Ferroopenia en el SCASEST: valor pronóstico y efecto sobre la inflamación y la inmunosenescencia.</i>	96.250,00 €

3 global analysis

PI23/01408 (i2024_12) 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	152.500,00 €
PI23/00848 (i2024_14) El papel de AXL en la modulación de la resistencia al tratamiento y el microambiente tumoral en el cáncer de mama triple negativo y HER2+	151.875,00 €
PI23/00204 (i2024_15) Papel de las vesículas extracelulares en comorbilidades asociadas a obesidad mórbida: implicaciones diagnósticas, terapéuticas y mecanismos.	140.000,00 €
TOTAL	1.570.503,44 €

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:



Epidisease S.L.

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 S.L.

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 S.L.

The company arises from the results of a Final Master Thesis in Biomedical Engineering, which lead to two patents on a novel intramedullary fixation system for joint endoprostheses, nails for fractures and exoprostheses; 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 S.L.**

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).

Fouding year: 2020

INCLIVA entrepreneurial team: Mr. Rubén Artero

<http://www.arthexbiotech.com/>

PLATFORMS

INCLIVA has the status of Adhered Center of the **ITEMAS** Platform of the IDIBELL Node for 2021 to 2023. Moreover, INCLIVA is part of the Alliance for Health Innovation and Industrialization of the Mediterranean Axis (**AIISEM**) coordinated by the IDIBELL Foundation and created by the following institutions: IIS La Fe, FISABIO, IDIBELL, ISABIAL, IISPV, IdISBa, IDIAP and IMIB. AIISEM nodes meet regularly, both the Technical Commission and the Strategic Commission. The Alliance has a 3-year Action or Work Plan divided into 5 key objectives:

- i) promote collaboration with industry,
- ii) create a portfolio of innovative initiatives,
- iii) improve the translation of solutions to the National Health System (NHS),
- iv) improve training and resources in innovation,
- v) improve coordination and complementarity with other innovation units.

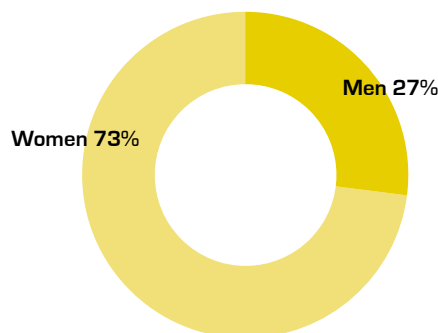
3 global analysis

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, 73% of INCLIVA employees are women. The data corresponding to activity in 2023 is as follows:

Total cost of INCLIVA staff	2023
Men	€2.639.527
Women	€7.011.880
TOTAL	€9.651.407

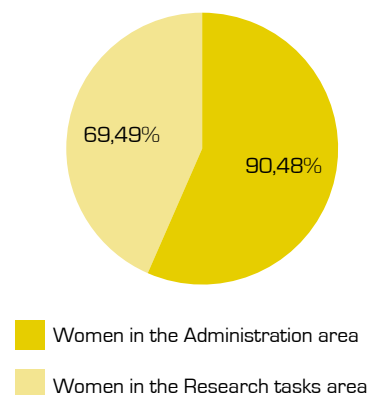


A total of 278 employees joined INCLIVA in 2023, of whom 73% are women. The percentage of women hired has increased every year for the last three years.

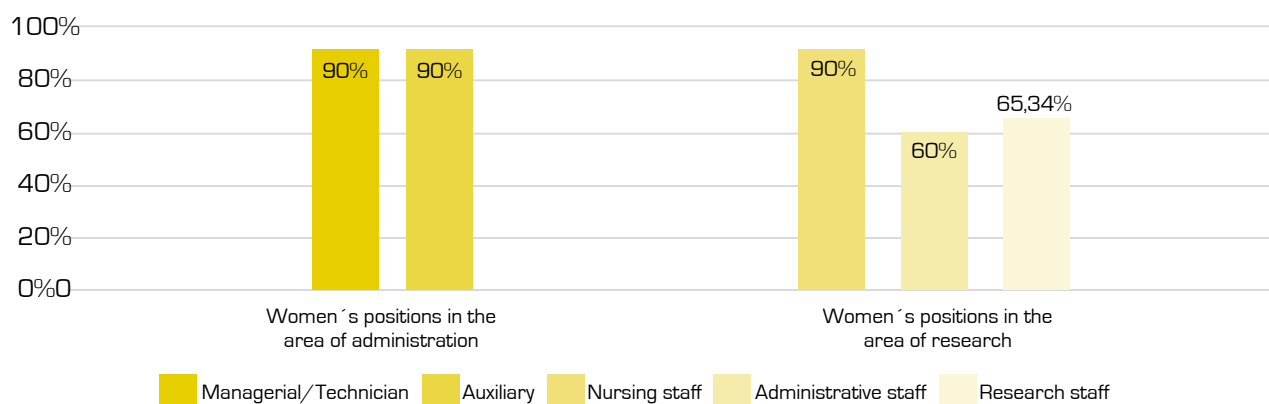
The following graphs differentiate between personnel hired for administration tasks and research staff:

- Women comprise 90,48% of staff contracted to carry out administration tasks and 69,49% of those who carry out research tasks
- Within the administrative area, 90% of Managerial/Technician positions are women and 90% of Auxiliary
- In research, 92,5% of those hired as Nursing staff, 60% of Administrative staff and 65,34% of Research staff are women

Percentage of employees by areas



Women in the Research and Administrative areas

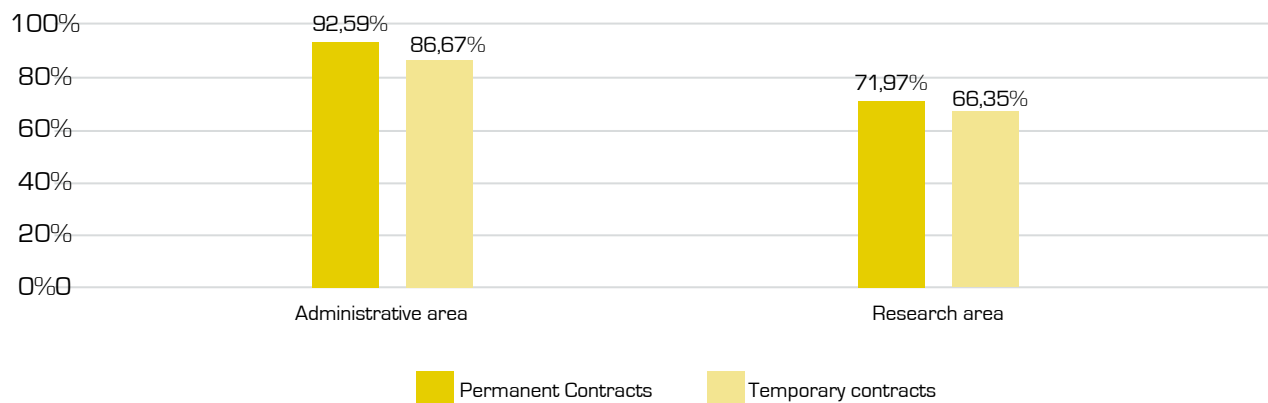


Distribution by contract type

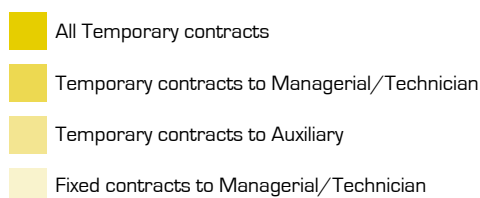
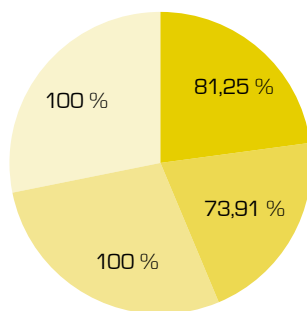
The breakdown of contracts granted to women is shown in the following graphs:

- 92,59% of permanent contracts for administration tasks and 71,97% of permanent contracts for research tasks are for women.
- 86,67% of temporary contracts for administration tasks and 66,35% of temporary contracts for research tasks are for women.
- In administration: 81,25% of contracts for women are temporary contracts. Of these, 73,91% are contracts to carry out Managerial/ Technician tasks and 100% for Auxiliary and Subordinate staff jobs. Fixed contracts for women within the administration are 100% for positions such as Managerial/Technician.
- In research: 98,45% of contracts awarded to women are temporary contracts. Of these, 98,61% of temporary contracts for research tasks, 100% of temporary contracts for nursing tasks and 94,44% for research administration tasks are for women.

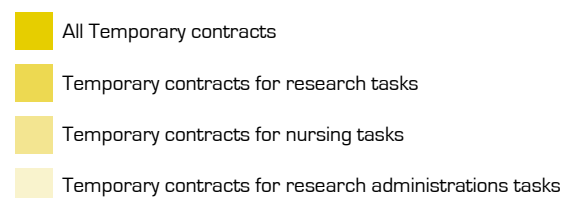
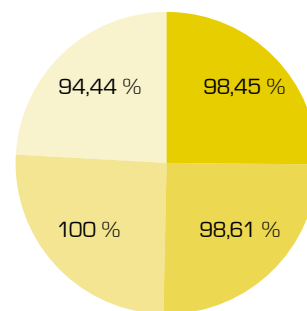
Contracts by areas



Type of contracts in the Administration area



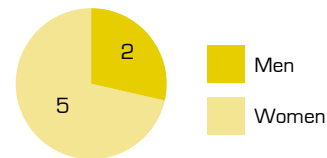
Type of contracts in the Research area



3 global analysis

Shared parental leave

Maternity/paternity leave was requested by only 7 employees throughout 2023: 2 by men, 5 by women.



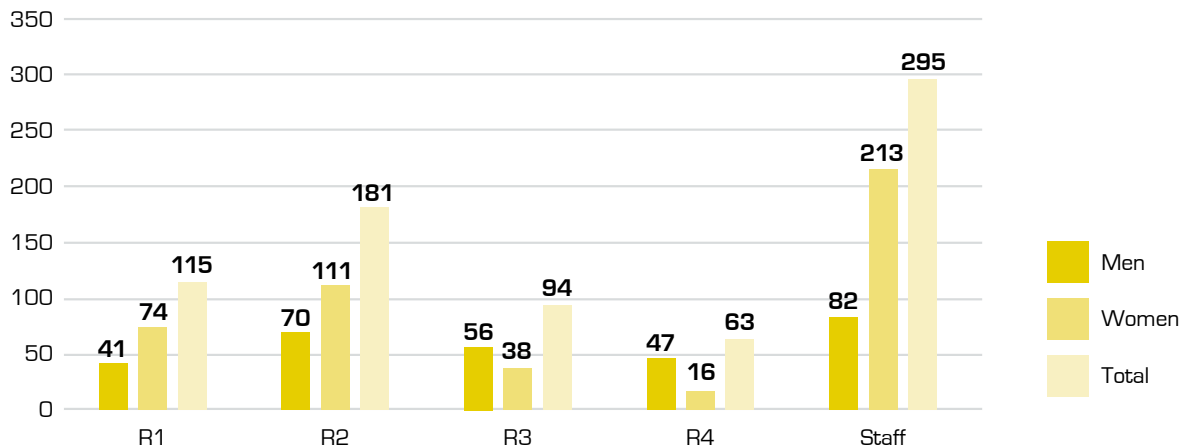
Organizational structure

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 2023
Board of Trustees	15	7	22
Board of Governors	7	6	13
External Scientific Committee	4	3	7
Internal Scientific Committee	5	5	10
Research Committe	14	15	29
Innovation Committe	7	7	14
Ethical Committee in Clinical Research	12	8	20
Training and Mobility Committee	8	9	17
Emerging researchers	5	10	15
R&D Group leader	40	20	60
R&D Group member	296	452	748

Breakdown of Research Group staff

A total of 748 researchers belong to consolidated, emerging and associated research groups, and whose EURAXESS profile distribution is as follows. Distribution by group of research staff in 2023



Research projects

Throughout 2023, 36 new competitive projects were awarded, making a total of 135 currently active projects under competitive tender. The Principal Investigators of new projects are distributed as shown in the table. In total, 36,11% of national projects are led by women and 50% of international projects are led by women.

	Men	Women	Total 2023
National	24	13	36
International	3	3	6

Clinical studies and trials

A total of 173 studies have been managed throughout 2023. The tables below indicate the distribution of Principal Investigators, and number of male and female evaluators.

	Men	Women	Total 2023
Managed Studies	79	94	173
CEIm Evaluators	12	8	20

3 global analysis

Transfer to the Productive Sector

Calls for proposals, innovation awards and patent portfolios during 2023 are distributed by gender as shown in the table:

	Men	Women	Total 2023
Innovation proposals in external calls 2023	22	14	35
Patents and MU in portfolio (IPs that have inventorship of a patent)	11	4	15
Vlc-Bioclinic Applications 2023	5	13	18
Applicants for Innovation Awards 2023	6	18	24

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

Of the 689 INCLIVA publications in 2023, the distribution of men to women according to the relevant position of signature (first, last or corresponding author) it is 7,16% for female researchers and 23,39% for male researchers.

Training Activities

In total, 1202 people participated in training activities carried out during 2023. According to registration questionnaires, 64,14% of participation was female (771) and 35.86% male (431). In 75% of activities, participation was mainly female.

Of the 76 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
Webinar: Desgranando la enfermedad cardiovascular en la mujer	11/12/2023	Local	webinar	online	1	583	N/A	N/A

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

External stays

Of a total of 4 external stays, 3 were granted to women, while of the 24 external stays funded by INCLIVA, 14 were women. In total, 61% of stays were completed by women.

Internal Stays

Of a total of 4 internal stays, 3 was carried out by women, entailing 75% of total internal stays.

Training placements

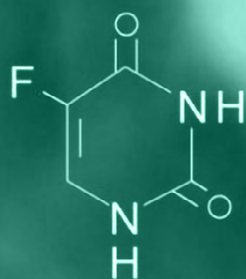
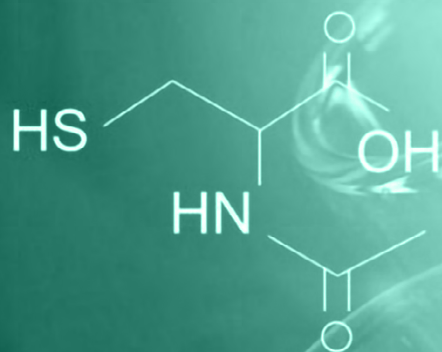
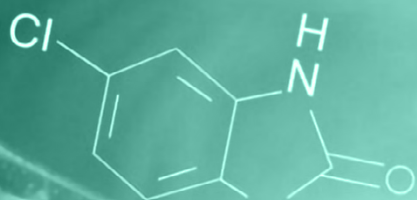
The classification and distribution by gender of training placements in 2023 is shown in the following table:

	Men	Women	Total 2023
Vocational training placements	1	30	31
Bachelor's placements	9	22	31
Master's placements	1	14	15
Bachelor's final project (TFG)	4	9	13
Master's final project (TFM)	2	1	3
Total	17	76	93

Doctoral thesis

Below is an analysis by gender of the 47 doctoral theses supervised by INCLIVA research staff: 68% of predoctoral researchers who defended their thesis in 2023 were women, and 33% of doctoral supervisors were women.

	Men	Women	Total
Doctoral students who defended their thesis in 2023	15 (32%)	32 (68%)	47 (100%)
Doctoral students who defended their thesis in 2023 hired by INCLIVA	7 (30%)	16 (70%)	23 (100%)
INCLIVA doctoral supervisors	50 (66%)	25 (33%)	75 (100%)



scien- tific activi- ty

INCLIVA SCIENTIFIC REPORT 2023

4. Scientific activity

4.1 Scientific structure

4.2 Scientific translational programs

4.2.1 Overweight and cardiovascular and renal risk

4.2.2 Detection and control of ventricular dysfunction

4.2.3 Rare Diseases

4.2.4 Neurological Decline

4.2.5 Translational Oncology

4.2.6 Reproductive Medicine

4.2.7 Ageing and associated diseases

4.3. Research areas

4.3.1 Cardiovascular Area

4.3.2 Oncology Area

4.3.3 Metabolism and Organic Damage Area

4.3.4 Reproductive Medicine Area

4.3.5 Associated Clinical Groups Area

4.4 Other scientific contributions from scientific platforms

4.4.1 Biobank

4.4.2 Oncology Phase I Oncology Clinical Trials Unit

4.4.3 Spanish Clinical Research Network (SCReN),
Clinical Research and Clinical Trials of the Clinical
Trials Platform (UICEC INCLIVA)

4.4.4 Precision Medicine Unit

4.4.5 Bioinformatic Unit

4.4.6 Biostatistics Unit

4.1 Scientific structure

INCLIVA articulates its research in 4 areas of research, 7 scientific programs, 5 platforms and 6 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:

- Central Unit for Medical Research (UCIM)
- Biobank
- Precision Medicine Unit
- Bioinformatics Unit
- Biostatistics Unit

4 scientific activity

4.2 Scientific translational programs

4.2.1 Overweight and cardiovascular and renal risk

Obesity and overweight is a field in which new strategies are developed both for prevention and treatment with the use of traditional resources and the 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. Josep 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 perform environmental epidemiology for exposome studies on obesity, metabolic and autoimmune disorders and organ damage associated with diabetes and hypertension.
- 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.

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.

Clinical groups:

- Research Group on the Study of Cardiometabolic and Renal Risk (Mr. Josep Redón i Mas)
- 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 Maria Jose Forner Giner)
- Research Group in complications of Infectious Diseases and HIV (Mrs Josefina Galinfo 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)

4 scientific activity

OVERWEIGHT AND CARDIOVASCULAR AND RENAL RISK				
OBJECTIVES	STATE			ACTIONS
	Achieve	Partially achieved	Not achieved	
Metabolic, vascular and renal evaluation of overweight patients (children and adults)			X	
Characterization of the relationship between overweight and vascular inflammation / endothelial function		X		
Identification of molecular markers that relate overweight with its associated diseases		X		• 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: Río Hortega (general population), AWHS (working population) and PIANCAVALLO (obese and morbid obese)
Identification of metabolomic markers that relate overweight with its associated morbidities		X		• 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: Río Hortega (general population), AWHS (working population) and PIANCAVALLO (obese and morbid obese)
Development of new early detection systems for obesity and its associated complications		X		• 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: Río 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			X	

4.2.2 Detection 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 O/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)

4 scientific activity

DETECTION, RISK PREDICTION AND CONTROL OF VENTRICULAR DYSFUNCTION				
OBJECTIVES	STATE			ACTIONS
	Achieve	Partially achieved	Not achieved	
Risk prediction through new analytical biomarkers		X X X X X		- Definition of new serological indicators with NMR-S to predict DR and fibrosis - Serum CA125, galectin-1 and galectin-3 markers - O/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	X X	X X X X		- 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	X X X	X X		- 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		X X X		- DR prevention through multiple antioxidant treatment - Prevention of deterioration of systolic function, fibrosis and arrhythmias - Cardiac Rehabilitation programs
Development of technical tools		X X		- Analysis and processing of electrophysiological signals. Cardiac mapping. - CMR analytical techniques
Interventionism in structural heart disease.		X X		- 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	X			Personalized treatment in heart failure patients
Electrical remodeling: Experimental studies on the protective effect against arrhythmic vulnerability.	X X X	X		Protective effects of: Nitric oxide donors iSGLT2 Inhibition of neprilysin, late sodium current and intracellular calcium overload.

4.2.3 Rare Diseases

In summary, the program aims to bridge the existing gap between basic research and the commercial development of diagnostic systems and treatments, so we seek to transfer this knowledge to companies and transform biomedical knowledge into products and services that improve the health of RD patients. 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.

Coordinators: Mr. Francisco Dasí, Mrs. Pilar González Cabo and Mr. Federico Pallardó.

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, Duchenne Muscular Dystrophy, Lafora Disease, Neonatal Sepsis, Prader-Willi Syndrome, Myotonic Dystrophy, Charcot-Marie-Tooth Disease, Spinal Muscular Atrophy, Alpha-1 Antitrypsin Deficiency, Primary Ciliary Dyskinesia, pulmonary interstitial diseases, idiopathic pulmonary fibrosis and Cystic Fibrosis.
- 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

- 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 and Cerebellar Ataxia, Vestibular Areflexia, and Neuropathy (CANVAS) Syndrome.
- 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 (LGMDD2), Friedreich's ataxia, and CANVAS, 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. Silvestre)

4 scientific activity

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)

Clinical Services Associated with the Program

- Department of Pediatrics
- Department of Pneumology

RARE DISEASES				
OBJECTIVES	STATE			ACTIONS
	Achieve	Partially achieved	Not achieved	
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)	X			EP, US, CA, JP y CN
Acquisition of budget and resources from different programs	X			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 (1 project)
Carry out teaching and outreach activities	X			• Subject "Enfermedades Raras": Medicine degree (UV) • Master course in Biomedical Research • Master "Enfermedades raras" • 2nd edition of the online course "Introducción a las EERR: investigación y atención clínica" • "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.

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:

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

4 scientific activity

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 Inflammation (Dr. Esteban Morcillo Sánchez, Dr. M^a Jesús Sanz Ferrando)
- Research Group on Psychiatry and neurodegenerative diseases (Dr. Juan Nacher)

University Department Associated with the Program:

- Biology Unit. Department of Pathology

NEUROLOGICAL DECLINE				
OBJECTIVES	STATE			ACTIONS
	Achieve	Partially achieved	Not achieved	
1. Characterize the alterations in inflammation, neuroinflammation, neurotransmission, function and brain structure associated with the appearance of cognitive and functional impairment		X		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 are analysing alterations in neural connectivity by functional magnetic resonance imaging.
2. Characterize cognitive and functional disturbances in detail		X		Gait, balance, hand strength and motor speed performance were evaluated in cirrhotic patients. 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: NASH (non-alcoholic steatohepatitis), diabetes mellitus, schizophrenia, bipolar disorder, and post-surgery 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		X		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, NASH, and diabetes mellitus.

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		X		We have identified alterations of the immune system associated with the appearance of neurological alterations in cirrhotic patients with MHE. 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		X		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		X		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		X		Seminars are scheduled for the third Thursday of each month. Time: 13:30h

4 scientific activity

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.

Coordinator: 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	STATE			ACTIONS
	Achieve	Partially achieved	Not achieved	
Identify biomarkers	X X X X			• Clinical recruitment-characterization and storage Biobank-Data Management • Subclassify tumours according to their profile • Identify biomarkers of inflammation / angiogenesis; miRs-detox from oxidative stress • Perform comprehensive omics data analysis with search of altered routes using Biology of systems
Validate promising biomarkers / mechanistic analysis	X	X X X		• 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 (BEAMing PCR)	X X			• 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 scientific activity

4.2.6 Reproductive Medicine

This program comprises two main lines:

1. 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.
2. Study of maternal-embryonic communication mechanisms and their impact on reproductive health.

Coordinators: Mr. Carlos Simón and Mr. Felip Vilella

Objectives:

- To create comprehensive reference map at single-cell resolution of the human uterus
- 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 using microarray technology has established a transcriptomic signature of human endometrial receptivity
- Maternal-fetal communication
- Role of the endometrial microbiome in reproduction
- 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
- Deciphering interactions at the single-cell level of the human endometrial microbiome in health and disease

Clinical groups:

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

Experimental groups:

- Research Group on Maternal Fetal Communication (Mr. Felip Vilella Mitjana)
- Research Group on Reproductive Medicine (Mr. Carlos Simón Vallés)

Clinical Services Associated to the Program

- Department of Gynaecology and Obstetrics

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

4 scientific activity

4.2.7 Ageing and 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

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.

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. Josep Redón i Mas)
- 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				
OBJECTIVES	STATE			ACTIONS
	Achieve	Partially achieved	Not achieved	
Determination of parameters of oxidative stress and inflammation associated with aging healthy, frailty and diseases associated with aging (mainly cardiovascular and neurodegenerative)		X		• 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

4 scientific activity

Determination of genetic biomarkers (microRNAs, mRNAs and SNPs) associated with healthy aging, frailty and diseases associated with aging (mainly cardiovascular and neurodegenerative)	X			• In Search of 'Omics'-Based Biomarkers to Predict Risk of Frailty and Its Consequences in Older Individuals: The FRAILOMIC • 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 miRNA biogenesis pathway while it is impaired in octogenarians. Mechanisms of ageing and development Thesis title: <i>Transcriptómica en centenarios: un ejemplo de envejecimiento satisfactorio</i>
Determination of epigenetic biomarkers associated with healthy aging, frailty, and diseases associated with aging (mainly cardiovascular and neurodegenerative)		X		• 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 diseases associated with aging (mainly cardiovascular and Neurodegenerative)		X		• Sex differences in age-associated Type 2 Diabetes in Rats-Role of Estrogens and Oxidative Stress

Physical exercise protocols for the prevention of frailty		X	• A multicomponent exercise intervention that reverses frailty and improves cognition, emotion, and social networking in the community-dwelling frail elderly • 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: 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 healthspan 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
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4 scientific activity

Regenerative medicine in aging: role of stem cells and their extracellular vesicles in restoring		X		• 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-phosphatocalcium 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.
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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

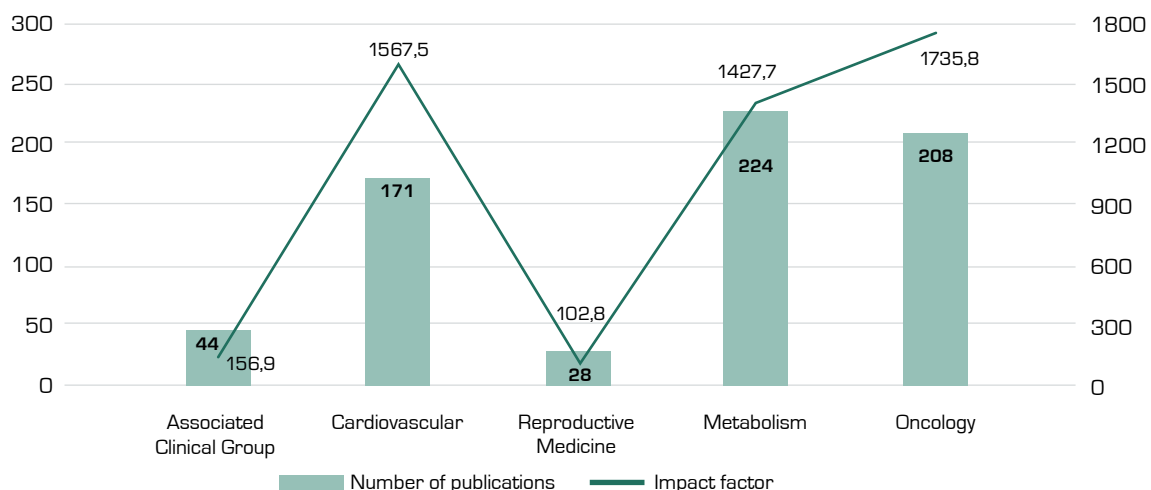
- **Coordinator:** Mr. José Viña
- **Mission:** to contribute to the study of the etiology, pathophysiology and diagnosis mechanisms or treatment of various metabolic diseases; or those that generate organ damage as a fundamental link of its trigger action.

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.

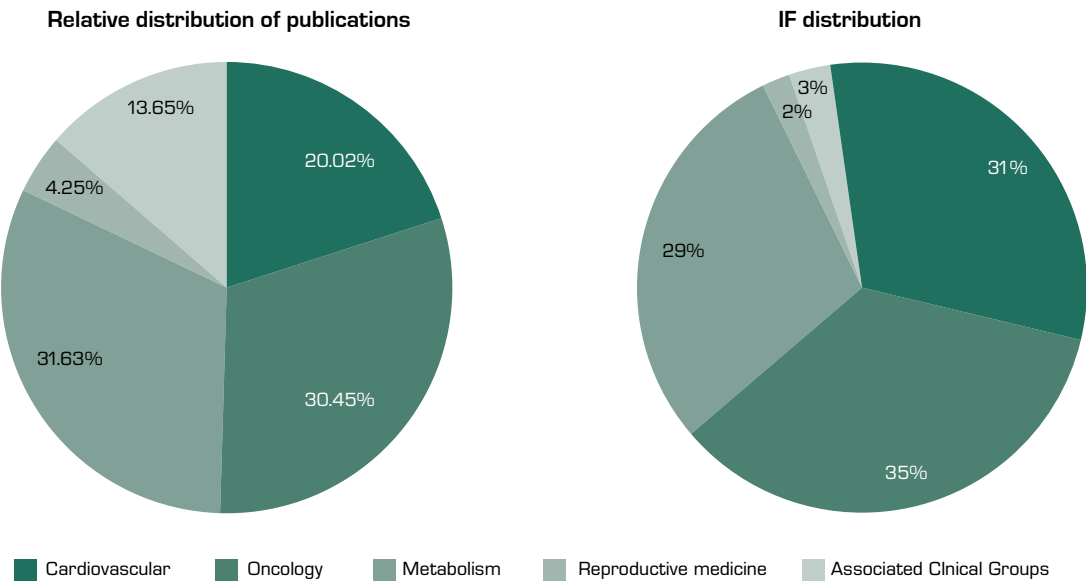
Scientific production analysis by research area

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*.



4 scientific activity

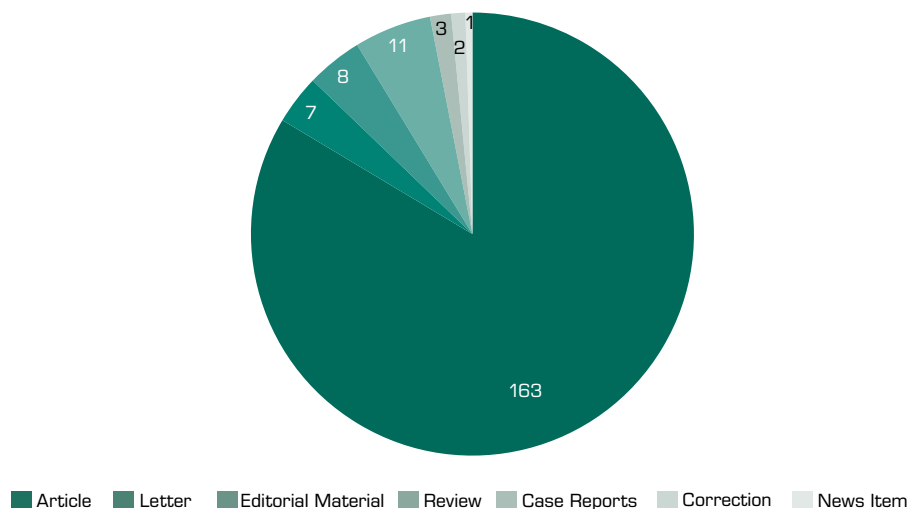
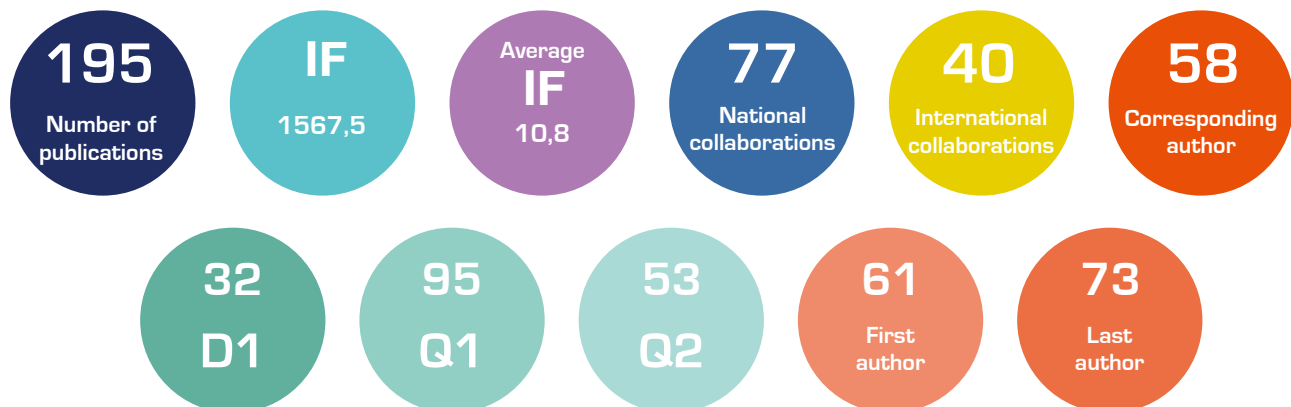
Since there are some scientific articles which are shared by two or more areas, it is worth mentioning that the sum of publications by area exceeds INCLIVA's total scientific output. Additionally, the next tables shows scientific publications distribution by area in terms of number of articles and impact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



4 scientific activity

Research Group on Cardiometabolic Risk and Diabetes Consolidated group

Group members

Leading Researchers, R4

José Tomás Real Collado

Hospital. University

Sergio Martínez Hervás

Hospital. University

Juan Francisco Ascaso Gimilio

University

Established Researchers, R3

Francisco Javier Ampudia Blasco. Hospital. University

Miguel Civera Andrés. Hospital. University

Emerging Researcher, R2

Vera Lucía Gomes Francisco. INCLIVA

Recognised Researchers, R2

Blanca Alabadí Pardiñes. INCLIVA

Marta Peiró Signes. INCLIVA. CIBER

Sara Vela Bernal. University. Hospital

First Stage Researchers, R1

Carlos Bea Serrano. Hospital

Miriam Moriana Hernández. University

Researchers by categories



Researchers financed by competitive public calls or networks



Team involved in

ciberdem

Staff. Collaborating Researchers

Ana Palanca Palanca. Hospital

Esther Benito Casado. CIBER

Staff. Nurse

Pilar Aguilar Santaisabel. Hospital

Strategic aims

In terms of scientific activity of the research group during 2023, our group is participating in the development of this 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

- Role of inflammatory axes in the modulation of metabolic and vascular dysfunctions in obesity, insulin resistance and diabetes
- Primary dyslipidemias: molecular mechanisms, insulin resistance and novel therapeutic targets
- Ageing, frailty, sarcopenia and neurodegeneration in people with diabetes
- New diabetes technologies
- Pharmacogenetic-based personalized treatment in diabetes
- Applying Big Data and Artificial Intelligence technologies to analyse cardiovascular risk in dyslipidemia and diabetes
- Adipokines, inflammatory axes, new therapeutic targets and cardiovascular risk in metabolic fatty liver disease

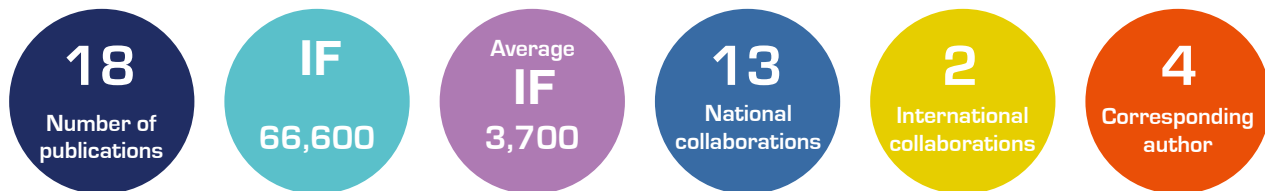
- Body composition analysis
 - effect of body composition analysis, vascular risk and treatment in people with diabetes
 - impact of body composition analysis on prognosis, quality of life and therapeutic response in onco-haematological patients

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.

PUBLICATIONS



SELECTED PUBLICATIONS

1. Alabadi B, Civera M, De la Rosa A, Martinez-Hervas S, Gomez-Cabrera M, Real J. Low muscle mass is associated with poorer glycemic control and higher oxidative stress in older patients with type 2 Diabetes. *Nutrients*. 2023 Jul 17;15(14):3167. doi: 10.3390/nu15143167. PMID: 37513585. IF: 5,9
2. Hueso L, Marques P, Morant B, Gonzalez-Navarro H, Ortega J, Real J, Sanz M, Piqueras L. CCL17 and CCL22 chemokines are upregulated in human obesity and play a role in vascular dysfunction. *Frontiers in Endocrinology*. 2023 Apr 12;14:1154158. doi: 10.3389/fendo.2023.1154158. PMID: 37124725. IF: 5,2
3. Francisco V, Eldjoudi D, Gonzalez-Rodriguez M, Ruiz-Fernandez C, Cordero-Barreal A, Marques P, Sanz M, Real J, Lago F, Pino J, Farrag Y, Gualillo O. Metabolomic signature and molecular profile of normal and degenerated human intervertebral disc cells. *Spine Journal*. 2023 Oct;23(10):1549-1562. doi: 10.1016/j.spinee.2023.06.005. PMID: 37339697. IF: 4,5
4. Palanca A, Ampudia Blasco F, Calderon J, Sauri I, Martinez Hervas S, Trillo J, Redon J, Real J. Real-world evaluation of GLP-1 receptor agonist therapy persistence, adherence and therapeutic inertia among obese adults with Type 2 Diabetes. *Diabetes Therapy*. 2023 Apr;14(4):723-736. doi: 10.1007/s13300-023-01382-9. PMID: 36847952. IF: 3,8
5. Marco-Benedi V, Cenarro A, Vila A, Real J, Tamarit J, Walther L, Diaz-Diaz J, Perea V, Civeira F, Vaz A. Impact of conducting a genetic study on the management of familial

hypercholesterolemia. *Journal of Clinical Lipidology*. 2023 Nov-Dec;17(6):717-731. doi: 10.1016/j.jacl.2023.08.008. PMID: 37813710. IF: 4,4

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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 Tomas Real Collado

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

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

4 scientific activity

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: CB07/08/0018

Title: *CIBER de Diabetes y Enfermedades Metabólicas Asociadas (CIBERdem)*

Principal Investigator: José Tomas Real Collado

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

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

Duration: 2008-

Reference: PROMETEO/2019/032

Title: *Una aproximación traslacional desde la clínica a la experimentación animal: estudio del papel del eje CCL11/CCR3 y la inflamación eosinofílica en la patología cardiovascular asociada a desórdenes metabólicos*

Principal Investigator: M^a Jesús Sanz Ferrando (José Tomás, Sergio Martínez as collaborating researchers)

Funding Body: *Conselleria de Educación Cultura y Deporte*

Beneficiary Institution: *Universidad de Valencia*

Duration: 2020-2023

Total budget: €211.736

Reference: INVEST/2022/470

Title: *Investigación en Enfermedades Inflammatorias*

Principal Investigator: Vera Lucía Gomes Francisco

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

Genomics and Diabetes Unit Consolidated group

Group members

Leading Researcher, R4

Felipe Javier Chaves Martínez
INCLIVA

Established Researcher, R3

Ana Bárbara García García. CIBER

Recognised Researchers, R2

Luiz Alvarez Fernández. INCLIVA

First Stage Researchers, R1

Celeste Moya Valera. INCLIVA

Fran Lara Hernández. INCLIVA

Rebeca Melero Valverde. INCLIVA

Soraya García Sorribes. INCLIVA

Staff. Collaborating Researcher

Ingrid Lizeth Valarezo Torres. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Strategic aims

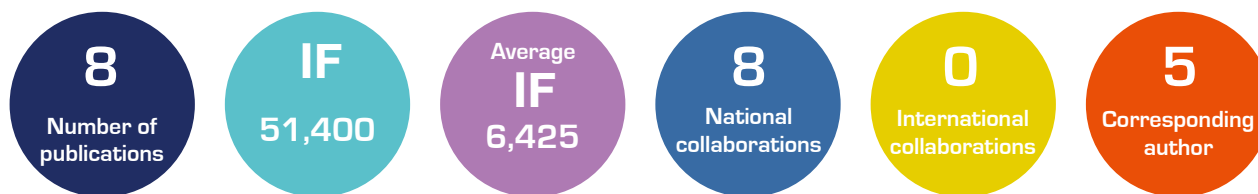
- Identify genetic and environmental factors involved in the development of type 2 diabetes and related diseases
- Identify alterations of DNA methylation in relation to the development of type 2 diabetes and its potential use as biomarkers
- Identify genetic causes of rare diseases: Abeta, allergy to all food and hereditary forms of hypercholesterolemias not caused by known genes
- Study of environmental factors involved in the development of diseases of high cardiovascular risk, especially type 2 diabetes and associated organic damage
- Development of fast and easy procedures for SARS-CoV2 (COVID19) detection and characterization (including the analysis of the main human genetic variations involved in COVID19)

Main lines of research

- Identification of frequent and rare functional variants involved in high cardiovascular risk disease development and their interaction with environmental factors
- Genotyping and/or sequencing of complete rotavirus and norovirus genomes. Human genotype study of FUT2 and FUT3 genes related to viral genotypes and their relationship with intestinal microbiota
- Analysis of methylated and hydroxymethylated regions in the genome in patients with specific phenotypes at baseline compared with phenotypes present five years later, as pertains to type 2 diabetes
- Monitoring and molecular characterization of chronic lymphocytic leukaemia and study of molecular markers
- Identification of relationships between different genes, essential metals and pollutants in relation to type 2 diabetes and related traits

4 scientific activity

PUBLICATIONS



SELECTED PUBLICATIONS

1. García-Sorribes S, Lara-Hernández F, Manzano-Blasco I, Abadía-Otero J, Albert E, Mulet A, Briongos-Figuero LS, Gabella-Martín M, Torres I, Signes-Costa J, Navarro D, Martín-Escudero JC, García-García AB, Chaves FJ. Sample Treatment with Trypsin for RT-LAMP COVID-19 Diagnosis. *Biology (Basel)*. 2023 Jun 23;12(7):900. doi: 10.3390/biology12070900. PMID: 37508333; PMCID: PMC10376771. IF: 3,6
2. Melero R, Quiroz-Rodríguez ME, Lara-Hernández F, Redón J, Sáez G, Briongos-Figuero LS, Abadía-Otero J, Martín-Escudero JC, Chaves FJ, Ayala G, García-García AB. Genetic interaction in the association between oxidative stress and diabetes in the Spanish population. *Free Radic Biol Med*. 2023 Aug 20;205:62-68. doi: 10.1016/j.freeradbiomed.2023.05.030. Epub 2023 Jun 1. Erratum in: *Free Radic Biol Med*. 2023 Oct;207:181-182. doi: 10.1016/j.freeradbiomed.2023.07.017. PMID: 37268047. IF: 7,4
3. Martínez-Arroyo O, Ortega A, Flores-Chova A, Sanchez-García B, García-García AB, Chaves FJ, Martín-Escudero JC, Forner MJ, Redon J, Cortes R. High miR-126-3p levels associated with cardiovascular events in a general population. *Eur J Intern Med*. 2023 Jul;113:49-56. doi: 10.1016/j.ejim.2023.04.013. Epub 2023 Apr 18. PMID: 37080818; PMCID: PMC10271715. IF: 8
4. Melero R, Quiroz-Rodríguez ME, Lara-Hernández F, Redón J, Sáez G, Briongos-Figuero LS, Abadía-Otero J, Martín-Escudero JC, Chaves FJ, Ayala G, García-García AB. Corrigendum to "Genetic interaction in the association between oxidative stress and diabetes in the Spanish population" [*Free Radic Biol Med*. 205 (2023) 62-68]. *Free Radic Biol Med*. 2023 Oct;207:181-182. doi: 10.1016/j.freeradbiomed.2023.07.017. Epub 2023 Jul 22. Erratum for: *Free Radic Biol Med*. 2023 Aug 20;205:62-68. doi: 10.1016/j.freeradbiomed.2023.05.030. PMID: 37487450. IF: 7,4
5. Galvez-Fernandez M, Rodriguez-Hernandez Z, Grau-Perez M, Chaves FJ, Garcia-Garcia AB, Amigo N, Monleon D, Garcia-

Barrera T, Gomez-Ariza JL, Briongos-Figuero LS, Perez-Castrillon JL, Redon J, Tellez-Plaza M, Martin-Escudero JC. Metabolomic patterns, redox-related genes and metals, and bone fragility endpoints in the Hortega Study. *Free Radic Biol Med*. 2023 Jan;194:52-61. doi: 10.1016/j.freeradbiomed.2022.11.007. Epub 2022 Nov 9. PMID: 36370960. IF: 7,4

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: PMP21/00076

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

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: 2022-2025

Total budget: €106.700

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

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/2020/217

Title: *Contrato predoctoral*

Principal Investigator: Rebeca Melero Verde

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

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

Duration: 2020-2023

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

Reference: ACIF/2021/411

Title: *Contrato predoctoral*

Principal Investigator: Celeste Moya Valera

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

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

Duration: 2021-2023

Reference: CIACIF/2021/411

Title: *Contratación de personal predoctoral*

Principal Investigator: Celeste Moya Valera

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

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

Duration: 2021-2023

Total budget: €93.878

Reference: FDGENT/2019/006

Title: Soraya García Sorribes

Principal Investigator: Celeste Moya Valera

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

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

Duration: 2019-2023

Total budget: €71.000

THESIS

Thesis title: Development of bioinformatics tools for the characterization of B cell neoplasms

Doctoral candidate: Azahara María Fuentes Trillo

Director[s]: Felipe Javier Chaves Martínez, Blanca Navarro Cubells and María José Terol Casterá

Date of the defense: 10-03-2023

Grade: Sobresaliente "cum laude"

4 scientific activity

Research Group on Cardiac Experimental Electrophysiology Consolidated group

Group members

Leading Researchers, R4

Francisco Javier Chorro Gascó . Hospital. University. CIBER

Antonio M. Alberola Aguilar. University. CIBER

Luis Such Belenguer. University. CIBER

Recognised Researchers, R2

Irene del Canto Serrano. University. INCLIVA. CIBER

Isabel Trapero Gimeno. University. CIBER

Luis Such Miquel. University. CIBER

Manuel Zarzoso Muñoz. University. CIBER

First Stage Researcher, R1

Óscar Julián Arias Mutis. CIBER

Johan E. Ortiz Guzmán. University (doctorando)

Patricia Genovés Martínez

Researchers by categories



Researchers financed by competitive public calls or networks



Team involved in



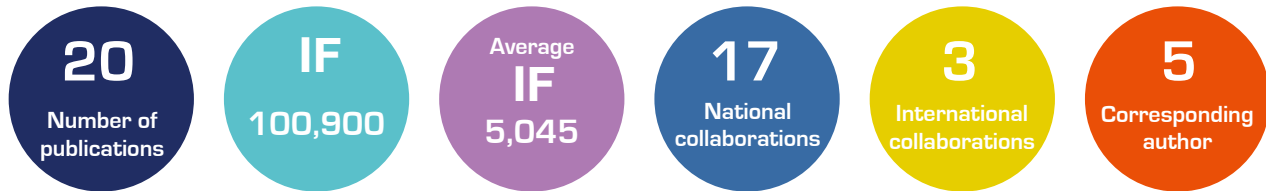
Strategic aims

- 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
- Development of instruments for recording, processing and analysis of cardiac electrophysiological signals obtained with cardiac mapping systems (optical and electric mapping)
- Analysis of the effects of modifications of the basic electrophysiological properties on the mechanisms involved in the induction and maintenance of fibrillatory processes

Main lines of research

- 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 the mechanisms involved in the deterioration of the systolic function, fibrosis and the inducibility of arrhythmias in an experimental model of myocardial infarction
- Study of electrophysiological modifications and inducibility of cardiac arrhythmias in an experimental model of metabolic syndrome
- Development and extension of technical tools for the recording, processing and analysis of cardiac electrophysiological signals based on multielectrodes and cardiac mapping systems

PUBLICATIONS



SELECTED PUBLICATIONS

1. Lozano WM, Ortiz-Guzmán JE, Arias-Mutis O, Bizy A, Genovés P, Such-Miquel L, Alberola A, Chorro FJ, Zarzoso M, Calvo CJ. Modifications of long-term heart rate variability produced in an experimental model of diet-induced metabolic syndrome. *Interface Focus*. 2023 Dec 15;13(6):20230030. doi: 10.1098/rsfs.2023.0030. PMID: 38106920; PMCID: PMC10722215. IF: 4,4
2. Ortiz-Guzmán JE, Mollà-Casanova S, Serra-Añó P, Arias-Mutis ÓJ, Calvo C, Bizy A, Alberola A, Chorro FJ, Zarzoso M. Short-Term Heart Rate Variability in Metabolic Syndrome: A Systematic Review and Meta-Analysis. *J Clin Med*. 2023 Sep 19;12(18):6051. doi: 10.3390/jcm12186051. PMID: 37762990; PMCID: PMC10532399. IF: 3,9
3. Ruipérez-Campillo S, Crespo M, Tormos Á, Guill A, Cebrián A, Alberola A, Heimer J, Chorro FJ, Millet J, Castells F. Evaluation and assessment of clique arrangements for the estimation of omnipolar electrograms in high density electrode arrays: an experimental animal model study. *Phys Eng Sci Med*. 2023 Sep;46(3):1193-1204. doi: 10.1007/s13246-023-01287-8. Epub 2023 Jun 26. PMID: 37358782; PMCID: PMC10480253. IF: 4,4
4. Bodi V, Gavara J, Lopez-Lereu MP, Monmeneu JV, de Dios E, Perez-Sole N, Bonanad C, Marcos-Garcés V, Canoves J, Minana G, Nunez J, Moratal D, Chorro FJ, Rodríguez-Palomares JF, Freixa A, Borrás R, Ortiz-Pérez JT, Rios-Navarro C. Impact of Persistent Microvascular Obstruction Late After STEMI on Adverse LV Remodeling: A CMR Study. *JACC Cardiovasc Imaging*. 2023 Jul;16(7):919-930. doi: 10.1016/j.jcmg.2023.01.021. Epub 2023 Apr 12. PMID: 37052556. IF: 14
5. Marcos-Garcés V, Perez N, Gavara J, Lopez-Lereu MP, Monmeneu JV, Rios-Navarro C, de Dios E, Merenciano-González H, Gabaldon-Pérez A, Ferrero-De-Loma-Orsorio Á, Martínez-Brotons Á, Bondanza L, Sánchez-Gómez JM, Albiach C, Nunez J, Bayés-Genís A, Chorro FJ, Ruiz-Granell R, Bodi V.

