1 Introduction
2 Executive summary
3 Research areas and groups
4 Associated clinicians

# 3.2.5 Research in Pediatric Cardiology

**Publications: 10 | Q1:3**

## COMPOSITION

**Federico Gutiérrez-Larraya Aguado.**
Jefe de Servicio de Cardiología Pediátrica. Hospital Universitario La Paz. Profesor Titular. Universidad Francisco de Vitoria.

- **César Abelleiro Pardeiro.** *Facultativo Especialista de Área en Cardiología Pediátrica. Hospital Universitario La Paz*
- **Viviana Arreo del Val.** *Facultativo Especialista de Área en Cardiología Pediátrica. Hospital Universitario La Paz*
- **Antonio Javier Cartón Sánchez.** *Facultativo Especialista de Área en Pediatría. Hospital Universitario La Paz*
- **Lucía Deiros Bronte.** *Facultativo Especialista de Área en Pediatría. Hospital Universitario La Paz*
- **Marta Gambra Arzoz.** *Facultativo Especialista de Área en Pediatría. Hospital Universitario La Paz*
- **Luis García-Guereta Silva.** *Jefe de Sección de Cardiología Pediátrica. Hospital Universitario La Paz*
- **Irene Herruzo Priego.** *Investigadora senior, Profesora adjunta y Coordinadora de embriología. Universidad Francisco de Vitoria*
- **Carlos Labrandero de Lera.** *Facultativo Especialista de Área en Cardiología Pediátrica. Hospital Universitario La Paz*
- **Álvaro Lafuente Romero.** *Facultativo Especialista de Área en Pediatría. Hospital Universitario La Paz*
- **José Luis López Guillén.** *Médico Adjunto en Cardiología Pediátrica. FIBHULP*
- **Celia Martín Cubillo.** *Ingeniera Clínico. Hospital Universitario La Paz*
- **Diana Salas Mera.** *Médico Adjunto Cardiología Pediátrica. Hospital Universitario La Paz*

## STRATEGIC OBJETIVES

- Establishment of Heart Disease Registries: Creation of comprehensive databases that comply with all legal regulations regarding security, confidentiality and data protection.
- Advances in Diagnostic Imaging: Innovation and improvement of imaging techniques for accurate characterization of pediatric heart disease.
- Minimally Invasive Diagnostic and Therapeutic Techniques: Development and application of procedures that minimize the impact and improve patient recovery.
- Research on Vascular Risk and Environmental Factors: Studies dedicated to understanding how environmental factors and lifestyle influence pediatric heart disease and its prevention.
- Role of Exercise in Pediatric Cardiology: Research on the importance of physical exercise in the detection and treatment of cardiac disorders in children.
- Telemedicine and Cardiac Monitoring: Implementation of telemedicine solutions and use of IoT devices for efficient, real-time cardiac monitoring.
- Omics Research for Pediatric Cardiology: Search for biomarkers and therapeutic targets through genomic, proteomic and metabolomic studies.
- Scientific Dissemination and Industrial Collaboration: Publication of research in high-impact journals and collaboration with the pharmaceutical sector for the development of new therapies.
- Creation of Specialized Care Units: Formation of multidisciplinary teams based on the latest research to offer the best care.
- Continuing Education and Public Awareness: Development of educational programs for professionals and families, and collaboration with media to increase the visibility of pediatric heart disease.

## RESEARCH LINES

- Application of Artificial Intelligence and New Technologies: Exploration and adoption of technological advances to improve the diagnosis, treatment and monitoring of pediatric heart disease.
- Innovation in Medical Devices and Pharmacology: Development and evaluation of advanced medical devices and new pharmacological compounds adapted to the specific needs of the pediatric population.
- Vascular Risk Management in Pediatrics: Study and management of vascular risk from the earliest stages of life, focusing on the prevention and early detection of cardiovascular diseases.

