

ABBREVIATED CURRICULUM VITAE



Name: Jose-Ignacio Garcia-Bolao, MD, PhD, FESC

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Date & place of birth: January 19, 1966, Salamanca, Spain

Citizenship: Spanish

PRESENT POSITION

Hospital appointment

- 2009-present Head. Department of Cardiology and Cardiac Surgery
Clínica Universidad de Navarra. Pamplona. Spain.
- 1996-present Head. Electrophysiology and Arrhythmia Unit.
Department of Cardiology and Cardiac Surgery
Clínica Universidad de Navarra. Pamplona. Spain.

Faculty appointment

- 2010-present Full Professor of Medicine. School of Medicine.
University of Navarra. Pamplona. Spain.

I. EDUCATION

- 1996 Postdoctoral Fellowship. Department of Medicine, Electrophysiology
Section (Prof. J. Brugada) Hospital Clínic. University of Barcelona.
- Dec 1995 Ph.D. School of Medicine, University of Navarra. *Cum Laude* degree
- 1990-1995 Residence and fellowship in Cardiology, Clinica Universitaria, Medical
School, University of Navarra.
- 1983-1989 MD, School of Medicine, University of Navarra

II. PAST POSITIONS

Hospital appointments

- 2001-2009 Consultant
Department of Cardiology and Cardiac Surgery
Clínica Universidad de Navarra. Pamplona. Spain.
- 1999-2002 Residence Instructor
Department of Cardiology and Cardiac Surgery
Clínica Universidad de Navarra. Pamplona. Spain.

1997-2001	Staff Physician Department of Cardiology and Cardiac Surgery Clínica Universidad de Navarra. Pamplona. Spain.
1996	Fellow. Department of Medicine, Electrophysiology Section (Prof. J. Brugada) Hospital Clínic. University of Barcelona.
1990-1995	Resident Department of Cardiology and Cardiac Surgery Clínica Universidad de Navarra. Pamplona. Spain.

Faculty appointments

2006-	Professor. School of Medicine. Universidad de Navarra
2000-2006	Associate Professor. School of Medicine. Universidad de Navarra
1995-2000	Assistant Professor. School of Medicine. Universidad de Navarra

III. BOARD CERTIFICATIONS AND CREDENTIALS

- Accreditation in Cardiac Pacing & Intracardiac defibrillators, European Heart Rhythm Association. European Society of Cardiology. 2005.
- Accreditation in Invasive Cardiac Electrophysiology. Spanish Society of Cardiology. 2006.
- Training and accreditation in radiation protection as director for medical radioactive facilities (Council Directive 97/43/EURATOM) by the Spanish Nuclear Safety Council.
- Homologation type C for treatment and management of animals for research purposes.

IV. CONSULTANSHIPS

Consultant/proctor for Boston Scientific, St. Jude Medical, Medtronic, Biosense Webster

V. HONORS, RECOGNITIONS AND PROFESSIONAL ORGANIZATIONS

Fellow of the European Society of Cardiology (FESC)

Member of the Spanish Society of Cardiology.

Member of the European Heart Rhythm Society

Member of the board of the Arrhythmia Section, Spanish Society of Cardiology (2005-2012)

10th Michel Mirowski Award: Limitation of excessive collagen type I síntesis and deposition may contribuye to long-term benefits of cardiac resynchronization therapy in patients with heart failure. Madrid Arrhythmia Meeting 2007.

Member of the technical evaluation board of R&D projects (cardiovascular area) of the Spanish National Health Institute (ISCIII) (2010- 2012).

VI. PUBLICATIONS

- 82 peer reviewed articles
- 115 congress abstracts
- 18 book chapters
- 5 books

a) *Main original, peer reviewed articles* (H index \geq 11)

Alegría E, Alzamora P, García Bolao I, Velasco S, Fidalgo ML, Iglesias I. Ischemic cardiomyopathy in women.
Rev Esp Cardiol 1991; 44: 500-511.

Alegría E, Fidalgo ML, García Bolao I, Gómez JA, Mejía S, Abecia A, Martínez Caro D. Perioperative supraventricular tachyarrhythmias following coronary artery bypass surgery.
New Trends in Arrhythmology 1992; 8: 321-324.