Cardiac magnetic resonance outperforms echocardiography to predict subsequent implantable cardioverter defibrillator therapies in ST-segment elevation myocardial infarction patients. *Front Cardiovasc Med*. 2023 Feb 3;10:991307. doi: 10.3389/fcvm.2023.991307. PMID: 36818338; PMCID: PMC9937054. IF: 3,6

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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: CB16/11/00486

Title: *Centro de Investigación Biomédica en Red de Enfermedades Cardiovasculares (CIBERCV)*

Principal Investigator: Francisco Javier Chorro Gascó

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

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

Duration: 2017-

Reference: EU4H-2022-JA-03

Title: Prevention of NCDs – cardiovascular diseases and diabetes

Principal Investigator: Clara Bonanad Lozano, Josep Redón Mas

Funding Body: European Commission

4 scientific activity

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

THESIS

Thesis title: *Estudio del remodelado eléctrico cardíaco producido en un modelo experimental de síndrome metabólico y su implicación en la génesis de arritmias*

Doctoral candidate: Óscar Julián Arias Mutis

Director(s): Manuel Zarzoso Muñoz and Conrado Calvo

Date of the defense: 12/06/2023

Grade: Sobresaliente "cum laude"

Thesis title: *Valor pronóstico de los parámetros de deformación miocárdica en una cohorte de pacientes con insuficiencia cardíaca crónica estable*

Doctoral candidate: Jessika González D' Gregorio

Director(s): Julio Núñez Villota and Francisco Javier Chorro Gascó

Date of the defense: 08/05/2023

Grade: Sobresaliente "cum laude"

Thesis title: *Optimización del diagnóstico de la endocarditis infecciosa en un hospital terciario*

Doctoral candidate: Patricia Falomir Salcedo

Director(s): Francisco Marino Blanes Juliá, María Dolores Gómez Ruiz and Francisco Javier Chorro Gascó

Date of the defense: 08/03/2023

Grade: Sobresaliente "cum laude"

scientific activity

Research Group on Endothelial Cells (LINCE) Consolidated group

Group members

Leading Researchers, R4

Carlos Hermenegildo Caudevilla

University

Susana Novella del Campo

University

Recognised Researchers, R2

Daniel Bernardo Pérez Cremades. University

Elena Monsalve Villalba. University

First Stage Researchers, R1

Cristina Rosales Ariza. University

Researchers by categories



Researchers financed by competitive public calls or networks



<http://www.uv.es/lince/SP/index.html>

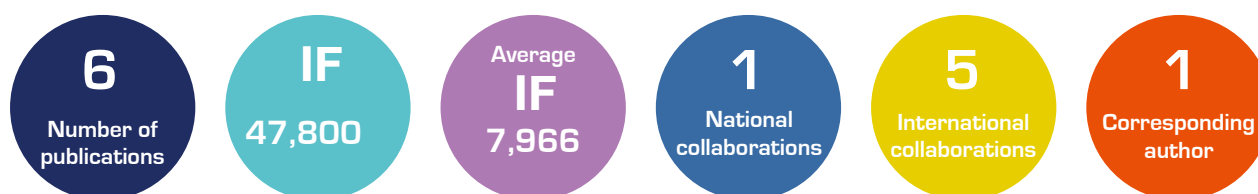
Strategic aims

- To analyze the levels of selected miRNA of acute myocardial infarction patients included in the studies of PI19/O1714
- 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

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

PUBLICATIONS



SELECTED PUBLICATIONS

1. Perez-Cremades D, Bueno-Beti C, Garcia-Gimenez J, Ibanez-Cabellos J, Pallardo F, Hermenegildo C, Novella S. Extracellular histones trigger oxidative stress-dependent induction of the

NF- κ B/CAM pathway via TLR4 in endothelial cells. Journal of Physiology and Biochemistry. 2023 May;79(2):251-260. doi: 10.1007/s13105-022-00935-z. PMID: 36464762. IF: 3,4

4 scientific activity

2. Spinetti G, Mutoli M, Greco S, Riccio F, Ben-Aicha S, Kenneweg F, Jusic A, de Gonzalo-Calvo D, Nossent A, Novella S, Kararigas G, Thum T, Emanuelli C, Devaux Y, Martelli F. Cardiovascular complications of diabetes: role of non-coding RNAs in the crosstalk between immune and cardiovascular systems. *Cardiovascular Diabetology*. 2023 May 24;22(1):122. doi: 10.1186/s12933-023-01842-3. PMID: 37226245. IF: 9,3
3. Cheng H, Perez-Cremades D, Zhuang R, Jamaïyar A, Wu W, Chen J, Tzani A, Stone L, Plutzky J, Ryan T, Goodney P, Creager M, Sabatine M, Bonaca M, Feinberg M. Impaired angiogenesis in diabetic critical limb ischemia is mediated by a miR-130b/INHBA signaling axis. *JCI Insight*. 2023 May 22;8(10):e163041. doi: 10.1172/jci.insight.163041. PMID: 37097749. IF: 8
4. McCoy MG, Jamaïyar A, Sausen G, Cheng HS, Perez-Cremades D, Zhuang R, Chen J, Goodney PP, Creager MA, Sabatine MS, Bonaca MP, Feinberg MW. MicroRNA-375 repression of Kruppel-like factor 5 improves angiogenesis in diabetic critical limb ischemia. *Angiogenesis*. 2023 Feb;26(1):107-127. doi: 10.1007/s10456-022-09856-3. PMID: 36074222. IF: 9,8
5. Cheng H, Zhuang R, Perez-Cremades D, Chen J, Jamaïyar A, Wu W, Sausen G, Tzani A, Plutzky J, Henao-Mejia J, Goodney P, Creager M, Sabatine M, Bonaca M, Feinberg M. A miRNA/CXCR4 signaling axis impairs monopoiesis and angiogenesis in diabetic critical limb ischemia. *JCI Insight*. 2023 Apr 10;8(7):e163360. doi: 10.1172/jci.insight.163360. PMID: 36821386. IF: 8

Principal Investigator: Yvan Devaux (Susana Novella as collaborating researcher)

Funding body: European Commission

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

Duration: 2018-2023

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: *Universidad de Valencia*

Duration: 2023-2025

Total Budget: €111.320

Reference: PI19/01714

Title: *Regulación dependiente de sexo y estrógenos en el síndrome coronario agudo e impacto funcional en células endoteliales humanas. Nuevos biomarcadores para prevención primaria*

Principal Investigator: Carlos Hermenegildo and Susana Novella

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

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

Duration: 2020-2023

Total Budget: €159.720

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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 collaborating researcher)

Funding body: European Commission

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

Duration: 2022-2025

Reference: COST Action CA17129

Title: Catalysing transcriptomics research in cardiovascular disease

Reference: CIGE/2021/158

Title: *Caracterización de un modelo murino experimental de insuficiencia cardíaca para estudios transcriptómicos*

Principal Investigator: Daniel Pérez Cremades

Funding body: *Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital*

Beneficiary institution: *Universidad de Valencia*

Duration: 2022-2023

Total Budget: €20.000

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 Caudevilla

Funding body: *Conselleria de Innovación, Universidades, Ciencia y Sociedad Digital*

Beneficiary institution: *Universidad de Valencia*

Duration: 2022-2024

Total Budget: €90.000

THESIS

Thesis title: *Modificación de miRNAs circulantes por infarto agudo de miocardio experimental en el modelo murino de senescencia SAMR1/SAMP8 y su relación con las diferencias de sexo*

Doctoral candidate: Ana Belén Paes Martí

Director(s): Susana Novella del Campo, Carlos Hermenegildo Caudevilla, Julio Núñez Villota

Date of the defense: 01/11/2023

Grade: Sobresaliente "*cum laude*"

Quality recognition/Award: European PhD

4 scientific activity

Research Group on Clinical Cardiology Consolidated group

Group members

Leading Researcher, R4

Juan Sanchis Forés
Hospital. University

Recognised Researchers, R2

Agustín Fernández Cisnal. Hospital
Anna Mollar Fernández. INCLIVA
Ernesto Valero Picher. Hospital
Sergio García Blas. Hospital

Staff. Nurses

Beatriz Silla Sobrecases. Hospital
Georgiana Zaharia. INCLIVA

Staff. Technicians

Alba Palao Andrés. CIBER

Researchers by categories



Researchers financed by competitive public calls or networks



Team involved in



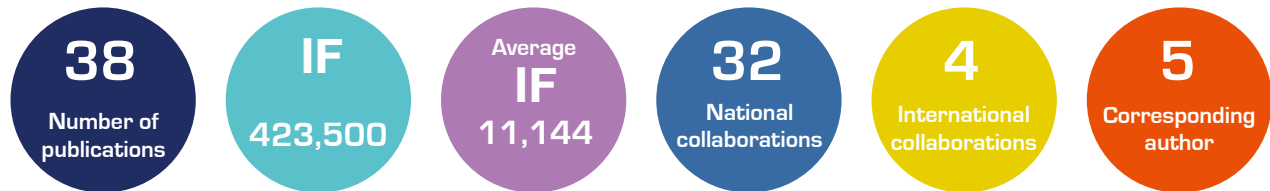
Strategic aims

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

Main lines of research

- 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
- 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)
- 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

PUBLICATIONS



SELECTED PUBLICATIONS

1. Sanchis J, Ariza-Sole A, Alfonso F. Complete or culprit-only PCI in older patients with MI. *New England Journal of Medicine*. 2023 Nov 16;389(20):1923. doi: 10.1056/NEJMc2311551. PMID: 37966295. IF: 158,5
2. Sanchis J, Bueno H, Minana G, Guerrero C, Marti D, Martinez-Selles M, Dominguez-Perez L, Diez-Villanueva P, Barrabes J, Marin F, Villa A, Sanmartin M, Llibre C, Sionis A, Carol A, Garcia-Blas S, Calvo E, Morales Gallardo M, Elizaga J, Gomez-Blazquez I, Alfonso F, Garcia Del Blanco B, Nunez J, Formiga F, Ariza-Sole A. Effect of routine invasive vs conservative strategy in older adults with frailty and non-ST-segment elevation acute myocardial infarction: a randomized clinical trial. *JAMA Internal Medicine*. 2023 May 1;183(5):407-415. doi: 10.1001/jamainternmed.2023.0047. PMID: 36877502. IF: 39
3. Monsuez J, Gatzov P, Ferreira-Gonzalez I, Alfonso F. Coronary interventions 2021: insights from the National Societies of Cardiology Journals of the European Society of Cardiology. *European Heart Journal*. 2023 Jan 21;44(4):251-253. doi: 10.1093/eurheartj/ehac679. PMID: 36478051. IF: 39,3
4. Lorenzo M, Jacobs-Cachá C, Palau P, Amiguet M, Seller J, Núñez E, Espriella R, Górriz JL, Miñana G, Sanchis J, Bayés-Genis A, Soler MJ, Packer M, Núñez J; DAPA-VO2 Investigators. Short-term changes in peak VO2 after initiation of dapagliflozin in heart failure across iron status. *JACC. Heart Failure*. 2023 Nov;11(11):1611-1622. doi: 10.1016/j.jchf.2023.07.010. PMID: 37676213. IF: 13
5. Bayes-Genis A, Lupon J, Revuelta-Lopez E, Llibre C, Gastelurrutia P, Domingo M, Cediel G, Codina P, Santiago-Vacas E, Rangel-Sousa D, Fernandez-Cisnal A, Minana G, Mollar A, Nunez J. Evolocumab has no effects on HFrEF injury biomarkers: the EVO-HF trial. *European Journal of Heart failure*. 2023 Aug;25(8):1439-1443. doi: 10.1002/ehf.2932. PMID: 37323111. IF: 18,2

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: CB16/11/00420

Title: Centro de Investigación Biomédica en Red de Enfermedades Cardiovasculares (CIBERCV)

Principal Investigator: Juan Sanchis Forés

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

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2017-

Reference: BIOTOOL-CHF

Title: BIOmarker based diagnostic TOOLkit to personalize pharmacological approaches in congestive heart failure. BIOTOOL-CHF

Principal Investigator: Julio Núñez Villota (Juan Sanchis as collaborating researcher)

Funding Body: European Commission

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2023-2028

Total budget: €282.625

THESIS

Thesis title: Desarrollo de un algoritmo basado en técnicas de machine learning para estratificación de riesgo de pacientes con dolor torácico y primera determinación de troponina negativa

Doctoral candidate: Agustín Fernández Cisnal

Director(s): Juan Sanchis Forés, Julio Núñez Villota

Date of the defense: 21/04/2023

Grade: Sobresaliente "cum laude"

4 scientific activity

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

Group members

Leading Researcher, R4

Empar Lurbe i Ferrer
University

Established Researchers, R3

Francisco Aguilar Bacallado. University
Isabel Torró Doménech. University

Recognised Researchers, R2

Christine Deutsch. CIBER
Julio Álvarez Pitti. University

First Stage Researcher, R1

Ana de Blas Zapata. University

Staff. Collaborating Researchers

Juan José Alcón Sáez. University
Nuria García Carbonell. University
Rafael Gómez Zafra. University

Researchers by categories



Researchers financed by competitive public calls or networks



Team involved in

ciberobn

Staff. Technician

Francisco Ponce Zanón. CIBER

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 2023, resulting in improved treatment of obese pediatric patients in the Unit

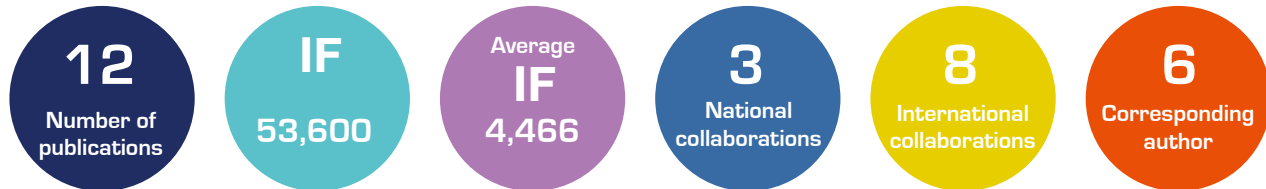
- The PAIDO Program is focused on personalized medical care extended through initiatives involving family, educators, nutritionists, physical education teachers and other social agents. Treatment goes beyond the hospital setting to include the child's environment and personal sphere and is supported 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

New technologies applied to the detection of congenital heart diseases and sepsis in asymptomatic newborn babies

- Childhood obesity: New insights in the personalized treatment: Study of the cardiorespiratory capacity
- New technologies applied to the treatment of obesity: Physical exercise preventing and treating obesity
- Arterial hypertension in children and adolescents
- Cardiovascular and renal risk in diabetes
- 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
- "Preventing lifetime obesity by early risk-factor identification, prognosis and intervention". Record number: eprObes101080219

PUBLICATIONS



SELECTED PUBLICATIONS

1. Lurbe E, Mancia G, Drozd D, Erdine S, Fernandez-Aranda F, Litwin M, Sinha MD, Simonetti G, Stabouli S, Wühl E. HyperChildNET: a European Network Moving Forward in the Field of Pediatric Hypertension. *Hypertension*. 2023 Apr;80(4):e71-e73. doi: 10.1161/HYPERTENSIONAHA.123.20080. PMID: 36748460. IF: 8,3
2. Alba Linares J, Perez R, Tejedor J, Bastante Rodriguez D, Ponce F, Carbonell N, Zafra R, Fernandez A, Fraga M, Lurbe E. Maternal obesity and gestational diabetes reprogram the methylome of offspring beyond birth by inducing epigenetic signatures in metabolic and developmental pathways. *Cardiovascular Diabetology*. 2023 Mar 4;22(1):44. doi: 10.1186/s12933-023-01774-y. PMID: 36870961. IF: 9,3
3. Mancia Chairperson G, Kreutz Co-Chair R, Brunstrom M, Burnier M, Grassi G, Januszewicz A, Muiesan M, Tsioufis K, Agabiti-Rosei E, Algharably E, Azizi M, Benetos A, Borghi C, Hitij J, Cifkova R, Coca A, Cornelissen V, Cruickshank K, Cunha P, Danser A, de Pinho R, Delles C, Dominiczak A, Dorobantu M, Doumas M, Fernandez-Alfonso M, Halimi J, Jarai Z, Jelakovic B, Jordan J, Kuznetsova T, Laurent S, Lovic D, Lurbe E, Mahfoud F, Manolis A, Miglinas M, Narkiewicz K, Niiranen T, Palatini P, Parati G, Pathak A, Persu A, Polonia J, Redon J, Sarafidis P, Schmieder R, Spronck B, Stabouli S, Stergiou G, Taddei S, Thomopoulos C, Tomaszewski M, Van de Borne P, Wanner C, Weber T, Williams B, Zhang Z, Kjeldsen S. 2023 ESH Guidelines for the management of arterial hypertension The Task Force for the management of arterial hypertension of the European Society of Hypertension Endorsed by the European Renal Association (ERA) and the International Society of Hypertension (ISH). *Journal of Hypertension*. 2023 Dec 1;41(12):1874-2071. doi: 10.1097/HJH.0000000000003480. PMID: 37345492. IF: 4,9
4. Lurbe E, Mancia G, Calpe J, Drozd D, Erdine S, Fernandez-Aranda F, Hadjipanayis A, Hoyer PF, Jankauskiene A, Jiménez-Murcia S, Litwin M, Mazur A, Pall D, Seeman T, Sinha MD, Simonetti G, Stabouli S, Wühl E. Joint statement for assessing and managing high blood pressure in children and adolescents: Chapter 1. How to correctly measure blood pressure in

children and adolescents. *Frontiers in Pediatrics*. 2023 Apr 11;11:1140357. doi: 10.3389/fped.2023.1140357. PMID: 37138561. IF: 2,6

5. Guixeres-Esteve T, Ponce-Zanon F, Morales J, Lurbe E, Alvarez-Pitti J, Monleon D. Impact of maternal weight gain on the newborn metabolome. *Metabolites*. 2023 Apr 15;13(4):561. doi: 10.3390/metabo13040561. PMID: 37110219. IF: 4,1

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: COST CA19115

Title: Network for blood pressure research in children and adolescents. HyperChildNET

Principal Investigator: Empar Lurbe i Ferrer

Funding Body: European Commission

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

Total budget: €174.845

Reference: CB06/03/0039

Title: *Centro de Investigación Biomédica en Red de Fisiopatología de la Obesidad y Nutrición (CIBERObn)*

Principal Investigator: Empar Lurbe i Ferrer

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

Beneficiary Institution: *Consorcio Hospital General Universitario de Valencia*

Duration: 2006-

4 scientific activity

Cardiometabolic Research Group on Primary Care Consolidated group

Group members

Leading Researcher, R4

Jorge Navarro Pérez
University. Hospital

Researchers by categories



Established Researchers, R3

Alvaro Bonet Pla. Hospital
Carolina Mir Sánchez. University. Hospital
Desamparados Garcés Sánchez. Hospital
José Luis Trillo Mata. Hospital

Staff. Collaborating Researchers

Aaron Piera Torró. Hospital
Alberto Belenguer Guillot. Hospital
Alex David Misle Morales. Hospital
Alexandre Sorribes Ramírez. Hospital
Carlos Fluxá Carrascosa. University. Clínico-Malvarrosa Health Department
Carlos Momparler Martínez. Clínico-Malvarrosa Health Department
Carmina Martínez Vernia. Hospital
Cristina Más Lázaro. Hospital
Diana Vicente Miralles. Clínico-Malvarrosa Health Department
Eduardo Rovira Cabrera. Hospital
Enrique Guinot Martínez. Hospital
Esther Carrión Albert. Hospital
Eugenia Avelino Hidalgo. Hospital
Idoia Aramburu Aizpiri. Hospital
Ignacio Ramos Manuel. Hospital
Irene Marco Moreno. Clínico-Malvarrosa Health Department
Isabel Gabaldón Sánchez. University. Hospital
Ismael Ejarque Doménech. Hospital
Laura Almudéver Campo. Clínico-Malvarrosa Health Department
Lucía Navarro Salvador. Hospital

Luz Vázquez Canales. Hospital
M^a José Puchades Company. Hospital
Margarita Giménez Loreiro. Hospital
María Aóda Andreu Lledó. Hospital
María Ferrus Domingo. Hospital
María José Garzón Nieto. Hospital
Marisa Gómez Arnero. Clínico-Malvarrosa Health Department
Nidia Ruiz Varea. Hospital
Óscar Pérez Quintana. Hospital
Pablo Sabater Arnaldos. Hospital
Paula Sala Ivars. Hospital
Pilar Roca Navarro. University. Hospital
Ricardo González Espadas. University. Hospital
Ruth Uribe Fillol. Hospital
Sofía Bauer Izquierdo. Hospital
Svitlana Nikítina Osadcha. Hospital
Tomás Sánchez Ruiz. Hospital
Verónica Audina Márquez. Clínico-Malvarrosa Health Department
Vibiana Blanco Alvarado. Hospital
Victoria Gosalbes Soler. Hospital

Staff. Nurses

Celia Poveda Rocamora. Hospital
Esther Carrión Albert. Hospital
M^a Dolores Seligra Borrull. Hospital
Marina Gimeno Gimeno. Hospital
Tamara Miravalls Pérez. Hospital
Verónica Lozano Rodríguez. Hospital

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).

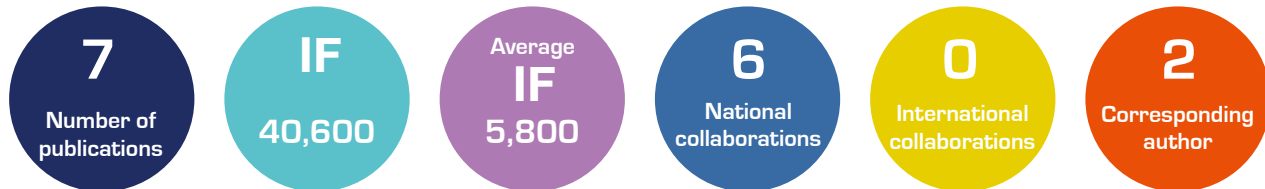
Main lines of research

- 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 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.

- We collaborate with other INCLIVA research groups, such as internal medicine, cardiology, nephrology and aging.

PUBLICATIONS



SELECTED PUBLICATIONS

1. Corominas J, Garriga C, Prenafeta A, Moros A, Canete M, Barreiro A, Gonzalez-Gonzalez L, Madrenas L, Guell I, Clotet B, Izquierdo-Useros N, Raich-Regue D, Gallemi M, Blanco J, Pradenas E, Trinite B, Prado J, Blanch-Lombarte O, Perez-Caballero R, Plana M, Esteban I, Pastor-Quinones C, Nunez-Costa X, Taleb R, McSkimming P, Soriano A, Nava J, Anagua J, Ramos R, Lluch R, Comes A, Romero S, Gomez X, Sans-Pola C, Molto J, Benet S, Bailon L, Arribas J, Borobia A, Parada J, Navarro-Perez J, Forner Giner M, Lucas R, Jimenez M, Compan S, Alvarez-Mon M, Troncoso D, Arana-Arri E, Meijide S, Imaz-Ayo N, Garcia P, de la Villa Martinez S, Fernandez S, Prat T, Torroella E, Ferrer L. Safety and immunogenicity of the protein-based PHH-1V compared to BNT162b2 as a heterologous SARS-CoV-2 booster vaccine in adults vaccinated against COVID-19: a multicentre, randomised, double-blind, non-inferiority phase IIb trial. *Lancet Regional Health. Europe*. 2023 May;28:100613. doi: 10.1016/j.lanepe.2023.100613. PMID: 37131861. IF: 20,9
2. Bayes-Genis A, Navarro J, Rodriguez-Padial L. Biomarkers of preclinical ventricular dysfunction in type 2 diabetes mellitus. *Revista Espanola de Cardiologia [english Ed.]*. 2023 Jan;76(1):4-6. doi: 10.1016/j.rec.2022.06.008. PMID: 35787949. IF: 5,9
3. Palanca A, Ampudia Blasco F, Calderon J, Sauri I, Martinez Hervás S, Trillo J, Redon J, Real J. Real-world evaluation of GLP-1 receptor agonist therapy persistence, adherence and therapeutic inertia among obese adults with Type 2 Diabetes. *Diabetes Therapy*. 2023 Apr;14(4):723-736. doi: 10.1007/s13300-023-01382-9. PMID: 36847952. IF: 3,8
4. Morales-Suarez-Varela M, Peraita-Costa I, Llopis-Morales A, Navarro-Pérez J. Cardiovascular risk assessment of elevated blood pressure for screening and early detection in children 6 to 9 years of age in the Valencian Community:

ANIVA Study. *Children*. 2023 Dec 14;10(12):1928. doi: 10.3390/children10121928. PMID: 38136130. IF: 2,4

5. Falip M, González F, Martín-Herranz I, Merino-Bohórquez V, Montoya J, Gómez-Serranillos I, Uranga J, Ruiz E, Sancho-López A, Mata J, Vallès J, Alvarez-Barón E, Sabaniego J, Subías-Labazuy S, Gil A. Value contribution of cenobamate for the treatment of Focal-Onset Seizures (FOS) in patients with drug-resistant epilepsy (DRE) in Spain through reflective Multi-Criteria Decision Analysis (MCDA). *Epilepsy & Behavior*. 2023 Aug;145:109350. doi: 10.1016/j.yebeh.2023.109350. PMID: 37480633. IF: 2,6

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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

THESIS

Thesis title: *Calidad de la farmacoterapia antidiabética en el departamento de salud valencia clínico malvarrosa en 2015-2019 con datos de vida real*

Doctoral candidate: Pablo Ruiz Domingo

Director[s]: Julio Cortijo Gimeno, José Luis Trillo Mata, Ruth Usó Talamantes

Date of the defense: 10/07/2023

Grade: Sobresaliente "cum laude"

4 scientific activity

Research Group on the Study of Cardiometabolic and Renal Risk Consolidated group

Group members

Leading Researcher, R4

Josep Redón i Mas
INCLIVA

Established Researchers, R3

Fernando Martínez García. Hospital. University
M^a José Forner Giner. Hospital. University
M^a José Galindo Puerto. Hospital. University
M^a José García-Fuster González-Alegre. Hospital.

Emerging Researcher, R2

Raquel Cortés Vergaz. INCLIVA
Ana Ortega Gutiérrez. INCLIVA
David Martí Aguado. Hospital

Recognised Researchers, R2

María Grau Pérez. INCLIVA
Adrián Ruiz Hernández. Hospital. University

First Stage Researchers, R1

Olga Martínez Arroyo. INCLIVA
Ana Flores Chova. INCLIVA

Staff. Collaborating Researchers

Andrea Marqués Mira. INCLIVA
Elena Solaz Moreno. Hospital
Javier Díaz Carnicero. INCLIVA
Laura María Lidón Tàrraga. INCLIVA

Staff. Nurse

Laura Cantero Milán. Hospital. INCLIVA

Staff. Technicians

Antonio Fernández Giménez. INCLIVA
Marta Méndez Debaets. INCLIVA
Óscar Calaforra Juan. CIBER
Noemí Dolz Gilba. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Strategic aims

- To analyze changes on podocytes and RPTEC (ncRNAs, apoptosis...) and their intercellular communication (exosomes) 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 perform genetic studies related to obesity and overweight

- To develop of phase III and IV clinical trials
- 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 analyze the comorbidities of patients with HIV infection 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
- To develop biomarkers in autoimmune diseases
- Big Data and AI in primary and secondary uses in health

Main lines of research

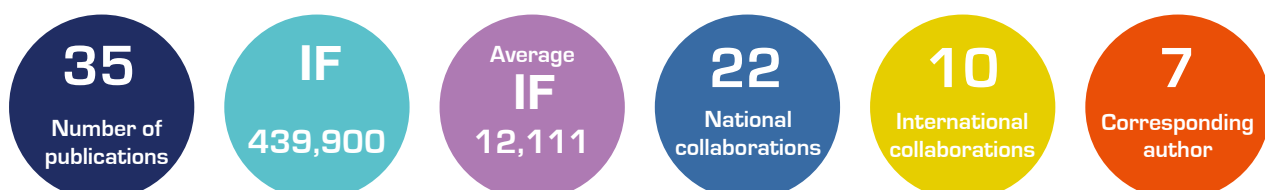
- Analysis of podocytes-renal proximal tubular epithelial cell communication as key player in kidney damage progression (miRNAs and exosomes)
- Molecular characterization of extracellular vesicles as biomarkers and intermediators in renal damage progression (ncRNA, surface antigens...)
- Impact of cardiovascular risk factors and renal function in absolute morbidity and mortality in high-risk population and in the general population
- Inflammation and oxidative stress in chronic diseases
- Genomics, proteomics and metabolomics of early cardiometabolic and renal disorders
- Impact of environmental toxins (metals) in cardiometabolic risk
- Identification of polymorphisms and related to the control of BMI and waist circumference and the risk of obesity genes
- Factors associated with venous thrombosis
- Relationship between risk of venous thromboembolic disease and arteriosclerosis
- Molecular mechanisms associated with activity changes and renal damage development in systemic lupus erythematosus
- Infectious diseases, cardiometabolic risk and clinical events
- Big Data and artificial intelligence (AI)
- Environmental epidemiology: exposome and genetic interaction

Emerging Researcher

Raquel Cortés Vergaz

The main objective of the new field of research is to study the molecular mechanisms associated with the development of early kidney damage associated to chronic diseases as hypertension, diabetes and systemic lupus erythematosus, focusing on the characterization of extracellular vesicles (EVs) and their roles as intercellular mediators. In addition, to develop an advanced diagnostic model to predict renal damage combining phenotyping of plasma and urine EVs (surface antigens and ncRNAs) by supervised machine learning could be introduced as non-invasive tool for a tailored management of diagnosis of these patients.

PUBLICATIONS



4 scientific activity

SELECTED PUBLICATIONS

1. Grau-Perez M, Domingo-Relloso A, Garcia-Barrera T, Gomez-Ariza JL, Leon-Latre M, Casasnovas JA, Moreno-Franco B, Laclaustra M, Guallar E, Navas-Acien A, Pastor-Barriuso R, Redon J, Tellez-Plaza M. Association of single and joint metals with albuminuria and estimated glomerular filtration longitudinal change in middle-aged adults from Spain: The Aragon workers health study. *Environ Pollut.* 2023 Feb 1;318:120851. doi: 10.1016/j.envpol.2022.120851. Epub 2022 Dec 9. PMID: 36509352. IF: 8,9
2. Martinez-Arroyo O, Ortega A, Flores-Chova A, Sanchez-Garcia B, Garcia-Garcia AB, Chaves FJ, Martin-Escudero JC, Forner MJ, Redon J, Cortes R. High miR-126-3p levels associated with cardiovascular events in a general population. *Eur J Intern Med.* 2023 Jul;113:49-56. doi: 10.1016/j.ejim.2023.04.013. Epub 2023 Apr 18. PMID: 37080818; PMCID: PMC10271715. IF: 8
3. NCD Risk Factor Collaboration (NCD-RisC). Global variation in diabetes diagnosis and prevalence based on fasting glucose and hemoglobin A1c. *Nat Med.* 2023 Nov;29(11):2885-2901. doi: 10.1038/s41591-023-02610-2. Epub 2023 Nov 9. PMID: 37946056; PMCID: PMC10667106. IF: 82,9
4. Wei D, González-Marrachelli V, Melgarejo JD, Liao CT, Hu A, Janssens S, Verhamme P, Van Aelst L, Vanassche T, Redon J, Tellez-Plaza M, Martin-Escudero JC, Monleon D, Zhang ZY. Cardiovascular risk of metabolically healthy obesity in two european populations: Prevention potential from a metabolomic study. *Cardiovasc Diabetol.* 2023 Apr 7;22(1):82. doi: 10.1186/s12933-023-01815-6. PMID: 37029406; PMCID: PMC10082537. IF: 9,3
5. Corominas J, Garriga C, Prenafeta A, Moros A, Cañete M, Barreiro A, González-González L, Madrenas L, Güell I, Clotet B, Izquierdo-Useros N, Raich-Regué D, Gallení M, Blanco J, Pradenas E, Trinité B, Prado JG, Blanch-Lombarte O, Pérez-Caballero R, Plana M, Esteban I, Pastor-Quinones C, Núñez-Costa X, Taleb RA, McSkimming P, Soriano A, Nava J, Anagua JO, Ramos R, Lluch RM, Comes AC, Romero SO, Gomez XM, Sans-Pola C, Moltó J, Benet S, Bailón L, Arribas JR, Borobia AM, Parada JQ, Navarro-Pérez J, Forner Giner MJ, Lucas RO, Jiménez MDMV, Compán SO, Alvarez-Mon M, Troncoso D, Arana-Arri E, Meijide S, Imaz-Ayo N, García PM, de la Villa Martínez S, Fernández SR, Prat T, Torroella È, Ferrer L. Safety and immunogenicity of the protein-based PHH-1V compared to BNT162b2 as a heterologous SARS-CoV-2 booster vaccine in adults vaccinated against COVID-19: a multicentre, randomised, double-blind, non-inferiority phase IIb trial. *Lancet Reg Health Eur.* 2023 May;28:100613.

doi: 10.1016/j.lanepe.2023.100613. Epub 2023 Apr 14.
PMID: 37131861; PMCID: PMC10102678. IF: 20,9

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: EHDEN - OMOP

Title: EHDEN. Harmonization Fund Holder

Principal Investigator: Josep Redón i Mas

Funding body: European Commission

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

Duration: 2022-2023

Total budget: €50.000

Reference: 945097-WELLBASED

Title: WELLBASED. Improving health, wellbeing and equality by evidenced-based urban policies for tackling energy poverty

Principal Investigator: Josep Redón i Mas

Funding body: European Commission

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

Duration: 2021-2025

Total budget: €395.250

Reference: 785815 - BigData@Heart

Title: Big Data for Better Hearts

Principal Investigator: Josep Redón i Mas

Funding body: European Commission

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

Duration: 2021-2025

Total budget: €386.250 (Contribution EC: 100%)

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 M^a José Forner Giner

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

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

Duration: 2022-2024

Total budget: €135.520

Reference: PI19/01796

Title: *Implicaciones experimentales y clínicas del complejo proteico rabphilin-rab en daño renal en la Diabetes Mellitus tipo 2*

Principal Investigator: Josep Redón i Mas

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

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

Duration: 2020-2023

Total budget: €196.020

Title: *Quantificación de la hemoglobina fecal para la estadificación del riesgo de neoplasia en pacientes incluidos en el programa de cribado de cáncer colorrectal*

Principal Investigator: David Martín Aguado

Funding body: *Fundación SEED Investigación en Endoscopia Digestiva*

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

Duration: 2023-2024

Total budget: €15.000

Title: *Cohorte Española de pacientes con infección por VIH mayores de 50 años para el estudio de la fragilidad y la función física*

Principal Investigator: M^a José Galindo Puerto

Funding body: Janssen - Cilag S.A.

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

Duration: 2023

Total budget: €17.000

Reference: 101083002- INNDIH

Title: *Valencia Region Digital Innovation Hub*

Principal Investigator: Josep Redón i Mas

Funding body: European Commission

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

Duration: 2023-2025

Total budget: €225.396

Reference: 101095480- Hypermarker

Title: *Personalised pharmacometabolomic optimisation of treatment for hypertension*

Principal Investigator: Josep Redón i Mas

Funding body: European Commission

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 Josep Redón i Mas

Funding body: European Commission

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: Josep 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

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*

4 scientific activity

y Sociedad Digital

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

Duration: 2023-2024

Total budget: €19.895

THESIS

Thesis title: *Estudio de nuevas variantes genéticas de trombofilia,
impacto en el riesgo de enfermedad tromboembólica venosa y
sus recidivas.*

Doctoral candidate: Maria José Fabiá Valls

Director(s): Felipe Javier Chaves Martínez, María José García-
Fuster González-Alegre

Date of the defense: 14-07-2023

Grade: Sobresaliente "*cum laude*"

Research Group on Vascular Function Consolidated group

Group members

Leading Researcher, R4

José M^a Vila Salinas.

University

M^a Dolores Mauricio Aviñó.

University

Established Researchers, R3

Martín Aldasoro Celaya. University

Víctor Manuel Víctor González. University

Recognised Researchers, R2

Solanye Guerra Ojeda. University

Susana Rovira Llopis. University

Researchers by categories



Researchers financed by competitive public calls or networks



First Stage Researchers, R1

Andrea Suárez Fortea. INCLIVA

Begoña Belmonte Alonso. INCLIVA

Clara Luna Marco. INCLIVA

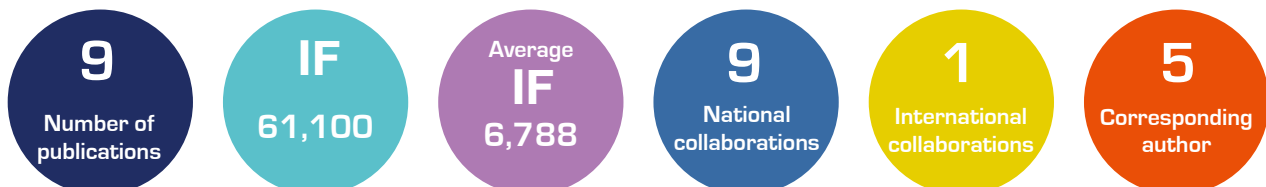
Strategic aims

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

Main lines of research

- Characterization of alterations in the control of vascular tone and endothelial function induced by aging
- Vascular and extravascular effects of ranolazine
- Improvement of insulin vascular effects by ranolazine
- Vascular effects of nanoparticles
- Mechanism of action of anti-diabetic drugs: molecular mechanisms
- Circadian cycle and cardiometabolic diseases
- Physical exercise in obesity and diabetes: effect on endothelial function
- Mitochondrial-endothelial dysfunction in cardiometabolic diseases
- Physiology and physiopathology of type 2 diabetes
- Novel nanoparticles and antioxidant compounds for the treatment of diseases
- Study of autophagy and endoplasmic reticulum stress in type 2 diabetes and obesity
- Antioxidants targeting mitochondria: application to cardiometabolic diseases

PUBLICATIONS



4 scientific activity

SELECTED PUBLICATIONS

1. Luna-Marco C, de Marañon A, Hermo-Argibay A, Rodríguez-Hernández Y, Hermenejildo J, Fernández-Reyes M, Apostolova N, Vila J, Sola E, Morillas C, Rovira-Llopis S, Rocha M, Víctor V. Effects of GLP-1 receptor agonists on mitochondrial function, inflammatory markers and leukocyte-endothelium interactions in type 2 diabetes. *Redox Biology*. 2023 Aug 14;66:102849. doi: 10.1016/j.redox.2023.102849. PMID: 37591012. IF: 11,4
2. Vezza T, Víctor V. SIRT1 and miR-34a-5p: valuable biomarkers for the early detection of cognitive impairment in Type 2 Diabetes Mellitus. *Journal of Clinical Endocrinology & Metabolism*. 2023 Dec 16;dgad740. doi: 10.1210/clinem/dgad740. PMID: 38104246. IF: 5,8
3. Serna E, Mauricio MD, San Miguel T, Guerra Ojeda S, Verdu D, Valls A, Arc-Chagnaud C, De la Rosa A, Vina J. Glucose 6-P dehydrogenase overexpression improves aging-induced endothelial dysfunction in aorta from mice: role of arginase II. *International Journal of Molecular Sciences*. 2023 Feb 11;24(4):3622. doi: 10.3390/ijms24043622. PMID: 36835034. IF: 5,6
4. Guerra-Ojeda S, Jorda A, Aldasoro C, Vila J, Valles S, Arias-Mutis O, Aldasoro M. Improvement of vascular insulin sensitivity by ranolazine. *International Journal of Molecular Sciences*. 2023 Aug 31;24(17):13532. doi: 10.3390/ijms241713532. PMID: 37686345. IF: 5,6
5. Guerra-Ojeda S, Suarez A, Valls A, Verdu D, Pereda J, Ortiz-Zapater E, Carretero J, Mauricio M, Serna E. The role of aryl hydrocarbon receptor in the endothelium: a systematic review. *International Journal of Molecular Sciences*. 2023 Aug 31;24(17):13537. doi: 10.3390/ijms241713537. PMID: 37686342. IF: 5,6

Reference: PROMETEO/2019/027

Title: *Patofisiología de las enfermedades cardiometabólicas*

Principal Investigator: Víctor Manuel Víctor González

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

Beneficiary Institution: Universidad de Valencia

Duration: 2020-2023

Total budget: €207.157

Reference: HORIZON-101136516

Title: *Metabolitos antioxidantes de la Lippia citriodora y su contribución frente al aumento de la interacción leucocito- endotelio en pacientes con diabetes tipo 2*

Principal Investigator: Jorge Garcés Ferrer (Víctor Manuel Víctor González as collaborating researcher)

Funding body: FISABIO

Beneficiary Institution: European Commission

Duration: 2023

Total budget: €5.000

THESIS

Thesis title: *Estudio del perfil metabólico, el estrés oxidativo, la función mitocondrial y la autofagia en la diabetes y su relación con el desarrollo de complicaciones cardiovasculares: efectos de una intervención nutricional y del tratamiento con empagliflozina*

Doctoral candidate: Francisco Gerardo Canet Suquillo

Director[s]: Milagros Rocha Barajas, Víctor Manuel Víctor González

Date of the defense: 23/11/2023

Grade: Sobresaliente "cum laude"

Quality recognition/Award: European PhD

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: PI22/00424

Title: *Nuevas perspectivas en la relación mitofagia, 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

Research Group on Pediatric Nutrition Consolidated group

Group members

Leading Researchers, R4

Cecilia Martínez Costa

Hospital. University

Javier Buesa Gómez

Hospital. University

Established Researchers, R3

Elena Crehuá Gaudiza. Hospital. University

Francisco Núñez Gómez. Hospital. University

Javier Estañ Capell. Hospital. University

Jose Vicente Arcos Machancoses. Hospital

Laura Martínez Rodríguez. Hospital

Recognised Researcher, R2

Ana Paula Grattarola. INCLIVA

Jose Luis López Prats. Hospital

Patricia Roselló Millet. Hospital

First Stage Researchers, R1

Alba Peretó Moll. Hospital

Ana Barrés Fernández. Hospital

Ana Delgado Vicente. Hospital

Ángel Vicente Valls Arévalo. Hospital

Carlos Sáenz de Juano Petit. Hospital

Isidro Robredo García. INCLIVA

Laura Núñez Martínez. Hospital

Vicente Posadas Blázquez. Hospital

Staff. Collaborating Researchers

Inmaculada Tarazona Casany. Hospital

Researchers by categories



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

4 scientific activity

Main lines of research

Cardiovascular area:

- Analysis of microbiota in obese children before and after intervention
- Analysis of microbiota in obese children with/without insulinresistance
- Analysis of metabolome in obese children with/without insulin resistance
- Monitoring exercise and energy consumption in obese schoolchildren and teenagers to adjust nutritional intervention

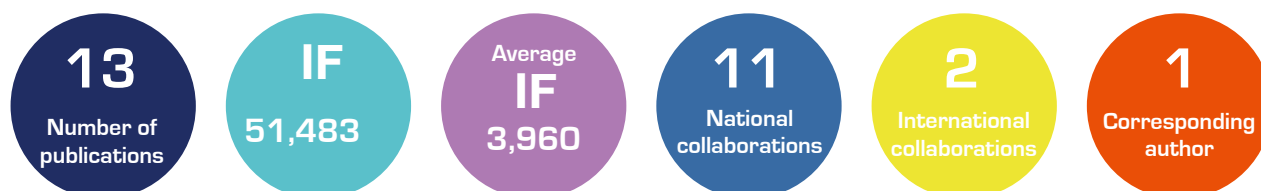
Area of human milk:

- 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

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

PUBLICATIONS



SELECTED PUBLICATIONS

1. Yeruva L, Mulakala B, Rajasundaram D, Gonzalez S, Cabrera-Rubio R, Martínez-Costa C, Collado M. Human milk miRNAs associate to maternal dietary nutrients, milk microbiota, infant gut microbiota and growth. *Clinical Nutrition*. 2023 Dec;42(12):2528-2539. doi: 10.1016/j.clnu.2023.10.011. PMID: 37931372. IF: 6,3
2. Bauerl C, Zulaica J, Rusu L, Moreno A, Perez-Cano F, Lerin C, Mena-Tudela D, Aguilar-Camprubi L, Parra-Llorca A, Martinez-Costa C, Geller R, Collado M. Assessment of SARS-CoV-2 neutralizing antibody titers in breastmilk from convalescent and vaccinated mothers. *Iscience*. 2023 Jun 16;26(6):106802. doi: 10.1016/j.isci.2023.106802. PMID: 37197591. IF: 5,8
3. Rio-Aige K, Fernández-Bargalló A, Vegas-Lozano E, Miñarro-Alonso A, Castell M, Selma-Royo M, Martínez-Costa C, Rodríguez-Lagunas M, Collado M, Pérez-Cano F. Breast milk immune composition varies during the transition stage of lactation: characterization of immunotypes in the MAMI cohort. *Frontiers in Nutrition*. 2023 Nov 23;10:1252815. doi: 10.3389/fnut.2023.1252815. PMID: 38075221. IF: 5
4. Orrico-Sanchez A, Valls-Arevalo A, Garces-Sanchez M, Alvarez Aldean J, Ortiz de Lejarazu Leonardo R. Efficacy and effectiveness of influenza vaccination in healthy children. A review of current evidence. *Enfermedades Infecciosas y Microbiología Clínica [english Ed.]*. 2023 Aug-Sep;41(7):396-406. doi: 10.1016/j.eimce.2022.02.016. PMID: 36681572. IF: 2,5
5. Estan Capell J, Alarcon Torres B, Miro Pedro M, Martinez Costa C. Differences when classifying small for gestational age preterm infants according to the growth chart applied. *American Journal of Perinatology*. 2023 Jan 29. doi: 10.1055/s-0043-1761297. PMID: 36709759. IF: 2

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: PID2022-1394750B-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: M^a Carmen Collado Amores (Cecilia Martínez Costa as collaborating researcher)

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

THESIS

Thesis title: *Adaptación transcultural y validación de tres scores para la detección de riesgo de desnutrición pediátrica durante la hospitalización (PNRS, STAMP y STRONGkids). Estimación de la incidencia de desnutrición en nuestro medio*

Doctoral candidate: Evelin Balaguer López

Director(s): Cecilia Martínez Costa, Francisco Núñez Gómez

Date of the defense: 24/02/2023

Grade: Sobresaliente "cum laude"

4 scientific activity

Group on Translational Research in Ischemic Heart Disease Consolidated group

Group members

Leading Researcher, R4

Vicente Bodí Peris
Hospital. University

Established Researcher, R3

Amparo Ruiz Saurí. University

Emerging Researcher, R2

Clara Bonanad Lozano. Hospital. University

Recognised Researchers, R2

César Ríos Navarro. INCLIVA
Víctor Marcos Garcés. Hospital

First Stage Researchers, R1

Elena de Dios Lluch. CIBER
Héctor Manuel Merenciano González. INCLIVA
Nerea Pérez Solé. INCLIVA
Daniela Alejandra Maidana Benítez INCLIVA
Andrea Arroyo Álvarez. INCLIVA
Carles Muñoz Alfonso. INCLIVA
Guillermo Barreres Martín. INCLIVA

Staff. Collaborating Researchers

Joaquim Cànoves Femenia. Hospital
Paolo Racugno. Hospital

Researchers by categories



Researchers financed by competitive public calls or networks



Staff. Nurses

Francisca Esteve Claramunt. INCLIVA
María Regina Blanco del Burgo. INCLIVA

Staff. Technicians

Andrea Aparici Redal. INCLIVA
Cristina García Pérez. INCLIVA
Daznia Loiret Bompert Berroteran. INCLIVA
Eva Maicas Alcaine. INCLIVA
Ilza Victoria Freitas Durks. INCLIVA
Tamara Molina García. INCLIVA

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

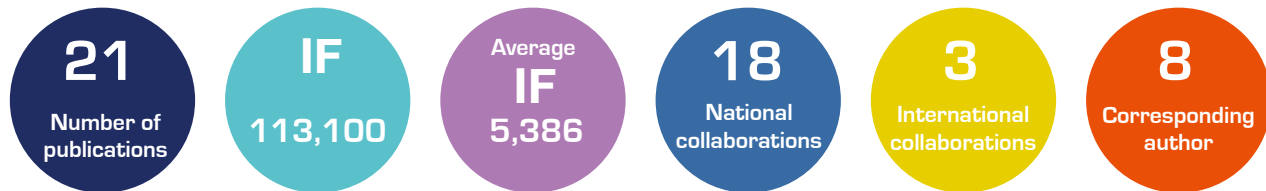
- Prospective registry of patients with first ST-segment elevation myocardial infarction studied with cardiac magnetic resonance imaging at acute and chronic phases.
- Multicenter registry of patients with chronic coronary syndrome studied with stress cardiac magnetic resonance imaging.
- Porcine and 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.
- Involvement in several large international multicenter clinical trials in the field of acute coronary syndromes.

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.

PUBLICATIONS



SELECTED PUBLICATIONS

- Rios-Navarro C, Gavara J, Dios E, Perez-Sole N, Molina-Garcia T, Marcos-Garcés V, Ruiz-Sauri A, Bayes-Genis A, Carrion-Valero F, Chorro F, Bodi V. Effect of serum from patients with ST-segment elevation myocardial infarction on endothelial cells. *Revista Española de Cardiología* [English ed.]. 2023 Sep 9;S1885-5857(23)00238-4. doi: 10.1016/j.rec.2023.08.004. PMID: 37696331. IF: 5.9
- Bodi V, Gavara J, Lopez-Lereu M, Monmeneu J, de Dios E, Perez-Sole N, Bonanad C, Marcos-Garcés V, Canoves J, Minana G, Nunez J, Moratal D, Chorro F, Rodriguez-Palomares J, Freixa A, Borrás R, Ortiz-Perez J, Rios-Navarro C. Impact of persistent microvascular obstruction late after STEMI on Adverse LV remodeling: a CMR Study. *JACC. Cardiovascular Imaging*. 2023 Jul;16(7):919-930. doi: 10.1016/j.jcmg.2023.01.021. PMID: 37052556. IF: 14
- Ortega M, Molina-Garcia T, Gavara J, de Dios E, Perez-Sole N, Marcos-Garcés V, Chorro F, Rios-Navarro C, Ruiz-Sauri A, Bodi V. Novel targets regulating the role of endothelial cells and angiogenesis after infarction: a RNA sequencing analysis. *International Journal of Molecular Sciences*. 2023 Oct 28;24(21):15698. doi: 10.3390/ijms242115698. PMID: 37958681. IF: 5.6
- Marcos Garcés V, Merenciano Gonzalez H, Gavara J, Gabaldon Perez A, Lopez Lereu MP, Monmeneu JV, Nunez J, Perez N, Rios Navarro C, de Dios E, Chorro FJ, Valente F, Lorenzatti D, Domenech Ximenes B, Alonso Tello A, Maymi Ballesteros M, Rello Sabate P, Morr CI, Ortiz Perez JT, Rodriguez Palomares JF, Bodi V. MRI investigation of the differential impact of left ventricular ejection fraction after myocardial infarction in elderly vs. nonelderly patients to predict readmission for heart failure. *Journal of Magnetic Resonance Imaging*. 2023 Nov;58(5):1507-1518. doi: 10.1002/jmri.28632. PMID: 36748793. IF: 4.4
- Marcos-Garcés V, Merenciano-Gonzalez H, Martínez Mas M, Palau P, Climent Alberola J, Perez N, Lopez-Bueno L, Esteban Argente M, Valls Reig M, Muñoz Alcover R, Pradillas Contreras I, Arizon Benito A, Paya Rubio A, Rios-Navarro C, de Dios E, Gavara J, Chorro F, Sanchis J, Bodi V. Short-course high-intensity statin treatment during admission for myocardial infarction and LDL-cholesterol reduction-impact on tailored lipid-lowering therapy at discharge. *Journal of Clinical Medicine*. 2023 Dec 25;13(1):127. doi: 10.3390/jcm13010127. PMID: 38202134 IF: 3.9

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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

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

4 scientific activity

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

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: 2023-2026
Total Budget: €14,757

Reference: CIGE/2022/26

Title: *Medicina de precisión mediante resonancia magnética cardíaca en pacientes tras infarto agudo de miocardio con elevación del segmento ST: utilidad clínica en situaciones especiales*

Principal Investigator: Víctor Marcos Garcés
Funding Body: *Sociedad Española de Cardiología*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023
Total Budget: €10,000

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
Funding Body: *European Commission*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023-2027
Total Budget: €758,377

Reference: FI18/00320

Title: *Contratos PFIS: Contratos Predoctorales de Formación en Investigación en Salud*

Principal Investigator: César Ríos Navarro
Funding Body: *Instituto de Salud Carlos III - Cofinanciado FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2019-2023
Total Budget: €20.600

Reference: FJC2020-043981-I

Title: *Contrato Juan de la Cierva - Formación*
Principal Investigator: José Gavara Doñate
Funding Body: *Agencia Estatal de Investigación*
Beneficiary Institution: *Universidad Politécnica de Valencia*
Duration: 2022-2024
Total Budget: €52.600

Reference: CM21/00175

Title: *Contrato Río Hortega*
Principal Investigator: Víctor Marcos Garcés
Funding Body: *Instituto de Salud Carlos III - Cofinanciado FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2023
Total Budget: €65.000

Reference: JR21/00041

Title: *Contrato Juan Rodés*
Principal Investigator: Clara Bonanad Lozano
Funding Body: *Instituto de Salud Carlos III - Cofinanciado FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2022-2025
Total Budget: €180.000

Reference: INT22/00002

Title: *Contratos para la intensificación de la actividad investigadora en el SNS*
Principal Investigator: Vicente Bodí Peris
Funding Body: *Instituto de Salud Carlos III - Cofinanciado FEDER*
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*
Duration: 2023

Research Group on Heart Failure Emerging group

Group members

Leading Researcher, R4

Julio Núñez Villota
Hospital. University

Recognised Researchers, R2

Enrique Santas Olmeda. Hospital. University
Gemma Miñana Escrivá. Hospital. University
Patricia Palau Sampio. Hospital. University

First Stage Researchers, R1

Gonzalo Núñez Marín. INCLIVA
Miguel Lorenzo Hernández. Hospital

Staff. Collaborating Researchers

Laura López Bueno. University
Rafael de la Espriella Juan. Hospital

Staff. Nurses

Carolina Martínez Botella. INCLIVA
Evelin Idaly Bejerano Sandoval. INCLIVA
Francisco Javier Cebrián García. INCLIVA

Staff. Technicians

Adriana Conesa Bona. INCLIVA
Sandra Villar Conejos. INCLIVA
Teresa Benito Ferrer. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Strategic aims

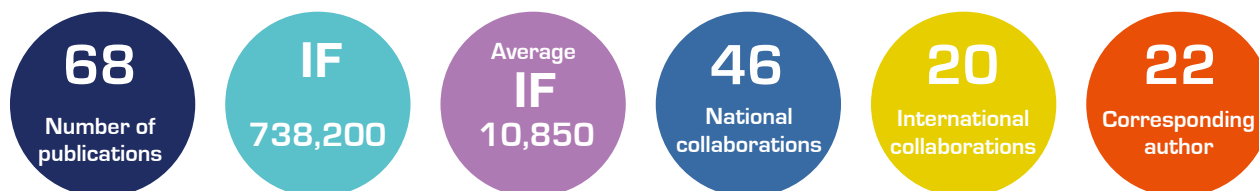
- Phenotypic characterization of heart failure syndrome
- Deepen into pathophysiological mechanisms in the different phenotypes of the disease
- Development of tools to improve the diagnostic process of heart failure
- Risk stratification in patients with acute and chronic heart failure
- Evaluation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

Main lines of research

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

4 scientific activity

PUBLICATIONS



SELECTED PUBLICATIONS

1. Leong D, Joseph P, McMurray J, Rouleau J, Maggioni A, Lanas F, Sharma S, Núñez J, Mohan B, Celik A, Abdullakutty J, Ogah O, Mielniczuk L, Balasubramanian K, Mccready T, Grinvalds A, Yusuf S. Frailty and outcomes in heart failure patients from high-, middle-, and low-income countries. *European Heart Journal*. 2023 Nov 7;44(42):4435-4444. doi: 10.1093/eurheartj/ehad595. PMID: 37639487. IF: 39,3
2. Sanchis J, Bueno H, Minana G, Guerrero C, Martí D, Martínez-Selles M, Dominguez-Perez L, Díez-Villanueva P, Barrabes J, Marin F, Villa A, Sanmartín M, Llibre C, Sionis A, Carol A, García-Blas S, Calvo E, Morales Gallardo M, Elizaga J, Gómez-Blázquez I, Alfonso F, García Del Blanco B, Nunez J, Formiga F, Ariza-Sole A. Effect of routine invasive vs conservative strategy in older adults with frailty and non-ST-segment elevation acute myocardial infarction: a randomized clinical trial. *JAMA Internal Medicine*. 2023 May 1;183(5):407-415. doi: 10.1001/jamainternmed.2023.0047. PMID: 36877502. IF: 39
3. Lorenzo M, Jacobs-Cachá C, Palau P, Amiguet M, Seller J, Núñez E, Espriella R, Górriz JL, Miñana G, Sanchis J, Bayés-Genis A, Soler MJ, Packer M, Núñez J; DAPA-VO2 Investigators. Short-term changes in peak VO2 after initiation of dapagliflozin in heart failure across iron status. *JACC: Heart Failure*. 2023 Nov;11(11):1611-1622. doi: 10.1016/j.jchf.2023.07.010. PMID: 37676213. IF: 13
4. Kosiborod M, Abildstrom S, Borlaug B, Butler J, Rasmussen S, Davies M, Hovingh G, Kitzman D, Lindegaard M, Møller D, Shah S, Treppendahl M, Verma S, Abhayaratna W, Ahmed F, Chopra V, Ezekowitz J, Fu M, Ito H, Lelonek M, Melenovsky V, Merkely B, Nunez J, Perna E, Schou M, Senni M, Sharma K, Van der Meer P, von Lewinski D, Wolf D, Petrie M. Semaglutide in patients with heart failure with preserved ejection fraction and obesity. *New England Journal of Medicine*. 2023 Sep 21;389(12):1069-1084. doi: 10.1056/NEJMoa2306963. PMID: 37622681. IF: 158,5
5. De la Espriella R, Wahlberg K, Infeld M, Palau P, Nunez E, Sanchis J, Meyer M, Nunez J. Effect of paced heart rate on

quality of life and natriuretic peptides for stage B or C HFpEF: a secondary analysis of the myPACE Trial. *European Journal of Heart Failure*. 2023 Dec 20. doi: 10.1002/ehfj.3107. PMID: 38124404. IF: 18,2

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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

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: PI21/O1417
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: PI20/O0392
Title: Congestión renal e insuficiencia cardíaca aguda y síndrome cardiorenal: valoración no invasiva mediante doppler vascular renal
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: 2021-2023
Total budget: €94.834

Reference: CIAICQ/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

THESIS

Thesis title: Retirada del tratamiento betabloqueante en pacientes con insuficiencia cardíaca con función sistólica preservada e incompetencia cronotrópica. Efecto sobre la capacidad funcional
Doctoral candidate: Julia Sellar Moya
Director[s]: Julio Núñez Villota, Patricia Palau Sempio
Date of the defense: 25/01/2023
Grade: Sobresaliente "cum laude"

Thesis title: Desarrollo de un algoritmo basado en técnicas de machine learning para estratificación de riesgo de pacientes con dolor torácico y primera determinación de troponina negativa
Doctoral candidate: Agustín Fernández Císal
Director[s]: Juan Sanchis Forés, Julio Núñez Villota
Date of the defense: 21/04/2023
Grade: Sobresaliente "cum laude"

Thesis title: Valor pronóstico de los parámetros de deformación miocárdica en una cohorte de pacientes con insuficiencia cardíaca crónica estable
Doctoral candidate: Jessika González D' Gregorio
Director[s]: Julio Núñez Villota, Francisco Javier Chorro Gascó,
Date of the defense: 08/05/2023
Grade: Sobresaliente "cum laude"

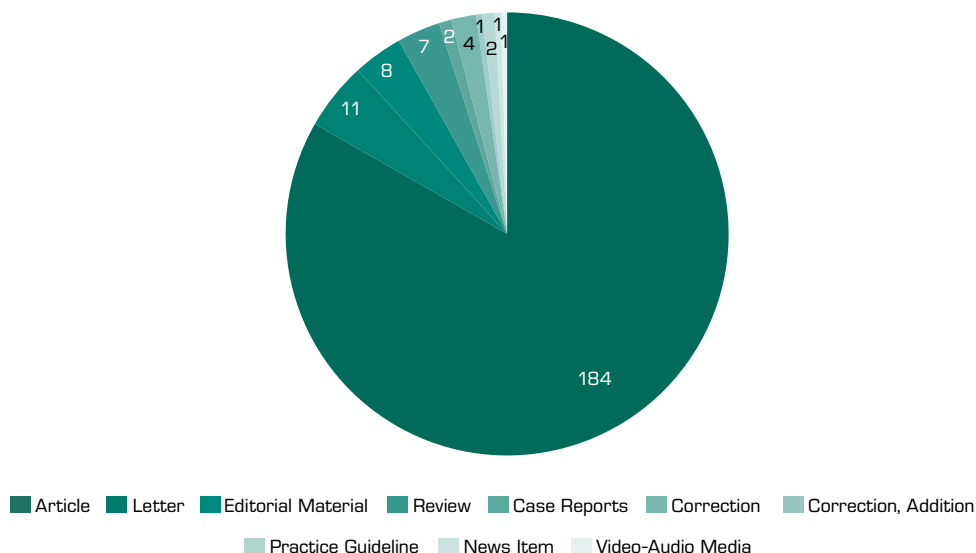
Thesis title: Modificación de miRNAs circulantes por infarto agudo de miocardio experimental en el modelo murino de senescencia SAMR1/SAMPB y su relación con las diferencias de sexo
Doctoral candidate: Ana Belén Paes Martí
Director[s]: Susana Novella del Campo, Carlos Hermenegildo Caudevilla, Julio Núñez Villota
Date of the defense: 01/11/2023
Grade: Sobresaliente "cum laude"
Quality recognition/Award: European PhD

4 scientific activity

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



Research Group on Histopathology and Tissue Engineering Consolidated group

Group members

Leading Researchers, R4

Carmen Carda Batalla. University
Manuel Mata Roig. University
Amando Peydró Olaya. INCLIVA

Established Researchers, R3

Antonio Fons Font. INCLIVA
Carlos Tejerina Botella. Hospital. INCLIVA
Francisco Forriol Brocal. Hospital
Genaro Galán Gil. Hospital. University
José Javier Martín de Llano. University
Mari Fe Mínguez Rey. Hospital. University
María Sancho-Tello Valls. University
Miguel Puche Torres. Hospital. University

Recognised Researchers, R2

Lara Milián Medina. University

First Stage Researchers, R1

Ángel Aguilar Hernández. INCLIVA
Irene Monleón Guinot. University
Javier Alcácer Fernández-Coronado. INCLIVA
Lucía Bravo Baranda. University
Zakaria Oguir. University

Researchers by categories



Researchers financed by competitive public calls or networks



Staff. Collaborating Researchers

Ignacio Peregrín Nevado. INCLIVA
Teresa Sagrado Vives. University

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 gender. 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

Regenerative Medicine:

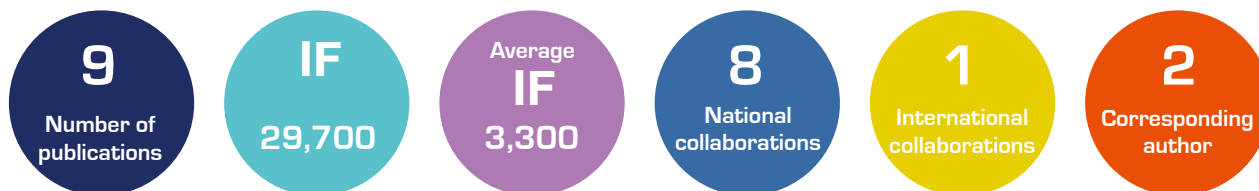
- Study of articular cartilage regeneration
- Study of bone regeneration. Effect of age and gender on the regeneration process
- Study of the use of dental pulp cells as precursors in regenerative therapies
- Study of regeneration of dental and periodontal tissues
- Study of tumor microenvironment using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

Histopathology:

