

Clinical and Translational Cardiology



Coordinator

Cinca Cuscollola, Juan FGS
jcinca@santpau.cat

Members

Alonso Martín, Concepción FGS
 Álvarez García, Jesús FGS
 Amorós Figueras, Gerard IR
 Anglí Ferrándiz, Laia IR
 Arzamendi Aizpurua, Dabit FGS
 Benabou Zdaou, Ibtissam IR
 Carreras Costa, Francesc FGS
 Fernández Martínez, Ana IR
 Ferrero Gregori, Andreu IR
 García-Moll Marimon, Xavier FGS
 Guerra Ramos, José M. FGS
 Jorge Vizuete, Esther IR
 Rivas Lasarte, Mercedes FGS
 Roig Minguell, Eulàlia FGS
 Serra Peñaranda, Antoni FGS
 Sionis, Alessandro FGS
 Viñolas Prat, Xavier FGS
 Vives Borràs, Miquel IR

Main Lines of Research

- ▶ Electrophysiology and arrhythmias, clinical and experimental.
- ▶ Heart failure.
- ▶ Ischemic heart disease.
- ▶ Valvular heart disease.
- ▶ Cardiac imaging.
- ▶ Percutaneous valve repair.
- ▶ Bioengineering

Challenges

Electrophysiology

- ▶ Describe the mechanisms and clinical significance of the electrocardiographic alterations in patients with acute myocardial infarction, using translational research in pig heart models.
- ▶ Develop animal models for the study of left bundle branch block.
- ▶ Prognosis in patients with left circumflex coronary occlusion.
- ▶ Develop clinical applications of myocardial impedance in patients undergoing ablation of arrhythmias.

Heart failure

- ▶ Develop new risk scores for ambulatory heart failure patients predicting death and rehospitalizations.
- ▶ Research on new biomarkers in patients with heart failure included in the Spanish registry Redinscor II (RIC) (1500 patients). Our group is the national coordinator.
- ▶ Develop new markers for early detection of cardiac graft rejection in transplanted patients.
- ▶ Develop palliative care programs for patients with advanced heart failure.

Ischaemic heart disease

- ▶ Settle a Program for patients with refractory angina.
- ▶ Treat complex atherosclerotic coronary artery lesions using international techniques.

Valvular heart disease

- ▶ Implement new percutaneous techniques for the treatment of mitral valve regeneration and degenerative aortic stenosis.
- ▶ Implement devices for the treatment of prosthetic valve leak.

Cardiac imaging

- ▶ Implement new imaging software analysis to detect structural abnormalities of the myocardium (fibrosis, necrosis).
- ▶ Implement new software analysis for fusion imaging in patients submitted to coronary interventions.
- ▶ Implement new percutaneous techniques for the treatment of mitral regurgitation in patients with heart failure or myocardial infarction.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Vicenta Llorente-Cortés, ICC - CSIC.
- ▶ Leif Hove Madsen, ICC - CSIC.
- ▶ Jordi Ordóñez Llanos, HSCSP - Biochemistry Laboratory.
- ▶ Antoni Capdevila, HSCSP - Radiodiagnostics.
- ▶ María Poca Sans, HSCSP - Digestive Disorders.
- ▶ Rafael Serra, HSCSP - Anaesthesiology.
- ▶ Enric Álvarez, HSCSP - Psychiatry.

External Collaborations

Juan Cinca Cuscollola - RD12/0042-RIC (Cardiovascular Research Network)

Programme 6: Clinical and Translational Cardiology

- ▶ Alfredo Bardají Ruiz. Hospital Universitari Joan XXIII (Tarragona)
- ▶ Fernando Worner Diz. Hospital Universitari Arnau de Vilanova (Lleida)
- ▶ Andrés Grau Sepúlveda. Hospital Son Duireta (Palma de Mallorca)
- ▶ Xavier Rosell Ferrer. Universitat Politècnica Catalunya – UPC (Barcelona)

- ▶ Rafael Vázquez García. Hospital Universitario Virgen de Valme (Sevilla) / Hospital Puerta del Mar (Cádiz)
- ▶ Joaquín Lucena Romero. Instituto de Medicina Legal (Sevilla)
- ▶ José M. Cubero Gómez. Hospital Virgen del Rocío (Sevilla)
- ▶ Antonio Fernández Romero. CHARE Utrera SAS (Sevilla)
- ▶ Josep Brugada Terradellas. Hospital Clínic (Barcelona)
- ▶ Julián Pérez-Villacastín. Hospital Clínico San Carlos (Madrid)
- ▶ Juan Francisco Delgado Jiménez. Hospital 12 de Octubre (Madrid)
- ▶ José Luis Zamorano. Hospital Ramón y Cajal (Madrid)
- ▶ Mariano Valdés Chavarri. Hospital Universitario Virgen de la Arrixaca (Murcia)
- ▶ José Ramón González. Hospital Clínico Universitario (Santiago de Compostela)
- ▶ Luis Alonso-Pulpón Rivera. Hospital Puerta del Hierro (Madrid)
- ▶ Covadonga García González. Hospital Guadarrama (Madrid)
- ▶ José Miguel Rivera. Hospital La Fe (Valencia)
- ▶ Alfonso Castro Beiras. Complejo Hospitalario Universitario A Coruña
- ▶ Francisco Fernández Avilés. Hospital Gregorio Marañón (Madrid)
- ▶ Ignacio Flores Hernández. Centro Nacional de Investigaciones Cardiovasculares - CNIC (Madrid)