García Bolao I, Alegría E, Calabuig J, Llorens R, Navarro C, Iglesias I. Pleuro-pericardial effusion following the early intragraft thrombolysis of an occluded aortocoronary graft.

Rev Esp Cardiol 1992; 45: 222-224.

Arbizu J, Martí JM, García Bolao I, García MJ, Iglesias I, Alegría E, Richter J. Quantification of myocardial tomography with thallium in coronary disease. Evaluation of the Cedars-Sinai technique.

Rev Esp Cardiol 1994; 47: 368-374.

I García Bolao, J Merino, A Martínez, A Grau, E Alegría, D Martínez Caro. Effect of hypercholesterolemia on platelet growth factors.

Eur J Clin Invest 1996; 26: 929-935.

García Bolao I, Merino J, Gil MJ, Martínez A, Grau A, Alegría E, Martínez-Caro D. Growth factors and mitogenic activity in experimental hypercholesterolemia.

Rev Esp Cardiol 1996; 49: 899-905.

J Brugada, I García Bolao, M Figueiredo, M Puigfel, M Matas, F Navarro-López. Radiofrequency ablation of concealed left free-wall accessory pathways without coronary sinus catheterization: Results in 100 consecutive patients.

J Cardiovasc Electrophysiol 1997; 8: 249-253.

J Brugada, I García Bolao, M Figueiredo, M Puigfel, M Matas, F Navarro-López. Ablación de vías accesorias ocultas izquierdas sin cateterismo del seno coronario.

Rev Esp Cardiol 1997; 50: 36-41.

J Brugada, M Puigfel, L Mont, I García Bolao, M Figueiredo, M Matas, F Navarro Lopez. Radiofrequency ablation of anteroseptal, para-hisian and midseptal accessory pathways using a simplified femoral approach.

Pacing and Clinical Electrophysiology (PACE) 1998; 21: 735-741.

I García Bolao, V Albaladejo, A Benito, E Alegría, JL Zubieta. Magnetic resonance imaging in a patient with a dual chamber pacemaker.

Acta Cardiol 1998; 53: 33-35.

I Segura, I García Bolao. Meglumine antimoniate, amiodarone and torsades de pointes.

Resuscitation 1999; 42: 65-68.

I García Bolao, E Alegría. Implantation of 500 consecutive cardiac pacemakers in the electrophysiology laboratory".

Acta Cardiol 1999; 54: 339-345.

F Arós, A Boraita, E Alegría, AM Alonso, A Bardají, R Lamiel, E Luengo, M Rabadán, M Alijarde, J Aznar, A Baño, M Cabañero, C Calderón, M Camprubí, J Candell, M Crespo, G de la Morena, A Fernández, JA Ferrero, R Gayán, I García Bolao, et al. Guidelines of the Spanish Society of Cardiology for clinical practice in exercise testing.

Rev Esp Cardiol 2000; 53:1063-1094.

Madrid AH, Olague J, Cercas A, Leal J, Muñoz F, Moro C, Sanz O, and the PEACE investigators. A prospective multicenter study on the safety of a pacemaker with automatic energy control: Influence of the electrical factor on chronic stimulation threshold.

Pacing and Clinical Electrophysiology (PACE) 2000; 23: 1359-1364.

I García Bolao, Rafael Teijeira, Inés Díaz-Dorrnsoro.et al. Late fatal right ventricular perforation as complication of permanent pacing leads.

Pacing and Clinical Electrophysiology (PACE) 2001; 24:1036-1037.

Cosin-Sales J, Maceira AM, Garcia-Velloso MJ, Macias A, Gimenez M, Garcia-Bolao I, Coma-Canella I. Safety and feasibility of atropine added to submaximal exercise stress testing with Tl-201 SPECT for the diagnosis of myocardial ischemia.

J Nucl Cardiol 2002; 9: 581-586.

I García Bolao, Alfonso Macías, Eduardo Alegría, Alejandro Berenguel, Juan J Gavira, Joaquín Barba. Biventricular pacing as a treatment for advanced heart failure. Preliminary experience in a series of 22 consecutive patients

Rev Esp Cardiol 2003; 56: 245-252.