- Study of ciliary pathology

4 scientific activity

PUBLICATIONS



SELECTED PUBLICATIONS

1. Milián L, Molina P, Oliver-Ferrándiz M, Fernández-Sellers C, Monzó A, Sánchez-Sánchez R, Braza-Boils A, Mata M, Zorio E. Cadaveric adipose-derived stem cells for regenerative medicine and research. *International Journal of Molecular Sciences*. 2023 Oct 28;24(21):15696. doi: 10.3390/ijms242115696. PMID: 37958680. IF: 5,6
2. Monleon-Guinot I, Milián L, Martínez-Vallejo P, Sancho-Tello M, Llop-Miguel M, Galbis J, Cremades A, Carda C, Mata M. Morphological characterization of human lung cancer organoids cultured in type I collagen hydrogels: a histological approach. *International Journal of Molecular Sciences*. 2023 Jun 14;24(12):10131. doi: 10.3390/ijms241210131. PMID: 37373279. IF: 5,6
3. Marquez-Florez K, Garzon-Alvarado DA, Carda C, Sancho-Tello M. Computational model of articular cartilage regeneration induced by scaffold implantation in vivo. *Journal of Theoretical Biology*. 2023 Jan 23;561:111393. doi: 10.1016/j.jtbi.2022.111393. PMID: 36572091. IF: 2
4. Botella-Casas G, Marques-Mateo M, Miragall-Alba L, Rio-Vega D, Gonzalez-Soler E, Puche-Torres M. Management of pseudoaneurysms of the internal maxillary artery derived from orthognathic surgery based on one case. *Oral and Maxillofacial Surgery*. 2023 Nov 20. doi: 10.1007/s10006-023-01197-9. PMID: 37981623. IF: 1,5
5. Martínez-Hernández N, Milián-Medina L, Mas-Estelles J, Monroy-Anton J, Lopez-Villalobos J, Hervas-Marin D, Roig-Bataller A, Mata-Roig M. Low-Dose gamma radiation sterilization for decellularized tracheal grafts. *Jove-Journal of Visualized Experiments*. 2023 Apr 14;(194). doi: 10.3791/64432. PMID: 37125805. IF: 1,2

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: PDC2021-121658-C22

Title: *Microgeles bioactivos como soporte inyectable para la*

regeneración del cartilago articular

Principal Investigator: María Sancho-Tello Valls and José Luis Gómez Ribelles

Funding Body: *Ministerio de Economía y Competitividad*

Beneficiary Institution: *Universidad de Valencia*

Duration: 2021-2023

Total Budget: €69.900

Reference: PID2019-106099RB-C42

Title: *Microgeles biomiméticos para el estudio del microentorno del tumor (TME) y la transición epitelio mesénquima (EMT) en cáncer de pulmón*

Principal Investigator: Manuel Mata Roig and José Javier Martín de Llano

Funding Body: *Ministerio de Ciencia e Innovación*

Beneficiary Institution: *Universidad de Valencia*

Duration: 2020-2023

Total Budget: €151.250

Reference: PROMETEO/2020/069

Title: *Regeneración ósea en implantoprótesis. Procesos biológicos condicionados por la edad y el género. Diseño de nuevos biomateriales (ROMEN)*

Principal Investigator: Carmen Carda Batalla

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

Beneficiary Institution: *Universidad de Valencia*

Duration: 2020-2023

Total Budget: €235.145

Reference: PID2022-138572OB-C43

Title: *Microentorno adaptativo para un modelo in vivo de regeneración del cartilago 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

THESIS

Thesis title: *Factores de riesgo de la fibrilación auricular tras la cirugía torácica*

Doctoral candidate: María Desamparados Oliva Gimeno

Director(s): Genaro Galán Gil, María Luisa Blasco Cortés, Carlos Ferrando Ortola

Date of the defense: 17/07/2023

Grade: Sobresaliente "*cum laude*"

4 scientific activity

Research Group on Central Nervous System Tumors Consolidated group

Group members

Leading Researcher, R4

Miguel Cerdá Nicolás. University

Established Researchers, R3

Concepción López Ginés. University

Javier Megías Vericat. University

Pedro Roldán Badía. INCLIVA

Teresa San Miguel Díez. University

Recognised Researchers, R2

Lisandra Muñoz Hidalgo. University

Pablo Cerdá Durán. University

Staff. Technician

Lara Navarro Cerveró. University

Researchers by categories



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 (frozen samples) by Western Blott according to established methodology has been completed

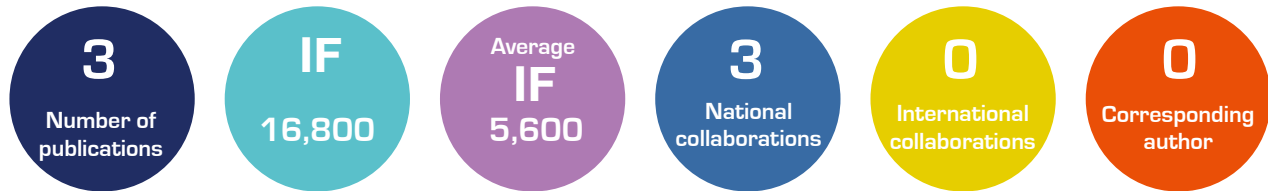
Experimental study:

- 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

- 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
- 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

PUBLICATIONS



SELECTED PUBLICATIONS

1. Fiorillo A, Gallego J, Casanova-Ferrer F, Urios A, Ballester M, San Miguel T, Megías J, Kosenko E, Tosca J, Ríos M, Escudero-García D, Montoliu C. Neurofilament light chain protein in plasma and extracellular vesicles is associated with minimal hepatic encephalopathy and responses to rifaximin treatment in cirrhotic patients. *International Journal of Molecular Sciences*. 2023 Sep 29;24(19):14727. doi: 10.3390/ijms241914727. PMID: 37834174. IF: 5,6
2. Fiorillo A, Gallego J, Casanova-Ferrer F, Gimenez-Garzo C, Urios A, Ballester M, Durban L, Ríos M, Megías J, San Miguel T, Kosenko E, Escudero-García D, Benlloch S, Felipe V, Montoliu C. Mild cognitive impairment is associated with enhanced activation of Th17 lymphocytes in non-alcoholic fatty liver disease. *International Journal of Molecular Sciences*. 2023 Jun 20;24(12):10407. doi: 10.3390/ijms241210407. PMID: 37373554. IF: 5,6
3. Serna E, Mauricio MD, San Miguel T, Guerra Ojeda S, Verdu D, Valls A, Arc-Chagnaud C, De la Rosa A, Vina J. Glucose 6-P dehydrogenase overexpression improves aging-induced endothelial dysfunction in aorta from mice: role of arginase II. *International Journal of Molecular Sciences*. 2023 Feb 11;24(4):3622. doi: 10.3390/ijms24043622. PMID: 36835034. IF: 5,6

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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

THESIS

Thesis title: Dynamics of boson stars and fermion-boson stars: a numerical-relativity panorama

Doctoral candidate: Fabrizio Di Giovanni

Director[s]: Pablo Cerdá Durán, Nicolás Sanchis Gual, José Antonio Font Rosa

Date of the defense: 12/01/2023

Grade: Sobresaliente "cum laude"

Thesis title: Role of hematopoietic stem and progenitor cells in training immunity against infection

Doctoral candidate: Cristina Bono Tapp

Director[s]: María Luisa Gil Herrero, Alberto Yáñez Boyer, Javier Megías Vericat

Date of the defense: 10/02/2023

Grade: Sobresaliente "cum laude"

Thesis title: Caracterización de las alteraciones en el inmunofenotipo asociadas a la aparición de la encefalopatía hepática mínima en pacientes cirróticos. Implicación de las vesículas extracelulares

Doctoral candidate: Juan José Gallego Roig

Director[s]: Carmina Montoliu Felix, Javier Megías Vericat

Date of the defense: 31/10/2023

Grade: Sobresaliente "cum laude"

Thesis title: Caracterización de los cambios en el inmunofenotipo asociados a la aparición del deterioro cognitivo leve en pacientes con enfermedad de hígado graso no alcohólico

Doctoral candidate: Alesandra Fiorillo

Director[s]: Carmina Montoliu Felix, Teresa San Miguel Díaz

Date of the defense: 03/11/2023

Grade: Sobresaliente "cum laude"

4 scientific activity

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

Group members

Leading Researcher, R4

Andrés Cervantes Ruipérez
Hospital. University

Established Researchers, R3

Desamparados Roda Pérez. Hospital
Gerardo López Rodas. University

Emerging researchers, R2

Noelia Tarazona Llaveró. Hospital
Tania Fleitas Kanonnikoff. Hospital
Valentina Gambardella. Hospital

Recognised Researchers, R2

Amelia Insa Mollá. Hospital
Federica Papaccio. ESMO
Fernanda Gutiérrez Bravo. INCLIVA
Francisco Gimeno Valiente. INCLIVA
Jose A. Pérez Fidalgo. Hospital. University
Josefa Castillo Aliaga. University
José Francisco González Muñoz. INCLIVA
María Carolina Martínez Ciarpaglini. Hospital. University
Susana Roselló Keranen. Hospital

First Stage Researchers, R1

Alba Aguilar Cifre. INCLIVA
Belén Martínez Castedo. INCLIVA
Blanca García Micó. INCLIVA
Gema Bruixola Campos. Hospital
Jorge Martín Aranda. INCLIVA
Manuel Cabeza Segura. INCLIVA
Marisol Huerta Álvaro. Hospital
Paloma Martín Martorell. Hospital

Staff. Collaborating Researcher

Clara Alfaro Cervelló. Hospital. University

Staff. Technicians

Alba Viala Monleón. Hospital
Aitana Bolea Cortina. INCLIVA
Alejandro Asturiano Pérez-Chao. INCLIVA
América Bueno Gómez. INCLIVA
Ana M^a Miralles Marco. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Team involved in

ciberonc

Andreea Ghiuro. INCLIVA
Andrea Marín Alonso. INCLIVA
Arantxa Sánchez Cosmo. INCLIVA
Beatriz López Montero. INCLIVA
Brenda Palomar de Lucas. INCLIVA
Carlos Peris Casilda. INCLIVA
Carme M^a Ortega Albiach. INCLIVA
Cristina Mongort Sanchis. INCLIVA
Daniel González Cambor. INCLIVA
Eugenia Flores de la Luna. INCLIVA
Guillermo Moret Peiró. INCLIVA
Ignacio Castaño López. INCLIVA
José Francisco Catalá Senent. INCLIVA
Laura Olivares Ordóñez. INCLIVA
Lucía Tórnero Pérez. INCLIVA
M^a Carmen Martínez López. INCLIVA
M^a Elena Duréndez Sáez. INCLIVA
M^a Pilar Natividad López. INCLIVA
Mónica Gorbe Moya. INCLIVA
Paloma Campos Bañegil. INCLIVA
Raquel Herrero Tejedor. INCLIVA
Sergio Romero Alcaide. INCLIVA
Verónica Repullés Martín. INCLIVA
Victoria Freitas Durks. INCLIVA
Victoria Lucía Doldán Martelli. INCLIVA

Staff. Nurses

Alba Estornell Marin. INCLIVA
Ana Ruiz Quílez. INCLIVA
Celia Martínez Ridaura. INCLIVA
Gloria Corredor Agulló. INCLIVA
Inma Blasco Blasco. University
Laura Martínez Lucía. INCLIVA
Laura Vera Riera. INCLIVA
M^a Isabel Calzadilla Luz. INCLIVA
María Montes de Oca Ortuño. INCLIVA
Sílvia Moreno Magraner. INCLIVA

Staff. Administrative assistants

Carla Gil Ferri. INCLIVA
Enrique Castelló Moreno. INCLIVA
Laura Boix Bartual. INCLIVA
Paranee Archavarat Sianmekan. INCLIVA
Paula Petruskevicius Fernández. INCLIVA

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

- 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 use the latest technologies to improve our knowledge of the molecular and genetic causes of cancer
- 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 expand current knowledge in gastric cancer microenvironment
- Expand current knowledge in the microenvironment of gastric cancer

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

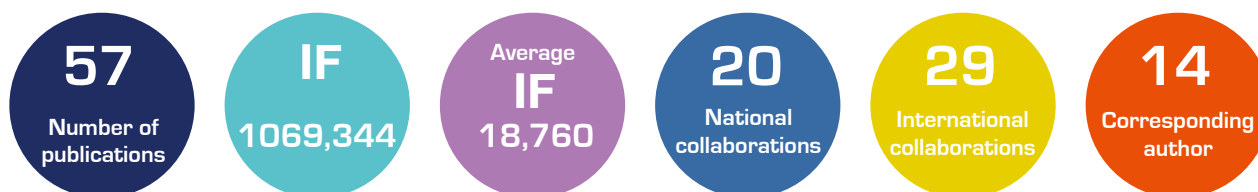
Our scientific interests are based on the understanding of the tumor immune microenvironment of Gastric Cancer. Moreover, we are also focused on the study of the clinical-epidemiological-molecular and the microbiome characteristics of patients with young gastric tumors under 50 years of age, the study 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.

4 scientific activity

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.

PUBLICATIONS



SELECTED PUBLICATIONS

- Provencio M, Nadal E, Gonzalez-Larriba J, Martinez-Marti A, Bernabe R, Bosch-Barrera J, Casal-Rubio J, Calvo V, Insa A, Ponce S, Reguart N, de Castro J, Mosquera J, Cobo M, Aguilar A, Lopez Vivanco G, Camps C, Lopez-Castro R, Moran T, Barneto I, Rodriguez-Abreu D, Serna-Blasco R, Benitez R, Aguado de la Rosa C, Palmero R, Hernando-Trancho F, Martin-Lopez J, Cruz-Bermudez A, Massuti B, Romero A. Perioperative nivolumab and chemotherapy in stage III non-small-cell lung cancer. *New England Journal of Medicine*. 2023 Aug 10;389(6):504-513. doi: 10.1056/NEJMoa2215530. PMID: 37379158. IF: 158,5
- Cervantes A, Adam R, Rosello S, Arnold D, Normanno N, Taieb J, Seligmann J, De Baere T, Osterlund P, Yoshino T, Martinelli E. Metastatic colorectal cancer: ESMO Clinical Practice Guideline for diagnosis, treatment and follow-up. *Annals of Oncology*. 2023 Jan;34(1):10-32. doi: 10.1016/j.annonc.2022.10.003. PMID: 36307056. IF: 50,5
- Kim T, Bedard P, Lorusso P, Gordon M, Bendell J, Oh D, Ahn M, Garralda E, D'Angelo S, Desai J, Hodi F, Wainberg Z, Delord J, Cassier P, Cervantes A, Gil-Martin M, Wu B, Patil N, Jin Y, Hoang T, Mendus D, Wen X, Meng R, Cho B. Anti-TIGIT antibody tiragolumab alone or with atezolizumab in patients with advanced solid tumors a Phase 1a/1b nonrandomized controlled trial. *JAMA Oncology*. 2023 Nov 1;9(11):1574-1582. doi: 10.1001/jamaoncol.2023.3867. PMID: 37768658. IF: 28,4
- Dijkstra EA, Nilsson PJ, Hospers GAP, Bahadoer RR, Meershoek-Klein Kranenbarg E, Roodvoets AGH, Putter H, Berglund A, Cervantes A, Crolla RMPH, Hendriks MP, Capdevila J, Edhemovic I, Marijnen CAM, van de Velde CJH, Glimelius B, van Etten B. Locoregional failure during and after short-course radiotherapy followed by chemotherapy and surgery compared to long-course chemoradiotherapy and surgery - a five-year follow-up of the RAPIDO Trial. *Annals of Surgery*. 2023 Oct 1;278(4):e766-e772. doi: 10.1097/SLA.0000000000005799. PMID: 36661037. IF: 9
- Linares J, Sallent-Aragay A, Badia-Ramentol J, Recort-Bascuas A, Mendez A, Manero-Ruperez N, Re DL, Rivas EI, Guiu M, Zwick M, Iglesias M, Martinez-Ciarpaglini C, Tarazona N, Varese M, Hernando-Momblona X, Canellas-Socias A, Orrillo M, Garrido M, Saoudi N, Elez E, Navarro P, Tabernero J, Gomis RR, Batlle E, Pisonero J, Cervantes A, Montagut C, Calon A. Long-term platinum-based drug accumulation in cancer-associated fibroblasts promotes colorectal cancer progression and resistance to therapy. *Nature Communications*. 2023 Feb 10;14(1):746. doi: 10.1038/s41467-023-36334-1. PMID: 36765091. IF: 16,6

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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: 825832 - LEGACy

Title: CeLac and European consortium for a personalized medicine approach to Gastric Cancer

Principal Investigator: Andrés Cervantes Ruipérez

Funding Body: European Commission

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

Duration: 2019-2023

Total Budget: €3.577.431,27 (INCLIVA: €638.315)

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 microcítico 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 Llaverro 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: M^a 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: ICI20/00009

Title: *Investigación Clínica Independiente*

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

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

Total budget: €199.650

Reference: CB16/12/00473

Title: *Centro de Investigación Biomédica en Red Cáncer (CIBERonc)*

4 scientific activity

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: 2017-

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: Jose 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: Secuenciación del exoma completo del DNA tumoral circulante y DNA genómico para aumentar la sensibilidad en la detección de la enfermedad mínima residual y abrir nuevas vías para la medicina personalizada en cáncer de colon localizado
Principal Investigator: Noelia Tarazona Llaveró
Funding Body: Sociedad Española de Oncología Médica (SEOM)
Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia
Duration: 2021-2023
Total budget: €20.000

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

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: €992.996

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: *Carcinogénesis 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

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

THESIS

Thesis title: *Tecnologías de secuenciación masiva y PCR digital en la detección de ADN tumoral procedente de tejido y plasma en pacientes de colon localizado*

Doctoral candidate: Roberto Tébar Martínez

Director(s): Pilar Rentero Garrido, Andrés Cervantes Ruipérez, Noelia Tarazona Llaveró

Date of the defense: 01/02/2023

Grade: Sobresaliente "cum laude"

Thesis title: *Estudio del estado de metilación genómica y expresión de miRNAs en tumores melanocíticos spitzoides para determinar su grado de malignidad*

Doctoral candidate: José Francisco González Muñoz

Director(s): José Carlos Monteagudo Castro

Date of the defense: 08/09/2023

Grade: Sobresaliente "cum laude"

4 scientific activity

Research Group on Breast Cancer Biology Consolidated group

Group members

Leading Researchers, R4

Ana Lluch Hernández

University

Pilar Eroles Asensio

University. INCLIVA

Established Researchers, R3

Isabel Chirivella González. Hospital. University

Octavio Burgues Gasi6n. Hospital. University

Emerging researcher, R2

Juan Miguel Cejalvo Andújar. Hospital

Recognised Researchers, R2

Begoña Bermejo De Las Heras. Hospital. University

Diego Soriano Mena. Hospital

Elvira Buch Villa. Hospital

Iris Garrido Cano. CIBER

Lidia González Villena. INCLIVA

María Teresa Martínez Martínez. Hospital

Sandra Torres Ruiz. INCLIVA

First Stage Researchers, R1

Ana María Ágreda Roca. AECC

Ana Caterina Lameirinhas. AECC

Cristina Hernando Meliá. Hospital

Marta Tapia Céspedes. INCLIVA

Staff. Collaborating Researcher

Esther Jordá Sorolla. Hospital. University

Researchers by categories



Researchers financed by competitive public calls or networks



Staff. Technicians

Elisa Alonso Yuste. INCLIVA

Júlia Soler Flores. INCLIVA

Staff. Nurses

Cristina Tébar Sánchez. INCLIVA

Elena Mieres Negro. INCLIVA

Elena Ortiz Bagán. INCLIVA

Silvia Coret Sinisterra. INCLIVA

Sara Rodríguez Pestano. INCLIVA

Staff. Administrative assistants

Yolanda De La Cruz Robles. INCLIVA

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 Trastuzumab-deruxtecan

Breast cancer in very young women:

- Identification of biomarkers
- Review of breast cancer in pregnant patients

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

Establishment of patient-derived breast cancer models

- Establishment of patient-derived organoids

Establishment of patient-derived xenografts

Main lines of research

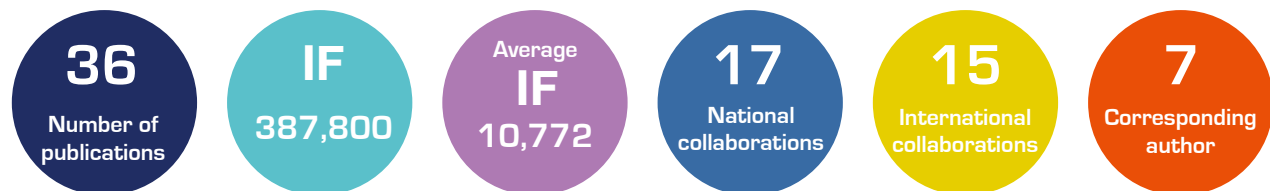
- Cell resistance to anti-HER2 therapy and identification of strategies to overcome resistance
- Involvement of miRNAs and other epigenetic regulations in breast cancer processes
- Mesoporous silica nanoparticles as an innovative approach for breast cancer treatment

Emerging Researchers

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.

PUBLICATIONS



SELECTED PUBLICATIONS

1. Wang X, Danenberg E, Huang C, Egle D, Callari M, Bermejo B, Dugo M, Zamagni C, Thill M, Anton A, Zambelli S, Russo S, Ciruelos E, Greil R, Gyorffy B, Semiglazov V, Colleoni M, Kelly C, Mariani G, Del Mastro L, Biasi O, Seitz R, Valagussa P, Viale G, Gianni L, Bianchini G, Ali H. Spatial predictors of immunotherapy response in triple-negative breast cancer. *Nature*. 2023 Sep;621(7980):868-876. doi: 10.1038/s41586-023-06498-3. PMID: 37674077. IF: 64,8
2. Adam-Artigues A, Arenas E, Arribas J, Prat A, Cejalvo J. AXL - a new player in resistance to HER2 blockade. *Cancer Treatment Reviews*. 2023 Dec;121:102639. doi: 10.1016/j.ctrv.2023.102639. PMID: 37864955. IF: 11,8
3. Garrido-Cano I, Adam-Artigues A, Lameirinhas A, Blandez J, Candela-Noguera V, Lluch A, Bermejo B, Sancenon F, Cejalvo J, Martinez-Manez R, Eroles P. Delivery of miR-200c-3p using tumor-targeted mesoporous silica nanoparticles for breast cancer therapy. *ACS Applied Materials & Interfaces*. 2023 Aug 16;15(32):38323-38334. doi: 10.1021/acsami.3c07541. PMID: 37549382. IF: 9,5
4. Tapia M, Hernando C, Martínez M, Burgués O, Tebar-Sánchez C, Lameirinhas A, Agreda-Roca A, Torres-Ruiz S, Garrido-Cano I, Lluch A, Bermejo B, Eroles P. Clinical impact of new treatment strategies for HER2-positive metastatic breast cancer patients with resistance to classical Anti-HER therapies. *Cancers*. 2023 Sep 12;15(18):4522. doi: 10.3390/cancers15184522. PMID: 37760491. IF: 5,2

4 scientific activity

5. Cabello P, Torres-Ruiz S, Adam-Artigues A, Fores-Martos J, Martínez M, Hernando C, Zazo S, Madoz-Gurpide J, Rovira A, Burgues O, Rojo F, Albanell J, Lluch A, Bermejo B, Cejalvo J, Eroles P. miR-146a-5p promotes angiogenesis and confers trastuzumab resistance in HER2+ breast cancer. *Cancers*. 2023 Apr 4;15(7):2138. doi: 10.3390/cancers15072138. PMID: 37046799. IF: 5,2

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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/O1351

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: Gilead Fellowship Program

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

Duration: 2023-2024

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

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

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: Disección multidisciplinar de los mecanismos de resistencia a quimioterapia en cáncer de mama triple negativo: un paso hacia una mejor atención clínica

Principal Investigator: Juan Miguel Cejalvo Andújar

Funding Body: Asociación Española Contra el Cáncer

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

Duration: 2021-2023

Total budget: €268.500

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)

THESIS

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 Ruiz

Director[s]: Pilar Eroles Asensio, Eduardo Tormo Martín

Date of the defense: 15/09/2023

Grade: Sobresaliente "cum laude"

4 scientific activity

Research Group on Skin Cancer Consolidated group

Group members

Leading Researcher, R4

José Carlos Monteagudo Castro
Hospital. University

Recognised Researchers, R2

José M^a Martín Hernández. Hospital. University
Liria Terrádez Más. Hospital. University
Silvia Pérez Debén. INCLIVA

First Stage Researchers, R1

Anaïs Moscardó Navarro. INCLIVA
Andrés Mosquera Zamudio. INCLIVA

Staff. Collaborating researcher

Beatriz Sánchez Sendra. INCLIVA

Staff. Technician

Esther Álvarez Vilanova. Hospital

Researchers by categories



Researchers financed by competitive public calls or networks



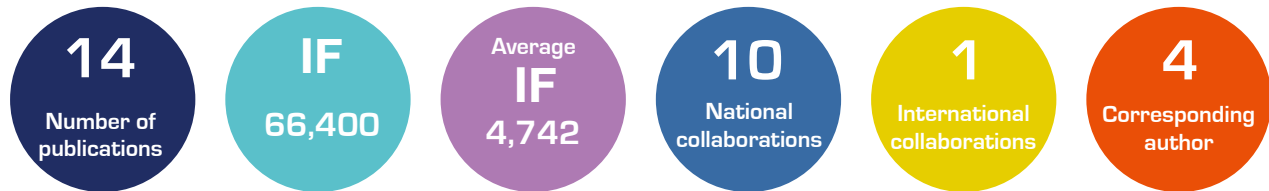
Strategic aims

- 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

- Prognostic value of intratumoral and circulating microRNAs in melanoma tumor progression and clinical outcome
- 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
- Deep Learning analysis of methylation and miRNA profile of ambiguous melanocytic tumors to improve diagnosis and prognosis.
- Artificial intelligence techniques for the classification of spindle cell tumors of the skin
- New histologic cutaneous biomarkers of aging, metabolic and cardiovascular risk factors

PUBLICATIONS



SELECTED PUBLICATIONS

1. Del Amor R, Pérez-Cano J, López-Pérez M, Terradez L, Aneiros-Fernandez J, Morales S, Mateos J, Molina R, Naranjo V. Annotation protocol and crowdsourcing multiple instance learning classification of skin histological images: the CR-AI4SkIN dataset. *Artificial Intelligence in Medicine*. 2023 Nov;145:102686. doi: 10.1016/j.artmed.2023.102686. PMID: 37925214. IF: 7,5
2. Mosquera-Zamudio A, Launet L, Del Amor R, Moscardo A, Colomer A, Naranjo V, Monteagudo C. A spitzoid tumor dataset with clinical metadata and whole slide images for deep learning models. *Scientific Data*. 2023 Oct 16;10(1):704. doi: 10.1038/s41597-023-02585-2. PMID: 37845235. IF: 9,8
3. Golfe A, Del Amor R, Colomer A, Sales M, Terradez L, Naranjo V. ProGleason-GAN: conditional progressive growing GAN for prostatic cancer Gleason grade patch synthesis. *Computer Methods and Programs in Biomedicine*. 2023 Jun 25;240:107695. doi: 10.1016/j.cmpb.2023.107695. PMID: 37393742. IF: 6,1
4. González-Muñoz J, Sánchez-Sendra B, Monteagudo C. Diagnostic algorithm to subclassify atypical spitzoid tumors in low and high risk according to their methylation status. *International Journal of Molecular Sciences*. 2023 Dec 25;25(1):318. doi: 10.3390/ijms25010318. PMID: 38203489. IF: 5,6
5. Launet L, Wang Y, Colomer A, Igual J, Pulgarín-Ospina C, Koulouzis S, Bianchi R, Mosquera-Zamudio A, Monteagudo C, Naranjo V, Zhao Z. Federating medical deep learning models from private jupyter notebooks to distributed institutions. *Applied Science*. 2023; 13: 919. doi.org/10.3390/app13020919. IF: 2,7

Funding body: European Commission

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

Duration: 2019-2023

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

Total Budget: €220.220

Reference: INNEST/2021/302/58

Title: *Sistema de visión artificial aumentada para la caracterización molecular y morfológica del cáncer de piel*

Principal Investigator: Carlos Monteagudo Castro

Funding body: *Agencia Valenciana de la Innovación-AVI Generalitat Valenciana*

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

Duration: 2021-2023

Total Budget: €192.868,53

THESIS

Thesis title: *Estudio del estado de metilación genómica y expresión de miRNAs en tumores melanocíticos spitzoides para determinar su grado de malignidad*

Doctoral candidate: José Francisco González Muñoz

Director(s): José Carlos Monteagudo Castro

Date of the defense: 08/09/2023

Grade: Sobresaliente "cum laude"

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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

Title: Cloud Artificial Intelligence for pathology-CLARIFY

Principal Investigator: José Carlos Monteagudo Castro

4 scientific activity

Translational Research Group on Pediatric Solid Tumors Consolidated group

Group members

Leading Researchers, R4

Samuel Navarro Fos

Hospital. University

Rosa Noguera Salvá

University

Established Researcher, R3

Inmaculada Noguera Salvá. University

Recognised Researchers, R2

M^a Amparo López Carrasco. CIBER

Sofía Granados Aparici. INCLIVA

Ezequiel Monferrer Garzarán. AECC

José Jaime Verdú Amorrós. Hospital

Amparo Compañ Quilis. Hospital

First Stage Researchers, R1

Isaac Vieco Martí. INCLIVA

Staff. Collaborating Researchers

Laura Martínez Salinas. INCLIVA

Mara Stoks. INCLIVA

Ruth Collado Subirats. INCLIVA

Marta Gómez Rebolledo. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Team involved in

ciberonc

Staff. Technician

Ruth Panadero Montés. INCLIVA

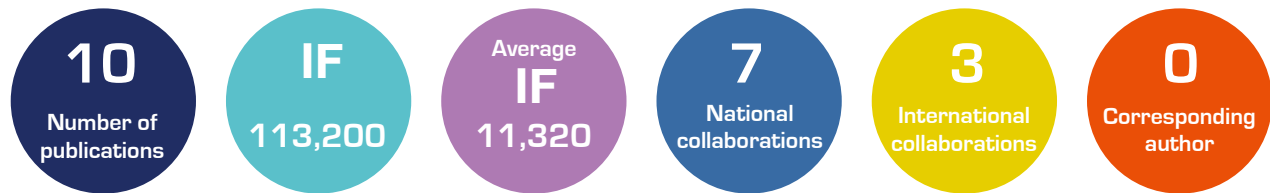
Strategic aims

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

Main lines of research

- 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
- Digital analysis of diagnostic, prognostic and therapeutic biomarkers in tumors
- Tumor microenvironment studies in tumors
- Preclinical models. Obtaining and characterizing cell lines in vivo and in vitro (2D and 3D) from fresh tumor material

PUBLICATIONS



SELECTED PUBLICATIONS

1. Stoks M, Vieco-Martí I, Noguera I, Sánchez-Sánchez M, Burgos-Panadero R, Navarro S, Noguera R. Digital image analysis workflows for evaluation of cell behavior and tumor microenvironment to aid therapeutic assessment in high-risk neuroblastoma. *Comput Biol Med.* 2023 Sep;164:107364. doi: 10.1016/j.compbio.2023.107364. Epub 2023 Aug 14. PMID: 37598482. IF: 7,7
2. Alexander S, Aupérin A, Bomken S, Csóka M, Kazanowska B, Chiang AK, Andres M, Uyttebroeck A, Burke GAA, Zsiros J, Pilon M, Bollard CM, Mussolin L, Verdu-Amoros J, Neven B, Barkauskas DA, Wheatley K, Patte C, Gross TG, Minard-Colin V; Children's Oncology Group; European Intergroup for Childhood Non-Hodgkin's Lymphoma. Effect of rituximab on immune status in children with mature B-cell non-Hodgkin lymphoma: a prespecified secondary analysis of the Inter-B-NHL Ritux 2010 trial. *Lancet Haematol.* 2023 Jun;10(6):e445-e457. doi: 10.1016/S2352-3026(23)00062-5. Epub 2023 Apr 21. Erratum in: *Lancet Haematol.* 2023 Jun;10(6):e399. doi: 10.1016/S2352-3026(23)00127-8. PMID: 37094596. IF: 24,7
3. Machado I, Agaimy A, Giner F, Navarro S, Michal M, Bridge J, Claramunt R, López-Guerrero JA, Alcacer J, Linos K, Llombart-Bosch A. The value of GLI1 and p16 immunohistochemistry in the premolecular screening for GLI1-altered mesenchymal neoplasms. *Virchows Archiv.* 2023 Nov 8. doi: 10.1007/s00428-023-03687-3. PMID: 37940743. IF: 3,5
4. Monteagudo C, Porcar-Saura S, Navarro S, Burgués O, González JF, Ferrández A, Forner MJ. Acquired aggressive multisystemic disseminated lobular capillary haemangioma: a life threatening disorder. *Pathology.* 2023 Aug;55(5):729-732. doi: 10.1016/j.pathol.2022.11.014. Epub 2023 Feb 17. PMID: 36894353. IF: 4,5
5. Recuero Díaz JL, Gatiús Caldero S, Rosado Rodríguez J, Caamaño Villaverde V, Gómez de Antonio D, Tejerina E,

Sánchez Moreno L, Martino González M, Moldes Rodríguez M, Abdulkader Nallib I, Ramírez Gil E, Amat Villegas I, Genovés Crespo M, García Ángel R, Sampedro Salinas C, Figueroa Almánzar S, Compañ Quilis A, Saumench Perramon R, González Pont G, Royo Crespo Í, Gambó Grasa P, García Fernández JL, Jiménez Heffernan JA, Cerón Navarro J, Prieto Rodríguez M, Porcel JM. Impact of Pleural Lavage Cytology Positivity on Early Recurrence After Surgery for Non-Small Cell Lung Cancer. *Arch Bronconeumol.* 2024 Mar;60(3):133-142. English, Spanish. doi: 10.1016/j.arbres.2023.12.001. Epub 2023 Dec 18. PMID: 38238188. IF: 8

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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 (concedida prórroga 2024)

Total budget: €232.320

Reference: CB16/12/00484

Title: *Programa terapias y diagnóstico de precisión CIBER Oncología (CIBERONC)*

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: 2017-

Total budget: €360.000

4 scientific activity

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: FPU20/05344

Title: Predoctoral Ministerio

Principal Investigator: Isaac Vieco Martí

Funding body: *Ministerio de Ciencia, Innovación y Universidades*

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

Duration: 2021-2025

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 Educació, Investigació, Cultura y Deporte*

Beneficiary institution: *Universidad de Valencia*

Duration: 2021-2027

Total budget: €365.142,5

Reference: PRV00166

Title: *Espacio intercelular: Bioimagen microscópica, Fase II*

Principal Investigator: Rosa Noguera Salvá

Funding body: *Fundación Neuroblastoma*

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

Duration: 2021-2024

Total budget: €20.000

Reference: Immuno4All

Title: Towards precision oncology optimization

Principal Investigator: Enrique de Álava

Funding body: CIBERONC

Beneficiary institution: CIBERONC

Duration: 2023-2026

Total budget: €4.671.132

Research Group on Hematopoietic Transplantation Consolidated group

Group members

Leading Researcher, R4

Carlos Solano Vercet
Hospital. University

Recognised Researcher, R3

José Luis Piñana Sánchez. Hospital

Recognised Researchers, R2

María José Remigia Pellicer. Hospital
Paula Amat Martínez. Hospital. University
Rafael Hernani Morales. Hospital

First Stage Researchers, R1

Ariadna Pérez Martínez. Hospital
Rut Meseguer Naturil. AECC

Staff. Collaborating Researchers

Ana Benzanquén Vallejos. Hospital
Daniela Morello González. Hospital
Rosa Goterris Viciado. Hospital

Staff. Nurses

Elisa Núñez Biota. INCLIVA
Julia Carrió Fito. INCLIVA
Marina Hernández Aliaga. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Staff. Technicians

Ana Riera Calabuig. INCLIVA
Clara Seherazade Osca Gómez. INCLIVA
Diana Campos Beltrán. INCLIVA
Francisca Fernández Olmo. INCLIVA
M^a Pilar Ortiz Gavilán. INCLIVA
Vicent Cuevas Mauricio. INCLIVA

Strategic aims

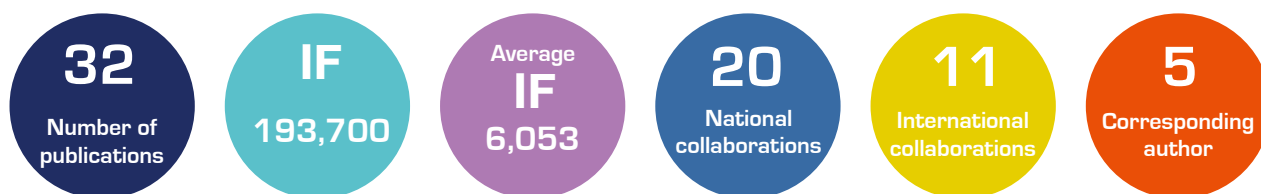
- Translational research on biology and treatment of graft-versus-host disease after allogeneic transplantation of hematopoietic progenitor cells
- Infection and immune reconstitution after haematopoietic transplant
- Development of an Advanced Therapies- clinical and translational program in *Hospital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

Main lines of research

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

4 scientific activity

PUBLICATIONS



SELECTED PUBLICATIONS

- Solano de la Asuncion C, Hernani R, Albert E, Gomez M, Gimenez E, Benzaquen A, Gonzalez-Barbera E, Hernandez-Boluda J, Perez A, Pinana J, Chorao P, Guerreiro M, Montoro J, Sanz J, Solano C, Navarro D. Cytomegalovirus DNAemia in hematological patients undergoing CD19-directed CAR-T cell therapy: should it be systematically monitored?. *Clinical Microbiology and Infection*. 2023 Aug;29(8):1093-1095. doi: 10.1016/j.cmi.2023.05.010. PMID: 37182642. IF: 14,2
- Pinana JL, Vazquez L, Calabuig M, Lopez-Corral L, Martin-Martin G, Villalon L, Sanz-Linares G, Conesa-Garcia V, Sanchez-Salinas A, Gago B, Facal A, Risco-Galvez I, Olave MT, Espigado I, Lopez-Jimenez J, Hernandez-Rivas JA, Avendano-Pita A, Arroyo I, Ferrer E, Garcia-Cadenas I, Gonzalez-Santillana C, Roldan-Perez A, Ferrer B, Guerreiro M, Suarez-Lledo M, Camara A, Campos-Beltran D, Navarro D, Cedillo A, Sureda A, Solano C, Martino R. One-year breakthrough SARS-CoV-2 infection and correlates of protection in fully vaccinated hematological patients. *Blood Cancer Journal*. 2023 Jan 5;13(1):8. doi: 10.1038/s41408-022-00778-3. PMID: 36599843. IF: 12,8
- De la Asunción C, Giménez E, Hernández-Boluda J, Terol M, Albert E, López J, García-Gutiérrez V, Andreu R, Malo M, Fox M, Remigia M, Amat P, Solano C, Navarro D. Assessment of the potential value of plasma Torque Teno virus DNA load monitoring to predict cytomegalovirus DNAemia in patients with hematological malignancies treated with small molecule inhibitors: a proof-of-concept study. *Journal of Medical Virology*. 2023 Jul;95(7):e28933. doi: 10.1002/jmv.28933. PMID: 37403897. IF: 12,7
- Forqué L, Albert E, Piñana JL, Pérez A, Hernani R, Solano C, Navarro D, Giménez E. Monitoring of plasma Torque teno virus, total Anelloviridae and Human Pegivirus 1 viral load for the prediction of infectious events and acute graft versus host disease in the allogeneic hematopoietic stem cell transplantation setting. *Journal of Medical Virology*. 2023 Sep;95(9):e29107. doi: 10.1002/jmv.29107. PMID: 37721473. IF: 12,7
- Hurtado-Navarro L, Cuenca-Zamora E, Zamora L, Bellosillo B, Such E, Soler-Espejo E, Martinez-Banaclocha H, Hernandez-Rivas J, Marco-Ayala J, Martinez-Alarcon L, Linares-Latorre L, Garcia-Avila S, Amat-Martinez P, Gonzalez T, Arnan M, Pomares-Marin H, Carreno-Tarragona G, Chen-Liang T, Herranz M, Garcia-Palenciano C, Morales M, Jerez A, Lozano M, Teruel-Montoya R, Pelegrin P, Ferrer-Marin F. NLRP3 inflammasome activation and symptom burden in KRAS-mutated CMML patients is reverted by IL-1 blocking therapy. *Cell Reports. Medicine*. 2023 Dec 19;4(12):101329. doi: 10.1016/j.xcrm.2023.101329. PMID: 38118408. IF: 14,3

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: PI21/O1628

Title: *Inmunobiología de células NK expandidas con criterios GMP de donantes seleccionados de banco de linfocitos para inmunoterapia adoptiva después de TPH alogénico o trasplante de órgano sólido*

Principal Investigator: Carlos Solano Vercet

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

Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2022-2024

Total budget: €102.850

Reference: PI18/O1473

Title: *Inmunobiología de la infusión de linfocitos del donante con depleción ex vivo de linfocitos T CD45RA+ en pacientes con alto riesgo de infección viral tras TPH alogénico*

Principal Investigator: Carlos Solano Vercet

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

Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2019-2023

Total budget: €123.420

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 Investigación Sanitaria y Biomédica de Alicante (ISABIAL)*

Duration: 2021-2024

Total budget: €459.800

Title: *Inmunobiología de la infusión de linfocitos del donante con depleción ex vivo de linfocitos T CD45RA+ en pacientes con alto riesgo de infección viral tras TPH alogénico*

Principal Investigator: Carlos Solano Vercet

Funding body: Janssen - Cilag S.A.

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

Duration: 2023

Total budget: €42.500

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: 2022-2024

Total budget: €66.000

4 scientific activity

Research Group on Lymphoproliferative Disorders Consolidated group

Group members

Leading Researcher, R4

M^a José Terol Casterá
Hospital. University

Established Researcher, R3

Antonio Ferrández Izquierdo. Hospital. University

Recognised Researchers, R2

Ana Isabel Teruel Casasús. Hospital. University
Alicia Serrano Alcalá. INCLIVA
Blanca Ferrer Lores. Hospital
Edelmira Martí Sáez. Hospital

First Stage Researchers, R1

Juan Ramón de Moya Romero. Hospital. University
Laura Ventura López. INCLIVA

Staff. Collaborating Researchers

Ana Saus Carreres. Hospital

Researchers by categories



Researchers financed by competitive public calls or networks



Staff. Nurses

Esther Lozano García. INCLIVA
Mercedes Bou Moreno. INCLIVA

Strategic aims

- 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.
- 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.

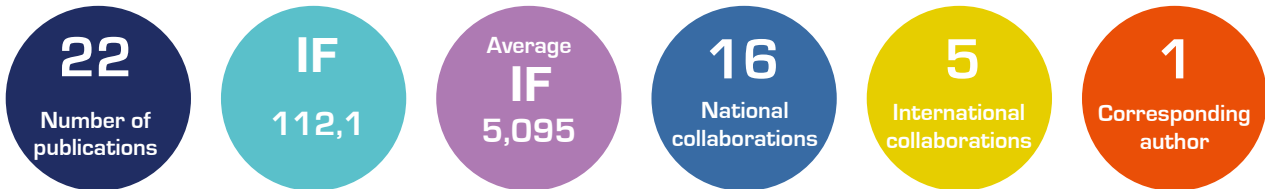
Main lines of research

- 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 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
- 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

- New therapeutic options for CLL/lymphoma/ MM patients who are refractory to chemoimmunotherapy.

PUBLICATIONS



SELECTED PUBLICATIONS

- de la Asunción CS, Giménez E, Hernández-Boluda JC, Terol MJ, Albert E, López J, García-Gutiérrez V, Andreu R, Malo MDG, Fox ML, Remigia MJ, Amat P, Solano C, Navarro D. Assessment of the potential value of plasma Torque Teno virus DNA load monitoring to predict cytomegalovirus DNAemia in patients with hematological malignancies treated with small molecule inhibitors: A proof-of-concept study. *J Med Virol.* 2023 Jul;95(7):e28933. doi: 10.1002/jmv.28933. PMID: 37403897. IF: 12,7
- Mansouri L, Thorvaldsdottir B, Sutton LA, Karakatsoulis G, Meggendorfer M, Parker H, Nadeu F, Brieghel C, Laidou S, Moia R, Rossi D, Catherwood M, Kotaskova J, Delgado J, Rodriguez-Vicente AE, Benito R, Rigolin GM, Bonfiglio S, Scarfo L, Mattsson M, Davis Z, Gogia A, Rani L, Baliakas P, Foroughi-Asl H, Jylhä C, Skaftason A, Rapado I, Miras F, Martinez-Lopez J, de la Serna J, Rivas JMH, Thornton P, Larráyoiz MJ, Calasanz MJ, Fésüs V, Mátrai Z, Bödör C, Smedby KE, Espinet B, Puiggros A, Gupta R, Bullinger L, Bosch F, Tazón-Vega B, Baran-Marszak F, Oscier D, Nguyen-Khac F, Zenz T, Terol MJ, Cuneo A, Hernández-Sánchez M, Pospisilova S, Mills K, Gaidano G, Niemann CU, Campo E, Strefford JC, Ghia P, Stamatopoulos K, Rosenquist R. Correction: Different prognostic impact of recurrent gene mutations in chronic lymphocytic leukemia depending on IGHV gene somatic hypermutation status: a study by ERIC in HARMONY. *Leukemia.* 2023 Feb;37(2):504. doi: 10.1038/s41375-023-01813-3. Erratum for: *Leukemia.* 2023 Feb;37(2):339-347. doi: 10.1038/s41375-022-01802-y. PMID: 36635392; PMCID: PMC9898025. IF: 11,4
- Ferrer-Lores B, Lozano J, Fuster-Matanzo A, Mayorga-Ruiz I, Moreno-Ruiz P, Bellvis F, Teruel AB, Saus A, Ortiz A, Villamón-Ribate E, Serrano-Alcalá A, Piñana JL, Sopena P, Dosdá R, Solano C, Alberich-Bayarri Á, Terol MJ. Prognostic value of genetic alterations and 18F-FDG PET/CT imaging features in diffuse large B cell lymphoma. *Am J Cancer Res.* 2023 Feb 15;13(2):509-525. eCollection 2023. IF: 5,6
- Bastos-Oreiro M, Gutierrez A, Iacoboni G, López Corral L, Reguera JL, Abrisqueta P, Delgado J, Terol MJ, Hernani R, Martínez N, Ortíz V, Bailen R, Gomez-Centurió I, Caballero A, Sanz J, Guerra Domínguez L, Luzardo H, Mussetti A, Jiménez-Ubieto A, Sancho JM, Sureda A, Pérez A, Barba P, Kwon M, Martín García-Sancho A. Impact of SCHOLAR-1 Criteria on Chimeric Antigen Receptor T Cell Therapy Efficacy in Aggressive B Lymphoma: A Real-World GELTAMO/GETH Study.
- Transplant Cell Ther.* 2023 Dec;29(12):747.e1-747.e10. doi: 10.1016/j.jtct.2023.08.026. Epub 2023 Sep IF: 3,6
- Syrykh C, Pons-Brun B, Russiñol N, Playa-Albinyana H, Baumann T, Duran-Ferrer M, Kulis M, Carbó-Meix A, Mozas P, Alcoceba M, González M, Navarro-Bailón A, Colado E, Payer ÁR, Aymerich M, Terol MJ, Lu J, Knisbacher BA, Hahn CK, Ruiz-Gaspà S, Enjuanes A, Wu CJ, Getz G, Zenz T, López-Guillermo A, Martín-Subero JI, Colomer D, Delgado J, Campo E, Nadeu F. IGLV3-21R110 mutation has prognostic value in patients with treatment-naive chronic lymphocytic leukemia. *Blood Adv.* 2023 Dec 12;7(23):7384-7391. doi: 10.1182/bloodadvances.2023010132. PMID: 37505099; PMCID: PMC10726246. IF: 7,5

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: PMP21/00015

4 scientific activity

Title: *Medicina de precisión genómica en neoplasias linfoides (PREGENLINF)*

Principal Investigator: Elías Campo Güerri (M^a 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

Title: CART-AI-Radiomics in lymphomas: predictive value of artificial intelligence in Non-Hodgkin Lymphoma treated with CART-T therapy

Principal Investigator: María José Terol Castera

Funding body: Gilead Fellowship Program

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

Duration: 2022-2023

Total budget: €49.657

Title: *Plataforma de Biobancos*

Principal Investigator: Antonio Ferrández Izquierdo

Funding body: *Instituto de Salud Carlos III - Cofinanciado FEDER*

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

Duration: 2021-2023

Total budget: €265.650

THESIS

Thesis title: *La leucemia linfática crónica: evolución clonal y su monitorización molecular*

Doctoral candidate: Alicia Serrano Alcalá,

Director[s]: Blanca Navarro Cubells, M^a José Terol Casterá and Felipe Javier Chaves Martínez

Date of the defense: 30/05/2023

Grade: Sobresaliente "cum laude"

Thesis title: Development of bioinformatics tools for the characterization of B cell neoplasms

Doctoral candidate: Azahara María Fuentes Trillo

Director[s]: Felipe Javier Chaves Martínez, Blanca Navarro Cubell and M^a José Terol Casterá and

Grade: Sobresaliente "cum laude"

Research Group on Myeloid Neoplasms Consolidated group

Group members

Leading Researchers, R4

Mar Tormo Díaz

Hospital. University

Juan Carlos Hernández Boluda

Hospital. University

Established Researcher, R3

Eva Villamón Ribate. INCLIVA

Emerging Researcher

Iván Martín Castillo. INCLIVA

Recognised Researchers, R2

Marisa Calabuig Muñoz. Hospital

First Stage Researcher, R1

Irene Pastor Galán. Hospital

Alicia Borrero Abarca. INCLIVA

Staff. Nurses

M^a Carmen Hurtado Fontelles. INCLIVA

Staff. Collaborating Researcher

Carlos Carretero Márquez. Hospital

Montserrat Gómez Calafat. Hospital

Researchers by categories



Researchers financed by competitive public calls or networks



Strategic aims

- To determine the risk factors for thrombosis in myelofibrosis
- Analyse in patients diagnosed of myelodysplastic syndromes with 7q and 20q deletions: incidence, prognostic value and potential as a therapeutic target of alterations in the transcriptional regulatory genes EZH2 and ASXL1.

Main lines of research

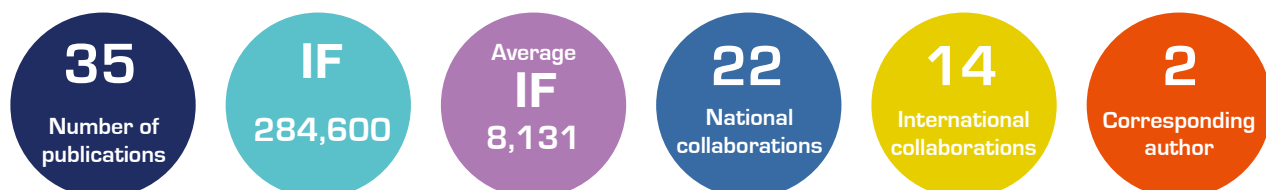
- Study of mechanisms involved in leukemic transformation in myeloproliferative neoplasms
- Study of risk factors for thrombosis in myelofibrosis
- Study of acute myeloid leukemias with 7q deletion
- Study of myelodysplastic syndromes with 7q deletion
- Study of myelodysplastic syndromes with 20q deletion
- 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)

Emerging Researcher

Iván Martín Castillo

He focuses his current research activity on the molecular characterisation of acute myeloid leukaemia (AML), myelodysplastic syndromes (MDS) and myeloproliferative neoplasms (MPN), presenting different research papers published in these areas.

PUBLICATIONS



SELECTED PUBLICATIONS

1. Kröger N, Bacigalupo A, Barbui T, Ditschkowski M, Gagelmann N, Griesshammer M, Gupta V, Hamad N, Harrison C, Hernandez-Boluda JC, Koschmieder S, Jain T, Mascarenhas J, Mesa R, Popat UR, Passamonti F, Polverelli N, Rambaldi A, Robin M, Salit RB, Schroeder T, Scott BL, Tamari R, Tefferi A, Vannucchi AM, McLornan DP, Barosi G. Indication and management of allogeneic haematopoietic stem-cell transplantation in myelofibrosis: updated recommendations by the EBMT/ELN International Working Group. *Lancet Haematol*. 2024 Jan;11(1):e62-e74. doi: 10.1016/S2352-3026(23)00305-8. Epub 2023 Dec 4. PMID: 38061384. IF: 24,7
2. Ortí G, Gras L, Zinger N, Finazzi MC, Sockel K, Robin M, Forcade E, Avenoso D, Kröger N, Finke J, Radujkovic A, Hunault-Berger M, Schroyens W, Zuckerman T, Bourhis JH, Chalandon Y, Bloor A, Schots R, de Wreede LC, Drozd-Sokolowska J, Raj K, Polverelli N, Czerw T, Hernández-Boluda JC, McLornan D, Yakoub-Agha I. Outcomes after allogeneic hematopoietic cell transplant in patients diagnosed with blast phase of myeloproliferative neoplasms: A retrospective study from the Chronic Malignancies Working Party of the European Society for Blood and Marrow Transplantation. *Am J Hematol*. 2023 Apr;98(4):628-638. doi: 10.1002/ajh.26833. Epub 2023 Jan 13. PMID: 36606718. IF: 12,8
3. Sargas C, Ayala R, Larráyoiz MJ, Chillón MC, Rodríguez-Arboli E, Bilbao C, Prados de la Torre E, Martínez-Cuadrón D, Rodríguez-Veiga R, Boluda B, Gil C, Bernal T, Bergua J, Algarra L, Tormo M, Martínez-Sánchez P, Soria E, Serrano J, Alonso-Dominguez JM, García R, Amigo ML, Herrera-Puente P, Sayas MJ, Lavilla-Rubira E, Martínez-López J, Calasanz MJ, García-Sanz R, Pérez-Simón JA, Gómez Casares MT, Sánchez-García J, Barragán E, Montesinos P, PETHEMA cooperative study group. Comparison of the 2022 and 2017 European LeukemiaNet risk classifications in a real-life cohort of the PETHEMA group. *Blood Cancer J*. 2023 May 12;13(1):77. doi: 10.1038/s41408-023-00835-5. PMID: 37173322; PMCID: PMC10182047. IF: 12,8
4. Hernández-Boluda JC, Eikema DJ, Koster L, Kröger N, Robin M, de Witte M, Finke J, Finazzi MC, Broers A, Raida L, Schaap N, Chiusolo P, Verbeek M, Hazenberg CLE, Halaburda K, Kulagin A, Labussière-Wallet H, Gedde-Dahl T, Rabitsch W, Raj K, Drozd-Sokolowska J, Battipaglia G, Polverelli N, Czerw T, Yakoub-Agha I, McLornan DP. Allogeneic hematopoietic cell transplantation in patients with CALR-mutated myelofibrosis: a study of the Chronic Malignancies Working Party of EBMT. *Bone Marrow Transplant*. 2023 Dec;58(12):1357-1367. doi: 10.1038/s41409-023-02094-1. Epub 2023 Sep 7. PMID: 37679647. IF: 4,8

5. Castillo MI, Ribate VE, Muñoz CM, Santillana SG, Taboada SE, Casterá ME, Abinzano CMJ, Barranco IA, Nieto CR, Pampliega VM, Blanco ML, de Andrés ÁS, de Oteyza PJ, Del Castillo BT, Font GI, Cayuela JA, Díez-Campelo M, Sánchez AR, Vercet SC, Díaz TM; Grupo Español de Síndromes Mielodisplásicos (GESMD). Incidence and prognostic impact of U2AF1 mutations and other gene alterations in myelodysplastic neoplasms with isolated 20q deletion. *Cancer Med*. 2023 Aug;12(16):16788-16792. doi: 10.1002/cam4.6300. Epub 2023 Jul 5. PMID: 37403747; PMCID: PMC10501246. IF: 4

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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

Total Budget: €96.800

Title: *Inmunobiología de la infusión de linfocitos del donante con depleción ex vivo de linfocitos T CD45RA+ en pacientes con alto riesgo de infección viral tras TPH alogénico*

Principal Investigator: Carlos Solano Vercet and Eva Villamón Ribate

Funding body: Janssen - Cilag S.A.

