

Date of the CVA	18/01/2021
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Section A. PERSONAL DATA

Name and Surname	Borja Ibañez Cabeza		
DNI/NIE/Passport		Age	
Researcher's identification number	Researcher ID	J-6993-2014	
	Scopus Author ID	13907649300	
	ORCID	0000-0002-5036-254X	

* Obligatorio

A.1. Current professional situation

Institution	Fundación Jiménez Díaz		
Dpt. / Centre	Cardiology / Universidad Autónoma de Madrid Cardiology		
Address			
Phone		Email	
Professional category	Clinical Cardiologist- Staff in Interventional Cardiology	Start date	2015
Keywords			

A.2. Academic education (Degrees, institutions, dates)

Bachelor/Master/PhD	University	Year
PhD in Medicine	Universidad Autónoma de Madrid	2010
Cardiologist	Universidad Autónoma de Madrid,	2005
Medical Doctor (MD),	Universidad Complutense de Madrid,	1999

A.3. General quality indicators of scientific production

- a) Total number of citations: 11,542 (45.8 per article)
- b) Number of citations during the last five years (2016-2020): 4,729 citations
- c) Total number of publications: 304 (163 in the last 5y); 78% are in Q1; 47% are in D1, 37% are in the TOP3 of their category.
- d) H-index: 44 (5-years H-index: 29)
- e) 78% of publications are original articles and reviews. Main author in >40%.
- f) Thesis supervised: 21 (and 5 on-going)

Section B. SUMMARY OF THE CURRICULUM

Dr Ibañez MD-PhD is a cardiologist at the University Hospital Fundación Jiménez Díaz (FJD) since 2015. He combines his clinical role with research activities carried out between the hospital and the Centro Nacional de Investigaciones Cardiovasculares (CNIC), as head of the Translational Laboratory for Cardiovascular Imaging and Therapy. He is also PI of a consolidated group of the CIBER CV network.

After completing MD & cardiology training in Madrid, Dr Ibañez spent 3y training in basic & translational research at Mount Sinai School of Medicine, NY. Since starting an independent research career in 2009, he has held a dual appointment in research & in the clinic, thus bringing an up-to-date vision of clinical needs to the lab in order to better define pathophysiological processes and find new therapeutic targets.

To tackle scientific questions from different angles, he has built a highly multidisciplinary group including basic researchers, clinicians, physicists & engineers. The group is active in research with pigs, whose cardiac anatomy & physiology are similar to those of humans. This approach increases the chances of successfully translating basic research results to the clinic. His primary scientific interest is myocardial diseases, especially acute myocardial

infarction (ischemia/reperfusion injury). He has also led multicenter clinical trials demonstrating beneficial effects of therapies identified by his group. The group uses noninvasive imaging to better understand biological processes in the heart during disease. More recently, his group initiated research on the role of mitochondrial dynamics in heart failure (HF), gaining knowledge about mitochondrial biology in myocardial disease that sheds light on anthracycline-induced cardiotoxicity. Dr Ibáñez has published over 250 scientific articles in top basic and clinical journals such as Science, Nature Medicine, Nat Commun, Lancet, Circulation, J Am Coll Cardiol & Eur Heart J and has written 20 book chapters. His uninterrupted competitive funding from national & international agencies includes an ERC Consolidator grant (2018 call), and a recent H2020-HEALTH as global coordinator (2019 call).

He is committed to training young researchers and was director of the CIBERCV training program. He has directed 21 PhD theses & supervised 5 postdoctoral fellows (including a Marie Curie Individual Global Fellowship). He was President of the CV Panel for the ISCiii FIS funding scheme and served as Chairman of the ESC ST-Elevated Acute Myocardial Infarction Clinical Practice Guidelines in 2017.