Alfonso Macias, Juan J. Gavira, Eduardo Alegría, Joaquín Barba, Ignacio García-Bolao. Effect of the left ventricular pacing site on echocardiographic parameters of ventricular dyssynchrony in patients receiving cardiac resynchronization therapy..

Rev Esp Cardiol 2004;57:138–145.

Anguera I, Miro JM, Vilacosta I, Almirante B, Anguita M, Munoz P, Roman JA, de Alarcon A, Ripoll T, Navas E, Gonzalez-Juanatey C, Cabell CH, Sarria C, Garcia-Bolao I, et al. Aorto-cavitary fistulous tract formation in infective endocarditis: clinical and echocardiographic features of 76 cases and risk factors for mortality.

Eur Heart J 2005;26:288-97.

Díaz-Infante E, Hernández-Madrid A, Brugada-Terradellas J, Fernández-Lozano I, García-Bolao I, Leal del Ojo J, Martínez-Ferrer J, Moro C, Moya JL, Ruiz-Granell R, Silva L, Sitges M, Toquero J, Mont Ll. Consenso sobre la terapia de resincronización cardíaca.

Rev Esp Cardiol 2005 (supl.);5:3B-11B.

Diaz-Infante E, Mont L, Leal J, Garcia-Bolao I, Fernandez-Lozano I, Hernandez-Madrid A, Perez-Castellano N, Sitges M, Pavon-Jimenez R, Barba J, Cavero MA, Moya JL, Perez-Isla L, Brugada J; SCARS Investigators. Predictors of lack of response to resynchronization therapy.

Am J Cardiol 2005;95:1436-40.

Leal J, García Bolao I. Innovaciones técnicas: ¿Cómo favorecer el desarrollo de la terapia de resincronización cardíaca?.

Rev Esp Cardiol 2005; 5B: 24B-27B.

Ignacio García-Bolao, Alfonso Macías, Begoña López, Arantxa González, Juan J Gavira, Pedro Azcárate, Eduardo Alegría, Javier Díez. A biomarker of myocardial fibrosis predicts long-term response to cardiac resynchronization therapy. *J Am Coll Cardiol* 2006;47:2335-7.

Anguera I, Miro JM, San Roman JA, de Alarcon A, Anguita M, Almirante B, Evangelista A, Cabell CH, Vilacosta I, Ripoll T, Muñoz P, Navas E, Gonzalez-Juanatey C, Sarria C, Garcia-Bolao I, et al. Periannular Complications in Infective Endocarditis Involving Prosthetic Aortic Valves. *Am J Cardiol* 2006;98:1261-8.

Anguera I, Miro JM, Evangelista A, Cabell CH, San Roman JA, Vilacosta I, Almirante B, Ripoll T, Fariñas MC, Anguita M, Navas E, Gonzalez-Juanatey C, Garcia-Bolao I, et al. Periannular complications in infective endocarditis involving native aortic valves. *Am J Cardiol* 2006;98:1254-60.

Alfonso Macias, Ignacio Garcia-Bolao, Ernesto Diaz-Infante, Jose Maria Tolosana, Barbara Vidal, Juan Jose Gavira, Antonio Berruezo, Josep Brugada, Lluís Mont. Cardiac Resynchronization Therapy: predictive factors of unsuccessful left ventricular lead implant. *Eur Heart J* 2007;28:450-458.

Garcia-Bolao I. Cardiac resynchronization therapy: when the pacing site really matters. *Rev Esp Cardiol.* 2007;60(2):97-100.

García-Bolao I, Macías-Gallego A, Díaz-Infante E. Spanish catheter ablation registry. Sixth official report of the Spanish Society of Cardiology Working group on Electrophysiology and Arrhythmias (2006) *Rev Esp Cardiol.* 2007 Nov;60(11):1188-96.

Díez J, García-Bolao I, Barba J. Mechanical dyssynchrony: another mechanism of left ventricular dysfunction in hypertension? *J Hypertens* 2008;26:399-402.