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2023

Total Budget: €42.500

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 - Cofinanciado FEDER

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2023-2025

Total Budget: €60.000

Research Group on Molecular Imaging and Metabolomics

Emerging group

Group members

Leading Researcher, R4

Daniel Monleón Salvadó. University. INCLIVA

Recognised Researchers, R2

Antonio Pellín Carcelén. University

José Manuel Morales Tatay. University

Mercedes Pardo Tendero. University. INCLIVA

Vannina González Marrachelli. University. INCLIVA

First Stage Researchers, R1

Geraldine Rocha Correal. University

María Martín Grau. University. INCLIVA

Pilar Casanova Querol. University

Staff. Collaborating Researcher

Itziar Pérez Terol. INCLIVA

Laura Moreno Morcillo. INCLIVA

María Sánchez Sánchez. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



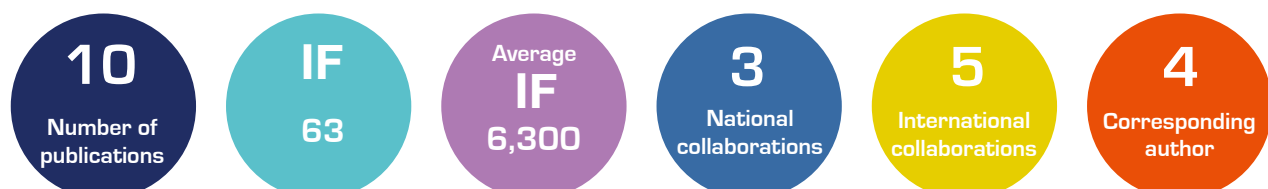
Strategic aims

- Identify new metabolomic markers of tumor aggressiveness in brain cancer
- Identify new markers of myocardial infarction
- 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

- Tumor metabolism through metabolic profiles in biopsies, biofluids and cells (brain cancer, glioblastoma multiforme, prostate, bladder)
- 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

PUBLICATIONS



SELECTED PUBLICATIONS

- Galvez-Fernandez M, Rodriguez-Hernandez Z, Grau-Perez M, Chaves FJ, Garcia-Garcia AB, Amigo N, Monleon D, Garcia-Barrera T, Gomez-Ariza JL, Briongos-Figuero LS, Perez-Castrillon JL, Redon J, Tellez-Plaza M, Martin-Escudero JC. Metabolomic patterns, redox-related genes and metals, and bone fragility endpoints in the Hortega Study. *Free Radic Biol Med*. 2023 Jan;194:52-61. doi: 10.1016/j.freeradbiomed.2022.11.007. Epub 2022 Nov 9. PMID: 36370960. IF: 7,4
- Martin-Grau M, Pardo-Tendero M, Casanova P, Dromant M, Marrachelli VG, Morales JM, Borrás C, Pisoni S, Maestrini S, Di Blasio AM, Monleon D. Altered Lipid Moieties and Carbonyls in a Wistar Rat Dietary Model of Subclinical Fatty Liver: Potential Sex-Specific Biomarkers of Early Fatty Liver Disease? *Antioxidants (Basel)*. 2023 Sep 28;12(10):1808. doi: 10.3390/antiox12101808. PMID: 37891887; PMCID: PMC10604774. IF: 7
- Guzzardi MA, La Rosa F, Granziera F, Panetta D, Pardo-Tendero M, Barone M, Turroni S, Fata F, Kusmic C, Brigidi P, Monleon D, Iozzo P. Gut-derived metabolites mediating cognitive development in 5-year-old children: Early-life transplant in mice has lasting effects throughout adulthood. *Brain Behav Immun*. 2023 Nov;114:94-110. doi: 10.1016/j.bbi.2023.08.009. Epub 2023 Aug 7. PMID: 37557963. IF: 15,1
- Sanchez-Rodriguez L, Galvez-Fernandez M, Rojas-Benedicto A, Domingo-Relloso A, Amigo N, Redon J, Monleon D, Saez G, Tellez-Plaza M, Martin-Escudero JC, Ramis R. Traffic Density Exposure, Oxidative Stress Biomarkers and Plasma Metabolomics in a Population-Based Sample: The Hortega Study. *Antioxidants (Basel)*. 2023 Dec 15;12(12):2122. doi: 10.3390/antiox12122122. PMID: 38136241; PMCID: PMC10740723. IF: 7
- Wei D, González-Marrachelli V, Melgarejo JD, Liao CT, Hu A, Janssens S, Verhamme P, Van Aelst L, Vanassche T, Redon J, Tellez-Plaza M, Martin-Escudero JC, Monleon D, Zhang ZY. Cardiovascular risk of metabolically healthy obesity in two european populations: Prevention potential from a metabolomic study. *Cardiovasc Diabetol*. 2023 Apr 7;22(1):82. doi: 10.1186/s12933-023-01815-6. PMID: 37029406; PMCID: PMC10082537. IF: 9,3

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: IDIFEDER/2021/072

Title: *Metabolómica automatizada de alto rendimiento para estudios epidemiológicos, búsqueda de biomarcadores y 'big data'*

Principal Investigator: Daniel Monleón Salvadó

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

Beneficiary institution: *Universidad de Valencia*

Duration: 2021-2023

Total budget: €148.572

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: PID2019-108973RB-C22

Title: *Metabolomic study of mechanisms for Se-related diabetes and insulin resistance*

Principal Investigator: Daniel Monleón Salvadó

Funding Body: *Ministerio de Ciencia e Innovación*

Beneficiary institution: *Universidad de Valencia*

Duration: 2020-2023

Total budget: €140.000

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: 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

THESIS

Thesis title The interplay between metabolome, epigenome and metabolic syndrome in severe obesity: the influence of sex and age

Doctoral candidate: Serena Pisoni

Director(s): Vannina González Marracheli, Daniel Monleon Salvado and Anna Maria Di Blassio

Date of the defense: 12/05/2023

Grade: Sobresaliente "*cum laude*"

Quality recognition/Award: European PhD

4 scientific activity

Research Group on Molecular Microbiology and Microbial Pathogenesis Consolidated group

Group members

Leading Researcher, R4

David Navarro Ortega
Hospital. University

Established Researcher, R3

Jesús Rodríguez Díaz. University

Emerging Researchers, R2

Eliseo Alejandro Albert Vicent. Hospital
Estela Giménez Quiles. Hospital
Ignacio Torres Fink. Hospital

Recognised Researcher, R2

Beatriz Olea Miguel. Hospital
Roberto Gozalbo Rovira. University

First Stage Researchers, R1

Ángela Sánchez Simarro. INCLIVA
Cristina Santiso Bellón. University
José María Ferrer Chirivella. INCLIVA
Nazaret Peña Gil. INCLIVA
Roberto Cárcamo Calvo. University

Researchers by categories



Researchers financed by competitive public calls or networks



Staff. Collaborating Researchers

Javier Colomina Rodríguez. Hospital
M^a Ángeles Clarí Pons. Hospital
Sergi López Navarro. University

Staff. Technicians

Ester Colomer Roig. INCLIVA
Patricia Navarro Domínguez. INCLIVA

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

- 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

- 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
- 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
- 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-flight) 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
- Molecular characterization of *Neisseria gonorrhoeae*
- 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

Emerging Researchers

Estela Giménez Quiles

The main objective is the study of the dynamics of the composition and of the viral load of the main components of the human plasma virome as a predictor of functional immunity in the context of allogeneic transplantation of hematopoietic progenitors

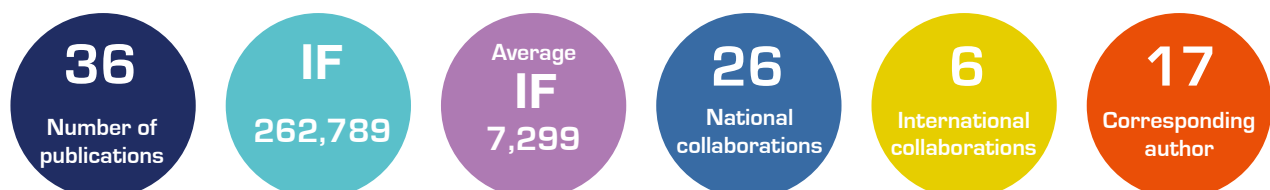
Eliseo Alejandro Albert Vicent

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 allogeneic hematopoietic precursor transplantation that receive Letermovir

PUBLICATIONS



4 scientific activity

SELECTED PUBLICATIONS

1. Camacho J, Zulaica J, Gimenez E, Rusu L, Velandia-Alvarez S, Albert E, Peiro S, Vanaclocha H, Limon R, Geller R, Navarro D. Neutralizing antibodies against Omicron BA.4/5 after COVID-19 vaccination in SARS-CoV-2 experienced versus naïve individuals in the general population. *Journal of Infection*. 2023 Mar;86(3):256-308. doi: 10.1016/j.jinf.2022.12.029. PMID: 36599404. IF: 28,2
2. De Michelena P, Torres I, Ferrando E, Olea B, Gonzalez-Candelas F, Sanchez G, Navarro D. SARS-CoV-2 RNA loads in breakthrough COVID-19 caused by the Delta and Omicron variants. *Clinical Microbiology and Infection*. 2023 Feb;29(2):256.e1-256.e4. doi: 10.1016/j.cmi.2022.09.003. PMID: 36115649. IF: 14,2
3. Solano C, Giménez E, Albert E, Piñana J, Navarro D. Immunovirology of cytomegalovirus infection in allogeneic stem cell transplant recipients undergoing prophylaxis with letermovir: a narrative review. *Journal of Medical Virology*. 2023 Aug;95(8):e29005. doi: 10.1002/jmv.29005. PMID: 37526411. IF: 12,7
4. De la Asunción C, Giménez E, Hernández-Boluda J, Terol M, Albert E, López J, García-Gutiérrez V, Andreu R, Malo M, Fox M, Remigia M, Amat P, Solano C, Navarro D. Assessment of the potential value of plasma Torque Teno virus DNA load monitoring to predict cytomegalovirus DNAemia in patients with hematological malignancies treated with small molecule inhibitors: a proof-of-concept study. *Journal of Medical Virology*. 2023 Jul;95(7):e28933. doi: 10.1002/jmv.28933. PMID: 37403897. IF: 12,7
5. Camacho J, Gimenez E, Albert E, Zulaica J, Alvarez-Rodriguez B, Torres I, Rusu L, Burgos J, Peiro S, Vanaclocha H, Limon R, Alcaraz M, Sanchez-Paya J, Diez-Domingo J, Comas I, Gonzales-Candelas F, Geller R, Navarro D. Cumulative incidence of SARS-CoV-2 infection in the general population of the Valencian Community (Spain) after the surge of the Omicron BA.1 variant. *Journal of Medical Virology*. 2023 Jan;95(1):e28284. doi: 10.1002/jmv.28284. PMID: 36333837. IF: 12,7

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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: 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

THESIS

Thesis title: Inmunidad celular en pacientes infectados por SARS-COV-2: relación con parámetros biológicos y asociación con variables clínicas

Doctoral candidate: Beatriz Olea Miguel

Director[s]: David Navarro Ortega

Date of the defense: 21/09/2023

Grade: Sobresaliente "cum laude"

Thesis title: Cinética de la carga viral (ARN) del SARS-COV-2 en el

tracto respiratorio superior de pacientes con COVID-19

Doctoral candidate: Rosa María Costa Primo

Director(s): David Navarro Ortega

Date of the defense: 02/10/2023

Grade: Sobresaliente "*cum laude*"

Thesis title: *Descifrando las interacciones entre la microbiota intestinal / virus entéricos / hospedador: bases para proteger frente a la diarrea viral*

Doctoral candidate: Cristina Santiso Bellón

Director(s): Javier Buesa and Jesús Rodríguez

Date of the defense: 19/12/2023

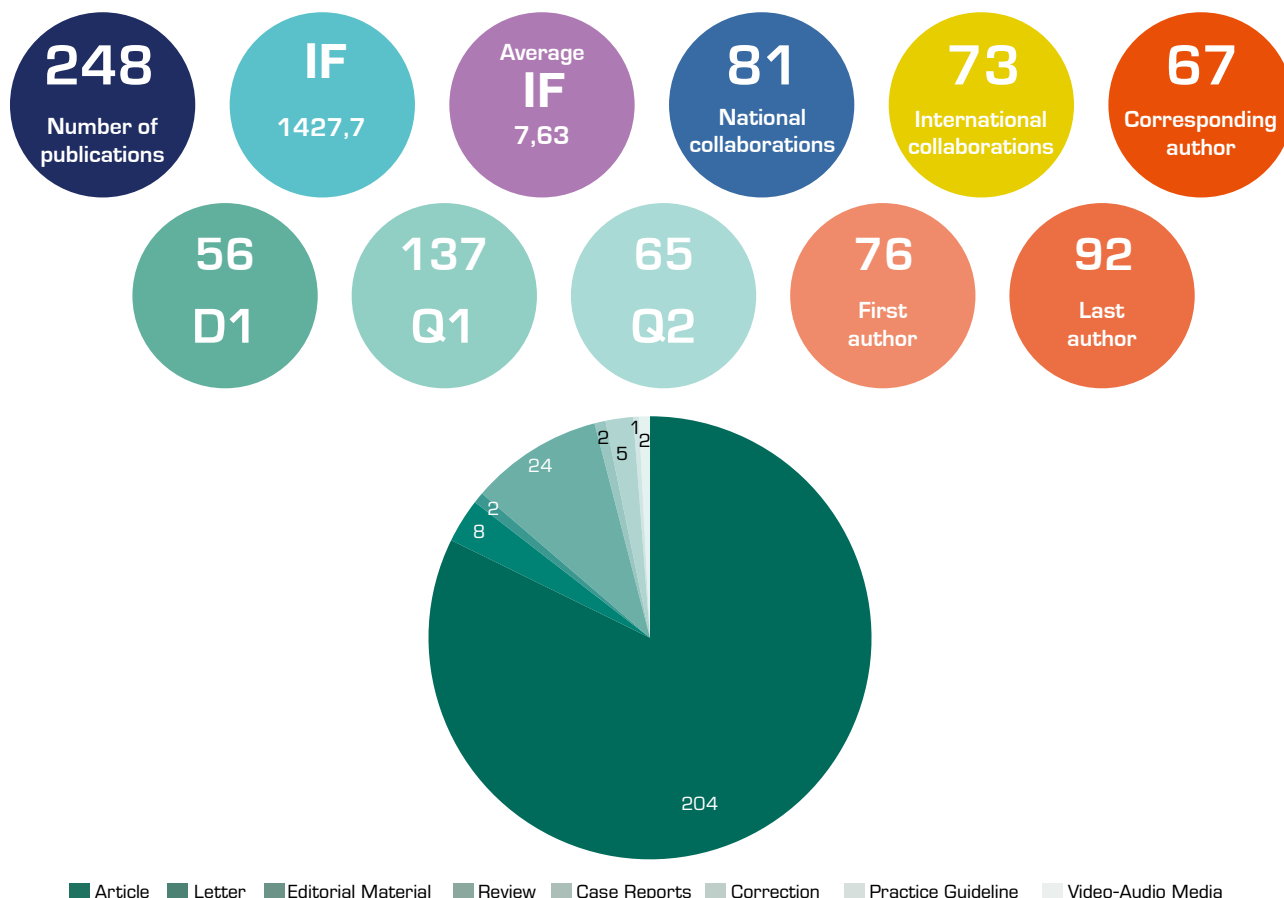
Grade: Sobresaliente "*cum laude*"

4 scientific activity

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 Inflammation: Metabolism and Organic Damage Line
 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 of Osteoporosis Consolidated group

Group members

Leading Researcher, R4

Miguel Ángel García Pérez. University

Established Researcher, R3

Damián Mifsut Miedes. INCLIVA

Staff. Collaborating Researcher

Rosa María Aliaga Corachán. University

Researchers by categories



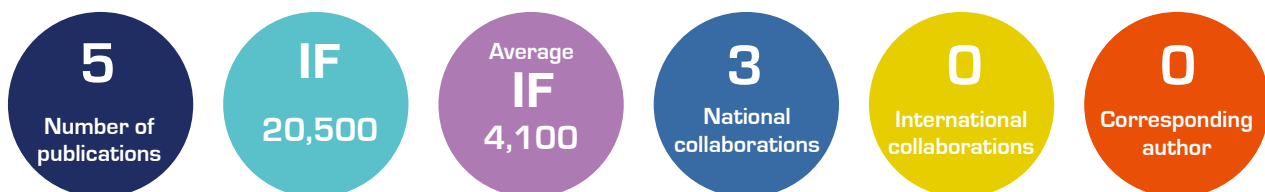
Strategic aims

- 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
- Study of the metabolome in fragility fracture and severe 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
- Characterization of the type of chromosome duplication, its paternal/maternal origin, global gene expression, and miRNA expression profile in patients with Idic-15 syndrome

Main lines of research

- Genetics of postmenopausal osteoporosis
- Genetic and epigenetic biomarkers of prevalent bone phenotypes
- Functional analysis of genetic variants
- Development of animal models of accelerated bone loss and cellular models of osteogenesis
- Genetic study of patients with chromosome 15 duplication inversion syndrome (Idic-15)

PUBLICATIONS



SELECTED PUBLICATIONS

1. García-Vigara A, Monllor-Tormos A, García-Pérez MA, Tarín J, Cano A. Genetic variants of the vitamin D receptor are related to dynapenia in postmenopausal women. *Maturitas*. 2023 May;171:40-44. doi: 10.1016/j.maturitas.2023.03.002. PMID: 37001478. IF: 4,9
2. García-Vigara A, Martín-González V, Carbonell J, Bauset-Castello C, Martínez-Aspas A, Monllor-Tormos A, García-Pérez MA, Tarín J, Cano A. The COVID-19 pandemic and the usability of telehealth in a midlife women's health integrated care program. *Maturitas*. 2023 Feb;168:7-12. doi: 10.1016/j.

4 scientific activity

maturitas.2022.10.011. PMID: 36370490. IF: 4,9

3. Monllor-Tormos A, Garcia-Vigara A, Morgan O, Garcia-Perez MA, Mendoza N, Tarin J, Cano A. Mediterranean diet for cancer prevention and survivorship. *Maturitas*. 2023 Dec;178:107841. doi: 10.1016/j.maturitas.2023.107841. PMID: 37660598. IF: 4,9
4. Tarin J, Pascual E, Garcia-Perez MA, Monllor-Tormos A, Cano A. Both reduced ovarian reserve and severe semen alterations are overrepresented in couples seeking assisted reproductive technology treatment for the first time: a cross-sectional study. *Reproductive Health*. 2023 Aug 16;20(1):117. doi: 10.1186/s12978-023-01666-0. PMID: 37582738. IF: 3,4
5. Carrasco-Luna J, Navarro-Solera M, Gombert M, Martín-Carbonell V, Carrasco-García A, Del Castillo-Villaescusa C, García-Pérez MA, Codoñer-Franch P. Association of the rs17782313, rs17773430 and rs34114122 Polymorphisms of/near MC4R Gene with Obesity-Related Biomarkers in a Spanish Pediatric Cohort. *Children*. 2023 Jul 14;10(7):1221. doi: 10.3390/children10071221. PMID: 37508717. IF: 2,4

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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

Research Group on Neurological Impairment Consolidated group

Group members

Leading Researcher, R4

Carmina Montoliu Félix. University

Established Researchers, R3

Amparo Escudero García. Hospital. University

José Ballester Fayos. Hospital

José Luis León Guijarro. Hospital

Roberto Aliaga Méndez. Hospital

Emerging Researcher, R2

Andrea Cabrera Pastor. University. INCLIVA

Recognised Researchers, R2

Alessandra Fiorillo. INCLIVA

Amparo Uriós Lluch. INCLIVA

Cristina Ipiens Escuer. INCLIVA

Cristina Montón Rodríguez. Hospital

Dalia Rega Caballero. University. INCLIVA

Juan José Gallego Roig. INCLIVA

María Pilar Ballester Ferrer. Hospital. INCLIVA

Nicolás Peñaranda Sarmiento. Hospital

Paula Cases Bergón. Hospital

Rut Victorio Muñoz. Hospital

Yaiza M^a Arenas Ortiz. University

First Stage Researchers, R1

Adrià López Gramaje. University

Franc Casanova Ferrer. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Staff. Collaborating Researcher

Mika Aiko. Hospital

Staff. Nurses

Clara Barberá Fuset. Hospital

María Jesús Campa Santiago. Hospital

Pilar Aguilar Santaisabel. Hospital

Staff. Technicians

Christian Torregrosa Sanchis. INCLIVA

Consuelo Miguel Moreno. Hospital

Laura García Gálvez. INCLIVA

Laura Puchades Lanza. INCLIVA

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 non-alcoholic fatty liver disease (NAFLD)
- Characterization of immunological alterations in microbiota, inflammation and neuroinflammation associated with cognitive impairment in NAFLD. Molecular and cellular mechanisms

4 scientific activity

Main lines 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. Sublines:

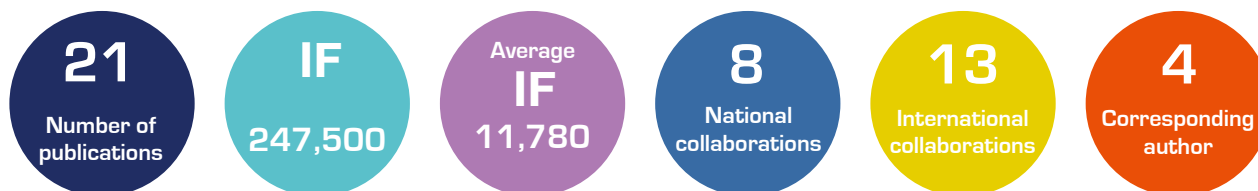
- Characterization of cognitive, functional and brain alterations in patients with minimal hepatic encephalopathy (MHE)
- Research on cognitive and motor alterations in patients with non-alcoholic fatty liver disease (NAFLD) with mild cognitive impairment
- Characterization of immunological, inflammatory, microbiota and neuroinflammatory alterations associated with the onset of mild cognitive impairment in cirrhosis and NAFLD
- Identify biomarkers for early detection of mild cognitive impairment in MHE
- To assess the effects of rifaximin treatment and new treatments: mechanisms involved
- Identification and modelling of molecular and cellular events of the immune response associated to the appearance of MHE
- Evaluation of the effects of rifaximin treatment: mechanisms involved

Emerging Researcher

Andrea Cabrera Pastor

The main focus of the research is to understand the role of extracellular vesicles in comorbidities associated with obesity, including molecular mechanisms, diagnostic and therapeutic implications

PUBLICATIONS



SELECTED PUBLICATIONS

1. Ballester M, Tranah T, Balcar L, Fiorillo A, Ampuero J, Kerbert A, Thomsen K, Escudero M, Mandorfer M, Reiberger T, Shawcross D, Romero-Gomez M, Montoliu C, Carbonell-Asins J, Jalan R. Development and validation of the AMMON-OHE model to predict risk of overt hepatic encephalopathy occurrence in outpatients with cirrhosis. *Journal of Hepatology*. 2023 Oct;79(4):967-976. doi: 10.1016/j.jhep.2023.05.022. PMID: 37277075. IF: 25,7
2. Fiorillo A, Gallego J, Casanova-Ferrer F, Urios A, Ballester M, San Miguel T, Megias J, Kosenko E, Tosca J, Rios M, Escudero-Garcia D, Montoliu C. Neurofilament light chain protein in plasma and extracellular vesicles is associated with minimal hepatic encephalopathy and responses to rifaximin treatment in cirrhotic patients. *International Journal of Molecular Sciences*. 2023 Sep 29;24(19):14727. doi: 10.3390/ijms241914727. PMID: 37834174. IF: 5,6
3. Kosenko E, Tikhonova L, Alilova G, Montoliu C. Erythrocytes functionality in SARS-CoV-2 infection: potential link with Alzheimer's disease. *International Journal of Molecular Sciences*. 2023 Mar 17;24(6):5739. doi: 10.3390/ijms24065739. PMID: 36982809. IF: 5,6
4. Fiorillo A, Gallego J, Casanova-Ferrer F, Gimenez-Garzo C, Urios A, Ballester M, Durban L, Rios M, Megias J, San Miguel T, Kosenko E, Escudero-Garcia D, Benlloch S, Felipe V, Montoliu C. Mild cognitive impairment is associated with enhanced activation of Th17 lymphocytes in non-alcoholic fatty liver disease. *International Journal of Molecular Sciences*. 2023 Jun 20;24(12):10407. doi: 10.3390/ijms241210407. PMID: 37373554. IF: 5,6
5. Leone P, Arenas Y, Balzano T, Mincheva G, Martinez-Garcia M, Montoliu C, Llansola M, Felipe V. Patients died with steatohepatitis or liver cirrhosis show neuroinflammation and

neuronal loss in hippocampus. European Journal of Neurology. 2023 Oct;30(10):3032-3046. doi: 10.1111/ene.15935. PMID: 37340928. IF: 5,1

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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

Reference: CIGE/2021/083

Title: Estudio de las vesículas extracelulares en plasma de pacientes con obesidad mórbida antes y tras cirugía bariátrica. Subvenciones concedidas a grupos de investigación emergentes

Principal Investigator: Andrea Cabrera Pastor

Funding body: Conselleria de Educación

Beneficiary institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2022-2023

Total budget: €20.000

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

THESIS

Thesis title: Caracterización de las alteraciones en el inmunofenotipo asociadas a la aparición de la encefalopatía hepática mínima en pacientes cirróticos. Implicación de las vesículas extracelulares

Doctoral candidate: Juan José Gallego Roig

Director[s]: Carmina Montoliu Felix, Javier Megías Vericat

Date of the defense: 31/10/2023

Grade: Sobresaliente "cum laude"

Quality recognition/Award: European PhD

Thesis title: Caracterización de los cambios en el inmunofenotipo asociados a la aparición del deterioro cognitivo leve en pacientes con enfermedad de hígado graso no alcohólico

Doctoral candidate: Alesandra Fiorillo

Director[s]: Carmina Montoliu Felix, Teresa San Miguel Díaz

Date of the defense: 03/11/2023

Grade: Sobresaliente "cum laude"

Quality recognition/Award: European PhD

4 scientific activity

Research Group on Inflammation Consolidated group

Group members

Leading Researchers, R4

María Jesús Sanz Ferrando

University

Esteban Morcillo Sánchez

University

Recognised Researcher, R2

Elena Domingo Pérez. INCLIVA

Patrice Gomes Marques. INCLIVA

First Stage Researcher, R1

Álvaro Gómez Martín. INCLIVA

Staff. Technicians

Inés Descalzo Arenas. INCLIVA

José Aparicio Collado. INCLIVA

Researchers by categories



Team involved in

ciberes

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 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/ob mice

Main lines of research

- 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 PPAR α / γ and panPPAR agonists and their pharmacological evaluation in the control of cardiometabolic disorders
- Study of new immune players in abdominal aortic aneurism development

PUBLICATIONS



SELECTED PUBLICATIONS

1. Marques P, Villarroel-Vicente C, Collado A, Garcia A, Vila L,

Duplan I, Hennuyer N, Garibotto F, Enriz RD, Dacquet C, Stael B, Piqueras L, Cortes D, Sanz MJ, Cabedo N. Anti-inflammatory effects and improved metabolic derangements in ob/ob mice

by a newly synthesized prenylated benzopyran with pan-PPAR activity. *Pharmacological Research*. 2023 Jan;187:106638. doi: 10.1016/j.phrs.2022.106638. PMID: 36586645

2. Francisco V, Eldjoudi D, Gonzalez-Rodriguez M, Ruiz-Fernandez C, Cordero-Barreal A, Marques P, Sanz M, Real J, Lago F, Pino J, Farrag Y, Gualillo O. Metabolomic signature and molecular profile of normal and degenerated human intervertebral disc cells. *Spine Journal*. 2023 Oct;23(10):1549-1562. doi: 10.1016/j.spinee.2023.06.005. PMID: 37339697
3. Marques P, Francisco V, Martinez-Arenas L, Carvalho-Gomes A, Domingo E, Piqueras L, Berenguer M, Sanz M. Overview of cellular and soluble mediators in systemic inflammation associated with non-alcoholic fatty liver disease. *International Journal of Molecular Sciences*. 2023 Jan 24;24(3):2313. doi: 10.3390/ijms24032313. PMID: 36768637
4. Hueso L, Marques P, Morant B, Gonzalez-Navarro H, Ortega J, Real J, Sanz M, Piqueras L. CCL17 and CCL22 chemokines are upregulated in human obesity and play a role in vascular dysfunction. *Frontiers in Endocrinology*. 2023 Apr 12;14:1154158. doi: 10.3389/fendo.2023.1154158. PMID: 37124725

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Title: The William Harvey International Translational Research Academy (WHRI-ACADEMY)

Principal Investigator: Márta Korbonits (María Jesús Sanz Ferrando as collaborating researcher)

Funding Body: FP7 Marie Curie Actions

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

Duration: 2015-

Total Budget: €6.500.000

Reference: CB06/06/0027

Title: *CIBER Enfermedades Respiratorias (CIBERes)*

Principal Investigator: Esteban Morcillo Sánchez

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

Beneficiary institution: *Universidad de Valencia*

Duration: 2007-

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: PROMETEO/2019/032

Title: *Una aproximación traslacional desde la clínica a la experimentación animal: Estudio del papel del eje CCL11/CCR3 y la inflamación eosinofílica en la patología cardiovascular asociada a desórdenes metabólicos*

Principal Investigator: María Jesús Sanz Ferrando

Funding body: *Conselleria de Educación Cultura y Deporte*

Beneficiary institution: *Universidad de Valencia*

Duration: 2020-2023

Total budget: €211.736

THESIS

Thesis title: *Estudio de nuevos mecanismos angiogénicos e inflamatorios asociados a la obesidad*

Doctoral candidate: Luisa María Hueso Soler

Director[s]: Laura Piqueras Ruiz, María Jesús Sanz Ferrando, José Tomás Real Collado

Date of the defense: 28/04/2023

Grade: Sobresaliente "cum laude"

Thesis title: Search for new immune players in primary hypercholesterolemia and atherosclerosis development

Doctoral candidate: Elena Domingo Pérez

Director[s]: María Jesús Sanz Ferrando

Date of the defense: 27/07/2023

Grade: Sobresaliente "cum laude"

Quality recognition/Award: European PhD

4 scientific activity

Research Group on Psychiatry and Neurodegenerative Diseases Consolidated group

Group members

Leading Researcher, R4

Julio Sanjuán Arias. Hospital. University

Juan Nacher Roselló. University

Established Researchers, R3

Eduardo Jesús Aguilar García-Isturrospe. Hospital. University

María Dolores Moltó Ruiz. University

Emerging Researcher, R2

Olga María Rivero Martín. INCLIVA

Recognised Researchers, R2

Carlos Cañete Nicolás. Hospital. University

Esther Lorente Rovira. Hospital. University

Francisco Olucha Bordonau. University

Gracián García Martí. CIBERSAM

Héctor Carceller Cerdá. University

Jon Iñaki Etxeandia Pradera. Hospital

José Carlos González Piqueras. Hospital. University

María José Escartí Fabra. Hospital

Marien Gadea Domenech. University

Marta Pérez Rando. University

Miguel Hernández Viadel. Hospital

First Stage Researchers, R1

Gabriel Daniel Flores Gómez. University

Javier David Lluesma. University

Julia Alcaide Pozo. University

Marc Beltrán Martínez. University

Patrycja Klimczak. University

Yaiza Gramuntell Roch. University

Researchers by categories



Researchers financed by competitive public calls or networks



Team involved in

cibersam

Staff. Collaborating Researcher

Alba Postiguillo Girallos. INCLIVA

Staff. Technician

Cristina Uzunova. INCLIVA

Joan Blasco Palanca. INCLIVA

Staff. Administrative assistants

Virginia Gómez Soriano. INCLIVA

Strategic aims

- Elaboration of a mobile application associated to the Clinical Records to improve adherence to the treatment of patients with first episode psychosis
 - Publication of Results of Gene Environmental interaction First Episode Psychosis projects
 - Development of new techniques to diagnosis psychosis by fMRI and machine learning approach
 - Development of animal models in severe mental disorder
 - Models of Prediction of Response in First Psychotic Episodes
- Identifying genetic risk factors and biomarkers of response to medication in schizophrenia
- Identification of modifying genes, new targets and molecules with therapeutic potential in Friedreich's ataxia

Main lines of research

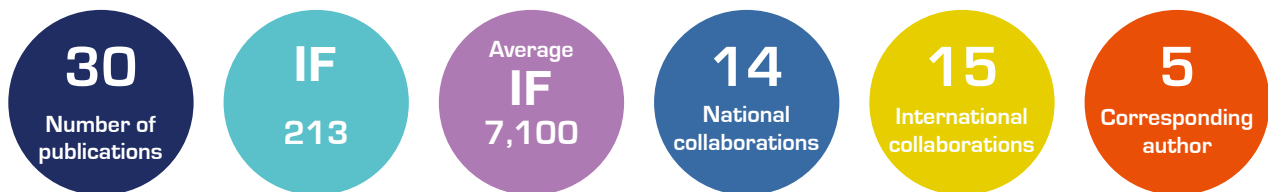
- Identifying risk polymorphisms in psychosis and affective disorders
- Epigenetic studies (functional expression) of candidate genes in psychosis and mental illness
- Study on animal models in serious mental illness
- Generating Studing models of neurodegenerative diseases (Friedreich Ataxia) on invertebrate animals (Drosophila)
- Study of mutations in monogenic neurodegenerative diseases
- Identifying genetic and environmental risk factors in affective and psychotic disorders
- Identifying abnormal patterns in neuroimaging (morphometry, functional, spectroscopy) in psychotic patients
- Design and coordination of clinical, genetic and neuroimagineuroimaging 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

Emerging Researcher, R2

Olga María Rivero Martín

The main line of research is the identification of biomarkers associated with the appearance of the first psychotic episode and response to antipsychotic medication. These biomarkers will be studied in neuronal cultures of first-episode psychotic patients and healthy subjects

PUBLICATIONS



SELECTED PUBLICATIONS

1. Liu D, Meyer D, Fennessy B, Feng C, Cheng E, Johnson JS, Park YJ, Rieder MK, Ascolillo S, de Pins A, Dobbyn A, Lebovitch D, Moya E, Nguyen TH, Wilkins L, Hassan A, Burdick KE, Buxbaum JD, Domenici E, Frangou S, Hartmann AM, Laurent-Levinson C, Malhotra D, Pato CN, Pato MT, Ressler K, Roussos P, Rujescu D, Arango C, Bertolino A, Blasi G, Bocchio-Chiavetto L, Campion D, Carr V, Fullerton JM, Gennarelli M, González-Peñas J, Levinson DF, Mowry B, Nimgaokar VL, Pergola G, Rampino A, Cervilla JA, Rivera M, Schwab SG, Wildenauer DB, Daly M, Neale B, Singh T, O'Donovan MC, Owen MJ, Walters JT, Ayub M, Malhotra AK, Lencz T, Sullivan PF, Sklar P, Stahl EA, Huckins LM, Charney AWW. Schizophrenia risk conferred by rare protein-truncating variants is conserved across diverse human populations. *Nature Genetics*. 2023 Mar;55(3):369-376. doi: 10.1038/s41588-023-01305-1. PMID: 36914870. IF: 30,8
2. Fusar-Poli L, Prachason T, Erzin G, Pries L, Brondino N, Politi P, Delespaul P, Kenis G, Luykx J, Lin B, Richards A, Akdede B, Binbay T, Altinyazar V, Yalincetin B, Gumus-Akay G, Cihan B, Soygur H, Ulas H, Cankurtaran E, Kaymak S, Mihaljevic M, Andric-Petrovic S, Mirjanic T, Bernardo M, Mezquida G, Amoretti S, Bobes J, Saiz P, Garcia-Portilla M, Sanjuan J, Escarti M, Santos J, Jimenez-Lopez E, Arrojo M, Carracedo A, Lopez G, Gonzalez-Penas J, Parellada M, Maric N, Atbasoglu C, Uco A, Alptekin K, Saka M, Arango C, O'Donovan M, van Os J, Rutten B, Guloksuz S. Examining the association between exposome score for schizophrenia and cognition in schizophrenia, siblings, and healthy controls: results from the EUGEI study. *Psychiatry Research*. 2023 May;323:115184. doi: 10.1016/j.psychres.2023.115184. PMID: 37015164. IF: 11,3
3. Perez-Rando M, Penades-Gomez C, Martinez-Marin P, Garcia-Martí G, Aguilar EJ, Escarti MJ, Grasa E, Corripio I, Sanjuan J, Nacher J. Volume alterations of the hippocampus and amygdala in patients with schizophrenia and persistent auditory hallucinations. *Revista de Psiquiatría y Salud Mental*. 2023 Jul 3:S1888-9891(23)00014-9. English, Spanish. doi: 10.1016/j.rpsm.2023.05.002. Epub ahead of print. PMID: 37495479. IF: 9,2

4 scientific activity

4. Montaner-Ferrer M, Gadea M, Sanjuan J. Cognition and social functioning in first episode psychosis: a systematic review of longitudinal studies. *Frontiers in Psychiatry*. 2023 Mar 6;14:1055012. doi: 10.3389/fpsyt.2023.1055012. PMID: 36950257. IF: 4,7
5. Garcia-Marti G, Escartí MJ, Nacher J, Perez-Rando M, Mane A, Usall J, Berrococo E, Pomarol-Clotet E, Lopez-Ilundain JM, Cuesta MJ, Rodriguez-Jimenez R, Gonzalez-Pinto A, Mar L, Ibañez A, Roldan A, Janssen J, Parellada M, Amoretti S, Bernardo M, Sanjuan J, Aguilar EJ. Progressive loss of cortical gray matter in first episode psychosis patients with auditory hallucinations. *Schizophrenia Research*. 2023 Dec 2:S0920-9964(23)00423-1. doi: 10.1016/j.schres.2023.11.011. PMID: 38044223. IF: 4,5

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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: 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: CB07/09/0006

Title: *Centro de Investigación Biomédica en Red en Salud Mental (CIBERSam)*

Principal Investigator: Juan Nacher Roselló

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

Beneficiary institution: *Universidad de Valencia*

Duration: 2008-

Reference: PID2021-127595OB-I00

Title: *Impacto de las experiencias adversas tempranas sobre el talamo y el desarrollo de trastornos psiquiátricos*

Principal Investigator: Juan Nácher Roselló

Funding Body: *Ministerio de Ciencia e Innovación*

Beneficiary Institution:

Duration: 2022-2024

Total budget: €205.700

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

Reference: PROMETEO/2020/024

Title: *Estudio longitudinal de una cohorte representativa: superando la heterogeneidad clínica y biológica en primeros episodios psicóticos*

Principal Investigator: Julio Sanjuán Arias

Funding Body: *Conselleria de Educación, Cultura y Deporte*

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

Duration: 2020-2023

Total budget: €174.588

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

THESIS

Thesis title: *La enseñanza de la psicopatología descriptiva: estrategias educativas para la mejora de la formación de residentes de psiquiatría*

Doctoral candidate: Jon Iñaki Etxeandía Pradera

Director(s): Eduardo Jesús Aguilar García Iturrospe

Date of the defense: 04/05/2023

Grade: Sobresaliente "cum laude"

Thesis title: *La formación del residente de psiquiatría: intervenciones educativas para un mejor dominio y manejo clínico en psicofarmacología y salud mental*

Doctoral candidate: Daniel Fernando Martínez Uribe

Director(s): Eduardo Jesús Aguilar García Iturrospe, José Carlos González Piqueras

Date of the defense: 25/05/2023

Grade: Sobresaliente "cum laude"

Thesis title: *Paradigma auditivo en resonancia magnética funcional como marcador predictivo en primeros episodios psicóticos*

Doctoral candidate: Carlos González Vivas

Director(s): Julio Sanjuán Arias

Date of the defense: 03/07/2023

Grade: Sobresaliente "cum laude"

4 scientific activity

Research Group on Respiratory Diseases Consolidated group

Group members

Leading Researcher, R4

Jaime Signes-Costa Miñana
Hospital. University

Established Researchers, R3

Jesús Sancho Chinesta. Hospital
José Franco Serrano. Hospital. University
M^a Cruz González Villaescusa. Hospital
M^a Luisa Briones Urtiaga. Hospital

Recognised Researchers, R2

Carmen Muñoz Esteban. Hospital
Francisco Carrión Valero. Hospital. University
José Luis Díaz Cordobés. Hospital
Pilar Bañuls Polo. Hospital

First Stage Researchers, R1

Alba Mulet Arabi. Hospital
Nieves Navarro Soriano. Hospital
Paola Lisseth Ordóñez Gómez. Hospital
Santos Ferrer Espinosa. Hospital

Staff. Collaborating Researchers

Ana Ferrer Pons. Hospital
Ana María Ferrer Martí. Hospital
Andrea Ballester Ferriz. Hospital
Andrés Vales Veiga. Hospital
Antonio Herrera Cuadros. INCLIVA
Antonio Quezada Reynosa. Hospital
Carlos Alonso Ruza. Hospital

Researchers by categories



Elia Giménez Samblas. Hospital
Enric Burés Sales. Hospital
Erick Monclou Garzón. Hospital
Heidi Mora Bastida. Hospital
Irene Tur Cruces. University
Julia Tarrasó Castillo. INCLIVA
Manuela Marín González. Hospital
Mariam García Alfaro. Hospital
Miriam Bernaola Garrido. Hospital.
Natividad Blasco Angulo. INCLIVA
Pablo Royo Simó. University
Ramón Cercos González. Hospital.
Yolanda García San Juan

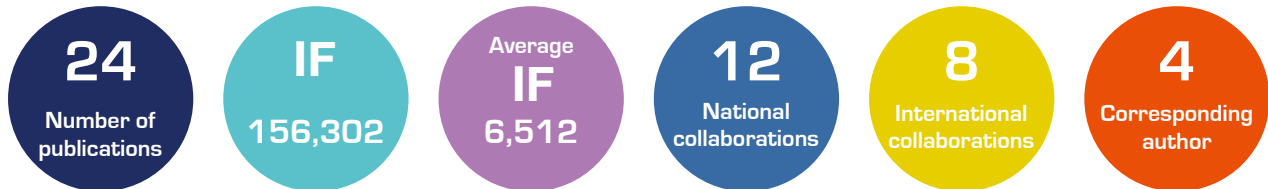
Strategic aims

- 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

- Usefulness of non-invasive ventilation in the weaning process of patients with prolonged mechanical ventilation
- 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 O
- Identify cardiac morphological changes in patients with sleep-disordered breathing and ischemic heart disease treated with CPAP
- Follow-up of patients admitted for bilateral COVID19 pneumonia: changes in pulmonary function tests for the early diagnosis of pulmonary fibrotic sequelae
- Study of oxidative stress and inflammatory mechanisms underlying acute lung damage caused by SARS-CoV-2

PUBLICATIONS



SELECTED PUBLICATIONS

1. Mulet A, Tarrasó J, Rodríguez-Borja E, Carbonell-Asins JA, Lope-Martínez A, Martí-Martínez A, Murria R, Safont B, Fernandez-Fabrellas E, Ros JA, Rodriguez-Portal JA, Andreu AL, Soriano JB, Signes-Costa J. Biomarkers of Fibrosis in Patients with COVID-19 One Year After Hospital Discharge: A Prospective Cohort Study. *Am J Respir Cell Mol Biol*. 2023 Sep;69(3):321-327. doi: 10.1165/rcmb.2022-0474OC. PMID: 36848314; PMCID: PMC10503307. IF: 6,4
2. Sancho J, Ferrer S. How to increase noninvasive ventilation effectiveness in bulbar amyotrophic lateral sclerosis patients. *Breathe (Sheff)*. 2023 Mar;19(1):220266. doi: 10.1183/20734735.0266-2022. Epub 2023 Mar 14. PMID: 37378058; PMCID: PMC10292784. IF: 2
3. Sancho J, Ferrer S, Quezada A, Gimenez E, Signes-Costa J. Home Noninvasive Ventilation in Myasthenia Gravis. *Respir Care*. 2024 Feb 28;69(3):333-338. doi: 10.4187/respcare.11308. PMID: 37935525; PMCID: PMC10984589. IF: 2,5
4. Mulet A, Núñez-Gil IJ, Carbonell JA, Soriano JB, Viana-Llamas MC, Raposeiras-Roubin S, Romero R, Alfonso-Rodríguez E, Uribarri A, Feltes G, Becerra-Muñoz VM, Santoro F, Pepe M, Castro-Mejía AF, Chipayo D, Corbi-Pascual M, López-Pais J, Vedia O, Manzone E, Molina-Romera G, Espejo-Paeres C, López-Masjuan Á, Velicki L, Fernández-Ortiz A, El-Battrawy I, Signes-Costa J, On Behalf Of Hope Team. Clinical Profile and Determinants of Mortality in Patients with Interstitial Lung Disease Admitted for COVID-19. *J Clin Med*. 2023 Jun 2;12(11):3821. doi: 10.3390/jcm12113821. PMID: 37298018; PMCID: PMC10253326. IF: 3,9
5. Mulet A, González-Cabo P, Pallardó FV, Signes-Costa J. Persistent Pulmonary Fibrotic Sequelae in Patients With Telomere Shortening One Year After Severe COVID-19. *Arch Bronconeumol*. 2024 Jan;60(1):62-64. English, Spanish. doi: 10.1016/j.arbres.2023.11.003. Epub 2023 Nov 10. PMID: 37985282. IF: 8

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: 2019/036

Title: GOLD O-DLCO 1. Una mirada más allá de la obstrucción. ¿Es suficiente la espirometría en el screening de EPOC?

Principal Investigator: M^aCruz 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

4 scientific activity

Reference: 2020/019

Title: *Estudio panEuropeo multicéntrico observacional para determinar la historia natural de los pacientes con déficit de alfa-1 antitripsina (DAAT)*

Principal Investigator: M^aCruz González Villaescusa and Silvia Castillo

Funding body: ERS

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

Duration: 2020-2023

Title: *Estudio de los microRNAs circulantes como biomarcadores pronósticos en pacientes con déficit de alfa-1 antitripsina. Un enfoque funcional*

Principal Investigator: M^a Cruz González Villaescusa and Gema Miñana

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

Duration: 2020-2023

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

Title: *Estudio de la aparición de cambios fibróticos pulmonares asociados a la infección por SARS-CoV-2*

Principal Investigator: Jaime Signes-Costa Miñana

Funding body: *Sociedad Valenciana de Neumología (SVN)*

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

Duration: 2022-2023

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: 2021/360

Title: *Ecointensidad (EI) diafragmática en la valoración de la Esclerosis Lateral Amiotrófica*

Principal Investigator: Antonio Quezada Reynoso

Funding body: *Sociedad Valenciana de Neumología (SVN)*

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

Duration: 2022-2023

Total Budget: €6.000

Title: *Utilidad de la velocidad de contracción diafragmática para la monitorización de la miastenia gravis*

Principal Investigator: Santos Ferrer Espinosa

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

Duration: 2021-2023

Title: *Ventilación No Invasiva en domicilio en la Miastenia Gravis. Estudio sobre su prevalencia y factores predictivos*

Principal Investigator: Jesús Sancho Chinesta

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

Duration: 2022-2023

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

4 scientific activity

Research Group on Tissular Biochemistry Consolidated group

Group members

Leading Researchers, R4

Juan R. Viña Ribes. University

Teresa Barber Ballester. University

Elena Ruiz García-Trevijano. University

Established Researchers, R3

Luis Torres Asensi. University

Rosa Zaragoza Colom. University

Recognised Researcher, R2

Elena Ortiz Zapater. University

Staff. Technicians

Sara Puebla Planas. University

Researchers by categories



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.

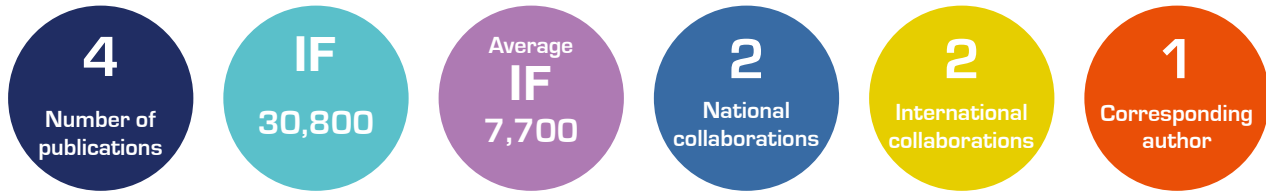
Main lines of research

- Influence of age at pregnancy and duration of lactation on breast cancer risk.
- Role of calpain-2 as a regulatory node in post-lactation involution and neoplastic development.
- 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.
- Study of ECM alteration in liver and lung in chronic vitamin A deficiency models.
- Investigation of molecular and cellular pathways involved in inflammatory respiratory diseases, particularly pulmonary fibrosis.
- Search for early markers of pulmonary fibrosis with prognostic value.
- Participation of calpains in the development of various pathologies associated with ECM alterations: pulmonary fibrosis, muscular dystrophies, and cancer.

Emerging Researcher, R2

- Identify and validate molecular and metabolic pathways involved in the progression of inflammatory respiratory diseases, especially in the case of pulmonary fibrosis.
- Search for new biomarkers to predict patients' predisposition to developing pathological pulmonary processes.
- Create patient-specific 3D cellular models (spheroids and organoids) to develop personalized drugs.

PUBLICATIONS



SELECTED PUBLICATIONS

1. García-Trevijano ER, Ortiz-Zapater E, Gimeno A, Viña JR, Zaragoza R. Calpains, the proteases of two faces controlling the epithelial homeostasis in mammary gland. *Front Cell Dev Biol.* 2023 Sep 19;11:1249317. doi: 10.3389/fcell.2023.1249317. PMID: 37795261; PMCID: PMC10546029. IF: 5,5
2. Rynne J, Ortiz-Zapater E, Bagley DC, Zanin O, Doherty G, Kanabar V, Ward J, Jackson DJ, Parsons M, Rosenblatt J, Adcock IM, Martinez-Nunez RT. The RNA binding proteins ZFP36L1 and ZFP36L2 are dysregulated in airway epithelium in human and a murine model of asthma. *Front Cell Dev Biol.* 2023 Oct 19;11:1241008. doi: 10.3389/fcell.2023.1241008. PMID: 37928904; PMCID: PMC10624177. IF: 5,5
3. Maguire TJA, Yung S, Ortiz-Zapater E, Kayode OS, Tills S, Corrigan C, Siew LQC, Knock GA, Woszczek G. Sphingosine-1-phosphate induces airway smooth muscle hyperresponsiveness and proliferation. *J Allergy Clin Immunol.* 2023 Nov;152(5):1131-1140.e6. doi: 10.1016/j.jaci.2023.05.028. Epub 2023 Jul 19. PMID: 37474025. IF: 14,2
4. Guerra-Ojeda S, Suarez A, Valls A, Verdú D, Pereda J, Ortiz-Zapater E, Carretero J, Mauricio MD, Serna E. The Role of Aryl Hydrocarbon Receptor in the Endothelium: A Systematic Review. *Int J Mol Sci.* 2023 Aug 31;24(17):13537. doi: 10.3390/ijms241713537. PMID: 37686342; PMCID: PMC10488274. IF: 5,6

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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

4 scientific activity

Research Group on Aging and Physical Activity Consolidated group

Group members

Leading Researcher, R4

José Viña Ribes
University

Established Researchers, R3

Ana Lloret Alcañiz. University
Consolación García Lucerga. University
Eva Serna García. University

Recognised Researchers, R2

José Viña Almunia. University
Paloma Monllor Taltavull. University

First Stage Researcher, R1

Alicia Valls Arrufat. University
Ángela García Correas. University
David Verdú Coloma. INCLIVA

Staff. Administrative assistants

Cristina Amézcuca García. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Team involved in

ciberfes

Freshage
Age and Exercise Research Group

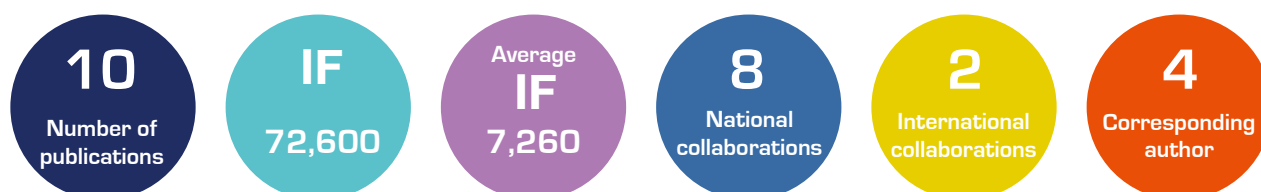
Strategic aims

- 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
- Reducing stress: a new concept in disease Alzheimer's

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
- 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

PUBLICATIONS



SELECTED PUBLICATIONS

1. Costa-Machado L, Garcia-Dominguez E, McIntyre R, Lopez-Aceituno J, Ballesteros-Gonzalez A, Tapia-Gonzalez A, Fabregat-Safont D, Eisenberg T, Gomez J, Plaza A, Sierra-Ramirez A, Perez M, Villanueva-Bermejo D, Fornari T, Loza M, Herradon G, Hofer S, Magnes C, Madeo F, Duerr J, Pozo O, Galindo M, Del Pino I, Houtkooper R, Megias D, Vina J, Gomez-Cabrera M, Fernandez-Marcos P. Peripheral modulation of antidepressant targets MAO-B and GABAAR by harmol induces mitohormesis and delays aging in preclinical models. *Nature Communications*. 2023 May 15;14(1):2779. doi: 10.1038/s41467-023-38410-y. PMID: 37188705. IF: 16,6
2. Ferre Gonzalez L, Lloret A, Chafer Pericas C. Systematic review of brain and blood lipidomics in Alzheimer's disease mouse models. *Progress in Lipid Research*. 2023 Mar 5;90:101223. doi: 10.1016/j.plipres.2023.101223. PMID: 36871907. IF: 13,6
3. Sol J, Obis E, Mota Martorell N, Pradas I, Galo Licon J, Martin Gari M, Fernandez Bernal A, Ortega Bravo M, Mayneris Perxachs J, Borrás C, Vina J, de la Fuente M, Mate I, Biarnes C, Pedraza S, Vilanova J, Brugada R, Ramos R, Serena J, Ramio-Torrenta L, Pineda V, Daunis I, Estadella P, Thio Henestrosa S, Barretina J, Garre Olmo J, Portero Otin M, Fernandez Real J, Puig J, Jove M, Pamplona R. Plasma acylcarnitines and gut-derived aromatic amino acids as sex-specific hub metabolites of the human aging metabolome. *Aging Cell*. 2023 Jun;22(6):e13821. doi: 10.1111/acer.13821. PMID: 36951231. IF: 7,8
4. Rodriguez-Ramiro I, Pastor-Fernández A, López-Aceituno JL, Garcia-Dominguez E, Sierra-Ramirez A, Valverde AM, Martinez-Pastor B, Efeyan A, Gomez-Cabrera MC, Viña J, Fernandez-Marcos PJ. Pharmacological and genetic increases in liver NADPH levels ameliorate NASH progression in female mice. *Free Radical Biology & Medicine*. 2023 Nov 29;210:448-461. doi: 10.1016/j.freeradbiomed.2023.11.019. PMID: 38036067. IF: 7,4
5. Pedrinolla A, Isanejad M, Antognelli C, Bartolini D, Borrás C, Cavedon V, Di Sante G, Migni A, Mas-Bargues C, Milanese C, Baschiroto C, Modena R, Pistilli A, Rende M, Schena F, Stabile AM, Telesa NV, Tortorella S, Hemmings K, Vina J, Wang E, McArdle A, Jackson MJ, Venturelli M, Galli F. Randomised controlled trial combining vitamin E-functionalised chocolate with physical exercise to reduce the risk of protein-energy malnutrition in predementia aged people: study protocol for Choko-Age. *BMJ Open*. 2023 Dec 22;13(12):e072291. doi: 10.1136/bmjopen-2023-072291. PMID: 38135320. IF: 2,9

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: DIABFRAIL-LATAM-825546

Title: Scaling-up of and evidence-based intervention programme in older people with Diabetes and Frailty in Latin America

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: Combining vitamin E-functionalized CHOCOLATE with physical exercise to reduce the risk of protein energy malnutrition in pre-dementia AGED people. ERA-HDHL Call for Joint Transnational Research Proposals on Development of targeted nutrition for prevention of undernutrition for older adults (PREVNUIT)

Principal Investigator: José Viña Ribes

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

Beneficiary Institution: Universidad de Valencia

Duration: 2021-2023

Total budget: €169.098

Reference: CB16/10/00435

Title: Centro de Investigación Biomédica en Red en Fragilidad y Envejecimiento (CIBERfes)

Principal Investigator: José Viña Ribes

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

Beneficiary Institution: Universidad de Valencia

Duration: 2017-

Reference: PID2019-110906RB-I00

Title: Nuevas intervenciones terapéuticas multidominio para retrasar la fragilidad y la discapacidad. Identificación de mecanismos moleculares con relevancia traslacional

Principal Investigator: José Viña Ribes and M^a Carmen Gómez Cabrera

Funding Body: Ministerio de Economía y Competitividad

Beneficiary Institution: Universidad de Valencia

Duration: 2020-2023

Total budget: €270.000

4 scientific activity

Reference: PROMETEO/2019/097

Title: *Diferencias de fragilidad entre géneros: evaluación de biomarcadores y estrategias de intervención*

Principal Investigator: José Viña Ribes

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

Beneficiary Institution: *Universidad de Valencia*

Duration: 2020-2023

Total budget: €189.391

THESIS

Thesis title: Study of the role of BCL-XL in healthy aging and frailty prevention

Doctoral candidate: Aurora Román Domínguez

Director(s): Consuelo Borrás Blasco, Cristina Mas Bagues, José Viña Ribes

Date of the defense: 03/03/2023

Grade: Sobresaliente "*cum laude*"

Quality recognition/Award: European PhD

Thesis title: Regulation of the redox balance in skeletal muscle with exercise training to promote healthy ageing. Animal and human studies

Doctoral candidate: Esther García Domínguez

Director(s): José Viña Ribes, Mari Carmen Gómez Cabrera and Cristina Blasco Lafarga

Date of the defense: 23/10/2023

Grade: Sobresaliente "*cum laude*"