Programme 5: Arrhythmias

- ▶ Francisco Fernández Avilés. Hospital Gregorio Marañón (Madrid)
- ▶ Josep Brugada Terradellas. Hospital Clínic (Barcelona)
- ▶ Julián Pérez-Villacastín. Hospital Clínico San Carlos (Madrid)
- ▶ Juan Francisco Delgado Jiménez. Hospital 12 de Octubre (Madrid)
- ▶ Mariano Valdés Chavarri. Hospital Universitario Virgen de la Arrixaca (Murcia)
- ▶ David García-Dorado. Hospital Vall d'Hebron (Barcelona)
- ▶ Cándido Martín Luengo. Hospital Universitario de Salamanca
- ▶ Luis Rodríguez Padial. Complejo Hospitalario de Toledo
- ▶ Francisco Javier Chorro Gascó. Hospital Clínico de Valencia
- ▶ Francisco Sánchez Margallo. Centro de Cirugía de Mínima Invasión Jesús Usón de Cáceres

CB16/11/00276 - CIBER Enfermedades Cardiovasculares (CIBERCV), Registro Redinscor III

- ▶ Lisardo Bosca. Instituto de Investigaciones Biomédicas Alberto Sols (Madrid)
- ▶ Juan Delgado. Hospital 12 de Octubre (Madrid)
- ▶ Javier Díez. Centro de Investigación Médica Aplicada de Navarra
- ▶ José Ramón González-Juanatey. Hospital Clínico de Santiago de Compostela
- ▶ Julián Pérez Villacastín. Hospital Clínico San Carlos (Madrid)
- ▶ José Miguel Rivera. Hospital La Fe (Valencia)

- ▶ Antoni Bayés Genís. Hospital Germans Trias i Pujol de Badalona
- ▶ Pablo García Pavía. Hospital Puerta de Hierro (Madrid)
- ▶ Manuel Martínez Sellés. Hospital Gregorio Marañón (Madrid)
- ▶ J. Nuñez. Hospital Clínico de Valencia
- ▶ Domingo Pascual Figal. Hospital Virgen de la Arrixaca (Murcia)
- ▶ Alfredo Bardají Ruiz. Hospital Universitari Joan XXIII (Tarragona)
- ▶ Fernando Worner Diz. Hospital Universitari Arnau de Vilanova (Lleida)

Other collaborators

- ▶ Xavier Rosell, Departament d'Enginyeria Electrònica, Universitat Politècnica de Catalunya - UPC (Barcelona)
- ▶ Borja Ibáñez, Laboratorio Traslacional Imagen y Terapia Cardiovascular, Centro Nacional de Investigaciones Cardiovasculares Carlos III - CNIC (Madrid)
- ▶ Deborah Gil, Barcelona Supercomputing Center (Centro Nacional de Supercomputación-CVC, UAB Barcelona)
- ▶ Ignacio Cruz González. Hospital Universitario de Salamanca
- ▶ Reda Ibrahim, Montreal Heart Institute Adult Congenital Heart Center, Montreal (Canada)

Antoni Serra Peñaranda

TEAM

- ▶ Eulogio García. Hospital Clínico San Carlos (Madrid)
- ▶ Carlos Macaya Miguel. Hospital Clínico San Carlos (Madrid)
- ▶ Andrés Iniguez Romo. Complejo Hospitalario de Vigo

Euro CTO Club (chronic total occlusions (CTOs))

- ▶ Formed by 60 members, spread among all European countries

Eulàlia Roig Minguell, Registro Nacional de Trasplante Cardíaco

- ▶ Clínica Universitaria de Navarra, Pamplona, Navarra
- ▶ Hospital Universitario Puerta de Hierro, Majadahonda, Madrid
- ▶ Hospital Universitario Marqués de Valdecilla, Santander, Cantabria
- ▶ Hospital Universitario Reina Sofía, Córdoba
- ▶ Hospital Universitario y Politécnico La Fe, Valencia
- ▶ Hospital General Universitario Gregorio Marañón, Madrid
- ▶ Fundación Jiménez Díaz, Madrid
- ▶ Hospital Universitario Virgen del Rocío, Sevilla
- ▶ Hospital Universitario 12 de Octubre, Madrid
- ▶ Hospital Universitario de A Coruña, A Coruña
- ▶ Hospital Universitari de Bellvitge, L'Hospitalet de Llobregat, Barcelona
- ▶ Hospital Central de Asturias, Oviedo, Asturias
- ▶ Hospital Clínic i Provincial, Barcelona
- ▶ Hospital Universitario Virgen de la Arrixaca, El Palmar, Murcia
- ▶ Hospital Universitario Miguel Servet, Zaragoza
- ▶ Hospital Clínico Universitario, Valladolid