García-Bolao I, Macías A, Moreno J, Martín A. Fatal left internal mammary artery graft to subclavian vein fistula complicating dual-chamber pacemaker implantation. *Europace.* 2008 Jul;10(7):890-1.

García-Bolao I, López B, Macías A, Gavira JJ, Azcárate P, Díez J. Impact of collagen type I turnover on the long-term response to cardiac resynchronization therapy. *Eur Heart J* 2008;29:898-906

Macías A, Gavira JJ, Castaño S, Alegría E, García-Bolao I. Left ventricular pacing site in cardiac resynchronization therapy: clinical follow-up and predictors of failed lateral implant. *Eur J Heart Fail* 2008;10:421-427.

Tolosana JM, Hernandez Madrid A, Brugada J, Sitges M, Garcia Bolao I, et al. Comparison of benefits and mortality in cardiac resynchronization therapy in patients with atrial fibrillation versus patients in sinus rhythm. *Am J Cardiol* 2008;102:444-9.

Macías A, Gavira JJ, Castaño S, Moreno J, Alegría E, García-Bolao I. Cardiac Resynchronization Therapy and Valvular Cardiomyopathy After Corrective Surgery. *Rev Esp Cardiol* 2008;61(10):1088-1091.

García-Bolao I, Díaz-Infante E, Gallego AM. Spanish Catheter Ablation Registry. Seventh official report of the Spanish Society of Cardiology Working Group on Electrophysiology and Arrhythmias (2007). *Rev Esp Cardiol* 2008;61(12):1287-97.

Macías Gallego A, Díaz-Infante E, García-Bolao I. Spanish Catheter Ablation Registry. 8th official report of the Spanish Society of Cardiology Working Group on Electrophysiology and Arrhythmias (2008). *Rev Esp Cardiol*. 2009 Nov;62(11):1276-85.

Rodríguez-Mañero A, Macías A, García Bolao I. Sudden Death. *Medicine*, 2009; 10 (44): 2934-41

Gavira JJ, Nasarre E, Abizanda G, Pérez-Illarbe M, de Martino-Rodriguez A, García de Jalón JA, Mazo M, Macias A, García-Bolao I, Pelacho B, Martínez-Caro D, Prósper F. *Eur Heart J* 2010;31(8):1013-2.

Díaz-Infante E, Macías-Gallego A, García-Bolao I. *Rev Esp Cardiol*. 2010;63(11):1329-39.

Ravassa S, García-Bolao I, Zudaire A, Macías A, Gavira JJ, Beaumont J, Arias T, Huerta A, Díez J.. *Cardiovasc Res* 2010;1;88:304-13.

Díaz-Infante E, Macías A, García-Bolao I. Spanish Catheter ablation registry. 9th report of the Spanish Society of Cardiology Working Group on Electrophysiology and Arrhythmias (2009). *Rev Esp Cardiol*. 2010;63:1329-39.

Macías Gallego A, Díaz-Infante E, García-Bolao . Spanish Catheter Ablation Registry. 10th Official Report of the Spanish Society of Cardiology Working Group on Electrophysiology and Arrhythmias (2010). *Rev Esp Cardiol*. 2011;64:1147-1153.

Macías A, Díaz Infante E, Garcia-Bolao I. Spanish catheter ablation registry. 10th official report of the Spanish Society of Cardiology Working Group on Electrophysiology and Arrhythmias (2010). *Rev Esp Cardiol* 2011, 64:1147-53.

Rodríguez M, Macías A, García-Bolao I. Incessant double ventricular response and paroxysmal atrial fibrillation.
Rev Esp Cardiol. 2012;65:668.

Rodríguez-Mañero M, Macías Gallego A, García-Bolao I, Gavira Gómez JJ, Hernández Estefanía R, Pujol Salvador C, Rábago G. Med Intensiva 2012;36(5):377-9.