IdiPAZ Instituto de Investigación Hospital Universitario La Paz

1 Introduction

2 Executive summary

3 Research areas and groups

4 Associated clinicians

## RESEARCH ACTIVITY

### Publications

- **David SO, Lucia DB, Lucia D, Marta FR, Juvenal RL, Diana SM, Carlos LD, Carlos LGJ, Federico GL.** Case Report: Two-month-old infant with PHACE syndrome: facial hemangioma and severe complex coarctation of the aorta. Front Cardiovasc Med . 2025; 12: 1539168. Article. IF: 3.0; Q2
- **González-García A, Abelleira-Pardeiro C, Jiménez-Valero S, Balbacid-Domingo E, Gutiérrez-Larraya F, Moreno R.** Self-made fenestrated device for closure of atrial septal defect. Cardiovasc Interv Ther. 2025; 40(3): 725-6. Article. IF: 5.5; Q1
- **González-García A, Jiménez-Valero S, Balbacid-Domingo E, Abelleira-Pardeiro C, Gutiérrez-Larraya F, Moreno R.** Combined percutaneous pulmonary valve-in-valve and closure of paravalvular leak. Cardiovasc Interv Ther. 2025; 40(2): 449-50. Editorial Material. IF: 5.5; Q1
- **Meras P, Cobarro L, Merino C, Ruiz-Cantador J, Jiménez S, Balbacid E, Abelleira C, Moreno R.** Prevalence and prognostic value of malnutrition in adults with Fontan circulation: retrospective cohort study. Cardiol Young. 2025; 35(4): 836-41. Article. IF: 0.8; Q4
- **Permuy C, Sánchez-Holgado M, López-Ortego P, Bret M, Labrandero C, Sampedro M, Rey J, Mazarío E, Pellicer A.** Myocardial calcifications in a neonate with surgically corrected truncus arteriosus: Case report. J Neonatal Perinatal Med. 2025; 18(5): 496-500. Article. IF: 1; Q3
- **Ramchandani B, Polo L, Torres B, Rey J, Gonzalez A, Labrandero C, Del Peso C, Aroca A.** Paediatric HeartMate 3 implant due to anthracycline-induced cardiomyopathy. Multimed Man Cardiothorac Surg. 2025: 2025. Article. Not Indexed
- **Rivero-Santana B, Balbacid-Domingo E, Abelleira-Pardeiro C, de Lera CL, del Val VA, Jimenez-Valero S, Fernández-Velasco M, Moreno R, Gutiérrez-Larraya F.** Microcirculatorydysfunction and its role in diagnosing acute rejection in pediatric heart transplantation: a pilot study. Diagnostics (Basel). 2025; 15(5): 545. Article. IF: 3.8; Q1
- **Romero PSG, Lafuente-Romero A, Domingo EB, Pardeiro CA.** Pulmonary flow modulation with diabolo stent technique over the subpulmonary outflow tract. Catheter Cardio Inte. 2025; 105(1): 184-6. Article. IF: 1.9; Q3
- **Socuellamos PG, Ruiz-Robles JM, Cruz FM, Macías A, Vera-Zambrano A, Moreno-Manuel AI, Prior C, Carton AJ, Valenzuela C, Jalife J.** MOG1L18F-mediated increase in late sodium current produces Long QT Syndrome. Medrxiv. 2025. (Preprint). Not Indexed
- **Tejerizo FB, Sánchez FC, Bastante T, Álvarez ABC, Álvarez-Fuente M, Domingo EB, Blasco PB, Mata RB, Carrasco JI, Bellón JMC, López JME, Fernández MF, Gómez-Jaume A, Albert BI, Valero SJ, Lalaguna LA, Pineda SO, Guerrero AP, Rodríguez AR, Gila JS, Sanz-Ruiz R, Vázquez-Álvarez ME, Argüelles JIZ.** Spanish cardiac catheterization in congenital heart diseases registry. Fourth official report from the ACI-SEC and the GTH SECPCC (2023). REC-Interv Cardiol. 2025; 7(4):238-24. Article. IF: 1.5; Q3

### Clinical Trial

- **Gutiérrez-Larraya Aguado F.** Anexo 1 pi-6234 abbott structural heart device registry (abbott sh registry).
  **Type/Phase:** PRODUCTO SANITARIO
  **Sponsored by:** Abbott Medical España S. A.
  **Signature date:** 24/01/2025
- **Labrandero De Lera C.** Estudio clínico de fase 2/3, aleatorizado, doble ciego y controlado con placebo para evaluar la eficacia, la seguridad y la farmacocinética del vericiguat en pacientes pediátricos con insuficiencia cardíaca debido a disfunción sistólica sistémica del ventrículo izquierdo (valor).
  **Type/Phase:** III
  **Sponsored by:** Merck Sharp & Dohme Llc.
  **Signature date:** 16/06/2025
- **Salas Mera D.** Ensayo de extensión abierto y de un solo brazo para evaluar la seguridad de finerenona, añadida al tratamiento estándar, en pacientes pediátricos con insuficiencia cardíaca, desde el nacimiento hasta los 18 años de edad, con disfunción sistólica del ventrículo izquierdo (dsvi).
  **Type/Phase:** III
  **Sponsored by:** Bayer AG.
  **Signature date:** 28/11/2025
- **Salas Mera D.** ensayo de fase 3, multicéntrico, aleatorizado, doble ciego y controlado con placebo para investigar la eficacia, seguridad, farmacocinética y farmacodinámica de finerenona, añadida al tratamiento estándar, en pacientes pediátricos, de 6 meses a < 18 años de edad, con disfunción sistólica del ventrículo izquierdo (dsvi).
  **Type/Phase:** III
  **Sponsored by:** Bayer AG.
  **Signature date:** 18/11/2025

IdiPAZ Instituto de Investigación Hospital Universitario La Paz