Clinical and Translational Cardiology

Collaborations

Xavier Viñolas Prat, RETAC Group - European Network for the Treatment of Arrhythmias in Cardiology

- ▶ Philippe Lagrange. Clinique Saint Pierre (Perpignan)
- ▶ Benoît Guy-Moyat. Hospital Universitaire de Limoges (France)
- ▶ Franck Halimi. C.M.C. Parly II (Le Chesnay)
- ▶ Luc de Roy. Clinique Universitaire de Saint Godinne (Yvoir-Belgium)
- ▶ Serge Boveda. Clinique Pasteur (Toulouse)
- ▶ Julio Martí. Hospital del Mar (Barcelona)

- ▶ Pascal Defaye. Hospital Universitaire de Grenoble
- ▶ Antonio Curnis. Spedali Civili (Brescia-Italy)
- ▶ Marc Zimmermann. Hôpital de la Tour (Geneve-Switzerland)

Alessandro Sionis, GREAT-Global Research on Acute Conditions Team

- ▶ International Network between 308 experts operating in the management of acute clinical conditions in the field of Emergency Medicine

Active Grants

- ▶ Juan Cinca Cuscullola. Red Cardiovascular. RD12/0042/0002. Instituto de Salud Carlos III. Duration: 2013-2017. 594,532.28 €.
- ▶ Juan Cinca Cuscullola. Desarrollo preclínico de una nueva técnica para guiar la ablación eléctrica de las arritmias ventriculares en pacientes con infarto crónico mediante bioimpedancia. PI13/00765. Instituto de Salud Carlos III. Duration: 2014-2017. 140,250.00 €.
- ▶ Juan Cinca Cuscullola. A novel myocardial impedance mapping system for ablation of post-infarction ventricular arrhythmias in humans: A translational development. MARATO 20150830. Fundació La Marató de TV3. Duration: 2016-2019. 160,000.00 €.
- ▶ Maria Eulàlia Roig Minguell. Adrenergic agonist Treatment in Patients with Chronic Heart Failure and Secondary Pulmonary Hypertension: a Randomized Placebo-Controlled Phase 2 Clinical Trial. MARATO 20151732. Fundació La Marató de TV3. Duration: 2016-2019. 119,500.00 €.
- ▶ Juan Cinca Cuscullola. Grup de Recerca Clínica i Translacional en Cardiologia - RCTCAR. 2014 SGR 620. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2017.

- ▶ Mercedes Rivas Lasarte. Eficàcia d'una estratègia de tractament guiada per ecografia pulmonar respecte a la pràctica clínica habitual en pacients amb insuficiència cardíaca. IR16-R1. Fundació Privada Hospital de la Santa Creu i Sant Pau. Duration: 2016-2017. 35,500.00 €.
- ▶ Juan Cinca Cuscullola. Translational development of myocardial electrical impedance mapping system to guided catheter ablation of infarction ventricular arrhythmias. DTS15/00099. Instituto de Salud Carlos III. Duration: 2016-2017. 100,100 €.
- ▶ Xavier Viñolas. RITMOCORE - Arrhythmias monitoring and comprehensive care. Horizon 2020. H2020-SCI-2016-CNET. European Commission. Agència de Qualitat i Avaluació Sanitàries (AQuAS). Duration: 2016-2020. 903,875 €.
- ▶ Juan Cinca Cuscullola. Ciber Cardiovascular - CIBERCV. CB16/11/00276. Instituto de Salud Carlos III. Juan Cinca. Duration: 2017-2020. 71,029,00 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2017

- ▶ Juan Cinca Cuscullola. Tractament combinat contra el dany per reperfusió en l'infart de miocardi COMBAT-MI. SLT002/16/478. Departament de Salut. Duration: 2017-2019. 24,645.00 €.
- ▶ Mercedes Rivas Lasarte. Contractes de formació en recerca "Río Hortega" 2017. CM17/00028. Instituto de Salud Carlos III. Duration: 2018-2019. 53,732.00 €.
- ▶ Juan Cinca Cuscullola. Desarrollo de un modelo preclínico para la caracterización electrofisiológica y estructural del infarto de miocardio auricular. PI17/00069. Instituto de Salud Carlos III. Duration: 2018-2020. 66,000.00 €.