Tolosana JM, Arnau AM, Madrid AH, Macías a, Lozano IF, Osca J, Quesada A, Toquero J, Francés RM, GarcíaBolao IG Berruezo A, Sitges M, Alcalá MG, Brugada J, Mont L. Cardiac Resynchronization therapy in patients with permanent atrial fibrillation. Is it mandatory to ablate the atrioventricular junction to obtain a good response?.
Eur J Heart Fail 2012;14:635-41

García-Bolao I, Calvo N, Gavira JJ, Moreno L, Arguedas H, Canepa JP, García de Yébenes M. Current status of cardiac resynchronization therapy.
Arch Cardiol Mex 2012;82:235-42.

Rodríguez M, Macías A, García-Bolao I, Gavira JJ, Hernández R, Pujol C, Rábago G. Heart failure secondary to atrial tachycardia in the early phase of heart transplantation. Usefulness of the electrophysiological study.
Med Intensiva 2012;36:377-9..

Naiara Calvo, Hugo Arguedas, Juan J Gavira, Graciela López, Cristina Díaz, Ignacio García Bolao. Totally subcutaneous ICD implantation as alternative to the conventional ICD in a patient with a congenital cardiopathy.
Rev Esp Cardiol 2013;66:827-829.

Hugo Arguedas, Naiara Calvo, Leire Moreno, Ignacio García Bolao. What is the next step after a failed standard AV nodal reentrant tachycardia radiofrequency ablation?.
Europace 2013 Oct 24 (Epub ahead of print)

Fernández-Lozano I, Ruiz-Mateas F, Osca J, Sancho-Tello MJ, García-Bolao I et al. Comments on the 2013 ESC Guidelines on Cardiac Pacing and Cardiac Resynchronization therapy.
Rev Esp Cardiol 2014 (*in press*)

b) Main books and book chapters

Non responders and patient selection from an electrophysiological perspective. I García Bolao, A Macías. In: St John Sutton M, Bax JJ, Jessup M, Brugada J, Schaliq MJ. Cardiac Resynchronization Therapy. ISBN: 978-1-84184-637-8. London 2007.

Modo de estimulación en pacientes con indicación de estimulación y disfunción ventricular izquierda. I García Bolao, A Macías, J Moreno, E Alegría. En: Mont L y Martínez Ferrer J: Avances recientes en estimulación cardíaca. Marge. ISBN 978-84-92442-25-6. Barcelona 2009.

Técnicas de implante. Nuevas herramientas y limitaciones. I García Bolao, A Macías. En: Mont L, Hernandez Madrid A. Resincronización Cardíaca. Marge Medical Books. ISBN 84-86684-58-7. Barcelona 2006.

Resincronización cardíaca. Indicaciones de implante, tipos y programación. M. Rodríguez, A. Macías, C. Pujol, I. García Bolao. En: T. Datino y B. Benito: Manual de Arritmias y Electrofisiología Cardíaca. ISBN:-13: 978-84-86671-81-5. Barcelona 2010.

Introduction to Clinical Electrocardiography. García Bolao I. 2002. ISBN: 85-344-3701-5. Barcelona, Ariel.

VII. INVITED SPEAKER IN MEETINGS

96 invited conferences or lectures

Main invited conferences:

“Implementing CRT in clinical practice: CS lead implantation” “Techniques and Tricks for Cannulation of The Coronary Sinus”.

33 rd Annual Scientific Sesions. Heart Rhythm Society. May 9-12 2012, Boston, USA.

Everything and MRI. Is it for everybody?. New Pacemaker Generations and MRI – Current Status

Cardiostim 2012, Nice, France.

Advances in Cardiac Resynchronization Therapy. VII Congress of the Mexican Society of Pacing and Electrophysiology. Querétaro, Mexico, 2011.

II Workshop of Cardiac resynchronization therapy and defibrillation for latin-american physicians. Institute for Therapy Advancement. Paris 2010.

Tips and tricks for difficult cardiac resynchronization therapy tracings. European Congress of Cardiac Pacing and Electrophysiology/European Heart Rhythm Association. Madrid 2011.

Cardiac resynchronization device implant procedure. Live case. III Active Reference Center Meeting. University Hospital of Grenoble, France 2009.

Atrioventricular and interventricular delay optimization in cardiac resynchronization therapy. European Congress of Cardiac Pacing and Electrophysiology/European Heart Rhythm Association. Lisbon, Portugal 2008.