Quality recognition/Award: European PhD

Research Group on Anesthesiology and Reanimation Consolidated group

Group members

Leading Researcher, R4

Rafael Badenes Quiles. Hospital. University

Established Researchers, R3

Carlos Tornero Tornero. Hospital. University

Gerardo Aguilar Aguilar. Hospital. University

Recognised Researchers, R2

Ana Mugarra Llopis. Hospital

Andrea Gutiérrez Valcárcel. Hospital. University

Berta Monleón López. Hospital

Laura García Vargas. Hospital

Mar Garzando Civera. Hospital

María Luisa García Pérez. Hospital. University

Rosa Herrera Castro. Hospital

Sara Martínez Castro. Hospital

First Stage Researcher, R1

Blanca Arocas Chicote. Hospital

Nekane Romero García. Hospital

Researchers by categories



Web: www.anestesiadclinicovalencia.org

Staff. Collaborating Researchers

Antonio Guillen Bañuelos. Hospital

Cristina Crisán Ovidiu. Hospital

Ernesto Pastor Martínez. Hospital

Estefanía Gracia Ferrándiz. Hospital

Eva Amores Parra. INCLIVA

José Antonio Carbonell López. Hospital

Liliana Patricia Henao Guerrero. Hospital

María José Parra González. Hospital

María Luisa Laredo Alcázar. Hospital

Paola Valls Montero. Hospital

Staff. Administrative assistants

Laura Verdini Martínez. INCLIVA

Eva Amores Parra. INCLIVA

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

- Development of new strategies and drugs for pain treatment
- Organ donation and transplantation
- Delirium critically ill patients

4 scientific activity

- Severe Traumatic Brain Injury
- COVID 19 (SARS-CoV-2) critically ill patients
- Retrospective analysis of COVID19 patients management

PUBLICATIONS



SELECTED PUBLICATIONS

1. Raasveldt SJ, de Bruin S, Reuland MC, van den Oord C, Schenk J, Aubron C, Bakker J, Cecconi M, Feldheiser A, Meier J, Müller MCA, Scheeren TWL, McQuilten Z, Flint A, Hamid T, Piagnerelli M, Tomic Mahecic T, Benes J, Russell L, Aguirre-Bermeo H, Triantafyllou K, Chantziara V, Gurjar M, Myatra SN, Pota V, Elhadi M, Gawda R, Mourisco M, Lance M, Neskovic V, Podbregar M, Llau JV, Quintana-Diaz M, Cronhjort M, Pfortmueller CA, Yapici N, Nielsen ND, Shah A, de Grooth HJ, Vlaar APJ; InPUT Study Group. Red Blood Cell Transfusion in the Intensive Care Unit. *JAMA*. 2023 Nov 21;330(19):1852-1861. doi: 10.1001/jama.2023.20737. PMID: 37824112; PMCID: PMC10570913. IF: 120,7
2. Pham T, Heunks L, Bellani G, Madotto F, Aragao I, Beduneau G, Goligher EC, Grasselli G, Laake JH, Mancebo J, Peñuelas O, Piquilloud L, Pesenti A, Wunsch H, van Haren F, Brochard L, Laffey JG; WEAN SAFE Investigators. Weaning from mechanical ventilation in intensive care units across 50 countries (WEAN SAFE): a multicentre, prospective, observational cohort study. *Lancet Respir Med*. 2023 May;11(5):465-476. doi: 10.1016/S2213-2600(22)00449-0. Epub 2023 Jan 21. Erratum in: *Lancet Respir Med*. 2023 Mar;11(3):e25. doi: 10.1016/S2213-2600(23)00054-1. PMID: 36693401. IF: 76,2
3. Oddo M, Taccone FS, Petrosino M, Badenes R, Blandino-Ortiz A, Bouzat P, Caricato A, Chesnut RM, Feyling AC, Ben-Hamouda N, Hemphill JC, Koehn J, Rasulo F, Suarez JI, Elli F, Vargiolu A, Rebora P, Galimberti S, Citerio G; ORANGE study investigators. The Neurological Pupil index for outcome prognostication in people with acute brain injury (ORANGE): a prospective, observational, multicentre cohort study. *Lancet Neurol*. 2023 Oct;22(10):925-933. doi: 10.1016/S1474-4422(23)00271-5. Epub 2023 Aug 28. PMID: 37652068. IF: 48
4. De Courson H, Massart N, Asehnoune K, Cinotti R; ENIO Study group. Risk factors of extubation failure in neurocritical patients with the most impaired consciousness. *Intensive Care Med*. 2023 Oct;49(10):1251-1253. doi: 10.1007/s00134-023-07189-3. Epub 2023 Aug 23. PMID: 37610483. IF: 38,9
5. Robba C, Graziano F, Guglielmi A, Rebora P, Galimberti S, Taccone FS, Citerio G; SYNAPSE-ICU Investigators. Treatments for intracranial hypertension in acute brain-injured patients: grading, timing, and association with outcome. Data from the SYNAPSE-ICU study. *Intensive Care Med*. 2023 Jan;49(1):50-61. doi: 10.1007/s00134-022-06937-1. Epub 2023 Jan 9. PMID: 36622462; PMCID: PMC9852114. IF: 38,9

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: CPP 01/2021 AB

Title: *Compra pública precomercial para el desarrollo de soluciones innovadoras en el ámbito de la preservación de órganos*

Principal Investigator: Rafael Badenes Quiles

Funding Body: Dirección General del Centro para el Desarrollo Tecnológico y la Innovación, E.P.E (CDTI)

Beneficiary Institution: AINIA

Duration: 2021-2023

Total Budget: €189.085,98

Title: *XXI reunión monográfica 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

Research Group on Human Translational Genomics Consolidated group

Group members

Leading Researchers, R4

Rubén D. Artero Allepuz. University

Manuel Pérez Alonso. University

Established Researcher, R3

Arturo López Castel. University

Recognised Researchers, R2

Dulce Peris Moreno. University

Javier Poyatos García. University

María Sabater Arcís. University

Natalia Galindo Riera. University

Piotr Konieczny. University

Raquel Atienzar Aroca. INCLIVA

Raquel Pérez Gómez. University

Xiomara Gislen Fernández Garibay. INCLIVA

First Stage Researchers, R1

Águeda Blázquez Bernal. University

Anna Colom Rodrigo. University

Irene González Martínez. University

Natalia Mariel Riedel Bistoco. University

Nerea Moreno Cervera. University

Rosy Morejón Estevez. University

Staff. Technicians

Alicia Novella Estellés. INCLIVA

Anna Ballestar Carrión. INCLIVA

Andrea García Rey. University

Iván Gimeno Martínez. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Networks

<http://www.uv.es/gt/>
https://twitter.com/GenomicsLab_UV
<https://vimeo.com/user103005442>
<https://twitter.com/MPAlonso>
<https://twitter.com/RubenArtero3>

Strategic aims

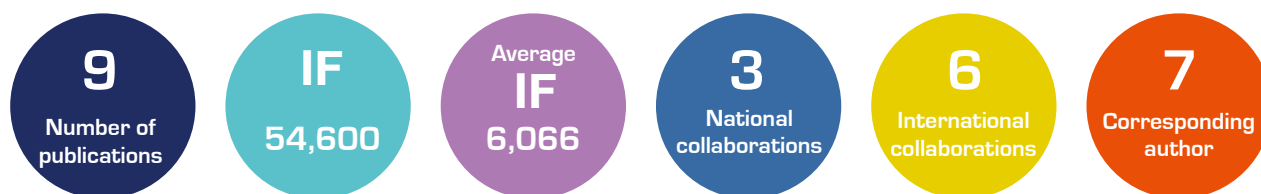
Medium-term scientific research aims are to investigate mechanisms of pathogenesis and candidate therapies in Myotonic Dystrophy, Spinal Muscular Atrophy, LGMD2, and cancer-induced cachexia; to optimize oligonucleotide drug delivery methods; and to screen and repurpose drugs in additional biomedical models in Drosophila

Main lines of research

- Discovery, development, and repurposing of drugs for the treatment of DM, SMA and LGMD2
- Study of the molecular causes of muscle atrophy in DM, LGMD2 and cancer cachexia with emphasis on miRNA alterations
- Use of Drosophila as preclinical model in oligonucleotide drug development and muscle targeting

4 scientific activity

PUBLICATIONS



SELECTED PUBLICATIONS

1. Poyatos Garcia J, Blazquez Bernal A, Selva Gimenez M, Bargiela A, Espinosa Espinosa J, Vazquez Manrique RP, Bigot A, Artero R, Vilchez JJ. CRISPR-Cas9 editing of a TNPO3 mutation in a muscle cell model of limb-girdle muscular dystrophy type D2. *Molecular Therapy. Nucleic Acids*. 2023 Jan 11;31:324-338. doi: 10.1016/j.omtn.2023.01.004. PMID: 36789274. IF: 8,8
2. Gonzalez-Martinez I, Cerro-Herreros E, Moreno N, Garcia-Rey A, Espinosa-Espinosa J, Carrascosa-Saez M, Piqueras-Losilla D, Arzumanov A, Seoane-Miraz D, Jad Y, Raz R, Wood M, Varela M, Llamusi B, Artero R. Molecular Therapy. Peptide-conjugated antimiRs improve myotonic dystrophy type 1 phenotypes by promoting endogenous MBNL1 expression. *Nucleic Acids*. 2023 Sep 5;34:102024. doi: 10.1016/j.omtn.2023.09.001. PMID: 37744174. IF: 8,8
3. Pascual-Gilbert M, Artero R, Lopez-Castel A. The myotonic dystrophy type 1 drug development pipeline: 2022 edition. *Drug Discovery Today*. 2023 Jan 9;28(3):103489. doi: 10.1016/j.drudis.2023.103489. PMID: 36634841. IF: 7,4
4. Sabater-Arcis M, Moreno N, Sevilla T, Perez Alonso M, Bargiela A, Artero R. Msi2 enhances muscle dysfunction in a myotonic dystrophy type 1 mouse model. *Biomedical Journal*. 2023 Oct 3:100667. doi: 10.1016/j.bj.2023.100667. PMID: 37797921. IF: 5,5
5. Overby S, Cerro-Herreros E, Espinosa-Espinosa J, Gonzalez-Martinez I, Moreno N, Fernandez-Costa J, Balaguer-Trias J, Ramon-Azcon J, Perez-Alonso M, Moller T, Llamusi B, Artero R. BlockmiR AONs as site-specific therapeutic mbnl modulation in myotonic dystrophy 2D and 3D muscle cells and HSALR mice. *Pharmaceutics*. 2023 Mar 31;15(4):1118. doi: 10.3390/pharmaceutics15041118. PMID: 37111604. IF: 4,6

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

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2022-2024

Total budget: €141.570

Reference: PI19/O1796

Title: Implicaciones experimentales y clínicas del complejo proteico Rabphilin-Rab en daño renal en la diabetes mellitus tipo 2

Principal Investigator: Josep Redón i Mas (Arturo López Castel as collaborating researcher)

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

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2020-2023

Total budget: €196.020

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

Total budget: €134.200

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

Total budget: €127.600

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: PI21/O0311

Title: Caracterización de una nueva diana terapéutica en disfunción muscular en la distrofia miotónica de tipo 1

Principal Investigator: Manuel Pérez Alonso

Reference: CPP2022-009960

Title: *Investigación traslacional sobre la distrofia miotónica para el desarrollo de una terapia avanzada basada en ARN*

Principal Investigator: Beatriz Llamusi (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: PID2021-1259780B-C22

Title: *Comprensión de la atrofia muscular inducida por TNPO3 mutante: modelos preclínicos y aproximaciones terapéuticas en LGMD2*

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 Castel

Funding Body: *Ministerio de Ciencia e Innovación*

Beneficiary Institution: *Universidad de Valencia*

Duration: 2022-2024

Total budget: €46.000

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 Castel

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: PROMETEO/2020/081

Title: *Uso de moduladores de microRNAs como terapias experimentales en distrofia miotónica de tipo 1*

Principal Investigator: Rubén Artero Allepuz

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

Beneficiary Institution: *Universidad de Valencia*

Duration: 2020 - 2023

Total budget: €193.051

4 scientific activity

Reference: FIPSE 4004-22

Title: *Estudio de viabilidad del reposicionamiento de un fármaco en atrofia muscular espinal*

Principal Investigator: Rubén Artero Allepuz

Funding Body: *Fundación para la Innovación y Prospectiva en Salud en España (FIPSE)*

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

Duration: 2023

Total budget: €30.000

Reference: CI21-00135

Title: Valorization of the repurposing of two drug candidates for spinal muscular atrophy

Principal Investigator: Rubén Artero Allepuz

Funding Body: *Fundació Bancària La Caixa*

Beneficiary Institution: *Universidad de Valencia*

Duration: 2021-2023

Total budget: €100.000

THESIS

Thesis title: *Desarrollo de modelos experimentales de LGMDD2 y rastreo de fármacos*

Doctoral candidate: Águeda Blázquez Bernal

Director(s): Rubén Artero Allepuz, Ariadna Bargiela Schönbrunn

Date of the defense: 14/07/2023

Grade: Sobresaliente “cum laude”

Research Group on General and Digestive Surgery Consolidated group

Group members

Leading Researcher, R4

Joaquín Ortega Serrano. Hospital. University
Luis Sabater Ortí. Hospital. University

Established Researchers, R3

Alejandro Espí Macías. Hospital. University

Recognised Researchers, R2

David Casado Rodrigo. Hospital
David Moro Valdezate. Hospital. University
Dimitri Dorcaratto. Hospital. University
Elena Muñoz Forner. Hospital. University
Estefanía García Botello. Hospital. University
Fernando López Mozos. Hospital. University
José Martín Arévalo. Hospital. University
M^a Carmen Fernández Moreno. INCLIVA
Marina Garcés Albir. Hospital. University
Norberto Cassinello Fernández. Hospital. University
Raquel Alfonso Ballester. Hospital

Researchers by categories



Roberto Martí Obiol. Hospital
Vicente Pla Martín. Hospital. University

First Stage Researchers, R1

Carlos León Espinoza. Hospital
Isabel Mora Oliver. Hospital
Leticia Pérez Santiago. INCLIVA
María Lapeña Rodríguez. Hospital

Staff. Collaborating Researchers

Elena Martí Cuñat. Hospital
Guillermo Pou Santonja. Hospital
Marcos Adrianzén Vargas. Hospital
María Eugenia Barrios Carvajal. Hospital
Rosa Martí Fernández. Hospital
Vicente López Flor. Hospital

Strategic aims

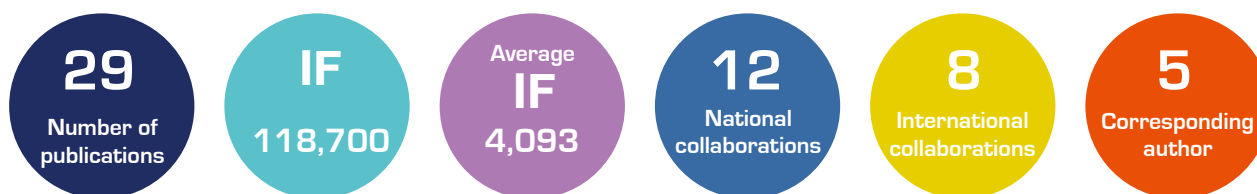
- Development of 3D modelling for hepatic, pancreatic and colorectal tumours
- Research about the influence of postoperative complications on the oncologic outcome of metastatic disease
- Development of a new efficient protocol for the diagnosis of hyperparathyroidism
- Research about the revisional techniques within the bariatric surgery

Main lines of research

- Coloproctology: Quality standards for coloproctology, 3D endorectal ultrasound, sacral neuromodulation and perianal fistula surgery, robotic surgery
- Hepato-bilio-pancreatic surgery: acute pancreatitis, gene transfection, pancreatoco-duodenectomy, robotic surgery, 3D reconstruction models
- Endocrine surgery: laparoscopic adrenal tumors, parathyroid adenomas intraoperative localization, ambulatory surgery in hyperparathyroidism
- Bariatric surgery: pathophysiology of postoperative changes after bariatric surgery, robotic surgery
- Breast surgery: Fibrin sealants in seroma. Selective sentinel node biopsy. Axilla assessment in DCIS. Laparoscopic mastectomy
- Gastroesophageal 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
- Abdominal wall: new developments in surgical meshes, laparoscopic abdominal wall surgery.

4 scientific activity

PUBLICATIONS



SELECTED PUBLICATIONS

1. Papaccio F, Garcia-Mico B, Gimeno-Valiente F, Cabeza-Segura M, Gambardella V, Gutierrez-Bravo MF, Alfaro-Cervello C, Martinez-Ciarpaglini C, Rentero-Garrido P, Zuniga-Trejos S, Carbonell-Asins JA, Fleitas T, Rosello S, Huerta M, Sanchez Del Pino MM, Sabater L, Roda D, Tarazona N, Cervantes A, Castillo J. Proteotranscriptomic analysis of advanced colorectal cancer patient derived organoids for drug sensitivity prediction. *Journal of Experimental & Clinical Cancer Research*. 2023 Jan 6;42(1):8. doi: 10.1186/s13046-022-02591-z. PMID: 36604765. IF: 11,3
2. Buch-Villa E, Castaner-Puga C, Delgado-Garcia S, Fuster-Diana C, Vidal-Herrador B, Ripoll-Orts F, Galeote-Quecedo T, Prat A, Andres-Matias M, Jimeno-Fraile J, Munoz-Sorsona E, Vento G, Gumbau-Puchol V, Adrianzen M, Lopez-Flor V, Ortega J. Clinical and cost outcomes of a polyethylene glycol (PEG)-coated patch versus drainage after axillary lymph node dissection in breast cancer: results from a multicentre randomized clinical trial. *British Journal of Surgery*. 2023 Aug 11;110(9):1180-1188. doi: 10.1093/bjs/znad150. PMID: 37311694. IF: 9,6
3. Lapena-Rodriguez M, Cassinello-Fernandez N, Alfonso-Ballester R, Marti-Fernandez RM, Civera-Andres M, Ortega-Serrano J. Excellent results in terms of weight loss and Type 2 Diabetes control are maintained 20 years after Roux-en-Y gastric bypass. *Journal of Gastrointestinal Surgery*. 2023 Nov;27(11):2580-2582. doi: 10.1007/s11605-023-05734-5. PMID: 37430093. IF: 3,2
4. Pla-Marti V, Martin-Arevalo J, Moro-Valdezate D, Garcia-Botello S, Perez-Santiago L, Izquierdo-Moreno A, Munoz-Sornosa E, Espi-Macias A. Triclosan-coated barbed sutures in elective laparoscopic colorectal cancer surgery: a propensity score matched cohort study. *Surgical Endoscopy and Other Interventional Techniques*. 2023 Jan;37(1):209-218. doi: 10.1007/s00464-022-09418-0. PMID: 35918550. IF: 3,1
5. Martín-Arévalo J, Moro-Valdezate D, Pla-Martí V, García-Botello S, Moya-Marcos P, Izquierdo-Moreno A, Pérez-Santiago L, Casado-Rodrigo D, Rosello-Keränen S, Espi-Macias A. Does month of birth influence colorectal cancer prognosis?. *Langenbecks Archives of Surgery*. 2023 Oct 26;408(1):419. doi: 10.1007/s00423-023-03161-3. PMID: 37882968. IF: 2,3

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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: PI20/00008

Title: *Transección pancreática asistida por radiofrecuencia vs endograpadora. TRANSPAIRE. Ensayo clínico en fase III*

Principal Investigator: Patricia Sánchez Velázquez (Dimitri Dorcaratto, Marina Garcés, Elena Muñoz and Luis Sabater as collaborating researchers)

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

Beneficiary institution: Instituto Hospital del Mar de Investigaciones Médicas. IMIM

Duration: 2021-2023

Total Budget: €75.020

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

THESIS

Thesis title: *Efecto del preacondicionamiento de la plastia gástrica sobre la oxigenación y la dehiscencia anastomótica en el cáncer de esófago. Estudio prospectivo randomizado*

Doctoral candidate: María Del Carmen Fernández Moreno

Director(s): Joaquín Ortega Serrano, Fernando López Mozos, Roberto Martí Obiol

Date of the defense: 30/06/2023

Grade: Sobresaliente "cum laude"

4 scientific activity

Research Group on Personal Autonomy, Dependence and Severe Mental Disorders (TMAP) Consolidated group

Group members

Leading Researchers, R4

Rafael Tabarés Seisdedos. University

Manuel Gómez Beneyto. INCLIVA

Vicent Balanzá Martínez. University. INCLIVA

Established Researchers, R3

Ferrán Catalá López. CSIC

Gabriel Selva Vera. Hospital. University

Inmaculada Fuentes Durá. University

José Salazar Fraile. INCLIVA

Manuel Girón Giménez. INCLIVA

Patricia Correa Ghisays. University

Recognised Researchers, R2

Constanza San Martín Valenzuela. University

Diego Macías Saint-Gerons. INCLIVA

Jaume Forés Martos. University. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Team involved in

cibersam

First Stage Researcher, R1

Joan Vicent Sánchez Ortí. INCLIVA

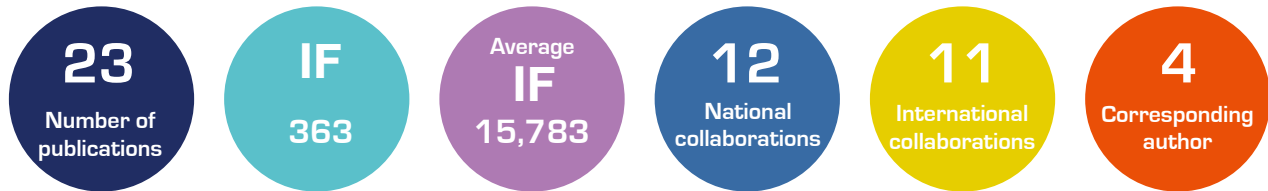
Strategic aims

- 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

- Validation and identification of neurocognitive endophenotypes in severe mental disorder
- Identification of biomarkers in severe mental disorder
- Epidemiology and disability associated with severe mental disorder
- Direct and inverse multimorbidity in patients with complex diseases such as central nervous system disorders, cancer or metabolic diseases
- Global Burden of Disease studies
- Nutritional Psychiatry
- Transdiagnostic cognitive impairment, pre-frailty or frailty, and decreased social functioning in severe mental disorder and other diseases with chronic development
- COVID-19 pandemic and neurocognition, frailty, and social functioning in severe mental disorder and other diseases with chronic development

PUBLICATIONS



SELECTED PUBLICATIONS

1. GBD 2021 Diabetes Collaborators. Global, regional, and national burden of diabetes from 1990 to 2021, with projections of prevalence to 2050: a systematic analysis for the Global Burden of Disease Study 2021. *Lancet*. 2023 Jul 15;402(10397):203-234. doi: 10.1016/S0140-6736(23)01301-6. Epub 2023 Jun 22. Erratum in: *Lancet*. 2023 Sep 30;402(10408):1132. doi: 10.1016/S0140-6736(23)02044-5. PMID: 37356446; PMCID: PMC10364581. IF: 168,9
2. GBD 2019 Europe Hepatitis B & C Collaborators. Hepatitis B and C in Europe: an update from the Global Burden of Disease Study 2019. *Lancet Public Health*. 2023 Sep;8(9):e701-e716. doi: 10.1016/S2468-2667(23)00149-4. PMID: 37633679; PMCID: PMC11138131. IF: 50
3. de la Fuente-Tomás L, Arranz B, Sierra P, Sánchez-Autet M, García-Blanco A, Gutiérrez-Rojas L, Balanzá-Martínez V, Vidal-Rubio S, Vieta E, Jiménez E, Hernández C, Arrojo M, Gómez-Trigo J, Zapico-Merayo Y, Pelayo-Terán JM, Pérez-Solà V, Mur E, Cardoner N, González-Pinto A, Zorrilla I, Ruiz-Veguilla M, Catalán-Barragán R, Safont G, Martínez-Cao C, Sáiz P, Bobes J, García-Portilla MP. Spanish validation of the Empirically Developed Clinical Staging Model (EmDe-5) for patients with bipolar disorder. *Rev Psiquiatr Salud Ment*. 2023 Sep 26:S1888-9891(21)00104-X. English, Spanish. doi: 10.1016/j.rpsm.2021.09.005. Epub ahead of print. PMID: 37965877. IF: 9,2
4. Catalá-López F, Alonso-Arroyo A, Page MJ, Castelló-Cogollos L, Hutton B, Ridao M, Tabarés-Seisdedos R, Aleixandre-Benavent R, Moher D. A cross-sectional analysis identified co-authorship networks and scientific collaboration on reporting guidelines for health research. *J Clin Epidemiol*. 2023 May;157:22-34. doi: 10.1016/j.jclinepi.2023.02.001. Epub 2023 Feb 22. PMID: 36822440. IF: 7,2
5. Sánchez-Ortí JV, Correa-Ghisays P, Balanzá-Martínez V, Selva-Vera G, Vila-Francés J, Magdalena-Benedito R, San-Martin C, Victor VM, Escribano-Lopez I, Hernandez-Mijares A, Vivas-Lalinde J, Crespo-Facorro B, Tabarés-Seisdedos R. Inflammation and lipid metabolism as potential biomarkers of memory impairment across type 2 diabetes mellitus and severe mental disorders. *Prog Neuropsychopharmacol Biol Psychiatry*. 2023

Dec 20;127:110817. doi: 10.1016/j.pnpbp.2023.110817. Epub 2023 Jun 15. PMID: 37327846. IF: 5,6

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: PID2021-129099OB-I00

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: €104.060

Reference: PI20/00066

Title: *Adaptación y validación de la batería cognitiva Brief Assessment of Cognition App (BAC App) y del Virtual Reality Assessment of Functional Capacity Tool (VRFCAT) para su uso en España*

Principal Investigator: Rosa Ayesa Arriola (Patricia Correa as collaborating researcher)

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

Beneficiary Institution: Fundación Instituto de Investigación Marqués de Valdecilla (IDIVAL)

Duration: 2021-2023

Total budget: €87.120

Reference: CB07/09/0021

Title: *Centro de Investigación Biomédica en Enfermedades Mentales (CIBERsam)*

Principal Investigator: Rafael Tabarés Seisdedos

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

Beneficiary institution: Universidad de Valencia

Duration: 2015-

4 scientific activity

Title: Drug safety and effectiveness network methods and applications group in indirect comparisons (DSEN MAGIC) Team

Principal Investigator: Hutton B, Moher D, Straus SE, Wells G (Ferrán Catalá as collaborating researcher)

Funding Body: Canadian Institutes of Health Research/Drug Safety and Effectiveness Network

Beneficiary institution: CIBERSAM

Duration: 2019-2023

Total budget: €2.875.010,8

Title: Methods and Applications Group for Indirect Comparisons Collaborating Centre

Principal Investigator: Hutton B, Moher D, Straus SE, Wells G (Ferrán Catalá as collaborating researcher)

Funding Body: Canadian Institutes of Health Research/Drug Safety and Effectiveness Network

Beneficiary institution: *Universidad de Valencia*

Duration: 2019-2023

Total budget: €2.875.010,8

Reference: PROMETEO/CIPROM/2022/58

Title: LlandScape Of cancer multimorbidities in people with central nervous system disorder: aligning electronic Health Records, preclinical research and omics 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

THESIS

Thesis title: *Estudio comparativo sobre la presencia del estigma social asociado al trastorno mental grave en estudiantes de psicología de la Universitat de València*

Doctoral candidate: Irene López Palanca

Director(s): María Dolores Sancerni Beitia, Juan Carlos Ruiz Ruiz and Inmaculada Fuentes Dura

Date of the defense: 03-02-2023

Grade: Psychology

Quality recognition/Award: None

Thesis title: *Eficacia de un programa de musicoterapia como tratamiento complementario a la intervención psicosocial en la recuperación de la esquizofrenia y otras psicosis*

Doctoral candidate: Óscar Pérez Aguado

Director(s): Inmaculada Fuentes Dura, Juan Carlos Ruiz Ruiz and Carmen Dasi Vivo

Date of the defense: 24-03-2023

Grade: Psychology

Quality recognition/Award: None

Research Group on Cellular and Organic Physiopathology of Oxidative Stress Consolidated group

Group members

Leading Researcher, R4

Federico V. Pallardó Calatayud
University

Established Researchers, R3

Carlos Romá Mateo. University
José Manuel Torres Ibáñez. University

Emerging Researcher, R2

Juan Antonio Navarro Langa. INCLIVA

Recognised Researcher, R2

Marta Seco Cervera. CIBER
Concepción Garcés Díaz. University

First Stage Researchers, R1

Tamara Lapeña Luzón. CIBER

Staff. Technicians

Alexandre Llorens Trujillo. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Team involved in



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

- Pathophysiology of Friedreich's Ataxia and other neuromuscular diseases
- Development of new therapeutic strategies for Friedreich's Ataxia
- Development of new biomarkers in both adult and neonatal sepsis
- Epigenetic regulation in the pathophysiology of rare diseases
- Epigenetic regulation of immunosuppression events in patients from Intensive Care Units

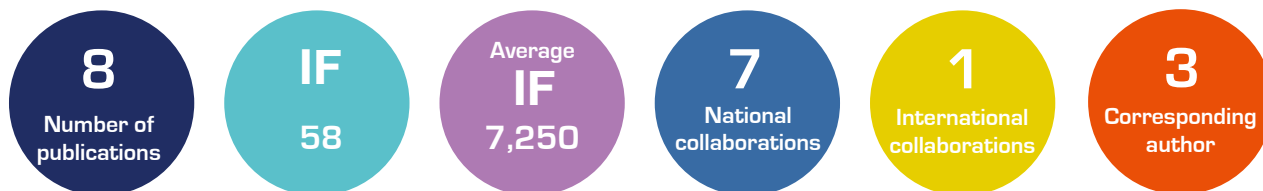
Emerging Researcher

Juan Antonio Navarro Langa

Our scientific interests are focused on deciphering the programmed death mechanism followed by cells in Friedreich's Ataxia patients using *Drosophila melanogaster* models. With Filippo Santorelli (University of Pisa), he is establishing a translational platform using *Drosophila* to model hereditary spastic paraplegia

4 scientific activity

PUBLICATIONS



SELECTED PUBLICATIONS

1. García-Arroyo R, Domènech E, Herrera-Ubeda C, Asensi M, de Arenas C, Cuezva J, García-Fernández J, Pallardó F, Mirra S, Marfany G. Redox Biology. Exacerbated response to oxidative stress in the Retinitis Pigmentosa CerK1KD/KO mouse model triggers retinal degeneration pathways upon acute light stress. 2023 Oct;66:102862. doi: 10.1016/j.redox.2023.102862. PMID: 37660443. IF: 11,4
2. Mayayo-Vallverdu C, de Heredia M, Prat E, Gonzalez L, Guarch M, Vilches C, Munoz L, Asensi M, Serra C, Llebaria A, Casado M, Artuch R, Garrabou G, Garcia-Roves P, Pallardo F, Nunes V. The antioxidant L-Ergothioneine prevents cystine lithiasis in the Slc7a9^{-/-} mouse model of cystinuria. Redox Biology. 2023 Aug;64:102801. doi: 10.1016/j.redox.2023.102801. PMID: 37418888. IF: 11,4
3. Garcia-Gimenez J, Garcia-Lopez E, Mena-Molla S, Beltran-Garcia J, Osca-Verdegall R, Nacher-Sendra E, Aguado-Velasco C, Casabo-Valles G, Roma-Mateo C, Rodriguez-Gimillo M, Antunez O, Ferreres J, Pallardo F, Carbonell N. Validation of circulating histone detection by mass spectrometry for early diagnosis, prognosis, and management of critically ill septic patients. Journal of Translational Medicine. 2023 May 23;21(1):344. doi: 10.1186/s12967-023-04197-1. PMID: 37221624. IF: 7,4
4. Ibanez-Cabellos J, Pallardo F, Garcia-Gimenez J, Seco-Cervera M. Oxidative stress and epigenetics: miRNA involvement in rare autoimmune diseases. Antioxidants. 2023 Mar 25;12(4):800. doi: 10.3390/antiox12040800. PMID: 37107175. IF: 7
5. Roma-Mateo C, Lorente-Pozo S, Marquez-Thibaut L, Moreno-Estelles M, Garces C, Gonzalez D, Lahuerta M, Aguado C, Garcia-Gimenez JL, Sanz P, Pallardo FV. Age-Related microRNA overexpression in Lafora disease male mice provides links between neuroinflammation and oxidative stress. International Journal of Molecular Sciences. 2023 Jan 6;24(2):1089. doi: 10.3390/ijms24021089. PMID: 36674605. IF: 5,6

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: 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: Jose Luis García Giménez (Federico V. Pallardó Calatayud as collaborating researcher)

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

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2022-2023

Total budget: €122.100

Reference: CB06/07/0073

Title: CIBER de Enfermedades Raras (CIBERer)

Principal Investigator: Federico V. Pallardó Calatayud

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

Beneficiary institution: Universidad de Valencia

Duration: 2007-

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

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: IFEQ22/00178

Title: Sistema de espectrometría de masas acoplado a un

Reference: RTC2019-006825-1

Title: *Potencial de la leriglitazona para el tratamiento de enfermedades asociadas a la acumulación de hierro, distrofias y enfermedades neuromusculares*

Principal Investigator: Pilar González Cabo (Federico V. Pallardó Calatayud as collaborating researcher)

Funding Body: Ministerio de Ciencia e Innovación

Beneficiary institution: Minoryx Therapeutic SL

Duration: 2020-2023

Total budget: €90.000

Title: 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: 2020-2023

Total budget: €246.500

Reference: 90/C/2020

Title: Therapeutical strategies for cystinuria

Principal Investigator: Federico V. Pallardó Calatayud

Funding Body: Marató TV3

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2021-2023

Total budget: €35.580

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: AP174352020

Title: *Identificación de biomarcadores mediante el uso de las ómicas y la Inteligencia Artificial para el diagnóstico y el pronóstico de la sepsis neonatal*

Principal Investigator: Jose Luis García Giménez

Funding Body: Fundación Mutua Madrileña

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2020-2023

Total budget: €100.000

THESIS

Thesis title: *Papel de las membranas asociadas a retículo endoplasmático y mitocondria (MAMS) en la fisiopatología celular de la ataxia de Friedreich y su relevancia como diana terapéutica*

Doctoral candidate: Laura Robles Rodríguez

Director[s]: Federico Pallardo Calatayud and Maria Pilar González Cabo

Date of the defense: 20-01-2023

Grade: Sobresaliente "cum laude"

Quality recognition/Award: European PhD

Thesis title: *Identificación de los mecanismos epigenéticos relacionados con los fenómenos de inmunosupresión en sepsis y su uso como biomarcadores de pronóstico*

Doctoral candidate: Rebeca Osca Verdegall

Director[s]: José Luis García Jiménez and Federico Pallardo Calatayud

Date of the defense: 19-05-2023

Grade: Sobresaliente "cum laude"

Quality recognition/Award: European PhD

Thesis title: *Mecanismos moleculares implicados en las interacciones entre macromoléculas derivadas de la cromatina y células endoteliales: potencial para el desarrollo de biomarcadores de sepsis*

Doctoral candidate: Concepción Garcés Díaz

Director[s]: Federico Pallardo Calatayud and Carlos Romá Mateo

Date of the defense: 19-12-2023

Grade: Sobresaliente "cum laude"

Quality recognition/Award: European PhD

4 scientific activity

Research Group on Inflammation: Metabolism and Organic Damage line Emerging group

Group members

Leading Researcher, R4

Laura Piqueras Ruiz
University. INCLIVA

Recognised Researcher, R2

Luisa María Hueso Soler. INCLIVA

Staff. Collaborating Researchers

Ángela Vea Badenes. INCLIVA
Brenda Morant Ferrando. INCLIVA
David De Albuquerque Bravo. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Julia Ferrol Navarro. INCLIVA
M^a del Mar García Guerrero. INCLIVA

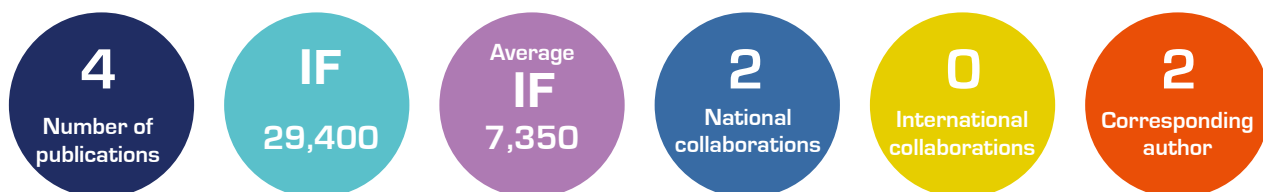
Strategic aims

- 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 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

PUBLICATIONS



SELECTED PUBLICATIONS

1. Domingo E, Marques P, Francisco V, Piqueras L, Sanz M. Targeting systemic inflammation in metabolic disorders. A therapeutic candidate for the prevention of cardiovascular diseases?. Pharmacological Research. 2024 Jan 11;S0214-9168(23)00120-1. doi: 10.1016/j.arteri.2023.12.005. PMID: 38218355. IF: 9,3
2. Marques P, Villarroel-Vicente C, Collado A, Garcia A, Vila L, Duplan I, Hennuyer N, Garibotto F, Enriz RD, Dacquet C, Staels B, Piqueras L, Cortes D, Sanz MJ, Cabedo N. Anti-inflammatory effects and improved metabolic derangements in ob/ob mice by a newly synthesized prenylated benzopyran with pan-PPAR activity. Pharmacological Research. 2023 Jan;187:106638. doi: 10.1016/j.phrs.2022.106638. PMID: 36586645. IF: 9,3

3. Marques P, Francisco V, Martinez-Arenas L, Carvalho-Gomes A, Domingo E, Piqueras L, Berenguer M, Sanz M. Overview of cellular and soluble mediators in systemic inflammation associated with non-alcoholic fatty liver disease. *International Journal of Molecular Sciences*. 2023 Jan 24;24(3):2313. doi: 10.3390/ijms24032313. PMID: 36768637. IF: 5,6
4. Hueso L, Marques P, Morant B, Gonzalez-Navarro H, Ortega J, Real J, Sanz M, Piqueras L. CCL17 and CCL22 chemokines are upregulated in human obesity and play a role in vascular dysfunction. *Frontiers in Endocrinology*. 2023 Apr 12;14:1154158. doi: 10.3389/fendo.2023.1154158. PMID: 37124725. IF: 5,2

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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 Tomas 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

Reference: CDEI-04/20-A

Title: Plan GenT

Principal Investigator: Laura Piqueras Ruiz

Funding body: *Conselleria de Sanitat*

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

Duración: 2020-2023

Presupuesto total: €253.000

THESIS

Thesis title: *Estudio de nuevos mecanismos angiogénicos e inflamatorios asociados a la obesidad*

Doctoral candidate: Luisa María Hueso Soler

Director(s): Laura Piqueras Ruiz, María Jesús Sanz Ferrando, José Tomás Real Collado

Date of the defense: 28/04/2023

Grade: Sobresaliente "cum laude"

4 scientific activity

Research Group on Metabolic Diseases Emerging group

Group members

Leading Researcher, R4

Herminia González Navarro

University. INCLIVA

Recognised Researchers, R2

Elena Jiménez Martí. University

First Stage Researchers, R1

Gema Hurtado Genovés. INCLIVA

María Aguilar Ballester. INCLIVA

Elia Ruiz Merino

Staff Collaborating Researcher

Pablo Arjona Fernández-Sanabria. INCLIVA

Marta Ruiz Piquer. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



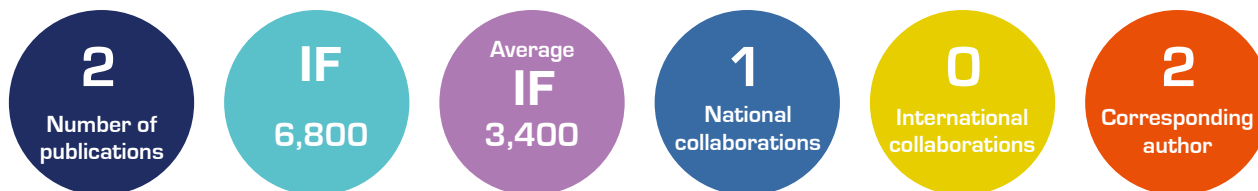
Strategic aims

- 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 of novel cellular plasticity mechanisms involved in atheroma plaque stability
- Identification and characterization of tissular immune populations associated with metabolic diseases
- Novel biomarkers for the stratification of patients with diabetes and atherosclerosis

PUBLICATIONS



SELECTED PUBLICATIONS

1. Martín-Vañó S, Miralles-Abella A, Castaño P, Hurtado-Genovés G, Aguilar-Ballester M, Herrero-Cervera A, Vinué A, Martínez-Hervás S, González-Navarro H. Vascular smooth muscle cell phenotype is modulated by ligands of the lymphotoxin α receptor and the tumor necrosis factor receptor. Clin Investig Arterioscler. 2023 Jan-Feb;35(1):1-11. English, Spanish. doi: 10.1016/j.arteri.2022.05.003. Epub 2022 Jun 21. PMID: 35738949. IF: 1,6
2. Hueso L, Marques P, Morant B, Gonzalez-Navarro H, Ortega J, Real JT, Sanz MJ, Piqueras L. CCL17 and CCL22

chemokines are upregulated in human obesity and play a role in vascular dysfunction. *Front Endocrinol (Lausanne)*. 2023 Apr 12;14:1154158. doi: 10.3389/fendo.2023.1154158. PMID: 37124725; PMCID: PMC10130371. IF: 5,2

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: CDEI0420B

Title: Plan GenT

Principal Investigator: Herminia González Navarro

Funding Body: *Conselleria de Sanidad*

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

Duration: 2020-2023

Total budget: €253.000

Reference: COST Action CA17129

Title: Catalysing transcriptomics research in cardiovascular disease

Principal Investigator: Yvan Devaux

Funding Body: European Commission

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

Duration: 2020-2023

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

4 scientific activity

Research Group on Rare Respiratory Diseases (RRD) Emerging group

Group members

Leading Researcher, R4

Francisco Dasí Fernández

University

Established Researcher, R3

Selene Valero Moreno. University

Recognised Researchers, R2

María Magallón Serrano. INCLIVA

Silvia Castillo Corullón. Hospital. University

First Stage Researcher, R1

Álvaro Carrasco García. INCLIVA

Daniel Pellicer Roig. INCLIVA

Staff. Nurses

Carlos Martínez Ferraro. University

Staff. Technicians

Maksym Kupchuk Tiurin. University

Miguel Ángel Esteve Gimeno. INCLIVA

Néstor Navarro Ortí. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Team involved in



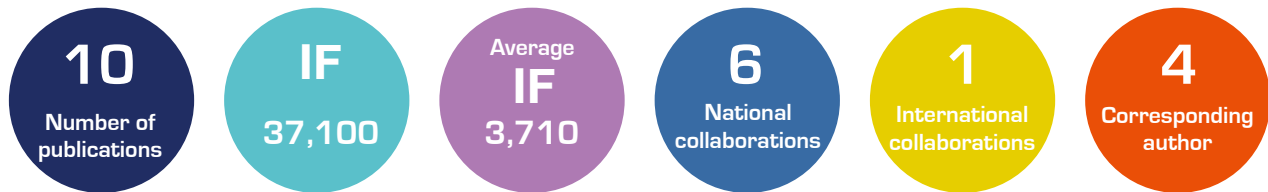
Strategic aims

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 group 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

- The group is currently conducting active basic research on two rare respiratory diseases (RRDs): Alpha-1 Antitrypsin Deficiency (AATD) and primary ciliary dyskinesia (PCD)
- The specific lines of action of the group are:
 - To characterize the molecular mechanisms (especially those aspects related to REDOX regulation) involved in the development of disease in AATD and PCD
 - To evaluate the diagnostic and/or prognostic value of circulating nucleic acids in plasma/serum
 - Development of cellular models from cells of patients with RRD, which allow research in these diseases
 - To develop new therapeutic strategies based on gene therapy
 - 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

PUBLICATIONS



SELECTED PUBLICATIONS

1. Magallon M, Castillo-Corullon S, Banuls L, Pellicer D, Romero T, Martinez-Ferraro C, Navarro-Garcia M, Herrejon A, Gonzalez C, Dasi F. Hypoxia enhances oxidative stress in neutrophils from ZZ Alpha-1 antitrypsin deficiency patients. *Antioxidants*. 2023 Apr 3;12(4):872. doi: 10.3390/antiox12040872. PMID: 37107247. IF: 7
2. Ring A, Schwerk N, Kiper N, Aslan A, Aurora P, Ayats R, Azevedo I, Bandeira T, Carlens J, Castillo-Corullon S, Cobanoglu N, Elnazir B, Emiralioglu N, Eyuboglu T, Fayon M, Gursay T, Hogg C, Kotz K, Karadag B, Latalova V, Krenke K, Lange J, Manali E, Osona B, Papiris S, Proesmann M, Reix P, Roditis L, Rubak S, Rumman N, Snijders D, Stehling F, Weiss L, Yalcin E, Zirek F, Bush A, Clement A, Griesse M, Buchvald F, Nathan N, Nielsen K. Diffuse alveolar haemorrhage in children: an international multicentre study. *ERJ Open Research*. 2023 Apr 24;9(2):00733-2022. doi: 10.1183/23120541.00733-2022. PMID: 37101741. IF: 4,6
3. Dasi F. Alpha-1 antitrypsin deficiency. *Medicina Clínica*. 2023 Nov 21;S0025-7753(23)00648-6. doi: 10.1016/j.medcli.2023.10.014. PMID: 37993348. IF: 3,9
4. Valero-Moreno S, Montoya-Castilla I, Perez-Marin M. Family styles and quality of life in adolescents with bronchial asthma: The important role of self-esteem and perceived threat of the disease. *Pediatric Pulmonology*. 2023 Jan;58(1):178-186. doi: 10.1002/ppul.26178. PMID: 36193795. IF: 3,1
5. Mondejar-Lopez P, Moreno-Galarraga L, de Manuel Gomez C, Blitz-Castro E, Bravo-Lopez M, Gartner S, Perez-Ruiz E, Caro-Aguilera P, Sanz-Santiago V, Lopez-Neyra A, Luna-Paredes C, Garcia-Gonzalez M, Costa-Colomer J, Cols-Roig M, Delgado-Pecellin I, Castillo-Corullon S, de Valbuena-Maiz M, Garcia-Marcos P, Aguilar-Fernandez A, Martin-De Vicente C, Barajas-Sanchez M, Mesa-Medina O, Bover-Bauza C, Figuerola-Mulet J, Garcia-Aviles B, Rodriguez-Saez M, Garcia-Magan C, Juarez-Marruecos P, Gutierrez-Martinez J, Cortell-Aznar I, Gomez-Pastrana D, Velasco-Gonzalez M, Barrio M, Sanchez-Solis M, de la Cruz O, Pastor-Vivero M. SARS-CoV-2 infection in children with cystic fibrosis: A cross-sectional multicenter study in Spain. New waves, new knowledge. *Pediatric Pulmonology*. 2023 Nov;58(11):3195-3205. doi: 10.1002/ppul.26644. PMID: 37589420. IF: 3,1

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Title: *Estudio de la utilidad clínica de los exosomas plasmáticos en la discinesia ciliar primaria*

Principal Investigator: Francisco Dasí Fernández

Funding body: *Sociedad Valenciana de Neumología*

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

Duration: 2020-2023

Total budget: €12.000

THESIS

Thesis title: *El estrés en los profesionales sociosanitarios de atención a personas con discapacidad intelectual: factores de riesgo y protección*

Doctoral candidate: Ana Martínez Cuevas

Director[s]: Selene Valero Moreno, M^a Antonia Pérez Marín

Date of the defense: 12/06/2023

Grade: Sobresaliente "cum laude"

4 scientific activity

Research Group on Healthy Aging (MiniAging) Emerging group

Group members

Leading Researcher, R4

Consuelo Borrás Blasco
University

Recognised Researchers, R2

Ana Díaz Cuevas. University
Cristina Mas Bagues. University
Jorge Sanz Ros. University
Mar Dromant Jarque. University
Marta Inglés de la Torre. University

First Stage Researchers, R1

Aurora Román Rodríguez. University
Javier Huete Acevedo. University

Researchers by categories



Researchers financed by competitive public calls or networks



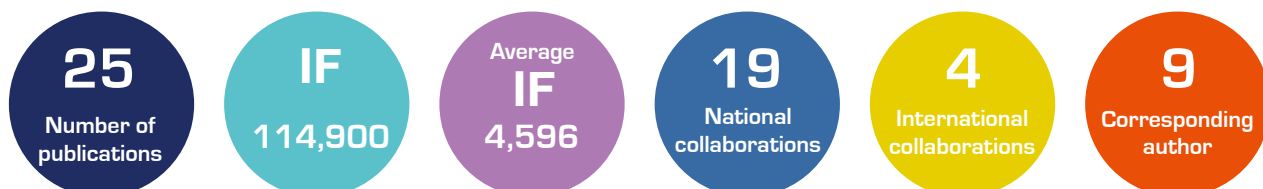
Strategic aims

- 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 (healthy aging) in experimental animals (derived from intervention studies in aging)
 - Frailty biomarkers based on ultrasound image analysis (echo intensity, fractals, textures)
- Development of image biomarkers in the diagnosis of frailty:
 - Fragility biomarkers based on ultrasound image analysis (echointensity, fractals, textures)
- Interventions for healthy aging:
 - Stem cell derived extracellular medicine (based on previous studies on stem cells and senescence)
 - Study of Bcl-xL as a longevity gene (based on previous studies in centenarians)

PUBLICATIONS



SELECTED PUBLICATIONS

1. Mas-Bargues C, Sanz-Ros J, Romero-Garcia N, Huete-Acevedo J, Dromant M, Borrás C. Small extracellular vesicles from senescent stem cells trigger adaptive mechanisms in young stem cells by increasing antioxidant enzyme expression. *Redox Biology*. 2023 Jun;62:102668. doi: 10.1016/j.redox.2023.102668. PMID: 36965438. IF: 11,4
2. Sol J, Obis E, Mota Martorell N, Pradas I, Galo Licona J, Martín Gari M, Fernández Bernal A, Ortega Bravo M, Mayneris Perxachs J, Borrás C, Vina J, de la Fuente M, Mate I, Biarnes C, Pedraza S, Vilanova J, Brugada R, Ramos R, Serena J, Ramio-Torrenta L, Pineda V, Daunis I, Estadella P, Thio Henestrosa S, Barretina J, Garre Olmo J, Portero Otín M, Fernández Real J, Puig J, Jové M, Pamplona R. Plasma acylcarnitines and gut-derived aromatic amino acids as sex-specific hub metabolites of the human aging metabolome. *Aging Cell*. 2023 Jun;22(6):e13821. doi: 10.1111/acer.13821. PMID: 36951231. IF: 7,8
3. Martín-Grau M, Pardo-Tendero M, Casanova P, Dromant M, Marrachelli V, Morales J, Borrás C, Pisoni S, Maestrini S, Di Blasio A, Monleon D. Altered lipid moieties and carbonyls in a wistar rat dietary model of subclinical fatty liver: potential sex-specific biomarkers of early fatty liver disease?. *Antioxidants*. 2023 Sep 28;12(10):1808. doi: 10.3390/antiox12101808. PMID: 37891887. IF: 7
4. Romero-Garcia N, Huete-Acevedo J, Mas-Bargues C, Sanz-Ros J, Dromant M, Borrás C. The double-edged role of extracellular vesicles in the hallmarks of aging. *Biomolecules*. 2023 Jan 13;13(1):165. doi: 10.3390/biom13010165. PMID: 36671550. IF: 5,5
5. Miron-Mombiola R, Ruiz-España S, Moratal D, Borrás C. Assessment and risk prediction of frailty using texture-based muscle ultrasound image analysis and machine learning techniques. *Mechanisms of Ageing and Development*. 2023 Sep 4;215:111860. doi: 10.1016/j.mad.2023.111860. PMID: 37666473. IF: 5,3

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: AC20/00026

Title: Combining vitamin E-functionalized CHOColate with physical exercise to reduce the risk of protein energy malnutrition in pre-dementia AGEd people. ERA-HDHL Call for Joint Transnational Research Proposals on Development of targeted nutrition for prevention of undernutrition for older adults (PREVNUT)

Principal Investigator: José Viña Ribes (Consuelo Borrás Blasco

as collaborating researcher)

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

Beneficiary Institution: Universidad de Valencia

Duration: 2021-2023

Total Budget: €169.098

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: GE/2022/134

Title: *Papel de BCLXI en el envejecimiento saludable y la prevención de la fragilidad*

Principal Investigator: Cristina Más Bargues

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

Beneficiary Institution: Universidad de Valencia

Duration: 2022-2023

Total Budget: €20.000

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

THESIS

Thesis title: Study of the role of BCL-XL in healthy aging and frailty prevention

Doctoral candidate: Aurora Román Domínguez

Director(s): Consuelo Borrás Blasco, Cristina Mas Bargues, José Viña Ribes

Date of the defense: 03/03/2023

4 scientific activity

Grade: Sobresaliente "*cum laude*"

Quality recognition/Award: European PhD

Thesis title: Muscle architecture determined by ultrasound for the diagnosis of frailty with correlation of clinical, physical and biochemical markers

Doctoral candidate: Jelena Vucetic

Director(s): Consuelo Borrás Blasco, Rebeca Mirón Mombiela, Goizane Marcaida Benito

Date of the defense: 18/05/2023

Grade: Sobresaliente "*cum laude*"

Research Group on Exercise, Nutrition and Healthy Lifestyle Emerging group

Group members

Leading Researcher, R4

M^a Carmen Gómez Cabrera
University

Established Researchers, R3

Juan Gambini Buchón. University

Recognised Researchers, R2

Aitor Carretero Martínez. INCLIVA
Fernando Millán Domingo. University
Esther García Domínguez. INCLIVA
Gloria Olaso González. University

First Stage Researcher, R1

Abril Gorgori González. University
Ángela García Correas. University
Eva Tamayo Torres. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Kristine Stromsnes. University

Silvana Javiera Soto Rodríguez. University

Staff. Collaborating Researchers

Remus Iulian Lupu. INCLIVA

Strategic aims

- Role of nicotinamide riboside (NR) and Urolithin A (UroA) as mitotherapeutics for the reversal of energy collapse associated with aging
- Role of β -hydroxybutyrate on the loss of muscle mass associated with aging
- Effect of an intervention with protein and vitamin supplementation in synergy with a multicomponent program of physical exercise in the reversal of frailty
- Effect of glucosamine supplementation on physical performance
- Evaluation of the neuroprotective effect of ketogenic diets (intermittent fasting and carbohydrate-free diet)
- High intensity interval exercise in the prevention and treatment of frailty
- Study of the effect of the activation of glucose 6 phosphate dehydrogenase with different intervention strategies in the prevention of frailty

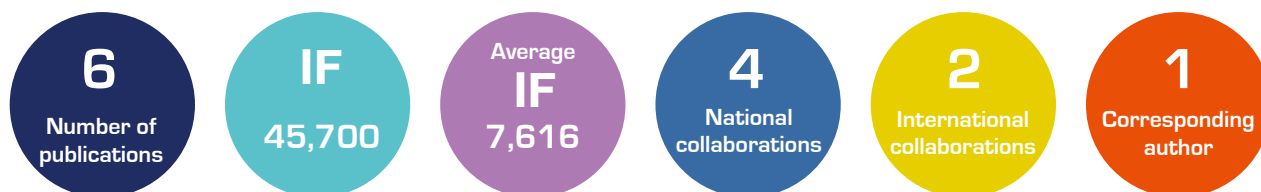
Main lines of research

Using molecular approaches in animal and human models, this group aims to establish the basic mechanisms modulated by exercise and nutrition to transfer them through clinical trials to the improvement of the quality of life in humans. The research lines of the Exercise, Nutrition and Healthy Lifestyle Research Group include the study of:

- Cell signaling in skeletal muscle during physical exercise
- Oxidative stress associated with physical exercise and the effect of the administration of antioxidants
- The mechanisms involved in muscle atrophy with special attention to the study of the importance of oxidative stress in the loss of muscle mass, both in clinical and preclinical models
- The benefits of physical exercise and nutritional interventions to ensure healthy aging with special attention to the treatment of various pathologies associated with aging, especially Alzheimer's disease, senile sarcopenia and frailty