- ▶ José María Guerra Ramos, Caracterización Genética del Síndrome del QT Largo Asociado a Fármacos. PI17/00980, Instituto de Salud Carlos III. Duration: 2018-2020, 122,000.00 €.

Note: Total amount granted to PI. It does not include indirect costs.

Patents

- ▶ Javier Rosell; Juan Cinca; Ramon Bragos; Gerard Amorós; Esther Jorge; Tomas Garcia; Benjamin Sanchez. Systems And Methods To Assess Infarcted Myocardial Tissue By Measuring Electrical Impedance During The Cardiac Cycle. PCT/EP2016/056933. International. 30/03/2016.

*TIF: 178.699 **MIF: 3.8847

Abu-Assi E, Sionis A, Nunez Gil I.J., Lidon R.M., Selection of the Best of 2016 in Acute Cardiovascular Care Selección de lo mejor del año 2016 en cuidados agudos cardiovasculares (2017) *REV ESP CARDIOL*, 70 (2), 127-128.

IF: 3.408

Alquezar A., Santalo M., Rizzi M., Gich I., Grau M., Sionis A., Ordonez-Llanos J., Merce J., Martin A., Munoz M., Povar J., Velilla J., Calmarza P., Temboury F., Ortiz C., Balaguer J., Carratala A., Combined high-sensitivity copeptin and troponin T evaluation for the diagnosis of non-ST elevation acute coronary syndrome in the emergency department Evaluación de una estrategia diagnóstica combinada con copeptina y troponina T ultrasensibles en el infarto de miocardio sin elevación del segmento ST en los servicios de urgencias (2017) *EMERGENCIAS*, 29 (4), 237-244.

IF: 2.363

Alquezar-Arbe A., Sionis A., Ordonez-Llanos J., Cardiac troponins: 25 years on the stage and still improving their clinical value (2017) *CRIT REV CL LAB SCI*, 54 (7-8), 551-571.

IF: 6.442

Alvarez M., Bertomeu-Gonzalez V., Arcocha M.F., Morina P., Tercedor L., Ferrero de Loma A., Pachon M., Garcia A., Pardo M., Datino T., Alonso C., Osca J., Nonfluoroscopic Catheter Ablation. Results From a Prospective Multi-center Registry Ablación con catéter no guiada por fluoroscopia. Resultados de un registro prospectivo multicéntrico (2017) *REV ESP CARDIOL*, 70 (9), 699-705.

IF: 3.408

Alvarez-Garcia J., Salamanca-Bautista P., Ferrero-Gregori A., Montero-Perez-Barquero M., Puig T., Aramburu-Bodas O., Vazquez R., Formiga F., Delgado J., Arias-Jimenez J.L., Vives-Borras M., Cerqueiro Gonzalez J.M., Manzano L., Cinca J., Prognostic Impact of Physician Specialty on the Prognosis of Outpatients With Heart Failure: Propensity Matched Analysis of the REDINSCOR and RICA Registries Impacto pronóstico de la especialidad en el paciente ambulatorio con insuficiencia cardiaca: un análisis emparejado de los registros REDINSCOR y RICA (2017) *REV ESP CARDIOL*, 70 (5), 347-354.

IF: 3.408

Arribas F., Arribas F., Roldan I., Luis Merino J., Roldan V., Arenal A., Tamargo J., Ruiz-Garranell R., Mont L., Anguita M., Marin F., Barrios Alonso V., Baron G., Esquivias, Cosin Sales J., Diaz Infante E., Escobar Cervantes C., Ferreiro Gutierrez J.L., Guerra Ramos J.M., Jimenez Candil F.J., Perez Castellano N., Sambola Ayala A., Tello Montoliu A., San Roman A., Alfonso F., Arribas F., Evangelista A., Ferreira I., Jimenez M., Marin F., de Isla

L.P., Rodriguez Padial L., Sanchez P.L., Sionis A., Vazquez R., Comments on the 2016 ESC Guidelines for the Management of Atrial Fibrillation Comentarios a la guía ESC 2016 sobre el diagnóstico y tratamiento de la fibrilación auricular (2017) *REV ESP CARDIOL*, 70 (1), 2-8.

IF: 3.408

Awamleh Garcia P., Alonso Martin J.J., Graupner Abad C., Jimenez Hernandez R.M., Curcio Ruigomez A., Talavera Calle P., Cristobal Varela C., Serrano Antolin J., Muniz J., Gomez Doblas J.J., Roig E., Prevalence of Electrocardiographic Patterns Associated With Sudden Cardiac Death in the Spanish Population Aged 40 Years or Older. Results of the OFRECE Study Prevalencia de patrones electrocardiográficos asociados a muerte súbita en la población española de 40 años o más. Resultados del estudio OFRECE (2017) *REV ESP CARDIOL*, 70 (10), 801-807.