Coronary Sinus dissection and the posterior approach. II Active reference meeting, Brussels, Belgium 2008.

Cardiac resynchronization therapy for the treatment of heart failure. XXV Meeting of the Society of Cardiac Surgeons/Cardiac Bioassist Association 2007.

Impact of multidisciplinary teams to improve cardiac resynchronization device implantation. 3er Endovascular and myocardial therapy course. TEAM 2005.

Cardiac resynchronisation therapy related infections. The Meeting of the European Heart Rhythm Association. Europace-2005. Praga, Junio 2005.

VIII. GRANTS & RESEARCH PROJECTS

1991 Grant from the Navarre Health Department for the study: "Beta receptors and ischemia". Martínez Caro D, Iglesias I, Díaz MC, García Bolao I, Alegría E, Barba J, Herreros J, Gil O. Pamplona 1991.

Rhône-Poulenc Grant: Basic mechanisms of atherogenesis. Martínez Caro D, Alegría E, Calabuig Nogués J, García Bolao I, Martínez A, Rodríguez García JA. Pamplona 1992.

1993 (Ortiz de Landazuri Grant) from the Navarre Health Department: Effect of hypercholesterolemia on platelet growth factors in a porcine model of hypercholesterolemia Martínez Caro D, García Bolao I, Martínez Monzonís A, Alegría Ezquerro E. Pamplona 1993.

1998 Grant from the Navarre Health Department "Angiogenesis in ischemic cardiomyopathy. Usefulness of the angiogenic factors and endothelin as biomarkers of myocardial ischemia. IP: I. García Bolao. Pamplona, 1998.

Beca Roche-Sociedad Española de Cardiología 2003: "Efecto de la terapia de resincronización cardiaca sobre la reserva de flujo coronario en pacientes con insuficiencia cardiaca avanzada de etiología no isquémica" Ignacio García Bolao, Alfonso Macías Gallego, Juan José Gavira Gómez, Pedro Azcárate Agüera, María José García Velloso, Josep Martí Climent, Eduardo Alegría Ezquerro.

Beca Fundación MAPFRE Medicina (convocatoria 2004 "Estudio de linfocitos T específicos de Chlamydia pneumoniae en pacientes con arterioesclerosis coronaria: correlación con la severidad de la enfermedad").

Award of the Pacing Section for the best paper published in the Rev Esp Cardiol in 2004: [Biventricular pacing as a treatment for advanced heart failure. Preliminary experience in a series of 22 consecutive patients. I García Bolao, Alfonso Macías, Eduardo Alegría, Alejandro Berenguel, Juan J Gavira, Joaquín Barba. Rev Esp Cardiol 2003; 56: 245-252.

Grant of the Spanish Society of Cardiology for the project: "Efecto de la terapia de resincronización cardiaca sobre la fibrosis miocárdica y el remodelado ventricular izquierdo en pacientes con insuficiencia cardiaca avanzada". I García Bolao, L Mont

Girbau, E Alegría Ezquerro, A Macías Gallego, JJ Gavira Gómez, P Azcárate Agüero, J Díez Martínez, J Brugada Terradellas

PI: Ayudas a la investigación en Ciencias de la Salud 2004. Dirección General del Departamento de Salud del Gobierno de Navarra por el proyecto de investigación: "Efecto de la Terapia de resincronización cardiaca sobre un marcador bioquímico de fibrosis miocárdica en pacientes con insuficiencia cardiaca avanzada

Fundación Mutua Madrileña: Correlación de la respuesta inmunitaria frente a LDL oxidada y HSP60 con la severidad de la enfermedad aterosclerótica. Madrid 2005.

10th Michel Mirowski Award: Limitation of excessive collagen type I synthesis and deposition may contribute to long-term benefits of cardiac resynchronization therapy in patients with heart failure. Madrid Arrhythmia Meeting 2007.

Associated investigator GUSTO: (Global Utilization of Streptokinase and Tissue Plasminogen Activator for Occluded Coronary Arteries).

PI ALIVE study (Azimilide Post Infarct Survival Evaluation Trial). Procter and Gamble Pharmaceuticals. 1998.