4 scientific activity

PUBLICATIONS



SELECTED PUBLICATIONS

- Costa-Machado L, Garcia-Dominguez E, McIntyre R, Lopez-Aceituno J, Ballesteros-Gonzalez A, Tapia-Gonzalez A, Fabregat-Safont D, Eisenberg T, Gomez J, Plaza A, Sierra-Ramirez A, Perez M, Villanueva-Bermejo D, Fornari T, Loza M, Herradon G, Hofer S, Magnes C, Madeo F, Duerr J, Pozo O, Galindo M, Del Pino I, Houtkooper R, Megias D, Vina J, Gomez-Cabrera M, Fernandez-Marcos P. Peripheral modulation of antidepressant targets MAO-B and GABAAR by harmol induces mitohormesis and delays aging in preclinical models. *Nature Communications*. 2023 May 15;14(1):2779. doi: 10.1038/s41467-023-38410-y. PMID: 37188705. IF: 16,6
- Rodriguez-Ramiro I, Pastor-Fernández A, López-Aceituno JL, Garcia-Dominguez E, Sierra-Ramirez A, Valverde AM, Martinez-Pastor B, Efeyan A, Gomez-Cabrera MC, Viña J, Fernandez-Marcos PJ. Pharmacological and genetic increases in liver NADPH levels ameliorate NASH progression in female mice. *Free Radical Biology & Medicine*. 2023 Nov 29;210:448-461. doi: 10.1016/j.freeradbiomed.2023.11.019. PMID: 38036067. IF: 7,4
- Verdú D, Valls A, Díaz A, Carretero A, Dromant M, Kuligowski J, Serna E, Viña J. Pomegranate extract administration reverses loss of motor coordination and prevents oxidative stress in cerebellum of aging mice. *Antioxidants*. 2023 Nov 11;12(11):1991. doi: 10.3390/antiox12111991. PMID: 38001844. IF: 7
- Alabadi B, Civera M, De la Rosa A, Martinez-Hervas S, Gomez-Cabrera M, Real J. Low muscle mass is associated with poorer glycemic control and higher oxidative stress in older patients with type 2 Diabetes. *Nutrients*. 2023 Jul 17;15(14):3167. doi: 10.3390/nu15143167. PMID: 37513585. IF: 5,9
- Baltasar-Fernandez I, Losa-Reyna J, Carretero A, Rodriguez-Lopez C, Alfaro-Acha A, Guadalupe-Grau A, Ara I, Alegre L, Gomez-Cabrera M, Garcia-Garcia F, Alcazar J. Residual effects of 12 weeks of power-oriented resistance training plus high-intensity interval training on muscle dysfunction, systemic oxidative damage, and antioxidant capacity after 10 months of training cessation in older people with COPD. *Scandinavian Journal of Medicine & Science in Sports*. 2023

Sep;33(9):1661-1676. doi: 10.1111/sms.14428. PMID: 37322570. IF: 4,1

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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 Rodriguez 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: PID2019-110906RB-I00

Title: Nuevas intervenciones terapéuticas multidominio para retrasar la fragilidad y la discapacidad. Identificación de mecanismos moleculares con relevancia traslacional

Principal Investigator: José Viña Ribes and M^a Carmen Gómez Cabrera

Funding Body: Ministerio de Economía y Competitividad

Beneficiary Institution: Universidad de Valencia

Duration: 2020-2023

Total budget: €270.000

Reference: CIPROM/2022/56

Title: Boosting the intrinsic myofiber self-repair mechanisms in skeletal muscle 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: PROMETEO/2019/097

Title: *Diferencias de fragilidad entre géneros: evaluación de biomarcadores y estrategias de intervención*

Principal Investigator: José Viña Ribes (M^a Carmen Gómez Cabrera as collaborating researcher)

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

Beneficiary Institution: *Universidad de Valencia*

Duration: 2020-2023

Total Budget: €189.391

THESIS

Thesis title: Regulation of the redox balance in skeletal muscle with exercise training to promote healthy ageing. Animal and human studies

Doctoral candidate: Esther García Domínguez

Director(s): José Viña Ribes, Mari Carmen Gómez Cabrera and Cristina Blasco Lafarga

Date of the defense: 23/10/2023

Grade: Sobresaliente “*cum laude*”

Quality recognition/Award: European PhD

4 scientific activity

Research Group on Epigenomics and Translational Epigenetics

Emerging group

Group members

Leading Researcher, R4

José Luis García Giménez. University. CIBER

Established Researchers, R3

José Ferreres Franco. Hospital. University

Nieves Carbonell Monleón. Hospital

Salvador Mena Mollá. University

Recognised Researchers, R2

Rebeca Osca Verdegál. INCLIVA

First Stage Researchers, R1

Elena Nácher Sendra. INCLIVA

Enric Dolz Andrés. INCLIVA

Irene Cánovas Cervera. INCLIVA

Staff. Technician

Elena Climent Martínez. INCLIVA

Laura Romero Jaque. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Strategic aims

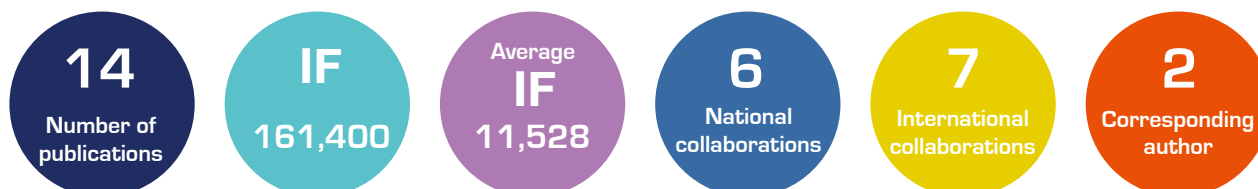
Deepen the characterization of the epigenetic mechanisms that give phenotypic variability in human diseases, and that can give rise to diagnostic and prognostic biomarkers that can be implemented in precision medicine:

- Identification of epigenetic mechanisms and biomarkers in Rare Diseases
- Identification of epigenetic 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

- 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
- Artificial intelligence for improved critically-ill patient management using epigenetic biomarkers
- Organoids as models to evaluate tissue damage mediated by circulating histones
- Mass spectrometry proteomics to identify blood circulating biomarkers
- Clinical and biological data integration for molecular medicine

PUBLICATIONS



SELECTED PUBLICATIONS

1. Canovas Cervera I, Nacher Sendra E, Osca Verdegall R, Dolz Andres E, Beltran Garcia J, Rodriguez Gimillo M, Ferrando Sanchez C, Carbonell N, Garcia Gimenez JL. The intricate role of non-coding RNAs in sepsis-associated disseminated intravascular coagulation. *International Journal of Molecular Sciences*. 2023 Jan 30;24(3):2582. doi: 10.3390/ijms24032582. PMID: 36768905. IF: 5,6
2. Garcia-Gimenez J, Garcia-Lopez E, Mena-Molla S, Beltran-Garcia J, Osca-Verdegall R, Nacher-Sendra E, Aguado-Velasco C, Casabo-Valles G, Roma-Mateo C, Rodriguez-Gimillo M, Antunez O, Ferreres J, Pallardo F, Carbonell N. Validation of circulating histone detection by mass spectrometry for early diagnosis, prognosis, and management of critically ill septic patients. *Journal of Translational Medicine*. 2023 May 23;21(1):344. doi: 10.1186/s12967-023-04197-1. PMID: 37221624. IF: 7,4
3. Romá-Mateo C, Lorente-Pozo S, Márquez-Thibaut L, Moreno-Estellés M, Garcés C, González D, Lahuerta M, Aguado C, García-Giménez JL, Sanz P, Pallardó FV. Age-Related microRNA Overexpression in Lafora Disease Male Mice Provides Links between Neuroinflammation and Oxidative Stress. *Int J Mol Sci*. 2023 Jan 6;24(2):1089. doi: 10.3390/ijms24021089. PMID: 36674605; PMCID: PMC9865572. IF: 4,56
4. Pérez-Cremades D, Bueno-Betí C, García-Giménez JL, Ibañez-Cabellos JS, Pallardó FV, Hermenegildo C, Novella S. Extracellular histones trigger oxidative stress-dependent induction of the NF-κB/CAM pathway via TLR4 in endothelial cells. *J Physiol Biochem*. 2023 May;79(2):251-260. doi: 10.1007/s13105-022-00935-z. Epub 2022 Dec 5. PMID: 36464762; PMCID: PMC10300178. IF: 4.16
5. Ibañez-Cabellos JS, Pallardó FV, García-Giménez JL, Seco-Cervera M. Oxidative Stress and Epigenetics: miRNA Involvement in Rare Autoimmune Diseases. *Antioxidants (Basel)*. 2023 Mar 25;12(4):800. doi: 10.3390/antiox12040800. PMID: 37107175; PMCID: PMC10135388. IF: 5,3

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: INNTA3/2022/22

Title: Ayudas del Programa de Promoción del Talento

Principal investigator: Jose 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: Jose 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: €62.920

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

Total budget: €122.100

Reference: AP174352020

Title: *Identificación de biomarcadores mediante el uso de las ómicas y la Inteligencia Artificial para el diagnóstico y el pronóstico de la sepsis neonatal*

Principal Investigator: José Luis García Giménez

Entidad financiadora: Fundación Mutua Madrileña

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2020-2023

Total budget: €100.000

4 scientific activity

Reference: RTC2019-006825-1

Title: *Potencial de la leriglitzona para el tratamiento de enfermedades asociadas a la acumulación de hierro, distrofias y enfermedades neuromusculares*

Principal Investigator: Pilar González Cabo (José Luis García Giménez as collaborating researcher)

Entidad financiadora: *Ministerio de Ciencia e Innovación*

Beneficiary Institution: *Minoryx Therapeutic SL*

Duration: 2020-2023

Total budget: €90.000

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: Eudene Carbonell (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: INNEST/2021/302/58

Title: *Sistema de visión artificial aumentada para la caracterización molecular y morfológica del cáncer de piel*

Principal Investigator: Carlos Monteagudo Castro (José Luis García Giménez as collaborating researcher)

Funding body: *Agencia Valenciana de la Innovación-AVI Generalitat Valenciana*

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

Duration: 2021-2023

Total Budget: €192.868,53

THESIS

Thesis title: *Identificación de los mecanismos epigenéticos relacionados con los fenómenos de inmunosupresión en sepsis y su uso como biomarcadores de pronóstico*

Doctoral candidate: Rebeca Osca Verdegai

Director[s]: José Luis García Giménez, Federico Pallardó Calatayud

Date of the defense: 19/05/2023

Grade: Sobresaliente "cum laude"

Quality recognition/Award: European PhD

Research Group in Medical Chemistry for Drug Development

Emerging group

Group members

Established Researcher, R3

Nuria Cabedo Escrig
University. INCLIVA

First Stage Researchers, R1

Ainhoa García Martín. University
Alvaro Bernabeu Sanchís. INCLIVA
Carlos Villarroel Vicente. INCLIVA

Staff. Collaborating Researchers

Diego Cortés Martínez. University
Jordi Ferri Ciscar. Hospital. University

Staff. Technician

Laura Vila Dasí. INCLIVA

Researchers by categories



Researchers financed by competitive public calls or networks



Strategic aims

- Peroxisome proliferator activator receptors (PPARs)
- Liver X receptors (LXR)
- Dopamine receptors
- Biomarkers of inflammation
- Tumor cell lines

Main lines of research

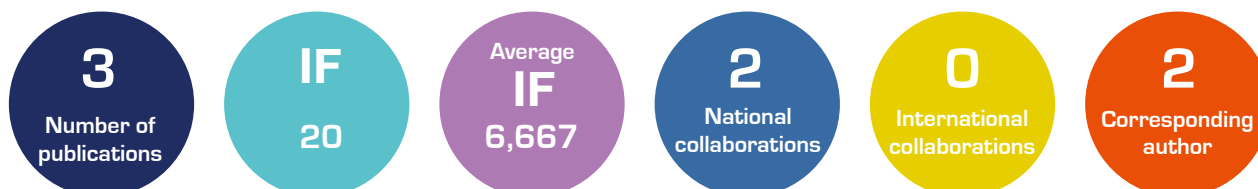
- Development of new bioactive molecules as potential drug candidates, mainly for the treatment of cardiometabolic diseases such as metabolic syndrome, obesity and type 2 diabetes it could be extended to other diseases of special relevance such as rare diseases, neurological diseases and cancer

Emerging Researcher

Nuria Cabedo Escrig

- Isolation and synthesis of analogues of natural products targeting nuclear receptors
- Isolation and synthesis of dopaminergic ligands
- Isolation and synthesis of cytotoxic compounds as anti-tumor agents
- Qualitative and quantitative analysis of metabolites and biomarkers by UHPLC-MS/MS

PUBLICATIONS



4 scientific activity

SELECTED PUBLICATIONS

1. García A, Torres-Ruiz S, Vila L, Villarroel-Vicente C, Bernabeu Á, Eroles P, Cabedo N, Cortes D. Synthesis of 2-aminopropyl benzopyran derivatives as potential agents against triple-negative breast cancer. *RSC Med Chem*. 2023 Oct 4;14(11):2327-2341. doi: 10.1039/d3md00385j. PMID: 38020071; PMCID: PMC10650959. IF: 4,1
2. Marques P, Villarroel-Vicente C, Collado A, García A, Vila L, Duplan I, Hennuyer N, Garibotto F, Enriz RD, Dacquet C, Staelen B, Piqueras L, Cortes D, Sanz MJ, Cabedo N. Anti-inflammatory effects and improved metabolic derangements in ob/ob mice by a newly synthesized prenylated benzopyran with pan-PPAR activity. *Pharmacol Res*. 2023 Jan;187:106638. doi: 10.1016/j.phrs.2022.106638. Epub 2022 Dec 28. PMID: 36586645. IF: 9,3
3. Casany-Fernandez R, Gascon-Gimenez F, Matarredona Solaz EJ, Pardo Lozano F, Dominguez-Moran JA, Ferri Ciscar J, Real Collado JT. Letter to the Editor: Remission of Graves' Disease After Initiation of Ocrelizumab in Patients with Multiple Sclerosis. *Thyroid*. 2023 Feb;33(2):267-269. doi: 10.1089/thy.2022.0398. Epub 2022 Dec 13. PMID: 36416241. IF: 6,6

Reference: CPII20/00010

Title: *Miguel Servet*

Principal Investigator: Nuria Cabedo Escrig

Funding Body: *Instituto de Salud Carlos III - Cofinanciado FEDER*

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

Duration: 2021-2024

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: PI21/02045

Title: *Desarrollo de nuevos moduladores multidiana 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

Reference: FI19/00153

Title: Predoctoral PFIS

Principal Investigator: Carlos Villarroel Vicente

Funding Body: *Instituto de Salud Carlos III - Cofinanciado FEDER*

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

Duration: 2020-2023

Research Group on Neurobiology and Molecular Physiopathology in Rare Diseases – NeuroFisER / Emerging group

Group members

Leading Researcher, R4

Pilar González Cabo
University. CIBER

First Stage Researcher, R1

Lorena Baquero Ansón. CIBER

Staff Collaborating Researcher

Marta Roldán Lázaro. CIBER

Researchers by categories



Researchers financed by competitive public calls or networks



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
- Identification of biomarkers
- Development of different pre-clinical therapeutic approaches, both pharmacological and genetic

PUBLICATIONS



SELECTED PUBLICATIONS

1. Mulet A, González-Cabo P, Pallardó FV, Signes-Costa J. Persistent Pulmonary Fibrotic Sequelae in Patients With Telomere Shortening One Year After Severe COVID-19. Arch Bronconeumol. 2024 Jan;60(1):62-64. English, Spanish. doi: 10.1016/j.arbres.2023.11.003. Epub 2023 Nov 10. PMID: 37985282. IF: 8

4 scientific activity

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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: RTC2019-006825-1

Title: *Potencial de la leriplitazona para el tratamiento de enfermedades asociadas a la acumulación de hierro, distrofias y enfermedades neuromusculares*

Principal Investigator: Pilar González Cabo

Funding Body: Ministerio de Ciencia e Innovación

Beneficiary institution: Minoryx Therapeutic SL

Duration: 2020-2023

Total budget: €90.000

THESIS

Thesis title: *Papel de las membranas asociadas a retículo endoplasmático y mitocondria (MAMS) en la fisiopatología celular de la ataxia de Friedrich y su relevancia como diana terapéutica*

Doctoral candidate: Laura Robles Rodríguez

Director(s): Federico Pallardo Calatayud and María Pilar González Cabo

Date of the defense: 20/01/2023

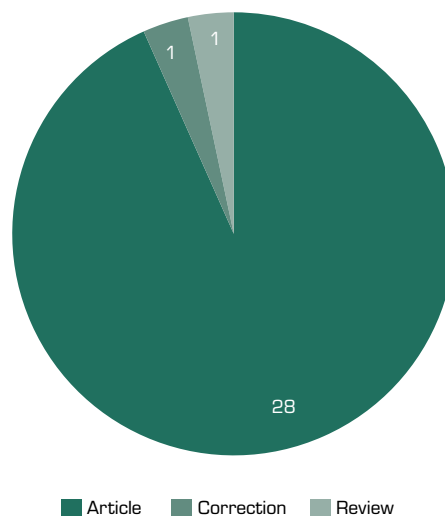
Grade: Sobresaliente “cum laude”

Quality recognition/Award: European PhD

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



4 scientific activity

Research Group on Women's Health Consolidated group

Group members

Leading Researchers, R4

Antonio Cano Sánchez. Hospital. University

Juan José Tarín Folgado. University

Recognised Researchers, R2

Loreto Suay Llopis. University.

Staff. Collaborating Researchers

Aitana Monllor Tormos. Hospital

Rocío Belda Montesinos. Hospital

Staff. Nurses

Alicia García Vigara. Hospital

Researchers by categories



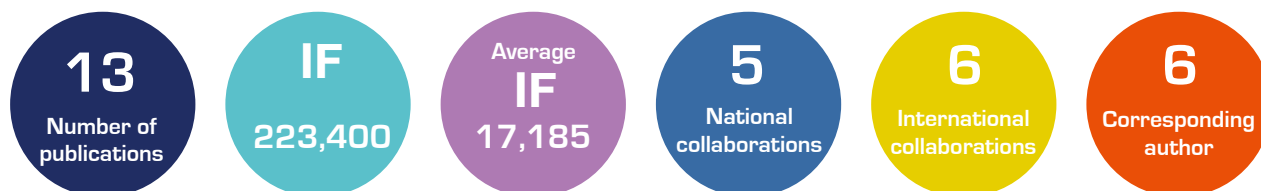
Strategic aims

- 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 EIPAHA, 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

PUBLICATIONS



SELECTED PUBLICATIONS

1. Lederman S, Ottery FD, Cano A, Santoro N, Shapiro M, Stute P, Thurston RC, English M, Franklin C, Lee M, Neal-Perry G. Fezolinetant for treatment of moderate-to-severe

vasomotor symptoms associated with menopause [SKYLIGHT 1]: a phase 3 randomised controlled study. Lancet. 2023 Apr 1;401(10382):1091-1102. doi: 10.1016/S0140-

- 6736[23]00085-5. Epub 2023 Mar 13. PMID: 36924778. IF: 168,9
2. Calaf-Alsina J, Cano A, Guañabens N, Palacios S, Cancelo MJ, Castelo-Branco C, Larrainzar-Garijo R, Neyro JL, Nogues X, Díez-Pérez A. Sequential management of postmenopausal health and osteoporosis: An update. *Maturitas*. 2023 Nov;177:107846. doi: 10.1016/j.maturitas.2023.107846. Epub 2023 Sep 13. PMID: 37738717. IF: 4,9
 3. García-Vigara A, Martín-González V, Carbonell JA, Bauset-Castelló C, Martínez-Aspas A, Monllor-Tormos A, García-Pérez MÁ, Tarín JJ, Cano A. The covid-19 pandemic and the usability of telehealth in a midlife women's health integrated care program. *Maturitas*. 2023 Feb;168:7-12. doi: 10.1016/j.maturitas.2022.10.011. Epub 2022 Nov 4. PMID: 36370490; PMCID: PMC9633107. IF: 4,9
 4. Neal-Perry G, Cano A, Lederman S, Nappi RE, Santoro N, Wolfman W, English M, Franklin C, Valluri U, Ottery FD. Safety of Fezolinetant for Vasomotor Symptoms Associated With Menopause: A Randomized Controlled Trial. *Obstet Gynecol*. 2023 Apr 1;141(4):737-747. doi: 10.1097/AOG.0000000000005114. Epub 2023 Mar 9. PMID: 36897180; PMCID: PMC10026946. IF: 7,2
 5. García-Vigara A, Monllor-Tormos A, García-Pérez MÁ, Tarín JJ, Cano A. Genetic variants of the vitamin D receptor are related to dynapenia in postmenopausal women. *Maturitas*. 2023 May;171:40-44. doi: 10.1016/j.maturitas.2023.03.002. Epub 2023 Mar 24. PMID: 37001478. IF: 4,9

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: 696300 - EURODIET

Title: EURODIET Dietary Patterns in the Ageing European Population: an Interdisciplinary Approach to combat Overweight-Related Metabolic Diseases. The EURODIET project

Principal Investigator: Antonio Cano Sánchez

Funding body: European Commission

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

Duration: 2020-2023

Total budget: €455.915

4 scientific activity

Research Group on Reproductive Medicine Consolidated group

Group members

Leading Researcher, R4

Carlos Simón Vallés

University. Carlos Simón Foundation

Emerging researcher, R2

Aymara Mas Perucho. INCLIVA

Recognised Researchers, R2

Beatriz Rosón Burgo. Carlos Simón Foundation

Inmaculada Moreno Gimeno. Carlos Simón Foundation

Marcos Parras Moltó. Carlos Simón Foundation

María Cristina Carbajo García. University

María Teresa Cordero Cucart. Carlos Simón Foundation

Nerea Castillo Marco. Carlos Simón Foundation

Sara López Martínez. Carlos Simón Foundation

Stuart P. Atkinson. Carlos Simón Foundation

Tamara Garrido Gómez. Carlos Simón Foundation

Xavier Santamaría Costa. Carlos Simón Foundation

First Stage Researchers, R1

Alba Machado López. Carlos Simón Foundation

Bruno Tosón. INCLIVA

Irene Muñoz Blat. INCLIVA

José Pascual Serrano Serrano. Carlos Simón Foundation

Marta Gonzalez Monfort. Carlos Simón Foundation

Paula Punzón Jiménez. INCLIVA

Sandra Boldú Fernández. AECC

Researchers by categories



Researchers financed by competitive public calls or networks



Staff. Technicians

Alba Vives Gómez. Carlos Simón Foundation

Ángela Santonja Climent. Carlos Simón Foundation

Esther Lara Cuesta. INCLIVA

Esther Tercero Atencia. Carlos Simón Foundation

Irene Pérez Díez. Carlos Simón Foundation

Jaime Llera Oyola. Carlos Simón Foundation

María Lloret Pérez. Carlos Simón Foundation

Marta Gálvez Diezma. Carlos Simón Foundation

Vallivana Rodrigo Casares. Carlos Simón Foundation

Yolanda Castelló Martínez. Carlos Simón Foundation

Staff. Administrative assistants

Adrián González Fernández. INCLIVA

Jaime Herrero Hernández. Carlos Simón Foundation

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

- 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
- 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

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.

PUBLICATIONS



SELECTED PUBLICATIONS

1. Domingo-Muelas A, Skory RM, Moverley AA, Ardestani G, Pomp O, Rubio C, Tetlak P, Hernandez B, Rhon-Calderon EA, Navarro-Sanchez L, Garcia-Pascual CM, Bissiere S, Bartolomei MS, Sakkas D, Simon C, Plachta N. Human embryo live imaging reveals nuclear DNA shedding during blastocyst expansion and biopsy. *Cell*. 2023 Jul 20;186(15):3166-3181.e18. doi: 10.1016/j.cell.2023.06.003. PMID: 37413989. IF: 64,5
2. Moreno I, Capalbo A, Mas A, Garrido-Gomez T, Roson B, Poli M, Dimitriadis E, Santamaria X, Vilella F, Simon C. The human periconceptional maternal-embryonic space in health and disease. *Physiological Reviews*. 2023 Jul 1;103(3):1965-2038. doi: 10.1152/physrev.00050.2021. PMID: 36796099. IF: 33,6
3. Santamaria X, Roson B, Perez-Moraga R, Venkatesan N, Pardo-Figueroa M, Gonzalez-Fernandez J, Llera-Oyola J, Fernandez E, Moreno I, Salumets A, Vankelecom H, Vilella F, Simon C. Decoding the endometrial niche of Asherman's Syndrome at single-cell resolution. *Nature Communications*. 2023 Sep 21;14(1):5890. doi: 10.1038/s41467-023-41656-1. PMID: 37735465. IF: 16,6
4. Bolumar D, Moncayo-Arlandi J, Gonzalez-Fernandez J, Ochando A, Moreno I, Monteagudo-Sanchez A, Marin C, Diez A, Fabra P, Checa M, Espinos J, Gardner D, Simon C, Vilella F. Vertical transmission of maternal DNA through extracellular vesicles associates with altered embryo bioenergetics during the periconception period. *eLife*. 2023 Dec 27;12:RP88008. doi: 10.7554/eLife.88008. PMID: 38149847. IF: 7,7
5. Caroselli S, Figliuzzi M, Picchetta L, Cogo F, Zambon P, Pergher I, Girardi L, Patassini C, Poli M, Bakalova D, Cimadomo D, Findikii N, Coban O, Serdarogullari M, Favero F, Bortolato S, Anastasi A, Capodanno F, Gallinelli A, Brancati F, Rienzi L, Ubaldi FM, Jimenez Almazan J, Blesa Jarque D, Miravet Valenciano J, Rubio C, Simon C, Capalbo A. Improved clinical utility of preimplantation genetic testing through the integration of ploidy and common pathogenic microdeletions analyses. *Human Reproduction*. 2023 Apr 3;38(4):762-775. doi: 10.1093/humrep/dead033. PMID: 36824049. IF: 6,1

4 scientific activity

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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: PI20/00942

Title: *Desarrollo de un modelo predictivo para el diagnóstico diferencial temprano de leiomiomas y leiomiomas uterinos*

Principal Investigator: Aymara Mas Perucho

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

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2021-2023

Total budget: €99.825

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: GA m²:101080219-2

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

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

THESIS

Thesis title: Molecular investigation on the etiology of preeclampsia and new strategies for its early diagnosis

Doctoral candidate: Nerea Castillo Marco

Director(s): Carlos Simón Vallés, Tamara Garrido Gómez

Date of the defense: 20/06/2023

Grade: Sobresaliente "cum laude"

Quality recognition/Award: European PhD

scientific activity

Research Group on Therapies Against Endometriosis and Endometrial Cancer Emerging group

Group members

Leading Researcher, R4

Raúl Gómez Gallego

University

First Stage Researchers, R1

Ana Isabel Santos Llamas. INCLIVA

Víctor Rodríguez García. INCLIVA

Staff. Collaborating Researchers

Lesley Escrivá Ardid. INCLIVA

César Lizán Tudela. Hospital. University

Francisco José Bonilla Bartret. Hospital. University

María José Fernández Ramírez. Hospital. University

Researchers by categories



Researchers financed by
competitive public calls or networks

Staff. Technician

Carles Antúnez Muñoz. INCLIVA

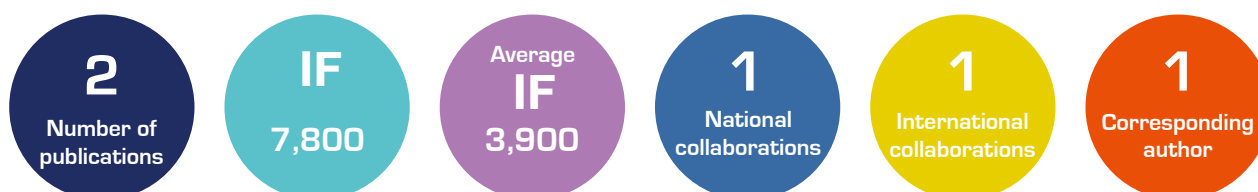
Strategic aims

- 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

- Dysregulation of the angiogenic component in the appearance and maintenance of endometriosis
- Development of animal models of pain and infertility associated with endometriosis and testing of the therapeutic role of immunomodulators in them
- Early non-invasive diagnosis of endometriosis through combined analysis of multiple biomarkers

PUBLICATIONS



4 scientific activity

SELECTED PUBLICATIONS

1. Tejada MA, Antunez C, Nunez Badinez P, De Leo B, Saunders PT, Vincent K, Cano A, Nagel J, Gomez R. Rodent animal models of endometriosis-associated pain: unmet needs and resources available for improving translational research in endometriosis. *International Journal of Molecular Sciences*. 2023 Jan 26;24(3):2422. doi: 10.3390/ijms24032422. PMID: 36768741. IF: 5,6
2. Tudela C, Sáiz I, de Velasco L, Navarro L, Comellas M, Pérez-Sádaba F, Lizán L. The perspective of patients and health professionals on the prioritization of assisted reproductive techniques. The PRIOFER Study. *Patient Preference and Adherence*. 2023 Oct 30;17:2641-2653. doi: 10.2147/PPA.S421041. PMID: 37927341. IF: 2,2

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: 777500-IMI-PainCare

Title: Improving the care of patients suffering from acute or chronic pain

Principal Investigator: Raúl Gómez Gallego

Funding body: European Commission

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

Duration: 2018-2023

Total budget: €257.066,25

Reference: PI20/D1835

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

Total budget: €98.010

THESIS

Thesis title: *Efecto terapéutico del compuesto BO-110 en un modelo animal de leiomioma*

Doctoral candidate: Irene Juárez Pallarés

Director(s): Raúl Gómez Gallego, Antonio Pellicer Martínez

Date of the defense: 13/06/2023

Grade: Sobresaliente "cum laude"

Research Group on Maternal Fetal Communication Emerging group

Group members

Leading Researcher, R4

Felip Vilella Mitjana. INCLIVA

Established Researcher, R3

Francisco Raga Baixauli. Hospital. University

Recognised Researchers, R2

Ana Monteagudo Sánchez. Carlos Simón Foundation

Diego Amorós Cerdán. Carlos Simón Foundation

Javier Moncayo Arlandi. Carlos Simón Foundation

First Stage Researcher, R1

Javier González Fernández. INCLIVA

Staff. Technicians

Ana Ochando Fernández. Carlos Simón Foundation

Anna Quirant Pellín. Carlos Simón Foundation

Neus Puig López. INCLIVA

Sofía Zaragoza Martínez. Carlos Simón Foundation

Researchers by categories



Researchers financed by competitive public calls or networks



Strategic aims

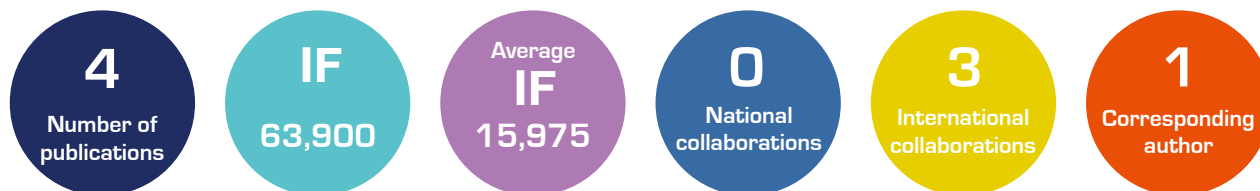
- Project origin of diseases: functional capacity of miRNAs secreted into endometrial fluid in obese and type 2 diabetic patients to determine if they are capable of modifying mouse embryos transcriptomically and/or epigenetically
- Project Transcriptomic and epigenetic modifications in human embryos: 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

Main lines of research

- Study of endometrial receptivity, search for new minimally invasive methods for predicting endometrial receptivity
- Maternal-Fetal Communication

4 scientific activity

PUBLICATIONS



SELECTED PUBLICATIONS

1. Moreno I, Capalbo A, Mas A, Garrido-Gomez T, Roson B, Poli M, Dimitriadis E, Santamaria X, Vilella F, Simon C. The human periconceptional maternal-embryonic space in health and disease. *Physiological Reviews*. 2023 Jul 1;103(3):1965-2038. doi: 10.1152/physrev.00050.2021. PMID: 36796099. IF: 33,6
2. Santamaria X, Roson B, Perez-Moraga R, Venkatesan N, Pardo-Figueroa M, Gonzalez-Fernandez J, Llera-Oyola J, Fernandez E, Moreno I, Salumets A, Vankelecom H, Vilella F, Simon C. Decoding the endometrial niche of Asherman's Syndrome at single-cell resolution. *Nature Communications*. 2023 Sep 21;14(1):5890. doi: 10.1038/s41467-023-41656-1. PMID: 37735465. IF: 16,6
3. Bolumar D, Moncayo-Arlandi J, Gonzalez-Fernandez J, Ochando A, Moreno I, Monteagudo-Sanchez A, Marin C, Diez A, Fabra P, Checa M, Espinos J, Gardner D, Simon C, Vilella F. Vertical transmission of maternal DNA through extracellular vesicles associates with altered embryo bioenergetics during the periconception period. *eLife*. 2023 Dec 27;12:RP88008. doi: 10.7554/eLife.88008. PMID: 38149847. IF: 7,7
4. Gonzalez Fernandez J, Moncayo Arlandi J, Ochando A, Simon C, Vilella F. The role of extracellular vesicles in intercellular communication in human reproduction. *Clinical Science*. 2023 Feb 14;137(3):281-301. doi: 10.1042/CS20220793. PMID: 36762584. IF: 6

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: PI21/00528

Title: *Caracterización transcriptómica de la implantación embrionaria humana a nivel de célula única usando un endometrio 3D en un chip de microfluídica*

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: CIAICO/2022/242

Title: *Identificación de células progenitoras en el tejido endometrial humano*

Principal Investigator: Felip Vilella Mitjana

Funding Body: *Conselleria de Educación, Universidades y Empleo*

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

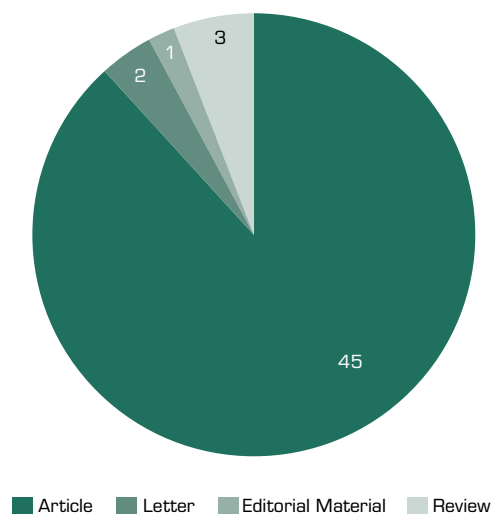
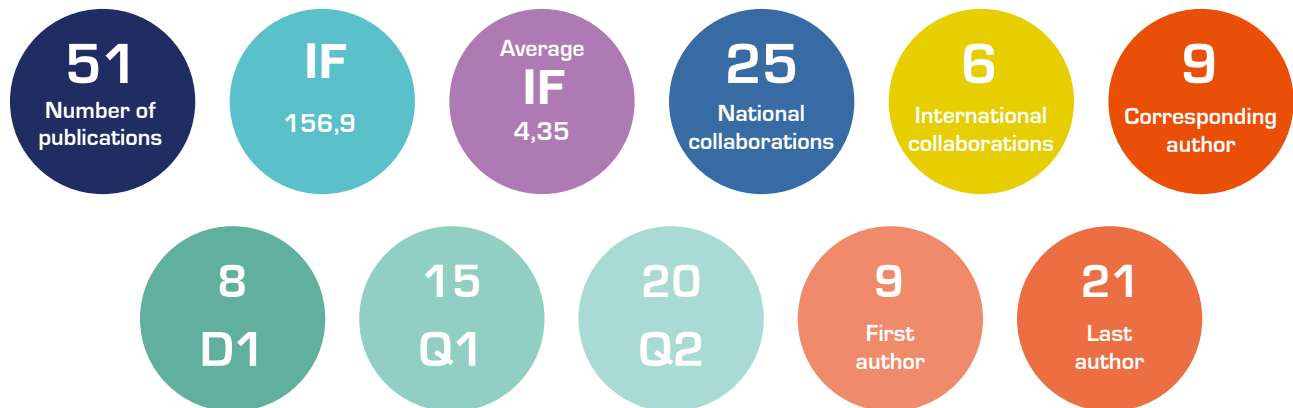
Duration: 2023-2025

Total budget: €90.000

4.3.5 Associated Clinical Groups Area

Groups

Research Group on Research in Care. INVESTENF-INCLIVA
 Associated Clinical Group in Urology
 Associated Clinical Group in Digestive Medicine
 Associated Clinical Group in Otorhinolaryngology
 Associated Clinical Group in Traumatology and Orthopedics
 Associated Clinical Group in Neurology
 Associated Clinical Group in Pharmacy



4 scientific activity

Research Group on Research in Care. INVESTENF-INCLIVA Clinical Associated group

Group members

Leading Researcher, R4

M^a José Gastaldo Zaragoza. Hospital

Recognised Researchers, R2

Antonio Martínez Sabater. Hospital. University

Iván Julián Rochina. Hospital. University

Montserrat Cañabate Ros. Hospital. University

Pablo García Molina. University

Evelin Balaguer López. Hospital. University

Staff. Nurses

Ana Bela Espinosa Briones. Hospital

Laura Pla Marzo. Hospital

M^a Ángeles Montal Navarro. Hospital. University

M^a Carmen Barberá Ventura. Hospital

M^a Carmen Rodríguez Dolz. Hospital. University

M^a Dolores Cantero López. Hospital

M^a Luisa Muñoz Illescas. Hospital

M^a Pilar Bernabéu Adrián. Hospital

M^a Victoria Orejón Lagunas. Hospital

Nuria Garrido Zafra. University

Sonia Mora Navarro. Hospital

Researchers by categories

R2
5

R4
1

STAFF
11

Staff. Technician

David Palanca Broseta. Hospital

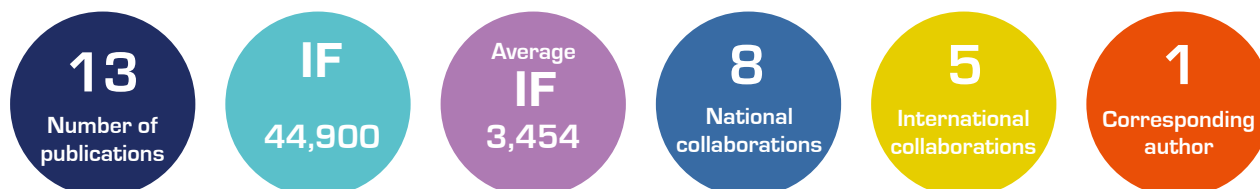
Strategic aims

- 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

- Child and adolescent health care
- Skin care and skin integrity
- Mental Health Care
- Care in aging, fragility and chronicity

PUBLICATIONS



SELECTED PUBLICATIONS

1. Buck Sainz-Rozas P, Casal Angulo C, García Molina P. Quality assessment in initial paediatric trauma care: Systematic review from prehospital care to the paediatric intensive care unit. *Nurs Crit Care*. 2023 Nov;28(6):1143-1153. doi: 10.1111/nicc.12970. Epub 2023 Aug 24. PMID: 37621180. IF: 3
2. Sancho-Cantus D, Cubero-Plazas L, Privado J, García-Iturrospe EJA, Cañabate Ros M, Navarro-Illana E, Ortí JER. Spanish adaptation and validation of the ALS Depression Inventory-12 (ADI-12) in patients with Amyotrophic Lateral Sclerosis. *Arch Med Res*. 2024 Jan;55(1):102936. doi: 10.1016/j.arcmed.2023.102936. Epub 2023 Dec 22. PMID: 38141272. IF: 7,7
3. Brognara L, Sempere-Bigorra M, Mazzotti A, Artioli E, Julián-Rochina I, Cauli O. Wearable sensors-based postural analysis and fall risk assessment among patients with diabetic foot neuropathy. *J Tissue Viability*. 2023 Nov;32(4):516-526. doi: 10.1016/j.jtv.2023.10.002. Epub 2023 Oct 13. PMID: 37852919. IF: 2,5
4. Sempere-Bigorra M, Brognara L, Julian-Rochina I, Mazzotti A, Cauli O. Relationship between deep and superficial sensitivity assessments and gait analysis in diabetic foot patients. *Int Wound J*. 2023 Oct;20(8):3023-3034. doi: 10.1111/iwj.14178. Epub 2023 Apr 14. PMID: 37057818; PMCID: PMC10502296. IF: 3,1
5. Domenech-Briz V, Gea-Caballero V, Czaplá M, Chover-Sierra E, Juárez-Vela R, Santolalla Arnedo I, Villanueva-Blasco VJ, Sánchez-González JL, Martínez-Sabater A. Importance of nutritional assessment tools in the critically ill patient: A systematic review. *Front Nutr*. 2023 Jan 30;9:1073782. doi: 10.3389/fnut.2022.1073782. PMID: 36793999; PMCID: PMC9923005.

THESIS

Thesis title: *Adaptación transcultural y validación de tres scores para la detección de riesgo de desnutrición pediátrica durante la hospitalización (PNRS, STAMP y STRONGkids). Estimación de la incidencia de desnutrición en nuestro medio*

Doctoral candidate: Evelin Balaguer López

Director(s): Cecilia Martínez Costa and Francisco Núñez Gómez

Date of the defense: 24-02-2023

Grade: Sobresaliente "cum laude"

4 scientific activity

Clinical Associated Group in Urology Clinical Associated group

Group members

Leading Researcher, R4

José Martínez Jabaloyas. Hospital. University

Recognised Researcher, R2

Jorge Panach Navarrete. Hospital. University

Staff. Collaborating Researchers

Ana Castelló Porcar. Hospital

Francisco García Morata. Hospital. University

Marcos Antonio Lloret Durá. Hospital

José Pascual Gimeno Ferrer.

Researchers by categories



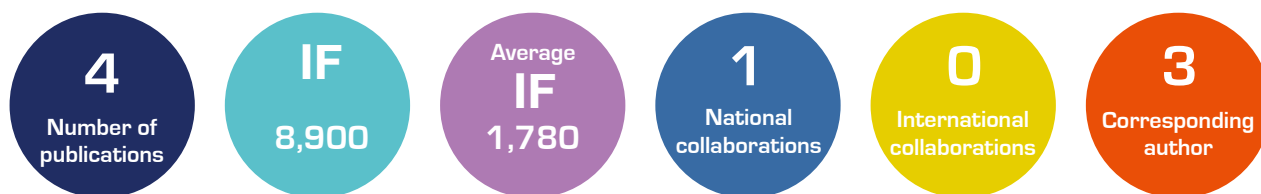
Strategic aims

- 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

- Usefulness of metabolomic analysis in the diagnosis and prognosis of prostate cancer
- Liquid biopsy in bladder cancer

PUBLICATIONS



SELECTED PUBLICATIONS

1. Negueroles-García M, Panach-Navarrete J, Valls-González L, Martínez-Jabaloyas JM. Temporal suprapubic diversion with ureteral catheter in a premature patient. An Pediatr [Engl Ed]. 2023 Mar;98(3):237-238. doi: 10.1016/j.anpede.2023.02.005. Epub 2023 Feb 24. PMID: 36841676. IF: 2,1
2. Panach-Navarrete J, Devís-Peiró A, Lloret-Durà MA, Sánchez-Gimeno S, Murcia-Díez E, Martínez-Jabaloyas JM. Quality of life in patients with non-muscle invasive bladder tumor undergoing adjuvant intravesical treatment. Actas Urol Esp [Engl Ed]. 2023 Jul-Aug;47(6):360-368. English, Spanish. doi: 10.1016/j.acuroe.2023.02.003. Epub 2023 Feb 4. PMID: 36746347. IF: 1,1
3. Borque-Fernando Á, Gaya JM, Esteban-Escañó LM, Gómez-Rivas J, García-Baquero R, Agreda-Castañeda F, Gallioli A, Verri P, Ortiz-Vico FJ, Amir-Nicolau BF, Osman-Garcia I, Gil-Martínez P, Arrabal-Martín M, Gómez-Ferrer Lozano Á, Campos-Juanatey F, Guerrero-Ramos F, Rubio-Briones J; Grupo Cooperativo de Registro Nacional Cáncer Pene (PIEM/AEU/2014/0002). Epidemiology, Diagnosis and Management of Penile Cancer: Results from the Spanish National Registry of Penile Cancer. Cancers [Basel]. 2023

Jan 19;15(3):616. doi: 10.3390/cancers15030616. PMID: 36765574; PMCID: PMC9913503. IF: 5,2

4. Panach-Navarrete J, Lloret-Durà MA, Sánchez-Gimeno S, Murcia-Díez E, Martínez-Jabaloyas JM. Single-Use Versus Reusable Cystoscope for Ureteral Stent Removal: A Comparative Study of Perceived Pain and Procedure Times. Arch Esp Urol. 2023 Feb;76(1):65-69. doi: 10.56434/j.arch.esp.urol.202376016. PMID: 36914421. IF: 0,5

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: INVEST/2022/60

Title: *Desarrollo de un método que permita la generación de interfaces gráficas de usuario centradas en el usuario que sean usables y accesibles para cualquier usuario*

Principal Investigator: Jorge Panach Navarrete

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

4 scientific activity

Clinical Associated Group in Digestive Medicine Clinical Associated group

Group members

Leading Researchers, R4

Isabel Pascual Moreno. Hospital. University

Established Researchers, R3

Andrés Peña Aldea. Hospital

Joan Tosca Cuquerella. Hospital

Marta Maia Boscá Watts. Hospital

Paloma Lluch García. Hospital. University

Vicente Sanchiz Soler. Hospital

Recognised Researchers, R2

Marta Ponce Romero. Hospital

Pilar Más Mercader. Hospital

First Stage Researchers, R1

Carles Suria Bolufer. Hospital. Hospital

Rosana Villagrasa Manzano. Hospital

Ana Sanahuja Martínez. Hospital

María Capilla Lozano. INCLIVA

Staff. Collaborating Researchers

Consuelo Gálvez Castillo. Hospital

Pablo Navarro Cortés. Hospital.

Rosario Antón Ausejo. Hospital

Sherly Hernández Taveras. Hospital

Lorena Puchades Arnau. Hospital

Staff. Technicians

Desamparados Giménez Choví. INCLIVA

Lorena Boronat Cifre. INCLIVA

Staff. Nurses

Amparo Ruiz Álvarez. Hospital

Nuria Casasús Moya. Hospital

Researchers by categories



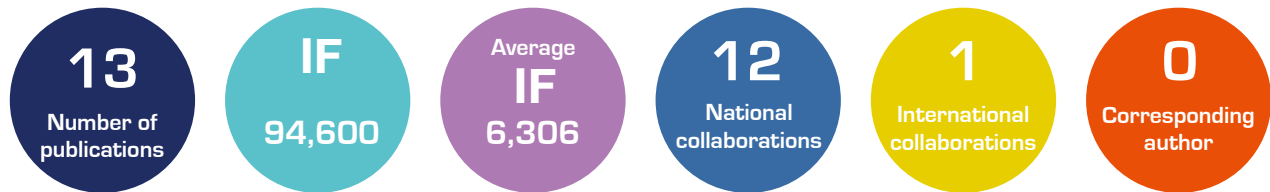
Strategic aims

- 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

- Stem cell treatment in fistulizing inflammatory bowel disease (IBD)
- Local biologic treatment of IBD
- Ano-rectal function in IBD
- Inflammatory markers and immune regulation in IBD
- Natural history of acute and chronic pancreatitis
- Evaluation of new treatment strategies in acute and chronic pancreatitis
- Caustic ingestion: risk stratification and diagnostic modalities
- Blood Immune profile in liver cancer and cirrhosis
- Liver disease: alcohol, virus and autoimmune
- Evaluation of different therapies in hepatocarcinoma
- Studies in healthy population of the physiological motor characteristics of the upper and lower digestive tract
- Endoscopic treatment in Zencker diverticulum and pancreatic disease
- Therapeutic endoscopic ultrasound: different drainages and gastro-jejunostomy with lumen apposing metal stents
- Evaluation of prognostic factors in acute and chronic pancreatitis

PUBLICATIONS



SELECTED PUBLICATIONS

1. Davis González MR, Ballester MP, Romero-González E, Sánchez-Pardo AM, Martí-Aguado D, Tosca J, Suria C, Antón Ausejo R, Pascual Moreno I, Planelles Silvestre MD, Mínguez Pérez M, Bosca-Watts MM. Biological treatment interruption in inflammatory bowel disease: Motivation and predictive factors. *Gastroenterol Hepatol*. 2023 Nov;46(9):671-681. English, Spanish. doi: 10.1016/j.gastrohep.2022.10.021. Epub 2022 Nov 11. PMID: 36375696. IF: 1,9
2. Moragrega AB, Gruevska A, Fuster-Martínez I, Benedicto AM, Tosca J, Montón C, Victor VM, Esplugues JV, Blas-García A, Apostolova N. Anti-inflammatory and immunomodulating effects of rilpivirine: Relevance for the therapeutics of chronic liver disease. *Biomed Pharmacother*. 2023 Nov;167:115537. doi: 10.1016/j.biopha.2023.115537. Epub 2023 Sep 20. PMID: 37738799. IF: 7,5
3. Casáns-Tormo I, Guijarro-Rosaleny J, Lluch-García P, Rodríguez-Parra H, Roselló-Keränen S, Asensio-Valero L. Evaluation of results after 112 radioembolizations with 90Y-microspheres. *Rev Esp Med Nucl Imagen Mol (Engl Ed)*. 2023 Jul-Aug;42(4):255-264. doi: 10.1016/j.remnie.2023.05.004. Epub 2023 Jun 1. PMID: 37269983. IF: 1,2
4. Bazaga S, García-Alonso FJ, Aparicio Tormo JR, Martínez Moreno B, Sanchiz V, Suria C, García-Sumalla A, Gornals JB, Chavarría C, Loras C, García-Fernández FJ, Terán Á, Vázquez-Sequeiros E, Pedraza Sanz R, Pérez-Carazo L, Súbtil JC, Pérez-Millán A, Uceda Porta F, Busto Bea V, de la Serna-Higuera C, Pinto García I, Colán-Hernández J, Huertas C, Guarnier-Argente C, Perez-Miranda M; RNPAL (Registro nacional de prótesis de aposición luminal [national lumen-apposing metal stent registry]) study group. Endoscopic removal of lumen-apposing metal stents - risk factors for stent embedment, complex removals, and adverse events: analysis from a multicenter prospective case series. *Endoscopy*. 2023 Jul;55(7):591-598. doi: 10.1055/a-2030-4158. Epub 2023 Mar 7. Erratum in: *Endoscopy*. 2023 Jul;55(7):C8. doi: 10.1055/a-2215-2453. PMID: 36882089. IF: 11,5
5. Peyrin-Biroulet L, Rahier JF, Kirchgessner J, Abitbol V, Shaji S, Armuzzi A, Karmiris K, Gisbert JP, Bossuyt P, Helwig U, Burisch J, Yanai H, Doherty GA, Magro F, Molnar T, Löwenberg M, Halfvarson J, Zagorowicz E, Rousseau H, Baumann C, Baert F, Beaugerie L; I-CARE Collaborator Group. I-CARE, a European Prospective Cohort Study Assessing Safety and Effectiveness

4 scientific activity

of Biologics in Inflammatory Bowel Disease. Clin Gastroenterol Hepatol. 2023 Mar;21(3):771-788.e10. doi: 10.1016/j.cgh.2022.09.018. Epub 2022 Sep 22. PMID: 36152897. IF: 12,6

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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

Title: Estudio nacional en enfermedad inflamatoria intestinal sobre determinantes genéticos y ambientales (Estudio ENEIDA)

Principal Investigator: Isabel Pascual Moreno

Funding Body: Janssen-Cilag

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2023

Total Budget: €17.000

Title: Influencia de la actividad inflamatoria en la función anorrectal de los pacientes con Enfermedad Inflamatoria Intestinal

Principal Investigator: Ana Sanahuja Martínez

Funding Body: Sociedad Valenciana de Patología Digestiva

Beneficiary Institution: Fundación Investigación Hospital Clínico Universitario de Valencia

Duration: 2021-2023

Total Budget: €5.000

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

Clinical Associated Group in Otorhinolaryngology

Clinical Associated group

Group members

Leading Researcher, R4

Jaime Marco Algarra
Hospital. University

Staff. Collaborating Researchers

Antonio Morant Ventura. Hospital. University
Ignacio Plá Gil. Hospital. University
M^a Paz Martínez Beneyto. Hospital. University
Miguel Orts Alborch. Hospital. University
Tomás Pérez Carbonell. Hospital

Researchers by categories



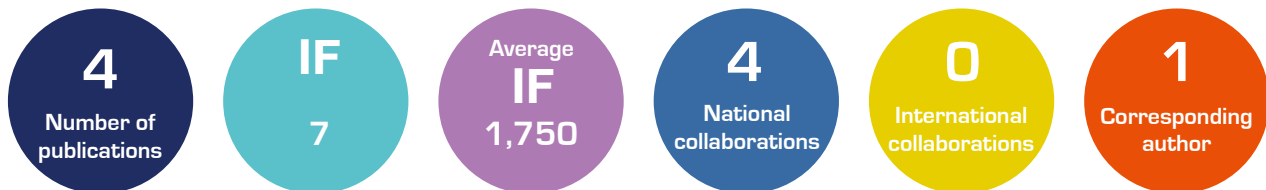
Strategic aims

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

- 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
- Neurophysiological function of stimulation with a cochlear implant depending on the position of the electrode guide
- Study of binaurality acquired through implantable devices

PUBLICATIONS



SELECTED PUBLICATIONS

1. Sandoval M, Navarro J, Martínez-Beneyto P, Herrera M, Alfaro J, Lopez F, Marco J, Plaza G. Balloon Eustachian tuboplasty for obstructive Eustachian tube dysfunction: retrospective multicentre cohort study of 248 patients. *European Archives of Oto-Rhino-Laryngology*. 2023 Sep;280(9):4045-4055. doi: 10.1007/s00405-023-07906-0. PMID: 36976369. IF: 2,6
2. Pérez-Carbonell T, Orts-Alborch M, Pérez-Guillen V, Tenias-Burillo J, Pla-Gil I, Marco-Algarra J, Pérez-Garrigues H. A longitudinal study of unilateral Meniere's disease and clinical evolutionary models. *Journal of Laryngology and*

4 scientific activity

Otology. 2023 Jun;137(6):629-636. doi: 10.1017/S0022215122001773. PMID: 35924453. IF: 1,7

3. Perez-Carbonell T, Orts-Alborch M, Perez-Guillen V, Pla-Gil I, Tenias-Burillo JM, Marco-Algarra J, Perez-Garrigues H. Bilateral Meniere's disease according to its form of debut: synchronous and metachronous disease. Journal of Laryngology and Otology. 2023 Jul;137(7):782-788. doi: 10.1017/S0022215122002262. PMID: 36200516. IF: 1,7
4. Manrique M, Batuecas A, Cenjor C, Ferran S, Gomez J, Lorenzo A, Marco J, Matino E, Morant A, Morera C, Perez N, Polo R, Ramos A, Sanchez S, Nunez F. Presbycusis and balance disorders in the elderly. Bibliographical review of ethiopathogenic aspects, consequences on quality of life and positive effects of its treatment. Acta Otorrinolaringologica Espanola. 2023 Mar-Apr;74(2):124-132. doi: 10.1016/j.otoeng.2023.03.002. PMID: 36906066. IF: 1

THESIS

Thesis title: *El uso del implante coclear en hipoacusia unilateral e hipoacusia asimétrica*

Doctoral candidate: María Aragonés Redó

Director[s]: Jaime Marco Algarra, Ignacio Pla Gil

Date of the defense: 13/01/2023

Grade: Sobresaliente "cum laude"

Thesis title: *Análisis de la variación y estabilización de los parámetros de programación del implante coclear en relación al tiempo post-implantación*

Doctoral candidate: Clara Espina González

Director[s]: Ignacio Pla Gil, Antonio Morant Ventura, Jaime Marco Algarra

Date of the defense: 30/05/2023

Grade: Sobresaliente "cum laude"

scientific activity

Clinical Associated Group in Traumatology and Orthopedics

Clinical Associated group

Group members

Leading Researcher, R4

Antonio Silvestre Muñoz. Hospital. University

Established Researcher, R3

Pablo Renovell Ferrer. Hospital. University

Rosa María Cibrián Ortiz de Anda. University

Recognised Researchers, R2

José Albelda Vitoria. INCLIVA

Laura Pino Almero. Hospital

Rosario Salvador Palmer. University

Researchers by categories



Staff. Collaborating Researcher

José Expósito Ollero. INCLIVA

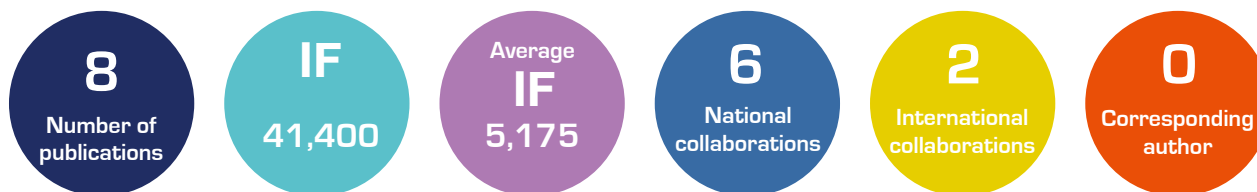
Strategic aims

- 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 oxidative stress and its relationship with idiopathic femoral osteonecrosis
- Diagnosis and monitoring of the diabetic foot using infrared thermography
- Protection strategies against osteoarticular deterioration
- Sequentiality of muscle contraction: importance in the early detection of lumbopelvic dysfunction, cervical and shoulder girdle
- Cellular mechanisms to regulate the inflammatory response in chronic inflammatory diseases
- Robotics for precision in orthopedic reconstructive surgery
- Rehabilitation to improve results after a randomized prospective study of total knee arthroplasty
- Local mechanical stimulation of mesenchymal cells for osteogenic and chondrogenic differentiation in regenerative medicine