IF: 3.408

Azzalini L., Dautov R., Ojeda S., Serra A., Benincasa S., Bellini B., Giannini F., Chavarría J., Gheorghe L.L., Pan M., Carlino M., Colombo A., Rinfret S., Long-term outcomes of rotational atherectomy for the percutaneous treatment of chronic total occlusions (2017) *CATHETER CARDIO INTE*, 89 (5), 820-828.

IF: 2.370

Azzalini L., Garcia-Moll X., On Contrast-Induced Acute Kidney Injury, Risk Prediction, and the Future of Predictive Model Development (2017) *CAN J CARDIOL*, 33 (6), 711-713.

IF: 4.072

Bardaji A., Leal M., Arrarte V., Garcia-Moll X., Perez de Isla L., Bueno H., Extended dual antiplatelet therapy after acute coronary syndrome in Spain: Results from the EPICOR study (2017) *CARDIOVASC THER*, 35 (2).

IF: 2.179

Carceller-Sindreu M., de Diego-Adelino J., Portella M.J., Garcia-Moll X., Figueras M., Fernandez-Vidal A., Queralto J.M., Puigdemont D., Alvarez E., Lack of relationship between plasma levels of escitalopram and QTc-interval length (2017) *EUR ARCH PSY CLIN N*, 267 (8), 815-822.

IF: 3.390

Carrasco-Chinchilla F., Estevez-Loureiro R., Andraka L., Arzamendi D., Freixa X., Suarez de Lezo J., Percutaneous Mitral Repair With MitraClip in Patients Treated With Transcatheter Aortic Valve Implantation Reparación mitral percutánea con MitraClip en pacientes tratados con implante percutáneo de válvula aórtica (2017) *REV ESP CARDIOL*, 70 (12), 1144-1145.

IF: 3.408

Cubedo J., Suades R., Padro T., Martin-Yuste V., Sabate-Tenas M., Cinca J., Sans-Rosello J., Sionis A., Badimon L., Erythrocyte-heme

proteins and STEMI: Implications in prognosis (2017) *THROMB HAEMOSTASIS*, 117 (10), 1970-1980.

IF: 4.413

Cutlip D.E., Garratt K.N., Novack V., Barakat M., Meraj P., Maillard L., Erglis A., Jauhar R., Popma J.J., Stoler R., Silber S., Cutlip D., Al-laqaband S., Caputo R., Beohar N., Brown D., Garratt K., Jauhar R., George J., Varghese V., Huth M., Larrain G., Lee T., Malik A., Martin S., McGarry T., Phillips C., Shah A., Stoler R., Ball M., Price R.J., Rossi J., Taylor C., Tolleson T., Nicholson W., Kesanakurthy S., Shoukfeh M., Finn A., Devireddy C., Shoultz C., Robbins M., Kiesz R., Menon P., Weilenmann D., Sievert H., Erglis A., Stankovic G., Berland J., Delarche N., Hirsch J.L., Maillard L., Shayne J., Serra A., Fernandez-Ortiz A., Monassier J.-P., Silber S., 9-Month Clinical and Angiographic Outcomes of the COBRA Polyzone-F NanoCoated Coronary Stent System (2017) *JACC-CARDIOVASC INTE*, 10 (2), 160-167.

IF: 8.963

Danzi G.B., Piccolo R., Chevalier B., Urban P., Fath-Ordoubadi F., Carrie D., Wiemer M., Serra A., Wijns W., Kala P., Stabile A., Ruigomez J.G., Sagic D., Laanmets P., Strupp G., West N., Five-year clinical performance of a biodegradable polymer-coated biolimus-eluting stent in unselected patients (2017) *HEART*, 103 (2), 111-116.

IF: 5.234

De Gonzalo-Calvo D., Cenaarro A., Garlaschelli K., Pellegatta F., Vilades D., Nasarre L., Camino-Lopez S., Crespo J., Carreras F., Leta R., Catapano A.L., Norata G.D., Civeira F., Llorente-Cortes V., Translating the microRNA signature of microvesicles derived from human coronary artery smooth muscle cells in patients with familial hypercholesterolemia and coronary artery disease (2017) *J MOL CELL CARDIOL*, 106, 55-67.

IF: 5.123

Di Marco A., Anguera I., Rodriguez M., Sionis A., Bayes-Genis A., Rodriguez J., Ariza-Sole A., Sanchez-Salado J.C., Diaz-Nuila M., Massotti M., Villuendas R., Dallaglio P., Gomez-Hospital J.A., Cequier A., Assessment of Smith Algorithms for the Diagnosis of Acute Myocardial Infarction in the Presence of Left Bundle Branch Block Evaluación de los algoritmos de Smith para el diagnóstico de infarto agudo de miocardio en presencia de bloqueo de rama izquierda del haz de His (2017) *REV ESP CARDIOL*, 70 (7), 559-566.