PI Evaluación de la sensibilidad y especificidad de la detección de la taquicardia auricular y ventricular en los criterios adicionales de detección AV. Guidant. 1999.

PI Onset of cardiac arrhythmias and stored E-grams in Pulsar Max II and Discovery II. Guidant. 2000.

PI CONTAK registry.

PI TEAM-HF study: Terapia de estimulación avanzada en pacientes portadores de marcapasos.

PI COGENT-4 study: Cognis and Teligent platforms study.

Shockless Implant Evaluation (SIMPLE). NCT00800384.

PI NECTAR-HF study: Neural Cardiac Therapy for Heart Failure (NECTAR-1109).

PI P11/00572: Fondo de Investigación Sanitaria (FIS), Instituto de salud Carlos III: "Evaluation of the impact of CRT on the energetic cardiac metabolism.

IVORY. Ingenio Device Algorithm Study. NCT01441583 (Activo, seguimiento). Boston Scientific.

Clinical Evaluation of the REPLY MR-conditional Pacing System. NCT01341522 (No abierto). Sorin.

MINERVA: MINimize Right Ventricular Pacing to Prevent Atrial Fibrillation and Heart Failure. NCT0262119.

X-Vert. Explore the efficacy and safety of once-daily oral rivaroxaban for the prevention of cardiovascular events in subjects with non-valvular atrial fibrillation scheduled for cardioversion. NCT01674647.

Leadless pacing. Nanostim leadless pacing. NCT01700244 (pending)

MORE-CRT MPP: More Response on cardiac Resynchronization Therapy (CRT) with Multipoint Pacing (MPP) NCT02006069 (pending)

Rally X4. Study of a new quadripolar lead and delivery system for CRT. (pending)

Respond-CRT. Clinical Trial of the SonRtip Lead and Automatic AV-VV Optimization Algorithm in the PARADYM RF SonR CRT-D (RESPOND CRT) NCT01534234 (Member Data and Safety Committee Board)

VIII. EDITORIAL BOARDS, REVIEWS

Editorial Board, Revista Espanola de Cardiologia, Clinical Cardiology

Manuscript reviewer: American Journal of Cardiology, Clinical Cardiology, Europace, Revista Espanola de Cardiologia, Arch Cardiol Mex

Abstract reviewer: European Society of Cardiology Congress (2010-present), Congress of the Spanish Society of Cardiology (2008-present).

Member of the Data and Safety Committee Board. Respond-CRT: Clinical Trial of the SonRtip Lead and Automatic AV-VV Optimization Algorithm in the PARADYM RF SonR CRT-D. NCT01534234.

X. SPECIALIST SKILLS AS FIRST OPERATOR

Invasive Cardiac Electrophysiology

- Catheter ablation of conventional arrhythmic substrates (approx 1050 procedures)
- Catheter ablation of complex arrhythmic substrates, including atrial fibrillation ablation (over 300 procedures as first operator, 93 in year 2012). Experienced in both radiofrequency, cryoablation and PVAC (290, 39 and 12 procedures, respectively), and ventricular tachycardia (66 procedures)
- Non-fluoroscopic navigation (Ensite NavX, Array non-contact mapping, Carto3 and Noga systems)
- Conventional diagnostic EP studies
- Implantation of Cardiac Resynchronization devices (over 400 as first operator, 43 in year 2012) published on par with best reported internationally
- Conventional ICD and pacemaker implantation (1100 procedures)
- Subcutaneous ICD (Cameron S-ICD) (1 procedure)
- Percutaneous ICD and PM lead extraction (radiofrequency assisted sheaths & femoral workstation) (over 75 procedures as first operator, 22 in year 2012)

- Hybrid AF ablation combined with percutaneous left atrial appendage closure procedures (Watchman or Amplatzer: 22 procedures)
- Post-MI regenerative stem cell therapy. Noga system (45 procedures) (phase II research study)
- Implantation of SC ECG monitoring systems

Clinical practice in cardiac arrhythmias

- Approx 1500 follow-up arrhythmic patients seen per year.
- Experienced in Remote Monitoring (CareLink and Latitude)