PUBLICATIONS



SELECTED PUBLICATIONS

1. López-Blanch R, Salvador-Palmer R, Oriol-Caballo M, Moreno-Murciano P, Dellinger RW, Estrela JM, Obrador E. Nicotinamide riboside, pterostilbene and ibudilast protect motor neurons and extend survival in ALS mice. *Neurotherapeutics*. 2024 Jan;21(1):e00301. doi: 10.1016/j.neurot.2023.10.011. Epub 2023 Dec 19. PMID: 38241160; PMCID: PMC10903100. IF: 5,7
2. Obrador E, Salvador-Palmer R, Pellicer B, López-Blanch R, Sirerol JA, Villaescusa JI, Montoro A, Dellinger RW, Estrela JM. Combination of natural polyphenols with a precursor

4 scientific activity

of NAD⁺ and a TLR2/6 ligand lipopeptide protects mice against lethal γ radiation. J Adv Res. 2023 Mar;45:73-86. doi: 10.1016/j.jare.2022.05.005. Epub 2022 May 13. PMID: 35599107; PMCID: PMC10006514. IF: 10,7

3. Obrador E, Jihad-Jebbar A, Salvador-Palmer R, López-Blanch R, Oriol-Caballo M, Moreno-Murciano MP, Navarro EA, Cibrian R, Estrela JM. Externally Applied Electromagnetic Fields and Hyperthermia Irreversibly Damage Cancer Cells. Cancers (Basel). 2023 Jun 29;15(13):3413. doi: 10.3390/cancers15133413. PMID: 37444524; PMCID: PMC10340829. IF: 5,2
4. Sendra-Pérez C, Sanchez-Jimenez JL, Marzano-Felisatti JM, Encarnación-Martínez A, Salvador-Palmer R, Priego-Quesada JL. Reliability of threshold determination using portable muscle oxygenation monitors during exercise testing: a systematic review and meta-analysis. Sci Rep. 2023 Aug 4;13(1):12649. doi: 10.1038/s41598-023-39651-z. PMID: 37542055; PMCID: PMC10403529. IF: 4,6
5. Obrador E, Salvador-Palmer R, López-Blanch R, Oriol-Caballo M, Moreno-Murciano P, Estrela JM. Survival Mechanisms of Metastatic Melanoma Cells: The Link between Glucocorticoids and the Nrf2-Dependent Antioxidant Defense System. Cells. 2023 Jan 26;12(3):418. doi: 10.3390/cells12030418. PMID: 36766760; PMCID: PMC9913432. IF: 6

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Title: *Evaluación de la eficiencia de la metodología para el seguimiento de pacientes con prótesis de rodilla. Herramienta de detección de predictores del deficiente resultado funcional e insatisfacción de los pacientes tras la artroplastia de rodilla.*

Principal Investigator: Antonio Silvestre and Rafael Tabarés

Funding Body: *Mutua Madrileña*

Beneficiary Institution: *Incliva*

Duration: 2020-2023

Total Budget: €65.000

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

THESIS

Thesis title: *Creación de un instrumento de decisión objetivo para la indicación de tratamiento quirúrgico versus conservador en la fractura de cadera*

Doctoral candidate: Eduardo Javier Orts García

Director[s]: Juan Antonio Avellana Zaragoza, Antonio Silvestre Muñoz, Francisco Gomar Sancho

Date of the defense: 16/05/2023

Grade: Sobresaliente “*cum laude*”

Thesis title: *Aplicación del análisis de textura a partir de imágenes de rm convencional en el estudio de pacientes con lumbalgia mecánica crónica*

Doctoral candidate: Vicente-Jose Climent Peris

Director[s]: Antonio Silvestre Muñoz, Julio Doménech Fernández, Luis Martí Bonmatí

Date of the defense: 03/11/2023

Grade: Sobresaliente “*cum laude*”

Clinical Associated Group in Neurology

Clinical Associated group

Group members

Leading Researcher, R4

José Miguel Láinez Andrés
Hospital. University

Recognised Researchers, R2

Alejandro Ponz de Tienda. Hospital. University
Anna Piera Balbastre. Hospital
Raquel Chamarro Lázaro. Hospital
Rosario Gil Gimeno. Hospital

Staff. Collaborating Researchers

Ana Isabel Pareja Martínez. Hospital
Antonio Salvador Aliaga. Hospital
Begoña López Pesquera. Hospital
David García López. Hospital. INCLIVA
Francisco Gascón Giménez. Hospital
Jésica García Ull. Hospital

Researchers by categories



José Andrés Domínguez Morán. Hospital
José María Salom Juan. Hospital
José Miguel Santonja Llabata. Hospital

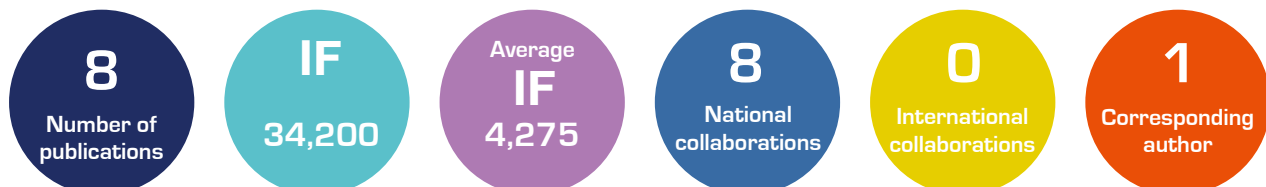
Staff. Nurse

Miriam Iborra Perales. Hospital. INCLIVA

Main lines of research

- Cognitive impairment and dementia
- Cerebrovascular diseases
- Demyelinating diseases
- Epilepsy
- Extrapyrimal pathology
- Pain/headaches

PUBLICATIONS



SELECTED PUBLICATIONS

1. Mendibe Bilbao M, Ezpeleta Echávarri D, Láinez Andrés JM. The SEN and the Spanish model of recertification promoted by the Spanish Federation of Medical and Scientific Associations and its members. Neurologia (Engl Ed). 2023 Sep;38(7):519-520. doi: 10.1016/j.nrleng.2022.09.001. Epub 2022 Sep 29. PMID: 36183954. IF: 3,9
2. Irimia P, Belvis R, González-García N, García-Ull J, Lainez JM. Inequity of access to new migraine treatments. Neurologia

4 scientific activity

[Engl Ed]. 2023 Oct;38(8):599-600. doi: 10.1016/j.nrleng.2022.08.004. Epub 2023 Jul 28. PMID: 37517551. IF: 3,9

3. Muñoz-Vendrell A, Campoy S, Caronna E, Alpuente A, Torres-Ferrus M, Nieves Castellanos C, Olivier M, Campdelacreu J, Prat J, Camiña Muñoz J, Molina Martínez FJ, Mínguez-Olaondo A, Ruibal Salgado M, Santos Lasasosa S, Navarro Pérez MP, Morollón N, López Bravo A, Cano Sánchez LM, García-Sánchez SM, García-Ull J, Rubio-Flores L, Gonzalez-Martinez A, Quintas S, Echavarría Íñiguez A, Gil Luque S, Castro-Sánchez MV, Adell Ortega V, García Alhama J, Berrocal-Izquierdo N, Belvis R, Díaz-Insa S, Pozo-Rosich P, Huerta-Villanueva M. Effectiveness and safety of anti-CGRP monoclonal antibodies in patients over 65 years: a real-life multicentre analysis of 162 patients. *J Headache Pain*. 2023 Jun 2;24(1):63. doi: 10.1186/s10194-023-01585-2. PMID: 37268904; PMCID: PMC10236648. IF: 7,4
4. Casany-Fernandez R, Gascon-Gimenez F, Matarredona Solaz EJ, Pardo Lozano F, Dominguez-Moran JA, Ferri Ciscar J, Real Collado JT. Letter to the Editor: Remission of Graves' Disease After Initiation of Ocrelizumab in Patients with Multiple Sclerosis. *Thyroid*. 2023 Feb;33(2):267-269. doi: 10.1089/thy.2022.0398. Epub 2022 Dec 13. PMID: 36416241. IF: 6,6
5. Latorre G, González-García N, García-Ull J, González-Oria C, Porta-Etessam J, Molina FJ, Guerrero-Peral AL, Belvis R, Rodríguez R, Bescós A, Irimia P, Santos-Lasasosa S. Diagnosis and treatment of trigeminal neuralgia: Consensus statement from the Spanish Society of Neurology's Headache Study Group. *Neurologia [Engl Ed]*. 2023 Apr 26:S2173-5808(23)00027-5. doi: 10.1016/j.nrleng.2023.04.005. Epub ahead of print. PMID: 37116695. IF: 3,9

Clinical Associated Group in Pharmacy

Clinical Associated group

Group members

Leading Researcher, R4

Manuel Alós Almiñana
Hospital. University

Established Researcher, R3

Teresa Torrecilla Junyent. Hospital

Recognised Researchers, R2

Carmen Carrión Carrión. Hospital. University
Francisco Ferriols Lisart. Hospital. University
Rafael Ferriols Lisart. Hospital. University

Staff. Collaborating Researchers

Carlos Ezquer Garín. INCLIVA
Diego Cano Blanquer. Hospital
Mercedes Jiménez Heredia. Hospital.
Raquel Pardillo Armuña. INCLIVA
Elias Korchi Meziani.
Verónica Guillot Yacyszyn. INCLIVA
José Enrique Muñoz Cebriá. INCLIVA
Eva Del Río Losada. INCLIVA

Researchers by categories



Staff. Nurses

María José Colubi Martínez. INCLIVA
Eva Besalduch Aguilar.
Mónica Ferrer Aguado.
Elena Molina Quesada. INCLIVA

Staff. Technicians

Bárbara Muñoz Ponce. INCLIVA
Mar Mallea Durbán. INCLIVA
Raúl Torrejón Bastante. INCLIVA

Strategic aims

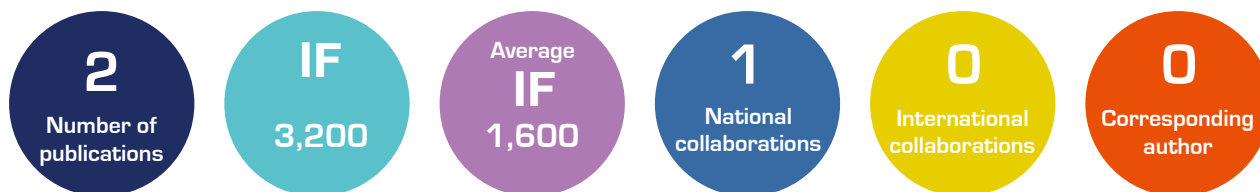
- Pharmacokinetics and Biopharmacy
- Economic evaluation of medicines and health technologies
- Anti-infective optimization program

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 Physico-chemical stability of a new mycophenolate mofetil intravenous solution in polypropylene infusion bag at different storage conditions
- 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 ophthalmic eyedrop formulation at different storage conditions

4 scientific activity

PUBLICATIONS



SELECTED PUBLICATIONS

1. Ezquer-Garin C, Aguilar G, Ferriols-Lisart R, Alos-Almiñana M. Validated HPLC-UV method for amphotericin B quantification in a critical patient receiving AmBisome and treated with extracorporeal replacement therapies. *Biomed Chromatogr.* 2023 Dec;37(12):e5749. doi: 10.1002/bmc.5749. Epub 2023 Sep 20. PMID: 37727118. IF: 1,8
2. Garcia-Molina A, Alós-Almiñana M. Efficacy and marginal cost of treatment with tocilizumab in COVID-19 patients. *Farm Hosp.* 2023 Jan-Feb;47(1):10-15. English, Spanish. doi: 10.1016/j.farma.2022.12.003. Epub 2022 Dec 15. PMID: 36635189; PMCID: PMC9750892. IF: 1,4

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Title: *Evaluación económica en la práctica asistencial del tratamiento del virus de la hepatitis C basado en antivirales de acción directa*

Principal Investigator: Manuel Alós Almiñana and Raquel Pardillo Armuña

Funding Body: Janssen-Cilag

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

Duration: 2023

Total Budget: €12.750

THESIS

Thesis title: *Desarrollo y validación de métodos cromatográficos ajustados a propósito para la monitorización de antimicrobianos de interés clínico. Aplicación a estudios farmacocinéticos*

Doctoral candidate: Carlos Ezquer Garin

Director(s): Maria José Medina Hernández and Laura Escuder Gilbert

Date of the defense: 03/03/2023

Grade: Sobresaliente "cum laude"

4.4 Other scientific contributions from scientific platforms

4.4.1 Biobank

Team

biobanco@incliva.es

PI: Scientific Director:

Antonio Ferrández Izquierdo. 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 2023:

Oncological Node:

- Collection of solid tumors: 39 new sample donations
- Collection of peripheral blood and derivative products in patients suffering from breast cancer (including cases of Aurk-Seom project): 579 new sample donations
- Collections of peripheral blood and derivative products in patients suffering from lung cancer: 295 new sample donations
- Collection of peripheral blood and derivative products in patients suffering from melanoma: 14 new sample donations
- Collection of peripheral blood and derivative products in patients suffering from gastrointestinal cancer (including colorectal, pancreatic and gastric cancer, and cases of TFK project): 1259 new sample donations
- Collection of peripheral blood and derivative products in patients suffering from head and neck tumors: 236 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): 8 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: 6 new sample donations
- Hereditary Cancer Collection: peripheral blood and derivative products in patients suffering from this pathology: 12 new sample donations

Immunological Diseases Node:

- Collection of peripheral blood and derivative products in

patients suffering from Systemic Lupus Erythematosus or other autoimmune diseases: 22 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: no 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): 46 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

4 scientific activity

from ICU: 78 new sample donations

- Collection of peripheral blood and derivative products in patients suffering from Multiple Esclerosis: no new cases
- Collection of peripheral blood and derivative products and urine in standard population (including cases of Obenoutec subcollection): 11 new sample donations
- Collection of peripheral blood and derivative products in patients suffering from COVID-19 disease and follow-up: no new cases
- Collection of peripheral blood and derivative products in patients suffering from Pulmonary Emphysema disease: 34 new sample donations
- COVID-19 Vaccinated Collection; peripheral blood mononuclear cells from standard population vaccinated against COVID-19 disease: 6 new sample donations

Incorporation of new collections within the biobank regime in 2023:

No new sample collections have been incorporated in 2023.

In summary, 2778 new sample donations have been received, 14896 samples have been processed and 61824 aliquots have been stored in 2023 at INCLIVA Biobank facilities from collections within biobank regime.

In addition, the 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 2023. 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: 3 new sample donations
- Renas Study: processing, conservation and shipment of processed 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: processing, conservation and shipment of processed 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 perito-*

neal carcinoma primary ovarian and resistant platinum fallopian tubes. GEICO-1601 ROLANDO: custody of 8 cryoboxes

- European LEGACy Project: processing, conservation and shipment of processed samples for this project: custody of 7 cryoboxes
- ALFAQMEGA/PEGASUS Study: processing, conservation and shipment of processed samples for this clinical trial: custody of 3 cryoboxes
- iPROVE-02 Study: conservation of samples: *Effects on surgical site infection of an individualized perioperative openlung ventilatory strategy with high versus conventional inspiratory oxygen fraction (iPROVE02). 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*: 2 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: *Radio-frequency-assisted pancreatic transection vs endostapler*: 5 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*: 256 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*: 25 sample donations
- WA42293 Study: processing, conservation and shipment of processed samples for the clinical trial: *A Phase 3 Randomized, Double-Blind, Placebo- Controlled Trial to Evaluate the Efficacy and Safety of PRM-151 in Patients with Idiopathic Pulmonary Fibrosis (IPF)*: 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): 42 sample donations

- HIPRA-HH-2 phase IIb Study: processing, conservation and shipment of processed samples for the clinical trial: *A phase IIb, double-blind, randomised, active-controlled, multicentre, non-inferiority trial followed by a phase III, single-arm, open-label trial to assess immunogenicity and safety of a booster vaccination with a recombinant protein RBD fusion dimer candidate (PHH-1V) against SARS-CoV-2 in adults fully vaccinated against COVID-19 followed by an extension period to study a fourth dose administration of PHH-1V: 36 sample donations*
- HIPRA-HH-5 Study: processing, conservation and shipment of processed samples for the clinical trial: *A phase III, open label, single arm, multi-centre, trial to assess the safety and immunogenicity of a booster vaccination with a recombinant protein RBD fusion heterodimer candidate (PHH-1V) against SARS-CoV-2, in adults vaccinated against COVID-19: 33 sample donations*
- 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: 259 sample donations*
- AFM-24-101 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 preliminary efficacy of AFM24 in patients with advanced solid cancers: 3 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: 47 sample donations*
- HFB-200301-01 Study: processing, conservation and shipment of processed samples for the clinical trial: *A phase I, open-label, multi-center; dose escalation and expansion study of HFB200301 (TNFR2 agonist antibody) in adult patients with advanced solid tumors: 40 sample donations*

Incorporation of new collections outside the biobank regime in 2023:

- 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

- IO102-IO103-022 Study: processing, conservation and shipment of processed samples for the clinical trial: *A phase II Multi-Arm (Basket) Trial Investigating the Safety and Efficacy of IO102-IO103 in Combination with Pembrolizumab, as First-line Treatment for Patients with Metastatic Non-Small Cell Lung Cancer (NSCLC), Squamous Cell Carcinoma of Head and Neck (SCCHN), or Metastatic Urothelial Bladder Cancer (mUBC): 3 sample donations*
- SMART Study (University Medical Centre Groningen): processing, conservation and shipment of processed samples for this study: 46 sample donations
- 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: 162 sample donations*
- GOLD Study: custody of external samples for the study: *GOLD O - 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): 6 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: 1 sample donation*
- 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: 14 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: 4 sample donations*
- GB44332_ARNASA Study: processing, conservation and shipment

4 scientific activity

ment 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*: 3 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)*: 2 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*: 7 sample donations
- 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*: 6 sample donations
- 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: 2 sample donations

- 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]: 6 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)*: 3 sample donations

In summary, 1 139 new sample donations have been received, 3675 samples have been processed and 6566 aliquots have been stored in 2023 at INCLIVA Biobank facilities from studies outside biobank regime. In addition, 8563 aliquots have been supplied to these studies in 2023.

Transfer of samples

Project	Ref./Agency	Principal Researcher, Institution	Samples
BBI_10/2020 Identification and analysis of image and circulating biomarkers with prognostic value and response predictor in patients with head and neck squamous cell carcinoma	NA / INCLIVA	Gema Bruixola, HCUV/ INCLIVA	Head and neck tumors: 189 plasma aliquots and 17 DNA aliquots
BBI_03/2020 Usefulness of liquid biopsy and organoids in the management and treatment of pancreatic adenocarcinoma: towards Precision Medicine	NA, Fundación Mutua Madrileña	Maider Ibarrola, INCLIVA	Pancreatic cancer: 1320 plasma aliquots and 35 DNA aliquots
BBI_02/2022 Characterization and approach of minimal residual disease in localized colon cancer: a step towards precision medicine	PI21/00689 / ISCIII	Noelia Tarazona Llaveró, INCLIVA	Gastrointestinal tumors: 40 plasma aliquots and 32 DNA aliquots

BBI_05/2022 Tests based on spike-in peptides and mass spectrometry for the quantification of histones circulating cells and APC protein, for the clinical management of critically ill patients.	DTS21/00193 / ISCIII	José Luis García Giménez, INCLIVA	Standard Population: 34 plasma aliquots
BBI_08/2022 Identification of non-coding RNAs in liquid biopsy with emphasis on exosomes as activity prognosis biomarkers in systemic lupus erythematosus. Physiopathological role in renal damage.	PI21/00249, ISCIII	Raquel Cortés Vergaz / María José Forner, INCLIVA / HCUV	Systemic Lupus Erythematosus: 100 plasma aliquots, 50 serum aliquots, and 50 PBMC aliquots
BBI_10/2022 GEICAM's participation in Confluence Project with the male breast cancer registry (GEICAM/2016-04). Analysis of CMV genetic risk factors using genetic sequencing.	NA / GEICAM, NCI	Marina Pollán Santamaría, ISCIII	Breast cancer: 12 DNA aliquots
BBI_01/2023 Impacto of genomic complexity in the outcome of CLL patients treated with novel targeted therapies: a Spanish real-life study.	PI21/00022, ISCIII	Blanca Espinet Solà, IMIM	Transplantation and Lymphoproliferative Syndromes: 20 blood samples
BBI_02/2023 Clinico-biological and genetic risk factors for thrombosis in myelofibrosis.	PI21/00538, ISCIII	Juan Carlos Hernández Boluda, INCLIVA	No samples delivered
BBI_03/2023 Torquetenovirus in CAR-T therapy: prediction of cytokine release syndrome risk and differential diagnosis with infection.	NA / Fundación Española de Hematología y Hemoterapia. Gilead Science, SL	Rafael Hernani Morales, INCLIVA	Transplantation and Lymphoproliferative Syndromes (CAR-T therapy): 35 plasma 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: 236 plasma aliquots + 34 AND aliquots
BBI_05/2023 CART-AI-RADIOMICS in lymphomas: predictive value of artificial intelligence in non-hodgkin lymphoma treated with CART-T therapy.	GLD21/00088, Gilead Sciences Grants	M^a José Terol Castera, INCLIVA	Lymphomas (CART therapy): 55 DNA 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: 245 plasma aliquots and 5 serum aliquots
BBI_07/2023 Predictive value evaluation of EZH2 as a marker of response to treatment in patients with follicular lymphoma.	HEM-EZH2-LF-2021; EZH2-2021-006, Asociación Madrileña de Hematología y Hemoterapia and HGUGM	Mariana Bastos Oreiro y Carolina Martínez Laperche, Hospital General Universitario Gregorio Marañón	No samples delivered

4 scientific activity

BBI_08/2023 Molecular biomarkers determination of the brain-hepatopulmonary axis in patients with hematopoietic neoplasms treated with CAR-T cells.	NA, INCLIVA and Persona Biomed Spain SL	Carlos Solano Vercet, INCLIVA	Hematopoietic neoplasms (CAR-T therapy): 119 plasma aliquots
BBI_09/2023 Evaluation of the incidence, causes and impact of hypophosphatemia in patients undergoing CAR-T therapy in the HCUV. PhosphoCART.	3411 (2022), Fundación Senefro (Sociedad Española de Nefrología)	Isidro Antonio Torregrosa Maicas, INCLIVA	Transplantation and Lymphoproliferative Syndromes (CAR-T therapy): 108 plasma aliquots
BBI_10/2023 Evaluation of the Avenio Tumor Tissue CGP kits in the field of oncology research.	NA, Roche Diagnostics	Pilar Rentero Garrido, INCLIVA	Solid Tumors: 77 DNA aliquots
BBI_11/2023 Application of Next Generation Sequencing (NGS) for the determination of Minimal Residual Disease (MRD) in Myelodysplastic Syndrome (MDS).	2018/0060, Fundación CRIS Contra el Cáncer	Irene Zamanillo Herreros, Fundación Investigación Biomédica Hospital 12 de Octubre (FIBH12O)	Myelodysplastic Syndrome: 60 DNA aliquots
BBI_12/2023 New molecular targets associated with cardiotoxicity derived from colorectal cancer treatment.	DI22/0014, Universidad de la Frontera, Chile	Ángela Leticia Riffo Campos, Universidad de la Frontera, Chile	No samples delivered
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 Edurne Carbonell Monleón, INCLIVA	Standard Population: 6 plasma aliquots
BBI_14/2023 Integrative genomic, digital imaging and clinical information towards Precision Oncology Optimization - INGENIO. Task 4.3.: Comprehensive genomic and immune dissection of pan-cancer long term survivors to checkpoint inhibitor treatment.	PMP21/00107, PMP21/00137 PMP21/00171, ISCIII	Andrés Cervantes Ruipérez, INCLIVA	No samples delivered
BBI_15/2023 Biomarkers study in liquid biopsy for early diagnosis in hereditary breast cancer predisposition syndromes (HBCS).	NA, Ayuda para proyectos de Investigación de Secciones SEOM a la Sección de Cáncer Familiar y Hereditario 2022.	María Isabel Chirivella González, INCLIVA	Breast cancer: 119 plasma aliquots and 8 PBMC aliquots
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	No samples delivered

BBI_17/2023 Sensor development for early diagnosis of breast cancer.	NA, INCLIVA	Juan Miguel Cejalvo Andújar, INCLIVA	No samples delivered
BBI_18/2023 Role of host mucosal glycosilation in SARS-CoV-2 infectivity. Part 2.	CIAICO/2021/033, Agencia Valenciana de Salud	Jesús Rodríguez Díaz, Universitat de València Felipe Javier Chaves Martínez, INCLIVA	Standard Population: 151 DNA aliquots COVID-19: 96 DNA aliquots
BBI_19/2023 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.	NA, Ayudas Predoctorales AECC 2024	Noelia Tarazona Llaveró, INCLIVA	No samples delivered
BBI_20/2023 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.	2023.144, Bioquochem SL	María Díaz González, Bioquochem SL	No samples delivered
BBI_21/2023 Immune biomarker profiling as a tool to identify gastric cancer patients subsidiary of immunotherapy	PI221/00693, ISCIII	Tania Fleitas Kanonnikoff, INCLIVA	No samples delivered
BBI_22/2023 Prognostic and predictive value of response of the gastric cancer microenvironment in young people. VERO project	NA, Becas 2022 Grupo Español Multidisciplinar en Cáncer Digestivo (GEMCAD)	Tania Fleitas Kanonnikoff, INCLIVA	No samples delivered

In summary, 3251 aliquots were transferred in 2023.

In addition, the following specialized technical services have been provided by INCLIVA biobank in 2023:SERVO1/2022 "Study of the appearance of pulmonary fibrotic changes associated with SARS-CoV-2 infection": management of external samples from collaborating centers, 89 serum aliquots delivered.

- **SERV01:** Identification and validation of biomarkers through the use of omics and artificial intelligence for the diagnosis and prognosis of neonatal sepsis. PI: José Luis García Giménez, INCLIVA (XVII Ayudas Fundación Mútua Madrileña): 40 DNA isolations.
- **SERV02:** temporary custody of external samples and laboratory materials from Epidisease SL.

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

Reference: PT20/00029

Title: Biobanks and Biomodels Platform

Principal Investigator: Antonio Ferrández Izquierdo

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

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

Duration: 2021-2023

Total Budget: €265.650

PUBLICATIONS

Note that these are 2023 scientific publications derived from the use of samples or services provided by the biobank.

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3. Gimeno-Valiente F, Martín-Arana J, Tébar-Martínez R, Gambardella V, Martínez-Ciarpaglini C, García-Micó B, Martínez-Castedo B, Palomar B, García-Bartolomé M, Seguí V, Huerta M, Moro-Valdezate D, Pla-Martí V, Pérez-Santiago L, Roselló S, Roda D, Cervantes A, Tarazona N. Sequencing paired tumor DNA and white blood cells improves circulating tumor DNA tracking and detects pathogenic germline variants in localized colon cancer. *ESMO Open.* 2023 Nov 9;8(6):102051. doi: 10.1016/j.esmoop.2023.102051. PMID: 37951129. (IF: 7.3; **Q1**)
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5. Torres-Ruiz S, Tormo E, Garrido-Cano I, Lameirinhas A, Rojo F, Madoz-Gúrpide J, Burgués O, Hernando C, Bermejo B, Martínez MT, Lluch A, Cejalvo JM, Eroles P. High VEGFR3 Expression Reduces Doxorubicin Efficacy in Triple-Negative Breast Cancer. *Int J Mol Sci.* 2023 Feb 10;24(4):3601. doi: 10.3390/ijms24043601. PMID: 36835014; PMCID: PMC9966352. (IF: 6.208; **Q1**).
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 19. Mulet A, González-Cabo P, Pallardó FV, Signes-Costa J. Persistent Pulmonary Fibrotic Sequelae in Patients With Telomere Shortening One Year After Severe COVID-19. *Arch Bronconeumol.* 2023 Nov 10:S0300-2896(23)00365-4. English, Spanish. doi: 10.1016/j.arbres.2023.11.003. PMID: 37985282. *Arch Bronconeumol* (IF: 6,333; **Q2**)
 20. García-Silva S, Vico-Alonso C, Meyer L, Enderle D, Sanchez JA, Onteniente MDM, Noerholm M, Skog J, Rodríguez-Peralto JL, Ortiz-Romero PL, Peinado H. Improved Sensitivity in BRAFV600E Detection in Combined Tissue and Extracellular Vesicle-Based Liquid Biopsy in Melanoma. *J Invest Dermatol.* 2023 Aug;143(8):1606-1610. doi: 10.1016/j.jid.2023.01.025. Epub 2023 Feb 15. PMID: 36804405. (IF: 8,55; **Q1**)
 21. Lara-Hernandez F, Cortez J, Garcia-Sorribes S, Blesa S, Olivares MD, Alic AS, Garcia-Garcia AB, Chaves FJ, Ivorra C. EOSAL-CNV for Easy and Rapid Detection of CNVs by Fragment Analysis: EOSAL: A Fast and Reliable New Method for CNV Detection. *Methods Mol Biol.* 2023;2621:241-253. doi: 10.1007/978-1-0716-2950-5_13. PMID: 37041448. (IF: 1,372; **Q3**).

4 scientific activity

4.4.2 Oncology Phase I Oncology Clinical Trials unit

Team

PI:

Andres Cervantes Ruipérez. Hospital. University

Medical doctors

Alba Viala Monleón. Hospital

Amelia Insa Mollá. Hospital

Begoña Bermejo de las Heras. Hospital. University

Cristina Hernando Meliá. Hospital

Desamparados Roda Pérez. Hospital

Gema Bruixola Campos. Hospital

Inés González Barrallo. Hospital.

Isabel Chirivella González. Hospital. University

José Vicente Montón Bueno. Hospital

Jose A. Pérez Fidalgo. Hospital. University

Juan Miguel Cejalvo Andújar. Hospital

Maite Martínez Martínez. Hospital

Marisol Huerta Álvaro. Hospital

Noelia Tarazona Llaveró. Hospital

Paloma Martín Martorell. Hospital

Susana Roselló Keranen. Hospital

Tania Fleitas Kanonnikoff. Hospital

Valentina Gambardella. Hospital

Nurses

Arantxa Sánchez Cosmo. INCLIVA

Cecilia Ramón Mascarell. INCLIVA

Gloria Corredor Agulló. INCLIVA

Guillermo Morín Pedrosa. INCLIVA

Inma Blasco Blasco INCLIVA

Laura Martínez Lucía. INCLIVA

María Isabel Calzadilla Luz. INCLIVA

María Montes de Oca. INCLIVA

Marisa Nieto. INCLIVA

Matteo Stocco. INCLIVA

Mónica Ferrer. INCLIVA

Nuria Aguado Machancoses. INCLIVA

Paula Martínez Lucas. INCLIVA

Silvia Moreno Magraner. INCLIVA

Data Managers

Alejandro Asturiano. INCLIVA

Ana Vercher Grau. INCLIVA

Andrea Pascual Herrero. INCLIVA

Beatriz López Montero. INCLIVA.

Guillermo Moret Peiró. INCLIVA

Ignacio Castaño López. INCLIVA

Júlia Soler Flores. INCLIVA.

M^a Carmen Martínez López. INCLIVA

Sergio Romero Alcaide. INCLIVA

Administrative assistants

Maribel Gómez. INCLIVA

Paula Petruskevicius Fernández. 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 implements early clinical trials with experimental agents in the field of Oncology.

EQUIPMENTS

- -80° C Freezer
- -20° 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)

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 AND GRANTS FOR RESEARCH

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: H2020 ID 825832- LEGACy

Title: CeLac and European consortium for a personalized medicine approach to Gastric Cancer (LEGACy)

Principal Investigator: Andrés Cervantes Ruipérez

Funding Body: European Commission

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

Duration: 2019-2023

Total budget: €3.577.431,27 (INCLIVA: €638.315)

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 scientific activity

4.4.3. Spanish Clinical Research Network (SCReN), Clinical Research and Clinical Trials of the Clinical Trials Platform (UICEC INCLIVA)

Team

PI:

Andrés Cervantes Ruipérez. Hospital. University

Associated Members:

Esteban Jesús Morcillo Sánchez. Hospital. INCLIVA

José Enrique Muñoz Cebriá. INCLIVA

Julio Núñez Villota. Hospital. INCLIVA

Luis Sabater Ortí. Hospital. INCLIVA

Verónica Guillot Yacyszyn. INCLIVA

Sofía Galant Parrado. INCLIVA

Hired Members:

Ana Portolés Monzón. INCLIVA

Mercedes Peris Costá. INCLIVA

Mireya Ferrandis Martínez. 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 advice: collaboration tasks in the drafting of the protocol, CRF, Patient Information Sheet and Informed Consent and all documentation necessary for the correct development of the study in accordance with applicable regulations.
2. Start-up activities: in this phase the Unit collaborate with economic viability evaluation; identification and selection of participating sites; submission to national and local Authorities and Ethics Committee; contract management with the participating sites; monitoring plan; master file creation.
3. Development activities: project management activities, notifications; processing of amendments, interim analysis and reports; home visits; maintenance of file and monitoring visits.
4. Completion and closure activities: close-out visits; resolution of queries, elaboration of final reports, closure notifications to national and local Authorities and Ethics Committees.

ACTIVITIES DEVELOPED

During 2023, 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. Nuñez 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 fetales 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

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

Study: ELECLA

Title: Analysis of the effectiveness of neoadjuvant chemotherapy in treating colon cancer locally advanced

EUDRACT: 2016-002970-10

Sponsor: *Jorge Arredondo Chávez, Complejo Asistencial Universitario de León*

Phase: IV [Low interventional clinical trial]

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 chemoradiotherapy and surgery and optional adjuvant chemotherapy

EUDRACT: 2010-023957-12

Sponsor: *UMCG, Groningen, The Netherlands*

Phase: III

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

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

Study: FAIR

Title: Intravenous iron in patients with systolic heart failure and iron deficiency to improve morbidity & mortality (FAIR-HF2)

EUDRACT: 2016-000068-40

Sponsor: *University Medical Center Hamburg-Eppendorf Investigator Initiated Trial (IIT) (financial support by DKMS)*

Phase: IV

Study: COLICA

Title: Randomized double-blind trial to study the benefit of Colchicine in Patients with Acutely Decompensated Heart Failure (IMIB-CO-2020-01)

EUDRACT: 2020-000941-15

Sponsor: *Fundación para la Formación e Investigación Sanitarias de la Región de Murcia (FFIS)*

Phase: III

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

Study: ASTARTÉ

Title: *Temociclina vs Meropenem para el tratamiento de la bacteriemia por enterobacteriales resistentes a cefalosporinas de tercera generación: ensayo aleatorizado y pragmático*

EUDRACT: 2020-000064-39

Sponsor: *Fundación Pública para la Gestión de la Investigación en Salud de Sevilla (FISEVI)*

Phase: III

Study: CIRCULATE-SPAIN-01

Title: Phase II randomized trial to assess the effect of intensive vs standard adjuvant chemotherapy in localised colon cancer with circulating tumor DNA

EUDRACT: 2021-000507-20

Sponsor: *Fundación Investigación Hospital Clínico Universitario de Valencia*

Phase: II

Study: ROTATE

Title: Rotation for Optimal Targeting of Albuminuria and Treatment Evaluation (ROTATE-3)

EUDRACT: 2017-004641-25

Sponsor: *University Medical Center Groningen*

Phase: III

4 scientific activity

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

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: TFK-RAM-2018-01

Title: Macrophages associated with tumor, tumor angiogenesis and resistance to therapies in diffuse gastric cancer mesenchymal phenotype

Sponsor: Tania Fleitas Kanonnikoff

Phase: EPA-AS

Study: OPTIM- BIOMA FIS-ANT-2017-01

Title: Optimization of antibiotic treatment in recipients of allogeneic LIN transplantation: impact on the intestinal microbiota and on clinical results

Sponsor: *Fundación Pública Andaluza para la gestión de la Investigación en Salud de Sevilla (FISEVI)*

Phase: EPA-SP

Study: GOLD O -DLCO 1

Title: GOLD O - 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 patiromer 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

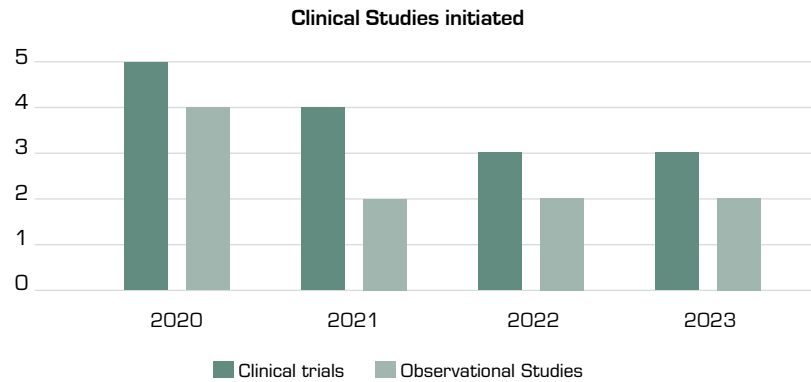
Title: *Efectos del bloqueo de rama izquierda sobre capacidad funcional, disincronía electromecánica y función cardíaca en población general sin patología cardiovascular.*

Sponsor: INCLIVA

Phase: No-EPA

UNIT ACTIVITY DURING LAST 4 YEARS

During the last four years, the unit has initiated 24 studies (14 clinical trials and 10 observational studies). The following table shows its distribution by year.



	Clinical trials	Observational Studies	Total
2020	5	4	9
2021	4	2	6
2022	3	2	5
2023	3	2	5

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:

	2020	2021	2022	2023
Phase I	1	1	0	0
Phase II	0	0	1	4
Phase III	3	6	6	6
Phase IV	9	10	6	2
Medical Device	0	0	1	1
Other Designs	6	6	4	4
Observationals	8	9	8	8
Total	27	32	26	22

4 scientific activity

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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

4.4.4. Precision medicine unit

Team

medicinaprecision@incliva.es

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 established 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
- Biorad ddPCR
- Chromium Single Cell System (10X Genomics)
- Glomax Discovery System (Promega)
- Maxwell RSC (Promega)
- Quantitative thermalcyclers
- Standard thermalcyclers
- TapeStation system to visualize DNA and RNA
- Laminar cabins, centrifuges, heat blocks, ovens, etc.

LOCATION

- Laboratories: *Facultad de Medicina. Avenida Blasco Ibáñez*
15, Building 2, 2nd floor, UCIM Corridor, Laboratory 1

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

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

4 scientific activity

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 AND GRANTS FOR RESEARCH

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 I-III (CIRCULANTE-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 FERD*

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: *Carcinogénesis 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

PUBLICATIONS

1. Alvarez L, Marin-Garcia PJ, Rentero-Garrido P, Martinez-Jimenez CP, Llobat L. Interleukin 6 and interferon gamma haplotypes are related to cytokine serum levels in dogs in an endemic *Leishmania infantum* region. *Infectious Diseases of Poverty*. 2023 Feb 10;12(1):9. doi: 10.1186/s40249-023-01058-3. PMID: 36759910
2. Papaccio F, Garcia-Mico B, Gimeno-Valiente F, Cabeza-Segura M, Gambardella V, Gutierrez-Bravo MF, Alfaro-Cervello C, Martinez-Ciarpaglini C, Rentero-Garrido P, Zuniga-Trejos S, Carbonell-Asins JA, Fleitas T, Rosello S, Huerta M, Sanchez Del Pino MM, Sabater L, Roda D, Tarazona N, Cervantes A, Castillo J. Proteotranscriptomic analysis of advanced colorectal cancer patient derived organoids for drug sensitivity prediction. *Journal of Experimental & Clinical Cancer Research*. 2023 Jan 6;42(1):8. doi: 10.1186/s13046-022-02591-z. PMID: 36604765
3. Roberto T, Jorge M, Francisco G, Noelia T, Pilar R, Andres C. Strategies for improving detection of circulating tumor DNA using next generation sequencing. *Cancer Treatment Reviews*. 2023 Sep;119:102595. doi: 10.1016/j.ctrv.2023.102595. PMID: 37390697

4 scientific activity

4.4.5. Bioinformatics Unit

Team

Coordinator

Sheila Zúñiga Trejos. INCLIVA

Technicians

Francisco Martínez Picó. INCLIVA

José Francisco Català Senent. INCLIVA

Fabián Robledo Yagüe. INCLIVA

Roxana Moldovan Moldovan. INCLIVA

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.

In addition, and as part of the Valencian biomedical research community, we also had access to a large computing facility hosted at the *Centro de Investigación Príncipe Felipe* to cope with large projects.

ACTIVITY

In 2023, 1 120 samples were analysed for diagnostic purposes for the Phase I Clinical Trial Unit and the Haematology Department in 112 different services. In addition, we analysed 969 samples in 86 different services related to multiple projects.

RESEARCH PROJECTS AND GRANTS FOR RESEARCH

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

Principal Investigator: Sheila Zúñiga and Desamparados Roda

Funding Body: *Fundación FERO*

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

Duration: 2019-2024

Total budget: €540,000

Title: *Consolidación de las plataformas centrales vinculadas a la Medicina de Precisión*

Principal Investigator: Sheila Zúñiga

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

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

Duration: 2021-2023

Total budget: €63,989

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	Instituto de Salud Carlos III . AES2023	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	Instituto de Salud Carlos III . AES2021	Felipe Vilella	Analysis of scRNASeq data
PI20/00942. Desarrollo de un modelo predictivo para el diagnóstico diferencial temprano de leiomiomas y leiomiosarcomas uterinos	Instituto de Salud Carlos III . AES2020	Aymara Màs	Analysis of snRNASeq samples
ICI20/00009. Circulating Tumor DNA based decision for adjuvant treatment in colon cancer stage I-III (CIRCULANTE-SPAIN)	Instituto de Salud Carlos III-Co-financed FEDER	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	Instituto de Salud Carlos III-Co-financed FEDER	Rosa Noguera	Analysis of 51 samples with a custom gene panel to identify SNVs, small indels and CNVs in FFPE tumor samples
PRV00097. RED53. 2021-2023	Janssen	María José Terol Casterá	Analysis of 1580 samples with three different custom gene panel to identify SNVs and small indels in blood samples to study haematologic malignancies. 132 weekly services for 3 years.
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 35 samples. 11 different services for two years.

4 scientific activity

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
PI22/00062. Identificación de nuevas dianas terapéuticas y mecanismos de la modulación de la inflamación en las enfermedades metabólicas	Instituto de Salud Carlos III-Co-financed FEDER	Herminia González	Analysis of scRNASeq data
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	Metagenomics

PUBLICATIONS

1. Papaccio F, García-Mico B, Gimeno-Valiente F, Cabeza-Segura M, Gambardella V, Gutiérrez-Bravo MF, Alfaro-Cervelló C, Martínez-Ciarpaglini C, Rentero-Garrido P, Zúñiga-Trejos S, Carbonell-Asins JA, Fleitas T, Roselló S, Huerta M, Sánchez Del Pino MM, Sabater L, Roda D, Tarazona N, Cervantes A, Castillo J. "Proteotranscriptomic analysis of advanced colorectal cancer patient derived organoids for drug sensitivity prediction". J Exp Clin Cancer Res. 2023 Jan 6;42(1):8. doi: 10.1186/s13046-022-02591-z. PMID: 36604765; PMCID: PMC9817273.

4 scientific activity

4.4.6. Biostatistics Unit

Team

Coordinator:

Juan Antonio Carbonell Asins. INCLIVA

Technician:

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 AND GRANTS FOR RESEARCH

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: 825832 - LEGACy

Title: CELAC and European consortium for a personalized medicine approach to Gastric Cancer

Principal investigator: Andrés Cervantes Ruipérez

Funding Body: European Commission

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

Duration: 2019-2023

Total Budget: €3.577.431,27 (INCLIVA: €638.315)

Title: *Secuenciación del exoma completo del DNA tumoral circulante y DNA genómico para aumentar la sensibilidad en la detección de la enfermedad mínima residual y abrir nuevas vías para la medicina personalizada en cáncer de colon localizado*

Principal Investigator: Noelia Tarazona Llaveró

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

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

Duration: 2021-2023

Total budget: €20.000

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

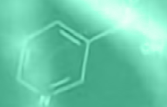
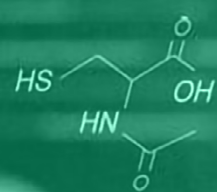
Beneficiary Institution: *Fundación Investigación Hospital Clínico Universitario de Valencia*

Duration: 2023-2026

Total budget: €50.000

PUBLICATIONS

1. Ballester M, Tranah T, Balcar L, Fiorillo A, Ampuero J, Kerbert A, Thomsen K, Escudero M, Mandorfer M, Reiberger T, Shawcross D, Romero-Gomez M, Montoliu C, Carbonell-Asins J, Jalan R. Development and validation of the AMMON-OHE model to predict risk of overt hepatic encephalopathy occurrence in outpatients with cirrhosis. *Journal of Hepatology*. 2023 Oct;79(4):967-976. doi: 10.1016/j.jhep.2023.05.022. PMID: 37277075
2. Mulet A, Tarraso J, Rodriguez-Borja E, Carbonell-Asins J, Lope-Martinez A, Marti-Martinez A, Murria R, Safont B, Fernandez-Fabrellas E, Ros J, Rodriguez-Portal J, Andreu A, Soriano J, Signes-Costa J. Fibrosis biomarkers in a cohort of COVID-19 patients one year after hospital discharge. *American Journal of Respiratory Cell and Molecular Biology*. 2023 Sep;69(3):321-327. doi: 10.1165/rcmb.2022-04740C. PMID: 36848314
3. Ortiz E, Peña C, Hidalgo J, Monllor-Tormos A, Zolfaroli I, Vila M, Sánchez-Serrano M, Pellicer A, Cano A. Long-term effect of chemotherapy after ovarian decortication on the ovarian function in women surviving cancer. *Journal of Assisted Reproduction and Genetics*. 2023 Dec;40(12):2827-2834. doi: 10.1007/s10815-023-02949-y. PMID: 37755614
4. Ballester M, Rose C, Carbonell-Asins J, Jalan R. Measuring and interpreting ammonia levels in cirrhosis. *The American Journal of Gastroenterology*. 2023 Jul 1;118(7):1297. doi: 10.14309/ajg.0000000000002245. PMID: 37377264
5. Carrasco-Picazo J, Gonzalez-Teruel A, Galvez-Llompert A, Carbonell-Asins J, Hernandez-Viadel M. Pain sensitivity in patients with schizophrenia: a systematic review and meta-analysis. *Actas Espanolas de Psiquiatria*. 2023 Jan;51(1):29-40. PMID: 36912392
6. Papaccio F, Garcia-Mico B, Gimeno-Valiente F, Cabeza-Segura M, Gambardella V, Gutierrez-Bravo MF, Alfaro-Cervello C, Martinez-Ciarpaglini C, Rentero-Garrido P, Zuniga-Trejos S, Carbonell-Asins JA, Fleitas T, Rosello S, Huerta M, Sanchez Del Pino MM, Sabater L, Roda D, Tarazona N, Cervantes A, Castillo J. Proteotranscriptomic analysis of advanced colorectal cancer patient derived organoids for drug sensitivity prediction. *Journal of Experimental & Clinical Cancer Research*. 2023 Jan 6;42(1):8. doi: 10.1186/s13046-022-02591-z. PMID: 36604765
7. Agarwal B, Canizares R, Saliba F, Ballester M, Tomescu D, Martin D, Stadlbauer V, Wright G, Sheikh M, Morgan C, Alzola C, Lavin P, Green D, Kumar R, Sacleux S, Schilcher G, Koball S, Tudor A, Minten J, Domenech G, Aragones J, Oettl K, Paar M, Waterstradt K, Bode-Boger S, Ibanez-Samaniego L, Gander A, Ramos C, Chivu A, Stange J, Lamprecht G, Sanchez M, Mookerjee R, Davenport A, Davies N, Pavesi M, Andreola F, Albillos A, Cordingley J, Schmidt H, Carbonell-Asins J, Arroyo V, Fernandez J, Mitzner S, Jalan R. Randomized, controlled clinical trial of the DIALIVE liver dialysis device versus standard of care in patients with acute-on- chronic liver failure. *Journal of Hepatology*. 2023 Jul;79(1):79-92. doi: 10.1016/j.jhep.2023.03.013. PMID: 37268222
8. Tranah T, Ballester M, Carbonell-Asins J, Jalan R, Shawcross D. Reply to 'The possible link between higher ammonia levels associated with non-alcoholic fatty liver related cirrhosis and diabetes: are we missing chronic kidney disease?'. *Journal of Hepatology*. 2023 Feb;78(2):e73-e74. doi: 10.1016/j.jhep.2022.10.024. PMID: 36332694
9. Ballester M, Carbonell-Asins J, Balcar L, Reiberger T, Jalan R. Reply to: Ammonia predicts clinical outcomes in cirrhosis - but there are caveats to consider. *Journal of Hepatology*. 2023 Dec;79(6):e239-e241. doi: 10.1016/j.jhep.2023.08.015. PMID: 37625482



clinical trials and other studies

INCLIVA SCIENTIFIC REPORT 2023

5. Clinical trials and other studies

5.1 Activity of the Ethical Committee for investigation with medicinal products (CEIm)

5.2 Clinical research activity performed by Valencia Clínico-Malvarrosa Health Department

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.

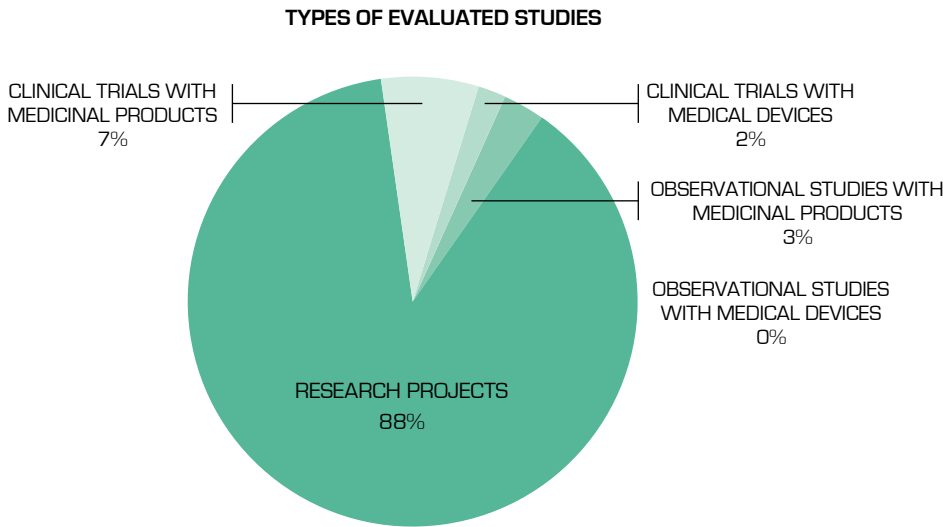
As a result of its activity along 2023, the CEIm has processed a total of 32 studies (clinical trials and observational studies): 29 were positively valued, and 1 was negatively valued.

Of the 32 approved studies, 22 were approved in the first evaluation and 10 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.

TYPES OF EVALUATED STUDIES		2023
CLINICAL TRIALS WITH MEDICINAL PRODUCTS		21
	Phase 0	0
	Phase I	2
	Phase II	12
	Phase III	5
	Phase IV	2
CLINICAL TRIALS WITH MEDICAL DEVICES		4
CLINICAL TRIALS WITH SUPPLEMENT		0
OBSERVATIONAL STUDIES WITH MEDICINAL PRODUCTS		3
OBSERVATIONAL STUDIES WITH MEDICAL DEVICES		4
RESEARCH PROJECTS		244
TOTAL		276



clinical trials and other studies

Distribution of the clinical studies depending on the department where they are performed is the following:

CLINICAL TRIALS BY DEPARTMENT	Nº
Anesthesiology and Reanimation	1
Cardiology	3
Dermatology	0
Endocrinology	1
General Surgery	1
Hematology	1
Nephrology	2
Neurology	0
Oncology	11
Pediatrics	0
Physical Medicine and Rehabilitation	0
Psychiatry	1
Tutelage	5
TOTAL	26

Distribution of the research projects depending on the department where they are performed is the following:

RESEARCH PROJECTS BY DEPARTMENT	Nº
Anesthesiology and Reanimation	9
Cardiology	13
Clinical Analysis and Clinical Biochemistry	3
Digestive Medicine	21
Emergencies	2
Endocrinology and Nutrition	8
External	0
General Surgery	21
Gynecology	9
Hematology	19
Incliva Research Groups	22
Infectious Diseases	2
Intensive Medicine	11
Internal Medicine	0
Microbiology	7
Nephrology	6
Neumology	5
Neurology	5
Nursery	0
Oncology	18
Ophthalmology	3
Oral and Maxillofacial Surgery	0
Orthopedic and Traumatology Surgery	7
Otorhinolaryngology	3

RESEARCH PROJECTS BY DEPARTMENT	Nº
Pathological Anatomy	1
Pediatrics	12
Primary Care	3
Phychiatry	5
Physiotherapy	3
Radiology	2
Traumatology	0
Urology	0
Others	22
TOTAL	242

5.2. Clinical research activity performed by Valencia Clínico-Malvarrosa Health Department

5.2.1. Activity during 2023

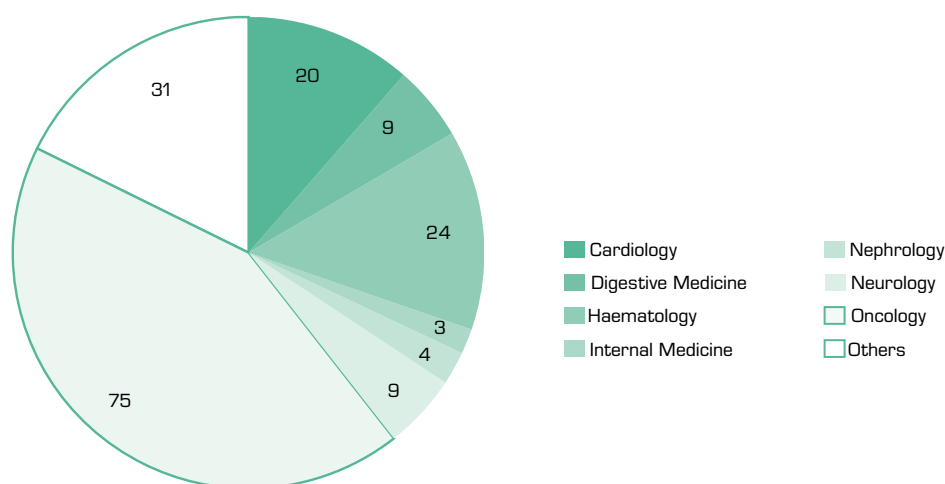
INCLIVA Health Research Institute manages the clinical studies (trials, observational studies, and research projects) carried out by the *Hospital Clínico Universitario de Valencia* and the Valencia Clínico-Malvarrosa Health Department researchers.

As a result of its activity along 2023, the INCLIVA has managed a total of 175 studies (clinical trials and observational studies).

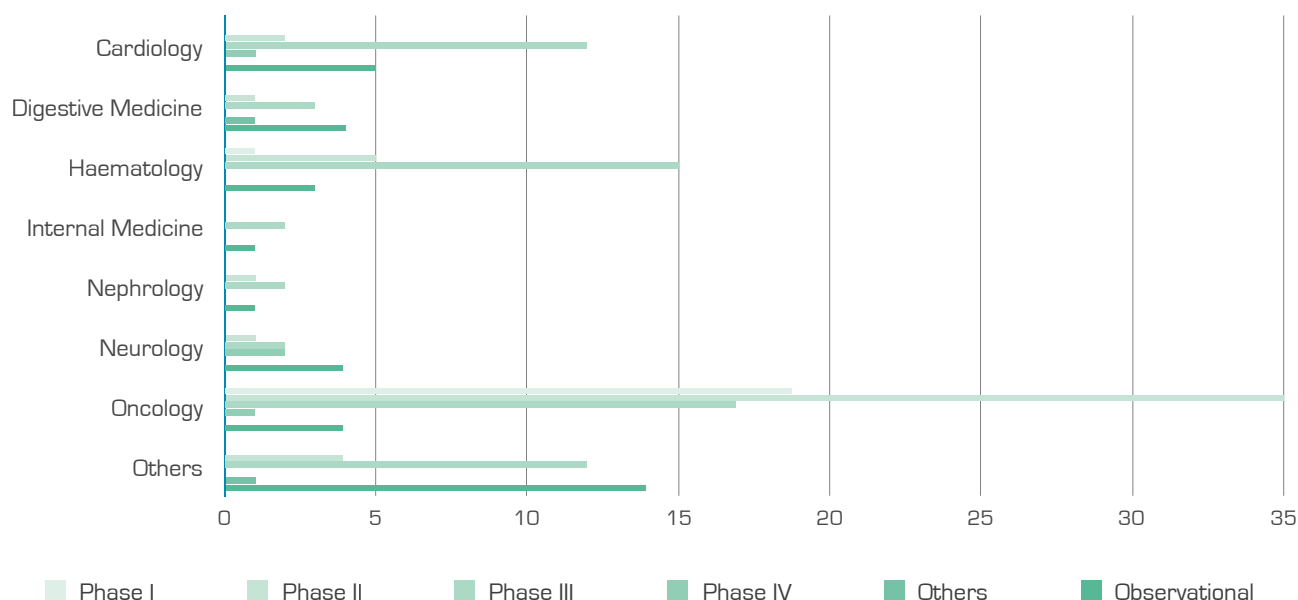
The distribution of these trials by phase is: Phase I: 19, Phase II: 49; Phase III: 65, Phase IV: 4, Observational studies: 36, others: 2. The following table shows the number of clinical trials and other studies according to their phase and department.