IF: 3.408

Estevez-Loureiro R., Freixa X., Arzamendi D., Perez de Prado A., Campante-Teles R., Melica B., Tarantini G., Musumeci G., Pan M., Transcatheter mitral valve interventions for mitral regurgitation, with special focus on MitraClip: The position of Spanish, Portuguese

Clinical and Translational Cardiology

*TIF: 178.699 **MIF: 3.8847

and Italian interventional societies (2017) *INT J CARDIOL*, 243, 169-173.

IF: 3.679

Fam J.M., Ojeda S., Garbo R., Latib A., La Manana A., Vaquerizo B., Boukhris M., Vlachojannis G.J., Van Geuns R.-J., Ezhumalai B., Kawamoto H., Van Der Sijde J., Felix C., Pan M., Serdoz R., Boccuzzi G.G., De Paolis M., Sardella G., Mancone M., Tamburino C., Smits P.C., Di Mario C., Seth A., Serra A., Colombo A., Seruys P., Galassi A.R., Zijlstra F., Van Mieghem N.M., Diletti R., Thiele H., Everolimus-eluting bioresorbable vascular scaffolds for treatment of complex chronic total occlusions (2017) *EUROINTERVENTION*, 13 (3), 355-363.

IF: 3.919

Farré N., Lupon J., Roig E., Gonzalez-Costello J., Vila J., Perez S., de Antonio M., Solé-González E., Sánchez-Enrique C., Moliner P., Ruiz S., Enjuanes C., Mirabet S., Bayés-Genís A., Comin-Colet J., GICCAT Investigators. Clinical characteristics, one-year change in ejection fraction and long-term outcomes in patients with heart failure with mid-range ejection fraction: a multicentre prospective observational study in Catalonia (Spain) (2017) *BMJ OPEN*. Dec 21;7(12):e018719.

IF: 2.237

Garcia E., Arzamendi D., Jimenez-Quevedo P., Sarnago F., Marti G., Sanchez-Recalde A., Lasa-Larraya G., Sancho M., Iniguez A., Goicolea J., Garcia-San Roman K., Alonso-Briales J.H., Molina E., Calabuig J., Freixa X., Berenguer A., Valdes-Chavarrri M., Vazquez N., Diaz J.F., Cruz-Gonzalez I., Outcomes and predictors of success and complications for paravalvular leak closure: An analysis of the Spanish realOrld paravalvular LEaks closure (HOLE) registry (2017) *EUROINTERVENTION*, 12 (16), 1962-1968.

IF: 3.919

Garcia-Cosio Carmena M.D., Roig Minguell E., Ferrero-Gregori A., Vazquez Garcia R., Delgado Jimenez J., Cinca J., Prognostic Implications of Functional Mitral Regurgitation in Patients With Heart Failure and Reduced Ejection Fraction Impacto de la insuficiencia mitral funcional en el pronóstico de pacientes con insuficiencia cardiaca y fracción de eyección reducida (2017) *REV ESP CARDIOL*, 70 (9), 785-787.

IF: 3.408

Gheorghe L.L., Arzamendi D., Li C.H., Barros-Membrilla A.J., Munoz J.F.D., Penaranda A.S., How should i treat an asymptomatic aortic coarctation with a concomitant dissection of the descending aorta? (2017) *EUROINTERVENTION*, 12 (16), 2037-2040.

IF: 3.919

Gil-Cayuela C., Rosello-Lleti E., Tarazon E., Ortega A., Sandoval J., Martinez-Dolz L., Cinca J., Jorge E., Gonzalez-Juanatey J.R., Lago F,

Rivera M., Portoles M., Thyroid hormone biosynthesis machinery is altered in the ischemic myocardium: An epigenomic study (2017) *INT J CARDIOL*, 243, 27-33.

IF: 3.679

Gomez-Otero I., Ferrero-Gregori A., Varela Roman A., Seijas Amigo J., Pascual-Figal D.A., Delgado Jimenez J., Alvarez-Garcia J., Fernandez-Aviles F., Worner Diz F., Alonso-Pulpon L., Cinca J., Gonzalez-Juanatey J.R., Mid-range Ejection Fraction Does Not Permit Risk Stratification Among Patients Hospitalized for Heart Failure La fracción de eyección intermedia no permite estratificar el riesgo de los pacientes hospitalizados por insuficiencia cardiaca (2017) *REV ESP CARDIOL*, 70 (5), 338-346.

IF: 3.408

Hongisto M., Lassus J., Tarvasmaki T., Sionis A., Tolppanen H., Lindholm M.G., Banaszewski M., Parissis J., Spinar J., Silva-Cardoso J., Carubelli V., Di Somma S., Masip J., Harjola V.-P., Use of noninvasive and invasive mechanical ventilation in cardiogenic shock: A prospective multicenter study (2017) *INT J CARDIOL*, 230, 191-197.

IF: 3.679

Illatopa Cerna V., Descalzo M.L., Carreras Costa F., Diagnostic Usefulness of Cardiac MRI T1 Mapping in Ventricular Hypertrophy Utilidad diagnóstica del mapeo T1 por RM cardiaca en la hipertrofia ventricular (2017) *REV ESP CARDIOL*, 70 (3), 196-.

IF: 5.166

Jantti T., Tarvasmaki T., Harjola V.-P., Parissis J., Pulkki K., Sionis A., Silva-Cardoso J., Kober L., Banaszewski M., Spinar J., Fuhrmann V., Tolonen J., Carubelli V., diSomma S., Mebazaa A., Lassus J., Frequency and Prognostic Significance of Abnormal Liver Function Tests in Patients With Cardiogenic Shock (2017) *AM J CARDIOL*, 120 (7), 1090-1097.

IF: 3.009

Loughlin G., Avila P., Martinez-Ferrer J.B., Alzueta J., Vinolas X., Brugada J., Arizon J.M., Fernandez-Lozano I., Garcia-Campo E., Basserra N., Fernandez De La Concha J., Arenal A., Association of cardiac resynchronization therapy with the incidence of appropriate implantable cardiac defibrillator therapies in ischaemic and non-ischaemic cardiomyopathy (2017) *EUROPACE*, 19 (11), 1818-1825.

IF: 4.537

Masiero S., Connolly S.J., Birnie D., Neuzner J., Hohnloser S.H., Vinolas X., Kautzner J., O'Hara G., Vanervan L., Gadler F., Wang J., Mabo P., Glikson M., Kutlyifa V., Wright D.J., Essebag V., Healey J.S., Wound haematoma following defibrillator implantation: Incidence and predictors in the Shockless Implant Evaluation (SIMPLE) trial (2017) *EUROPACE*, 19 (6), 1002-1006.

IF: 4.537

Millan X., Bouhout I., Nozza A., Samman K., Stevens L.-M., Lamarche Y., Serra A., Asgar A.W., El-Hamamsy I., Cartier R., Pellerin M., Noble S., Demers P., Ibrahim R., Jolicoeur E.M., Bouchard D., Surgery Versus Transcatheter Interventions for Significant Paravalvular Prosthetic Leaks (2017) *JACC-CARDIOVASC INTE*, 10 (19), 1959-1969.

IF: 8.963

Montero S., Ferrero-Gregori A., Cinca J., Guerra J.M., Long-term Outcome of Patients With Tachycardia-induced Cardiomyopathy After Recovery of Left Ventricular Function (2017) *REV ESP CARDIOL*.

IF: 3.408

Moscarella E., Spitaleri G., Brugaletta S., Senti Farrarons S., Pernigotti A., Ortega-Paz L., Cequier A., Iniguez A., Serra A., Jimenez-Quevedo P., Mainar V., Campo G., Tespili M., den Heijer P., Bethencourt A., Vazquez N., Valgimigli M., Serruys P.W., Sabate M., Impact of Body Mass Index on 5-Year Clinical Outcomes in Patients With ST-Segment Elevation Myocardial Infarction After Everolimus-Eluting or Bare-Metal Stent Implantation (2017) *AM J CARDIOL*, 120 (9), 1460-1466.

IF: 3.009

Nunez Gil I.J., Sionis A., Abu-Assi E., Lidon R.M., Selection of the Best of 2016 in Ischemic Heart Disease Selección de lo mejor del año 2016 en cardiopatía isquémica (2017) *REV ESP CARDIOL*, 70 (2), 125-126.

IF: 3.408

Opthof T., Remme C.A., Jorge E., Noriega F., Wiegerinck R.F., Tasiyam A., Beekman L., Alvarez-Garcia J., Munoz-Guijosa C., Coronel R., Cinca J., Cardiac activation-repolarization patterns and ion channel expression mapping in intact isolated normal human hearts (2017) *HEART RHYTHM*, 14 (2), 265-272.

IF: 4.152

Ortega A., Tarazon E., Gil-Cayuela C., Garcia-Manzanares M., Martinez-Dolz L., Lago F., Gonzalez-Juanatey J.R., Cinca J., Jorge E., Portoles M., Rosello-Lleti E., Rivera M., Inter-calated disc in failing hearts from patients with dilated cardiomyopathy: Its role in the depressed left ventricular function (2017) *PLOS ONE*, 12 (9).

IF: 2.600

Ortega-Paz L., Brugaletta S., Giacchi G., Ishida K., Cequier A., Iniguez A., Serra A., Jimenez-Quevedo P., Mainar V., Campo G., Tespili M., Den Heijer P., Valgimigli M., Seruys P.W., Sabate M., Cutlip D., Impact of stent overlapping on long-term clinical outcomes in patients with ST-segment elevation myocardial infarction: Insights from the five-year follow-up of the EXAMINATION trial (2017) *EUROINTERVENTION*, 13 (5), e557-e563.