	Phase I	Phase II	Phase III	Phase IV	Others	Observational	TOTAL
Cardiology	0	2	12	1	0	5	20
Digestive Medicine	0	1	3	0	1	4	9
Haematology	1	5	15	0	0	3	24
Internal Medicine	0	0	2	0	0	1	3
Nephrology	0	1	2	0	0	1	4
Neurology	0	1	2	0	0	4	9
Oncology	18	35	17	1	0	4	75
Others	0	4	12	0	1	14	31
TOTAL	19	49	65	4	2	36	175

clinical trials and other studies



The Department of Medical Oncology leads the number of trials assted to INCLIVA. It is followed by the departments of Hematology, Cardiology. These three services make over 68 % of the total processed trials.



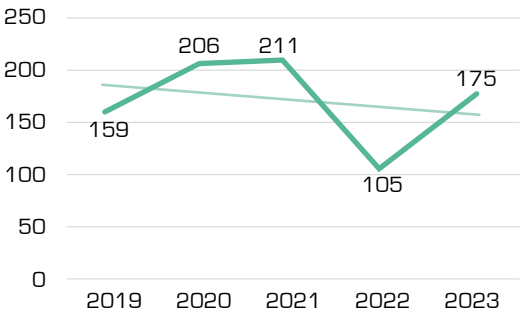
Regarding the distribution of studies per promoter, 16 trials are considered as Independent Clinical Research (trials from associations, groups, foundations, and private individuals), 1 of which has been promoted by researchers from the *Hospital Clínico Universitario de Valencia* and INCLIVA and the rest of them have been promoted by the pharmaceutical industry.

PROMOTOR	Nº
HOSPITAL CLÍNICO UNIVERSITARIO DE VALENCIA RESEARCHERS AND INCLIVA	1
INDEPENDENT CLINICAL RESEARCH	16
COMERCIAL RESEARCH	158

5.2.2 Assessment activity during last 5 years

The table below shows the number of studies processed yearly.

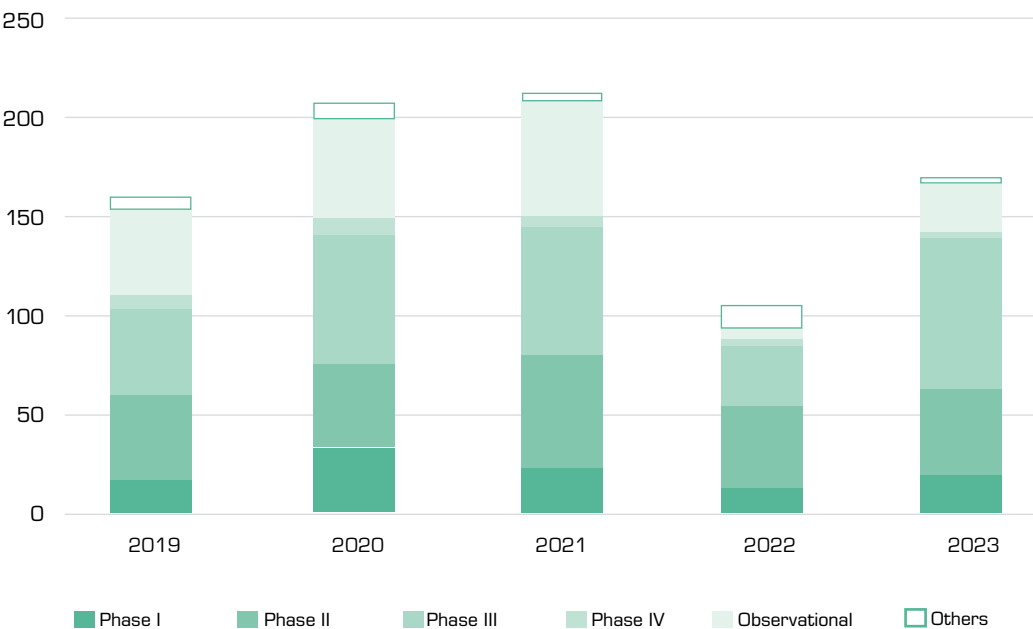
Year	Processed studies
2019	159
2020	206
2021	211
2022	105
2023	175



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 2019-2023, Phase I and Phase II trials are prioritized and its number remains stable as shown in the table and graph below.

PHASE	2019	2020	2021	2022	2023
Phase I	17	33	24	15	19
Phase II	43	43	56	41	49
Phase III	43	64	67	31	65
Phase IV	7	8	3	2	4
Observational	42	50	57	4	36
Others	7	8	4	12	2

Evolution of clinical trial distribution by phase

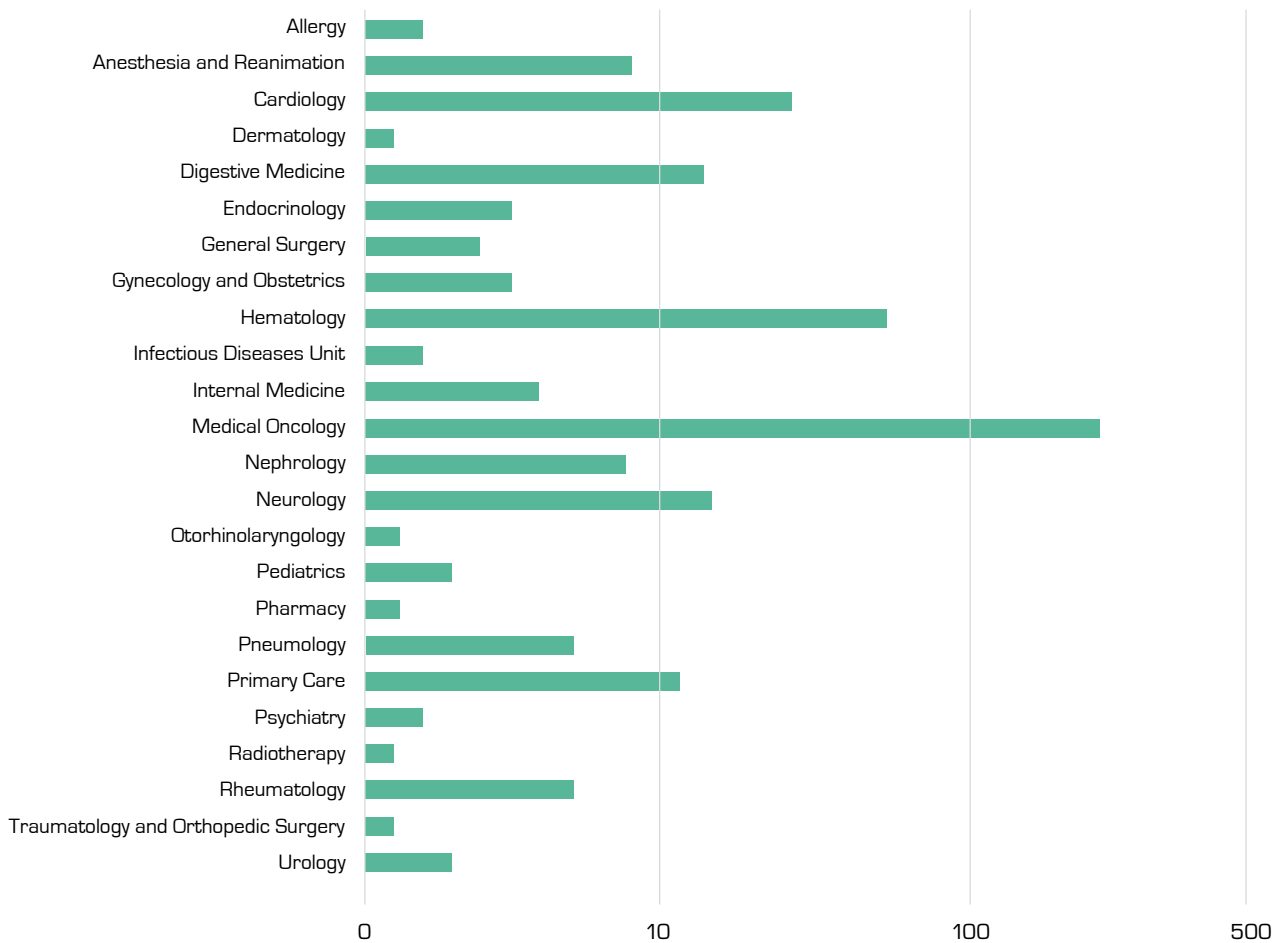


clinical trials and other studies

5.2.3. Ongoing studies

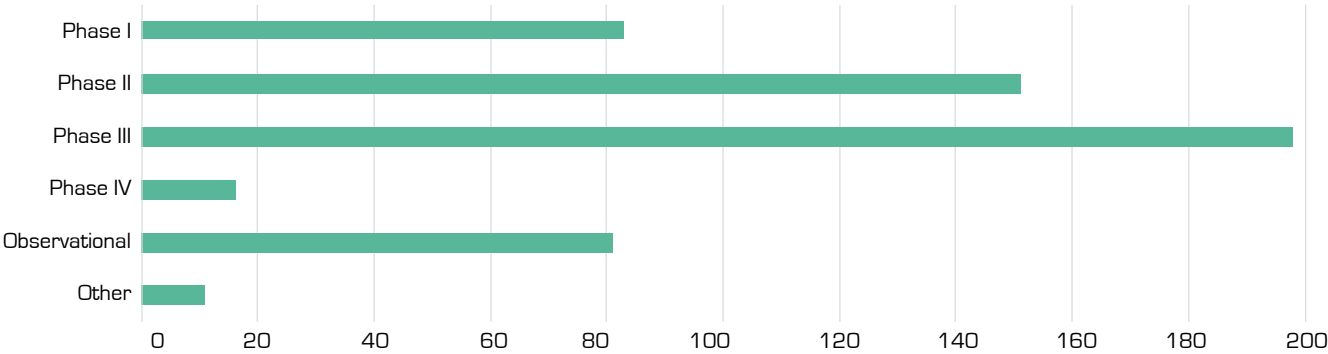
During 2023, 533 studies have been active. The distribution of clinical trials per department analyzed below uses a semilogarithmic scale due to the great difference between the Department of Medical Oncology and the rest of the Departments.

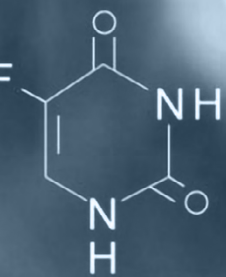
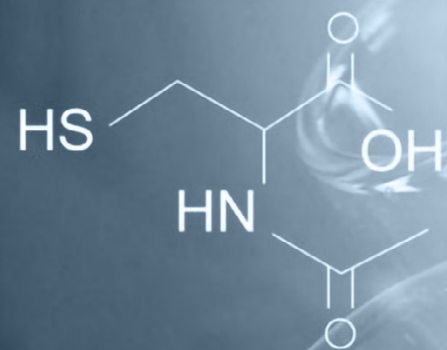
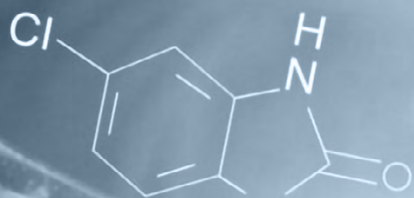
DEPARTMENT	Nº
Allergy	2
Anesthesia and Reanimation	9
Cardiology	39
Dermatology	1
Digestive Medicine	22
Endocrinology	5
General Surgery	4
Gynecology and Obstetrics	5
Hematology	76
Infectious Diseases Unit	2
Internal Medicine	6
Medical Oncology	289
Nephrology	9
Neurology	23
Otorhinolaryngology	1
Pediatrics	3
Pharmacy	1
Pneumology	7
Primary Care	14
Psychiatry	2
Radiotherapy	1
Rheumatology	7
Traumatology and Orthopedic Surgery	1
Urology	3
TOTAL	532



The distribution of ongoing trials and other studies according to their typology are the following:

PHASE	Nº
Phase I	83
Phase II	152
Phase III	193
Phase IV	14
Observational	81
Other	10





initia- tives

for research
promotion

INCLIVA SCIENTIFIC REPORT 2023

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 2023 the number of grants funded was 24.

List of beneficiaries and destination centers of the IIS INCLIVA Training Stays Grants during 2023:

Blanca Alabadi Pardiñes Ramón y Cajal Institute for Biohealth Research. Madrid (SPAIN)	Jorge Martín Arana Aarhus University Hospital. Aarhus (DENMARK)
Ana Ballestar Carrión Neuroscience Institute Cavalieri Ottolenghi Orbassano. Turin (ITALY)	Belén Martínez Castedo Cruk Manchester Institue -Christie NHS (UNITED KINGDOM)
Carlos Ángel Bertolín Boronat The Vall d' Hebron Barcelona Hospital. Barcelona (SPAIN)	Antonio Navarro Sancho Sérgio Vieira de Mello Family Clinic. Rio de Janeiro (BRAZIL)
Rosa Pura Calpe Fortea University of Valladolid. Valladolid (SPAIN)	Daniel Bernardo Pérez Cremades University of Colorado. Boulder (EEUU)
Blanca Carreras Gamón St. George'S Hospital and The Fetal Medicine Research Centre (King's College Hospital). London (UNITED KINGDOM)	Aaron Piera Torró ONG Hands for Health. San Vito (COSTA RICA)
Lorenzo Climent Penades University Hospital of Gran Canaria Doctor Negrín. Las Palmas de Gran Canaria (SPAIN)	Rubén Sánchez Martínez Can Misses Hospital. Ibiza (SPAIN)
Ana Delgado Prada Gregorio Marañón General University Hospital. Madrid (SPAIN)	Marcela Nicole Srur Colombo Virgen del Rocío University Hospital. Sevilla (SPAIN)
Eladio Fuertes del Olmo Barcelona Clinical Hospital. Barcelona (SPAIN)	Andrea Suárez Fortea Albert Einstein College of Medicine. New York (EEUU)
Esther García Domínguez Institute for Health & Sport at Victoria Universityh. Melbourne (AUSTRALIA)	Ana Caterina Trigo Lameirinhas Georg-Speyer -Haus. Institute for tumor biology and experimental therapy. Frankfurt am Maim (GERMANY)
M^a Carmen Gómez Cabrera National Institute on Aging (NIA). Gaithersburg (EEUU)	Sara Vela Bernal Ospedal San Gerardo. Monza (ITALYA)
Irene González Martínez Rimls- Radboud University Medical Center. Nijmegen(The Netherlands)	
Carlos Irles Vidal Chi St. Vicent North, Sherwood, Arkansas (EEUU)	
Gema Junquera Fernández Victor Larco Herrera National Hospital. Lima (PERU)	
Miguel Lorenzo Hernández Royal Brompton and Harefiel Hospital (UNITED KINGDOM)	

initiatives for research promotion

OUTGOING INTERNSHIPS

Researchers from our IIS INCLIVA that during 2023 carried out external fellowships in foreign centers are shown in the following table:

María Aguilar Ballester De Duve Institute UCLouvain. Brussels(BELGIUM)	Tamara Lapeña Luzón University of Paris-Saclay (Paris, France) Orsay (FRANCE)
Carlos Luis Villarroel Vicente VIB-UGent Center for Medical Biotechnology. Gent (BELGIUM)	Rebeca Melero Valverde Institute of Population Health. Liverpool (UNITED KINGDOM)

INCOMING INTERNSHIPS

The incoming researchers in 2023 are shown in the following table:

Cristina Elena Cocioaba Fellowships within the ICF and ESMO Fellowship Programme - <i>Coltea Clinical Hospital</i> , Bucharest, (ROMANIA) - Research Group of Innovative Diagnostic and Therapeutical Developments in Solid Tumors- InDeST	Karen Frecia Berrios National Hospital Cayetano Heredia. Lima (PERÚ) - Research Group of Innovative Diagnostic and Therapeutical Developments in Solid Tumors - InDeST
Enrico José Aveiro Johannsen <i>Genpat Asuncion Laboratory (PARAGUAY)</i> - Research Group of Innovative Diagnostic and Therapeutical Developments in Solid Tumors - InDeST	Natalia Landsberg University of Valencia- Research Group in Medical Chemistry for Drug Development

TRAINEE STUDENTS

There is a table attached that includes the number of students of Vocational Qualification, Degree or Master accepted during 2023 in INCLIVA. They have carried out training practices in different research groups:

23 Bachelor Degree students at the University of Valencia (including TFD students).
13 Bachelor Degree students at the Polytechnic University of Valencia (including TFD students).
6 Master's Degree students at the University of Valencia (including TFM students).
5 Master's Degree students at the Polytechnic University of Valencia (including TFM students).
8 Bachelor Degree students from other universities (including TFD students).
7 Master's Degree students from other universities (including TFM students).
31 Higher Vocational Qualification students of public and/or private centers of the Valencian Community (including dual professional education students).

TFD and TFM

In 2023, the fourth call for TFD and TFM Tutoring was not published. The three previous calls were aimed at university students enrolled in Bachelor's and Master's Degrees in the Area of Health Sciences and Related Sciences.

TFD and TFM students were welcomed but outside the call.

6.2 Training and teaching activities

Courses [32]

- *Curso PICC 2023.*
- *Formación continuada de Hematología y Hemoterapia (enero – octubre 2023).*
- *3ª Ed. Curso LLC.*
- *IX Workshop internacional de Ecografía y Resonancia anorrectal.*
- *XIII Curso COT - la rodilla resiliente.*
- *Estrategia en la cirugía Esofagogástrica con HARMONIC 1100.*
- *11º Ed. Curso de anatomía quirúrgica aplicada HBC.*
- *Programa en el manejo de FA en el paciente mayor.*
- *Curso Laparoscopia en Urología.*
- *EMEA Instructional Course: Building confidence in Colorectal.*
- *I curso semipresencial de RCP avanzada pediátrica y neonatal.*
- *Formación continuada Hematología y Hemoterapia (abril-junio 2023).*
- *IV Curso de laparoscopia experimental en urología.*
- *Escisión mesorectal total transanal laparoscopia (TaTME 2023).*
- *Programa Formativo Sesiones Clínicas SAR TD HCUV.*
- *I Curso de resección y reconstrucción en tumores de pared torácica.*
- *Preceptorship de Cáncer Gástrico.*
- *Shadow visit 2023.*
- *2ª Ed. Curso de estadística aplicada a la medicina.*
- *Taller de cirugía oncoplástica de mama y uso de hemostáticos en polvo.*
- *MET III Valencia ESD/POEM.*
- *Preceptorship Sessions: "Live Case Observations / Preceptorship Sessions".*
- *V Curso de laparoscopia experimental en urología.*
- *Sesión de los protocolos de actuación y manejo del SE-PRAFLIM.*
- *Formación en Endoscopia Digestiva 2023-2024.*
- *Curso BeArt 2ª Ed: pierna y rodilla.*

- *Talleres Formativos de Ecografía Vascular y Pulmonar 2023.*
- *Preceptorship: nefropatía diabética y síndrome cardiorrenal.*
- *RISCAP 9.*
- *Programa de sesiones sobre formación en EECC. Nefrología.*
- *I Curso Actualización Psoriasis y Artritis Psorásica.*
- *Sesiones Reumatología en HCUV.*

Scientific Conferences [20]

- *Jornada de Antiagregación en escala.*
- *Avances en Enfermedad Inflamatoria Intestinal Compleja.*
- *Workshop Women Leader.*
- *Workshop clínico 18 enero 2023.*
- *I Jornada INCLIVA de investigación en Atención Primaria.*
- *Optimización del paciente de alto riesgo post SCA.*
- *Jornada-Debate Enfermedades Raras en edad adulta.*
- *A meeting with the expert Professor Davide Rossi.*
- *Workshop woman in cardiorrenal.*
- *Jornadas de abordaje diabetes en Atención Primaria año 2023.*
- *II Jornada Incliva de Investigación en Atención Primaria.*
- *15ª Jornada Valenciana Tabaquismo y Respiración: tabaquismo y cáncer.*
- *Jornada de Esclerosis Múltiple para pacientes y familiares. Conversemos 2.0.*
- *Jornada Formativa en Dislipemia Aterogénica.*
- *Jornada sobre Enfermedad Vascular Aterosclerótica: nuevas líneas de investigación en Atención Primaria.*
- *VI Jornada de Investigación Clínica Traslacional: Post-ESMO 2023.*
- *Jornada sobre Actualización en Formación Sanitaria especializada para tutores/as de residentes.*
- *III Jornada Incliva de Investigación en Atención Primaria.*
- *Jornada de puesta al día en stents urológicos.*
- *Jornadas sobre Nuevas Moléculas y Ensayos En Enfermedad Renal Crónica*

INCLIVA Seminars / Meet the Expert (20)

- Seminario INCLIVA Dr. Fernando Salvador.
- Seminario Deterioro Neurológico: Desempeño cognitivo y motor en personas con Cirrosis Hepática y Encefalopatía Hepática Mínima (Motor and Cognitive Performance in Patients with Liver Cirrhosis with Minimal Hepatic Encephalopathy). Dra. Constanza San Martín Valenzuela.
- Seminario Deterioro Neurológico: La sobreexpresión de la glucosa 6-fosfato deshidrogenasa previene el deterioro cognitivo en el modelo doble transgénico APP/PS1 para la enfermedad de Alzheimer. Dra. Ángela García Correas.
- Seminario Deterioro Neurológico. Mecanismos moleculares por los que la hiperamonemia crónica induce neuroinflamación y alteraciones en la neurotransmisión en cerebelo de ratas. Dra. Yaiza M^a Arenas Ortiz.
- Seminario Deterioro Neurológico: Development and Validation of the AMMON-OHE model to risk stratify cirrhotic outpatients for occurrence of overt hepatic encephalopathy. Dra. María Pilar Ballester.
- Seminario Deterioro Neurológico: Extracellular vesicles from mesenchymal stem cells reduce neuroinflammation and restore cognitive and motor function in hyperammonemic rats. Dra. Paula Izquierdo Altarejos.
- Seminario Deterioro Neurológico: El estrés y sus consecuencias cognitivas. Dra. Vanesa Hidalgo.
- Seminario Deterioro Neurológico: Extracellular vesicles from mesenchymal stem cells reverse neuroinflammation and cognitive and motor impairments in rats with mild liver damage. Dra. Gergana Ivaylova Mincheva.
- Seminario Deterioro Neurológico. Caracterización de las alteraciones en el inmunofenotipo asociadas a la aparición de la encefalopatía hepática mínima en pacientes cirróticos. Implicación de las vesículas extracelulares. Dr. Juan José Gallego Roig.

- Seminario Deterioro Neurológico: Caracterización de los cambios en el inmunofenotipo asociados a la aparición del deterioro cognitivo leve en pacientes con enfermedad de hígado graso no alcohólico. Dra. Alessandra Fiorillo.
- Seminario INCLIVA Dr. Almerich.
- Seminario INCLIVA Dr. Adria Cañellas.
- Webinar INCLIVA: novedades farmacológicas en miocardiopatías y guías ESC 2023.
- Webinar: Adherencia a largo plazo, mecanismo de acción de IPCK9. Modifiquemos el curso de la enfermedad con un estricto control LDL.
- Webinar: Inflamación, epigenética e inmunosenescencia en enfermedad cardiovascular. Explicámelo fácil.
- Webinar: ferropenia en el SCASEST. Valor pronóstico e impacto sobre la inflamación y la inmunosenescencia.
- Webinar: Desgranado la enfermedad cardiovascular en la mujer.
- Webinar: Actividad investigadora y proyectos 2024 del grupo
- Webinar Dra. Roser Torra

Social Dissemination Days (4)

- Reunión Proyecto AIDA.
- XX Reunión Monográfica de Coordinadores Trasplantes.
- Screening riesgo cardiovascular.
- 2º Screening riesgo cardiovascular.

com- muni- cation

INCLIVA SCIENTIFIC REPORT 2023

7. Communication

7.1 Highlights

7.2 Communication Indicators 2023

7.1. Highlights

January

- New ESMO Clinical Practice Guideline for diagnosis, treatment, and follow-up of metastatic colorectal cancer (CRC)
- Dr. Andrés Cervantes is the new president of the European Society for Medical Oncology (ESMO)
- The international Project AIDA, coordinated by INCLIVA, will develop a diagnosis assistant through AI that will allow the detection of lesions prior to gastric cancer
- An INCLIVA study suggests that the drop on oxygen saturation when tilting the trunk can help to identify worsening in patients with chronic heart failure (HF)
- Valencian researchers evaluate antioxidant and anti-inflammatory actions of gold and cerium nanoparticles on patients with Type 2 Diabetes Mellitus (DM2)
- An INCLIVA study allows the development of a diagnosis sequency to identify a more appropriate examination in case of caustic ingestion

February

- INCLIVA participates in a European project to implement new biomarkers and offer personalized pharmacological treatments for chronic kidney disease
- Diana Morant describes INCLIVA as an International and National reference center for health research and highlights that science is the great hope on the fight against cancer
- INCLIVA joins the celebration of the International Day of Women and Girls in Science
- The finding of differences in the microRNA production in Lafora epilepsy will contribute to the understanding and monitoring of this disease
- The discovery of the mechanism by which tumor cells get resistance to chemotherapy of colon and rectal cancer
- Caixa Popular becomes an 'INCLIVA Honourable Ambassador' for the support to health research
- Doctoral thesis directed by INCLIVA- Clinical University Hospital in Valencia shows the benefit of the cochlear implantation in unilateral and asymmetric hearing loss
- INCLIVA realize a review work for treatments under development for myotonic dystrophy type 1 (DM1) that shows hopeful progress

March

- INCLIVA studies the impact on the HER2DX® clinical practice, the first genomic test in the world specialized in breast cancer HER2+
- INCLIVA and FUVAMA joins forces to analyze the beneficial effects of oranges and mandarins on health
- Ana Ágreda obtains a predoctoral aid from Against Cancer Valencia for her research at INCLIVA about breast cancer HER2+
- INCLIVA participates on a European project to develop specific and efficient medicine for the intense pain caused by endometriosis
- INCLIVA researchers synthesize and evaluate the efficiency of new medicine for the prevention of cardiovascular pathologies on patients with metabolic disorders
- INCLIVA clinical trial evaluates the benefits of a home program for training the respiratory muscles (EMI) for patients with persistent COVID
- INCLIVA participates in a GEICO group trial to evaluate immunotherapy treatment in high-risk locally advanced cervical cancer
- Experts gathered at the Rare Diseases on Adulthood Conference, debate about improving the management of these pathologies
- INCLIVA and VCF Foundation push forward a research project about personalized physical exercise as key to aged better

April

- INCLIVA and CIBERONC design a digital and genomic analysis methodology to detect uterus tumor aggressiveness and predict metastasis
- The exhibition 'Mediterranean Women for Health' pays tribute to XX and XXI century women that had made an impact with their professional contribution
- Research Group on Primary Care of INCLIVA expands their activity reach with the integration of new lines and the transversal collaboration with other groups

7 communication

- The Spanish Sarcoma Research Group (GEIS) publishes the first Spanish guideline about uterine sarcoms, with the participation of INCLIVA
- Valencian researchers demonstrate that patients with type 1 diabetes (DM1) have more risk of having atherosclerosis
- *The Lancet* publishes the results of the clinical trial SKYLIGHT 1, that demonstrates the efficiency of fezoniletant for hot flashes during menopause
- The European Project HYPERMARKER develops tools based on AI to make progress in the personalized treatment for high blood pressure
- INCLIVA holds the first encounter with donor to express gratitude for their solidarity and their support to health research
- INCLIVA receives 5,7 million euros from 700 donors in the last decade for different research health projects

May

- An INCLIVA clinical trial incorporates data about the lifestyle of patients with breast cancer to evaluate their bone health and improve their treatment
- INCLIVA brings society closer to the advances about colon cancer research in a conference with patients
- INCLIVA researchers identify a blood molecular profile associated with the risk of developing renal damage in systemic lupus erythematosus (SLE), the most common lupus type
- According to research, diabetes and obesity during pregnancy have consequences for children
- An INCLIVA, UV and EpiDisease SL research identifies biomarkers for early diagnosis and improvement managing sepsis
- INCLIVA researchers initiate a project to detect hepatitis C virus in population not studied by liver disease to offer treatment and prevent disease progression
- Researchers from INCLIVA and IIS La Fe carry out a review on lipid alteration in brain tissue and blood to identify biomarkers for early detection of Alzheimer's disease (AD)

June

- A study led by INCLIVA concludes that 5% of patients with acute myocardial infarction suffer a lack of blood supply in infarcted areas, which is associated with a long-term reduction in cardiac function
- The Biobank of INCLIVA preserves 400.000 biological human samples from more than 20.000 donations for biomedical research
- The Spanish Association of Metastatic Breast Cancer (AECMM) rewards an INCLIVA and VHIO project about the clinical and molecular characterization of oligometastatic breast cancer
- INCLIVA holds the II Research on Primary Care conferences with the purpose to impulse research activity in this health area
- INCLIVA hosts the 2nd General Assembly of the MyPath project that will develop an innovative digital tool to integrate in real time the cancer patient's perspective in daily clinical practice
- The International LEGACY project concludes, with advances in improving the prevention and approach to gastric cancer with personalized treatments
- Mutua Madrileña Foundation supports an INCLIVA research project to develop an immunotherapy treatment for gastric cancer

July

- Clinical trial shows safety and efficacy of DIALIVE liver dialysis device in patients with acute-on-chronic liver failure for whom liver transplantation is the only current option
- Research published on *Cell* journal shows the growth of the human embryo as never seen before
- Researchers of the Reproductive Medicine Group at INCLIVA highlights the tumor heterogeneity of uterine fibroid tumors
- INCLIVA-UV and IBiS researchers uses 3D cultivation models to define aggressive patterns in the Ewing sarcoma
- INCLIVA researchers study the possible adverse effects of the presence of cytomegalovirus (CMV) in the blood of patients receiving CAR-T therapy
- According to researchers of the Reproductive Medicine Group of INCLIVA, the periconceptional period is key to prevent pregnancy pathologies
- Research shows that harmol, a compound present in food like coffee, improves metabolic parameters related with life quality during aging

- A trial led by INCLIVA shows the efficacy of patch insertion to reduce postoperative seroma after axillary node removal in breast cancer patients

August

- A study lead by INCLIVA allows to develop a model to predict the overt hepatic encephalopathy risk on patients with cirrhosis

September

- INCLIVA study suggest that the periostin, a fundamental protein present in the healing of wounds, can be a good biomarker to predict pulmonary fibrosis sequels after COVID-19
- INCLIVA researches the development of a technology for the improvement of care in the personalized clinical management of sepsis in critical patients
- The National Thematic Network on Myotonic Dystrophy type 1 (DM1) is born to promote knowledge of this disease and improve the quality of life of patients based on an accurate diagnosis
- An international clinical trial coordinated by INCLIVA provides new security data of rituximab on children and adolescents with high-risk of mature B-Cell lymphoma
- INCLIVA and UV research loss of connectivity between the left and right hippocampus in Alzheimer's disease
- Scientific community claims for more equity and diversity in the worldwide research against cancer
- Spanish researchers decode the cellular and molecular mechanisms of a disease that causes women to lose their periods, Asherman's syndrome
- INCLIVA presents Repodrugs, a project to develop a transdermal patch as a possible alternative therapy for patients with spinal muscular atrophy (SMA)
- INCLIVA researchers encourage to participate in European projects for the learning opportunities, personal growth and satisfaction for the impact of the results
- INCLIVA leads a clinical trial that uses for the first time the novel methodology called network pharmacology in patients with heart failure with preserved ejection fraction (HFpEF)

October

- The TuMiCC project, which investigates the tumor microenvironment in colon cancer, celebrates its third anniversary with findings on chemotherapy resistance in a subgroup of patients
- INCLIVA highlights the transcendence of clinical and translational research on the International Day Against Breast Cancer
- INCLIVA holds a conference to promote new lines of research in Primary Care that contribute to the prevention of cardiovascular risk factors
- INCLIVA participates on Scientific conference at the European Parliament
- INCLIVA brings to the ESMO 2023 congress the results of its last researchers about gastroesophageal cancer
- INCLIVA Will develop a study to validate the accuracy of 3D imaging technology versus CT in the preoperative diagnosis of patients with pancreatic cancer

November

- Researchers from INCLIVA, UV and CIBERONC study microscopic digital image analysis methods to evaluate cell behavior and tumor microenvironment in high-risk neuroblastoma
- INCLIVA receives a grant from the Spanish Society of Cardiology to investigate the incidence of iron deficiency in elderly patients after acute coronary syndrome
- The Spanish Stress Research Network will hold tomorrow its first meeting
- The Spanish Stress Research Network lays the foundations for collaboration and proposes new lines of study on the adverse effects of stress on the nervous system
- INCLIVA researchers analyze the genetic basis of Type 2 Diabetes mellitus (DM2) to help predict who will develop the disease and identify therapeutic targets
- The 36% of cancers are tobacco-related and the 34% of cancer deaths could be prevented

7 communication

- Research shows that AR-GLP1 antidiabetic drugs improve mitochondrial function and lower cardiovascular risk in patients with Type 2 Diabetes (DM2)
- EpiDisease wins the most disruptive and impactful company award at MIT Entrepreneurship Forum
- INCLIVA invites people to participate at the campaign 'This Christmas, give away health research'

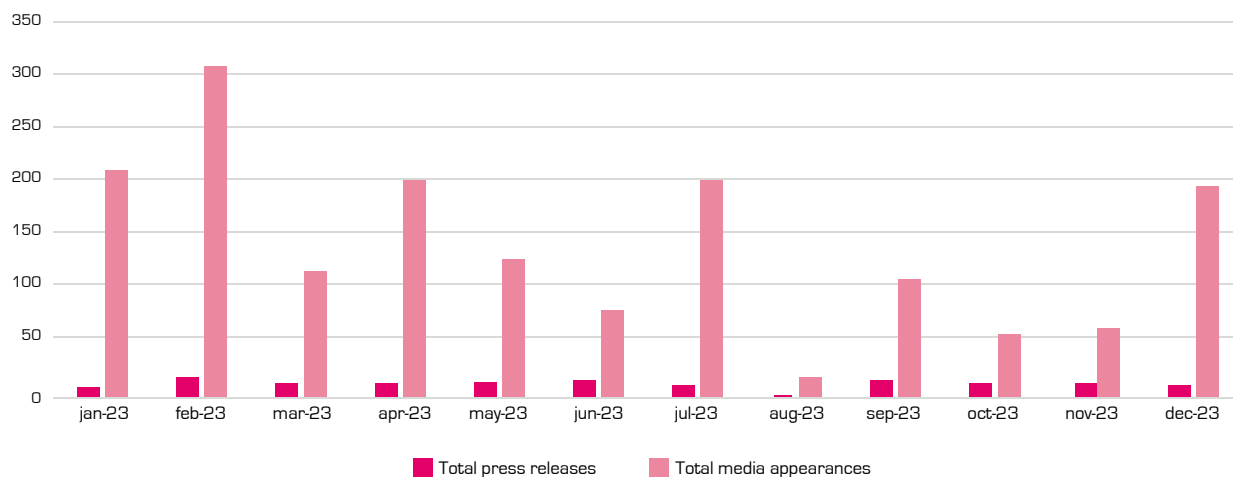
December

- JACARDI project starts, the European response to curb cardiovascular disease and diabetes
- INCLIVA consolidates its position as a health research institute and its international projection
- Dr. Cervantes highlights the impact of precision medicine and the need to ensure equity in access to scientific advances in his acceptance speech at the Royal Academy of Medicine of the Valencian Region
- INCLIVA searches for genetic biomarkers in postmenopausal osteoporosis associated with the risk of fragility bone fracture
- INCLIVA awards, for the fourth year, the innovation in health care of the Clínico-Malvarrosa Health Department
- INCLIVA develops a project for long-term personalized follow-up of childhood cancer survivors
- Study examines whether adverse experiences during childhood and adolescence predispose to depression in adulthood

7.2. Communication Indicators 2023

Press office

During 2023, INCLIVA issued a total of 134 press releases on the Web.



	jan-23	feb-23	mar-23	apr-23	may-23	jun-23	jul-23	aug-23	sep-23	oct-23	nov-23	dec-23
Total press releases	10	18	13	12	11	13	10	1	14	11	11	10
Total media appearances	207	308	120	197	135	77	199	17	109	56	62	183

Social Media users 2023



INCLIVA Website 2023



Website users
126.932

Website sessions
251.080

Website new sessions
120.842

Outreach 2023

134 Issued press releases

134 Newspieces on INCLIVA's website

16 News on Radio

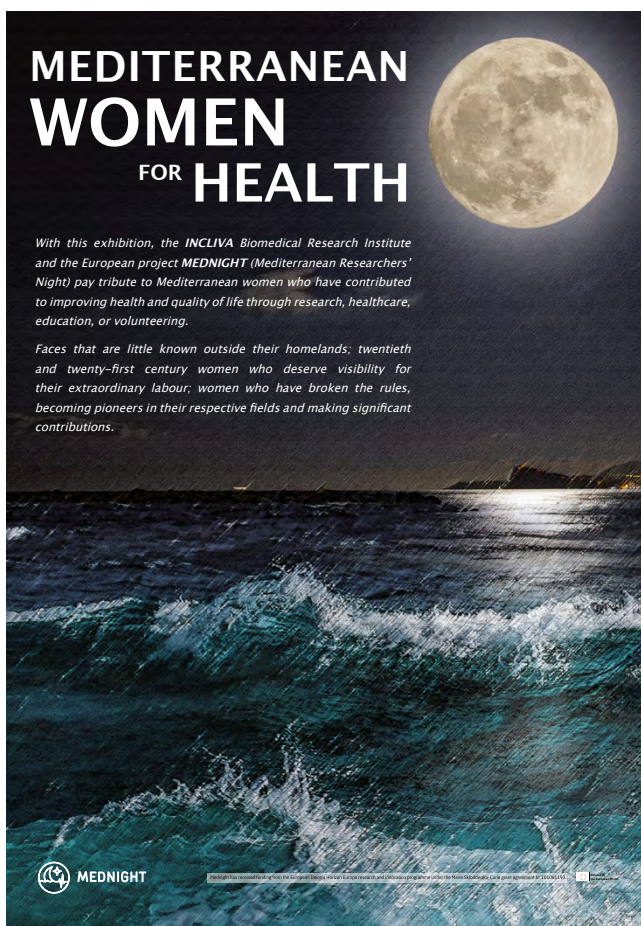
16 News on TV

The project MedNight 2023: *Nit Mediterrànea de les Investigadores*, which started in 2020, is celebrating its fourth edition this year. The project has received funding from the European Union thanks to the European Researchers' Night call, within the Marie Curie actions of the Horizon Europe programme. The Mednight was valued with 14 points out of 15 possible, obtaining 600,000 euros for the 2022 and 2023 editions.

Mednight brings together the participation of 10 institutions in a consortium: INCLIVA, FISABIO, CSIC, MUDIC, El Caleidoscopio, SciCo Cyprus, the University of Messina, the Kadir Has University of Istanbul and the European Association of Women Rectors (EWORA), under the coordination of SciCo Greece.

7 communication

In order to show the attractiveness and importance of the work and the profession of researchers to the general public, this year a series of activities have been also carried out under the common umbrella of what Mednigh calls Mediterranean Science. Among these activities, INCLIVA has designed the exhibition 'Mediterranean Women for Health', a tribute to the women of the Mediterranean who have contributed to improved health and quality of life of people through fields such as research, healthcare, education or volunteering. Through 24 canvases, it shows the faces of women from the 20th and 21st centuries, little known outside their home countries, who have broken the rules, become pioneers in their respective fields and made significant contributions. The exhibition has been translated into the languages of the project's partners and has been shown in their countries.



social initia- tives

INCLIVA SCIENTIFIC REPORT 2023

8. INCLIVA social initiatives

8.1 Philanthropic projects

8.2 Private philanthropic donations and acknowledgments

8. INCLIVA social initiatives

In 2023, INCLIVA Biomedical Research Institute launched an awareness campaign on the importance of health research to guarantee first-rate assistance in the field of public health, and thus save more lives every year.

Under the slogan I support research, which is part of its Patronage Plan, INCLIVA underlines the essential nature of research to achieve medical advances that translate into improved quality of life for all citizens.

These are the main highlights:

CAMPAIGNS

INCLIVA, AVA-ASAJA and VCF Foundation present the "Give research as a gift this Christmas" campaign awards

INCLIVA Biomedical Research Institute, attached to the *Clinical University Hospital in Valencia*, has held a charity campaign in collaboration with the Valencian Association of Farmers (AVA-ASAJA) and the València Club de Fútbol (VCF) Foundation with the motto "Give research as a gift this Christmas", which has seen widespread public response.

Running until January 6, the campaign was aimed at raising awareness of the importance of health research and encouraging individual donations of any amount, big or small, and included a prize raffle supported by the Fundació VCF and the Valencian Association of Farmers (AVA-ASAJA), who collaborated by donating prizes to encourage participation.



DONATIONS

Caixa Popular launches a campaign in favour of INCLIVA coinciding with the International Day of Women and Girls in Science

Caixa Popular, honourable ambassador of INCLIVA, has launched a new campaign in favor of INCLIVA coinciding with the celebration of the International Day of Women and Girls in Science. For each new client of Caixa Popular, the entity will donate 10 euros in its name to INCLIVA, which will be destined to the research projects that are currently being developed in the research center.

In addition, Caixa Popular will raffle 5 gift cards of 500 euros among all people over 28 years old who become customers of the financial institution.

The initiative is framed under the umbrella of Caixa Popular Dona -which aims to be preferred entity for women- and the InvestigaDona line. One of the milestones of the project is the launch of the Dona card, the first bank card that promotes gender equality, as it allocates a percentage of the profits generated by its use to a fund to finance projects that work for equality.

The funds raised have been used to implement the Grants for Equality, which have been used to improve employability and provide training for women victims of gender violence, improve the autonomy of women who suffer sexual exploitation, offer workshops for women diagnosed with mental health problems or specialized intervention for women with addictive disorders who are victims of gender violence, among others.

In addition, Caixa Popular has as well donated 25,000 euros to INCLIVA to research about breast cancer.



8 social initiatives

Mou-Te per Elles donates to INCLIVA for triple negative breast cancer research

Mou-Te per Elles has delivered to INCLIVA a donation of 13,166.84 euros for the research in triple negative breast cancer. The donation has been collected in the fifth edition of the solidarity race Mou-Te per Elles, held in Albalat de la Ribera, in which 700 people participated, to raise awareness of this disease and contribute to the advancement of research on this pathology.

Mou-Te per Elles has signed a collaboration agreement with INCLIVA to support the research project on triple negative breast cancer, coordinated by Dr. Juan Miguel Cejalvo and Dr. Pilar Eroles, from the Breast Cancer Biology Research Group.

Mou-Te per Elles is a Spanish non-profit organization whose objectives include raising funds to finance activities related to research to improve the prevention, diagnosis and treatment of breast cancer.



Las Triples Association gives 15,000 euros more to INCLIVA for research in triple negative breast cancer

Las Triples Association, Triple Negative Breast Cancer Association, has delivered to INCLIVA a donation of 15,000 euros for research in triple negative breast cancer, which has been raised with the completion of the Triple Challenge (triple activity of Swimming, Walking and Cycling organized on March 3) and Zumba Masterclass.

The objective of this association is to continue to "increase the active market of INCLIVA's web page and to reach 33,000 euros before the end of the year" with their donations.

Las Triples Association was founded and constituted on March 3, 2022, international Triple Negative Breast Cancer Day, as the first triple negative association in Spain. The association is made up of women who have gone through or are going through this diagnosis and are in different stages of treatment and are united by common goals: to achieve more research.

Its objectives are to raise funds for triple negative breast cancer research; to contribute to speeding up the marketing of drugs already approved by the European Medicines Agency in order to advance the development of specific treatments; to ensure territorial equity in terms of tests and treatments; and to promote the dissemination of information on this subtype of breast cancer.



Corazón Solidario contra el Cáncer gives INCLIVA a donation of 10,000 euros, collected through the Charity Pin Badges Campaign with the support of the Fallas Central Board

Corazón Solidario contra el Cáncer has delivered to INCLIVA 10,000 euros, which has been raised through the Charity Pin Badges Campaign with the support of the Fallas Central Board. This donation will go to the project of Dr. Rosa Noguera, coordinator of the Translational Research Group of Pediatric Solid Tumors of INCLIVA, on neuroblastoma, the most common extracranial solid tumor in children.

At the event, diplomas and pin badges were presented to the fallas commissions and entities that have collaborated in the campaign, as a gesture of gratitude, and a special mention to the fallas commissions, which, throughout the year, have participated in different activities to raise funds for cancer research.

The event was attended by 46 fallas commissions from the city of Valencia and other towns such as Náquera, Burjassot and Llíria, as well as other entities not belonging to the fallas world such as the Trinatarías School



of Valencia, the Porta del Mar Pharmacy, the CEIP Amadeo Torjada, Patomol, two Savia residences and La Nostra Veu dance group.

Corazón Solidario contra el Cáncer is a joint project that was born in Valencia in 2020, driven by Chus García and Carmen Caballero, joined by friends from other NGOs. It develops its activity with the help of partners and collaborating companies and through the creation and participation in solidarity events. In addition, it has created a small online store of products designed by the members themselves to expand the options to participate to all those who wish to participate in their project of collaboration in cancer research. 100% of the profits obtained are destined to INCLIVA, through the different oncology research groups.



A student in secondary school (ESO) makes a donation to INCLIVA for the research on healthy aging and prevention of Alzheimer's disease

Emma Alicarte Politi, a year 11 student on the Mas Camarena School in Bétera, have given a donation of 500 euros this morning to INCLIVA for the research on healthy aging and prevention of Alzheimer's disease. She decided to focus her personal project, required on the last year of studies in this school, on Alzheimer's disease, for being a pathology that many people suffer, including her grandfather. The student expressed her artistic qualities in the creation of a website -artzheimer- to give visibility to this disease and publish works of her creation in order to sell them and raise funds, presenting, in addition, "drawing as a beneficial medium, since studies show that the Alzheimer's patient creates new neuronal synapses". Emma Alicarte has personally delivered this donation to Dr. José Viña, coordinator of the Research Group on Aging and Physical Exercise of INCLIVA, for his research on healthy aging because "allocating the money to this project is helping not only to Alzheimer's research but also to the study of factors that could improve the mental and physical health of people with advanced age".



Le Cadó Foundation donates to INCLIVA 10,000 euros more for breast cancer research

Le Cadó Foundation has given INCLIVA 10,000 euros more for breast cancer research. The donation comes from the IX edition of the Walk Against Cancer 'A walk for life' Castelló 2023, organized by Le Cadó Foundation and the Official College of Nursing of Castelló, thanks to which they have been able to raise a total of 30,000 euros.

The walk, in which 5,537 people registered, began at 10:30 yesterday morning at Rafalafena Park, to the rhythm of Ravatukem Batukada to celebrate this new edition, and ended at Ribalta Park, where the organization delivered three checks of 10,000 euros each.

opportunity for the public to select the project they wish to contribute to and help promote health advances to save more lives.

The Fundació VCF Valencia Football Club Foundation and AVA-ASAJA (honorary INCLIVA Ambassadors) will donate prizes to encourage participation.



8 social initiatives

8.1 Philanthropic projects

FUNDACIÓN LE CADÓ

Fundación Le Cadó was created in 2010 under the leadership of its president Elvira Monferrer Daudí. This initiative seeks to unite efforts and resources in supporting this kind of tumor research, which is currently the fourth leading cause of death in women.

Fundación Le Cadó collaborates with INCLIVA in funding the research project "Study of breast cancer in young women under 35 years", conducted by Mrs. M^a Teresa Martínez Martínez. It also involves other researchers such as Mrs. Isabel Chirivella (a genetic diagnosis specialist physician) and the entire team led by the oncologists Mrs. Ana Lluch and Mrs. Pilar Eroles.



AMUNT CONTRA EL CANCER

Amunt Contra el Càncer is an association based in Denia, province of Alicante, that carries out different services and actions aimed at improving the quality of life of cancer patients and their families. Organizes informative talks, offers psychological support to patients and promotes various activities to raise funds for research. This year this year the donation received has been 53.250 euros.



CORAZÓN SOLIDARIO (SOLIDARITY HEART) ASSOCIATION

Corazón Solidario is an Association born out of the joint project of five colleagues, who having collaborated in various NGOs decided to pool their work to fundraise for the fight against cancer. All profits of this association go to INCLIVA.



Corazón
Solidario

PROYECTO PAULA

Proyecto Paula is a personal initiative to raise funds for diabetes research. The initiative has collaborated with INCLIVA since 2012, is financed with public funds and private donations from companies or individuals and supports the research of Mrs. Herminia Gonzalez at INCLIVA.



ASOCIACIÓN LAS TRIPLES

Asociación Las Triples is an association working to support triple negative breast cancer research, raise awareness of this cancer type, and disseminate updated information. It has collaborated with INCLIVA since 2022, supporting the research of Mr. Juan Miguel Cejalvo and Mrs. 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.

Private donations

Abarca Briones, Isabel
 Aguilar Aguilar, Susana
 Ahullana Sánchez, Adrián
 Amor Fuentetaja, Estrella
 Andreu Bover, Teresa
 Baviano Rodríguez, Julia
 Bayarri Esteve, Gonzalo
 Blasco García, Carmen
 Bosch Sánchez, Susana
 Botella Aparicio, Francisco
 Cambronero López, Noema
 Carbonell Beltrán, Santiago
 Casas Tarín, Iván
 De Vargas Montesinos, María Luisa
 Dinbier Escuder, Enriqueta
 Doria Cañizares, Eva
 Farías Farías, Angelo Alejandro
 Femenia Cabrera, Francisca
 Font Ferrando, Natalia
 Fraile Bohoyo, Silvia
 Fresneda Reche, Federico
 Gallego-Casilda Pastor, Valeriano
 García Alcañiz, María del Carmen
 García Escarda, Rosana
 García García, María del Carmen
 García Martínez, Luis
 Gil Portero, Aurelia
 Gimeno Gil, Ohaine
 Gómez Mansilla, Enrique
 Guardiola Huertas, Emilio
 Herreras Monzo, Enrique
 Hueso Martí, Inmaculada
 Jordá Milligan, Silvia
 Lázaro Ballester, Amparo

Lázaro Romero, Cristela Asunción
 López Bermejo, Antonio
 Madrid Reques, Gema
 Martínez Romero, Eva
 Martí Morell, Cristina
 Martinetti Mieusset, Vanessa
 Martínez Hernández, Alberto
 Martínez Vaya, Cristina
 Martorell Penalba, Oscar
 Mieusset Mieusset, Yvette-Isabelle
 Miret Bernal, Francisco
 Monedero Cañada, Cristina
 Moreno Durán, Inés
 Moreno García, Herminia
 Morgado Gómez, Emilia
 Moya Sánchez, Francisco
 Nicolas Garrido, Francisco
 Noguera Salvá, Inmaculada
 Pascual Revert, Diego
 Pavia Estrella, Laura
 Puigdengolas Rosas, Amalia
 Queralt Pesudo, Isabel
 Queralt Pesudo, Zaida
 Requena Castellà, Alba
 Rodríguez Deval, M^a Dolores
 Rodríguez Mínguez, Virginia
 Rodríguez Rodríguez, Isabel María
 Román Veiras, Lorena
 Ruiz Marín, Noemí
 Sainz Candel, Valvanera
 Sales Fornes, M^a Asunción
 Sánchez García, Adrián
 Sánchez González, María José
 Sánchez Muñoz, Vicenta

8 social initiatives

Santafe Moreno, Francisca
 Sanz Canet, Fátima
 Sanz Moliner, Ana
 Sarabia Navarrete, Francisca
 Schulze Steinen, Otto Heinrich
 Simón Ruvira, Rosa María
 Torrecabota Gordero, Julia
 Valero Mares, Irene

Corporate donations

Amunt Contra el Càncer
 Associació Familiars i Amics Pacients Amb Neuroblastoma
 Asociación Alfa-1 De España
 Asociación Corazón Solidario Contra El Cáncer
 Asociación De Padres De Niños con Cáncer Aspanion
 Asociación Española Contra El Cáncer
 Asociación Local Contra el Cáncer Onil Iris
 Asociación Para El Estudio e Inv. Patología en Urgencias Médicas
 Asociación Para El Fomento Del Estudio En Ciencias Biomédicas (Afemed)
 Associació Contra El Càncer De Pego (Associació Esperança)
 Associació d'alumnes Del Consell Municipal De Formació De Persones Adultes
 Associació de Dones Clara Campoamor De La Vall D'uijó
 Ateia-Últra Valencia

Biomed Central Limited
 Boston Científic Iberica Sa
 Cavit Sc
 Club Náutico Jávea
 Colegio Oficial de Agentes de Aduanas y Representantes Aduaneros
 Colegio Territorial de Administradores de Fincas Devalencia-Castellón
 Eurolineas Personales, S.L.
 Falla Els Generals
 Fondo Solidarieta' Cavit S
 Fresenius Kabi España Sa
 Fundación Española De Hematología y Hemoterapia
 Fundación Lecadó
 Fundación Sandra Ibarra De Solidaridad Frente Al Cáncer
 Ge Healthcare Biosciences Sa
 Glaxosmithkline S.A.
 Iraila, Iniciativas Para La Financiación de la Investigación del Cáncer Infantil
 Junta Local Contra el Cáncer Montesa
 Laboratorios Ordesa
 Laboratorios Viiv Healthcare, Sl
 Paspalmarvi S.L.
 Raminatrans, Sl
 Valencia Club De Fútbol, S.A.D.
 Vifor Fresenius Medical Care Renal Pharma España, Slu
 Vifor Pharma España, S.L.

publi- ca- tions list

INCLIVA SCIENTIFIC REPORT 2023

9 publications list

List of 689 scientific publications derived from the activity of the IIS

1. Aas M, Alameda L, Di M, Quattrone D, Dazzan P, Trotta A, Ferraro L, Rodríguez V, Vassos E, Sham P, Tripoli G, La Cascia C, La Barbera D, Tarricone I, Muratori R, Berardi D, Lasalvia A, Tosato S, Szoke A, Llorca PM, Arango C, Tortelli A, De Haan L, Velthorst E, Bobes J, Bernardo M, Sanjuan J, Santos JL, Arrojo M, Del CM, Menezes PR, Selten JP, Jones PB, Jongsma HE, Kirkbride JB, Rutten BPF, Van J, Gayer C, Murray RM, Morgan C. Synergistic effects of childhood adversity and polygenic risk in first-episode psychosis: the EU-GEI study. *Psychol. Med.* 2023. 53(5):p. 1970-1978. IF:6,900.
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9 publications list

24. Ampudia FJ, Duque N, Artime E, Caveda E, Spaepen E, Diaz S, De Santos MR, Velasco DC, Bahillo MP. Which people with diabetes are treated with a disposable, half-unit insulin pen? A real-world, retrospective, database study in Spain. *Endocrinol. Diabetes Metab.* 2023. 6(6):e451.
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of untreated psychosis in first episode of psychosis patients: what differences are there between early vs. adult onset and between schizophrenia vs. bipolar disorder?. *Eur. Child Adolesc. Psych.* 2023. 33(3);p. 799-810. IF:6,400.

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9 publications list

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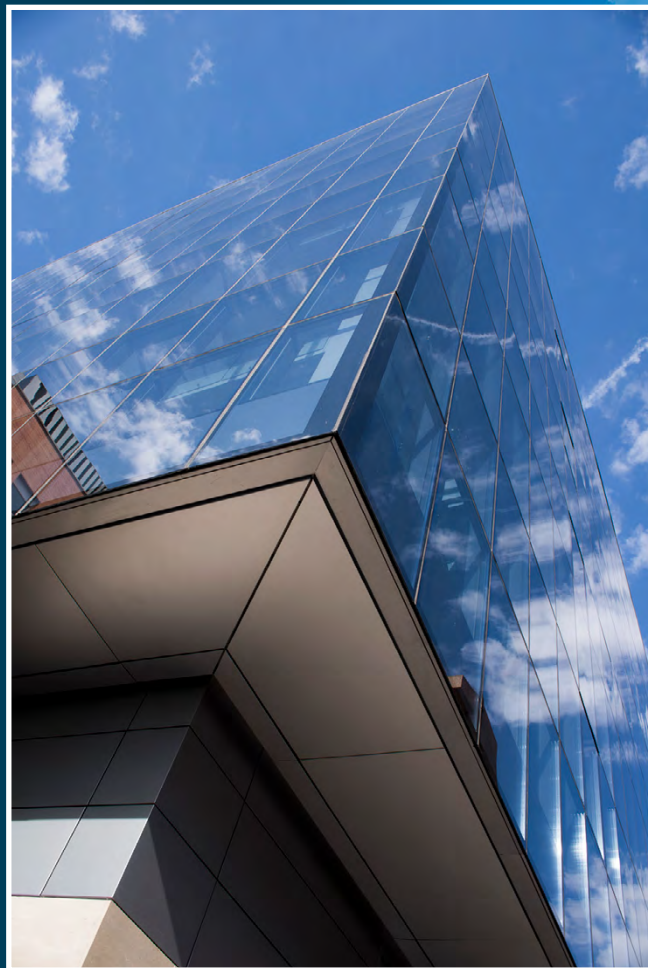
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