IF: 3.919

*TIF: 178.699 **MIF: 3.8847

Scientific Production

Pascual-Figal D.A., Ferrero-Gregori A., Gomez-Otero I., Vazquez R., Delgado-Jimenez J., Alvarez-Garcia J., Gimeno-Blanes J.R., Worner-Diz F., Bardaji A., Alonso-Pulpon L., Gonzalez-Juanatey J.R., Cinca J., Mid-range left ventricular ejection fraction: Clinical profile and cause of death in ambulatory patients with chronic heart failure (2017) INT J CARDIOL, 240, 265-270.

IF: 3.679

Perez-Castellanos A., Martinez-Selles M., Mejia-Renteria H., Andres M., Sionis A., Almen-dro-Delia M., Martin-Garcia A., Aguilera M.C., Pereyra E., Linares Vicente J.A., Garcia de la Villa B., Nunez-Gil I.J., Tako-tsubo Syndrome in Men: Rare, but With Poor Prognosis (2017) REV ESP CARDIOL.

IF: 3.408

Roberts P.R., Clementy N., Al Samadi F., Garweg C., Martinez-Sande J.L., Iacopino S., Johansen J.B., Vinolas Prat X., Kowal R.C., Klug D., Mont L., Steffel J., Li S., Van Osch D., El-Chami M.F., A leadless pacemaker in the real-world setting: The Micra Transcatheter Pacing System Post-Approval Registry (2017) HEART RHYTHM, 14 (9), 1375-1379.

IF: 4.152

Sans-Rosello J., Casals G., Rossello X., Gonzalez de la Presa B., Vila M., Duran-Cambra A.,

Morales-Ruiz M., Ferrero-Gregori A., Jimenez W., Sionis A., Prognostic value of plasma apelin concentrations at admission in patients with ST-segment elevation acute myocardial infarction (2017) CLIN BIOCHEM, 50 (6), 279-284.

IF: 2.420

Soudah E., Casacuberta J., Gamez-Montero P.J., Perez J.S., Rodriguez-Cancio M., Raush G., Li C.H., Carreras F., Castilla R., Estimation of wall shear stress using 4D flow cardiovascular MRI and computational fluid dynamics (2017) J MECH MED BIOL, 17 (3).

IF: 0.701

Tolppanen H., Rivas-Lasarte M., Lassus J., Sans-Rosello J., Hartmann O., Lindholm M., Arrigo M., Tarvasmaki T., Kober L., Thiele H., Pulkki K., Spinar J., Parissis J., Banaszewski M., Silva-Cardoso J., Carubelli V., Sionis A., Harjola V.-P., Mebazaa A., Adrenomedullin: a marker of impaired hemodynamics, organ dysfunction, and poor prognosis in cardiogenic shock (2017) ANN INTENSIVE CARE, 7 (1).

IF: 3.653

Tolppanen H., Rivas-Lasarte M., Lassus J., Sadoune M., Gayat E., Pulkki K., Arrigo M., Krastinova E., Sionis A., Parissis J., Spinar J., Januzzi J., Harjola V.-P., Mebazaa A., Combined Measurement of Soluble ST2 and

Amino-Terminal Pro-B-Type Natriuretic Peptide Provides Early Assessment of Severity in Cardiogenic Shock Complicating Acute Coronary Syndrome (2017) CRIT CARE MED, 45 (7), e666-e673.

IF: 6.092

Vilahur G., Onate B., Cubedo J., Bejar M.T., Arderiu G., Pena E., Casani L., Gutierrez M., Capdevila A., Pons-Llado G., Carreras F., Hidalgo A., Badimon L., Allogenic adipose-derived stem cell therapy overcomes ischemia-induced microvessel rarefaction in the myocardium: Systems biology study (2017) STEM CELL RES THER, 8 (1).

IF: 4.625

Vives-Borras M., Moustafa A.-H., Alvarez-Garcia J., Ferrero-Gregori A., Balcells J., Garcia-Picart J., Serra-Penaranda A., Sionis A., Cinca J., Clinical and Prognostic Value of the Electrocardiogram in Patients With Acute Occlusion of the Left Circumflex Coronary Artery (2017) AM J CARDIOL, 120 (9), 1487-1494.

IF: 3.009

Other Publications

- ▶ Freixa X, Estévez-Loureiro R, Carrasco-Chinchilla F, Arzamendi D, Jiménez-Quevedo P, Nombela-Franco L, Cruz-González I, Amat-Santos IJ, Sabaté M. Initial Results of Combined MitraClip® Implantation and Left Atrial Appendage Occlusion (2017) J HEART VALVE DIS. Mar; 26(2): 169-174.