Section C. MOST RELEVANT MERITS (ordered by typology)

C.1. Publications

AC: Autor de correspondencia; (nº x / nº y): posición firma solicitante / total autores

- 1 Scientific paper.** Carlos Galan-Arriola; Rocio Villena-Gutierrez; Maria I Higuero-Verdejo; et al;. 2020. Remote Ischemic Preconditioning Ameliorates Anthracycline-induced Cardiotoxicity and Preserves Mitochondrial Integrity Cardiovasc Res. 2020 (In Press) doi.org/10.1093/cvr/cvaa181. * B Ibanez CORR AUTHOR (IF 8,2, Q1 D1).
- 2 Scientific paper.** JA De la Chica; S Gómez-Talavera; JM García- Ruiz; et al;. 2020. Left ventricular Non Compaction and Vigorous Physical Activity Basic Res Cardiol.
- 3 Scientific paper.** M Lobo-Gonzalez; C. Galán-Arriola; X Roselló; et al;. 2020. Metoprolol blunts the time-dependent progression of infarct size Basic Res Cardiol.
- 4 Scientific paper.** A. Clemente-Moragón; M. Gómez; R. Villena-Gutierrez; et al;. 2020. Metoprolol exerts a non-class effect against ischemia-reperfusion injury by abrogating exacerbated inflammation.Eur Heart J. Eur Heart J.
- 5 Scientific paper.** Ibanez, Borja; Aletras, Anthony H.; Arai, Andrew E.; et al; Fuster, Valentin. 2019. Cardiac MRI Endpoints in Myocardial Infarction Experimental and Clinical Trials JACC Scientific Expert Panel J Am Coll Cardiol 2019;74:238–56. * B Ibanez CORR Author (IF 20.6, Q1, D1). ISSN 1558-3597.
- 6 Scientific paper.** Galan-Arriola, Carlos; Lobo, Manuel; Paul Vilchez-Tschischke, Jean; et al; Ibanez, Borja. 2019. Serial Magnetic Resonance Imaging to Identify Early Stages of Anthracycline-Induced Cardiotoxicity J Am Coll Cardiol 2019 ;73:779–91. * B Ibanez CORR AUTHOR (IF 20.6, Q1, D1). ISSN 1558-3597.
- 7 Scientific paper.** Fernandez-Jimenez, Rodrigo; Barreiro-Perez, Manuel; Martin-Garcia, Ana; et al; Ibanez, Borja. 2017. Dynamic Edematous Response of the Human Heart to Myocardial Infarction Implications for Assessing Myocardial Area at Risk and Salvage Circulation 2017;136:1288–1300. * B Ibanez CORR AUTHOR (IF 18,9, Q1, D1). ISSN 1524-4539.
- 8 Scientific paper.** Fernandez-Jimenez, Rodrigo; Galan-Arriola, Carlos; Sanchez-Gonzalez, Javier; et al; Ibanez, Borja. 2017. Effect of Ischemia Duration and Protective Interventions on the Temporal Dynamics of Tissue Composition After Myocardial Infarction Circ Res 2017;121:439-450. * B Ibanez CORR AUTHOR (IF 15,2, Q1, D1). ISSN 1524-4571.
- 9 Scientific paper.** Garcia-Prieto, Jaime; Villena-Gutierrez, Rocio; Gomez, Monica; et al; Ibanez, Borja. 2017. Neutrophil stunning by metoprolol reduces infarct size Nature Commun 2017;8:14780. * B Ibanez CORR AUTHOR (IF 12,4, Q1, D1). ISSN 2041-1723.
- 10 Scientific paper.** Wai, Timothy; Garcia-Prieto, Jaime; Baker, Michael J.; et al; Langer, Thomas. 2015. Imbalanced OPA1 processing and mitochondrial fragmentation cause heart failure in mice Science 2015;350 (6265): aad0116 (pages 1-11). *B Ibanez CORR AUTHOR (IF 34,7, Q1, D1). ISSN 1095-9203.

- 11 **Scientific paper.** Fernandez-Jimenez, Rodrigo; Garcia-Prieto, Jaime; Sanchez-Gonzalez, Javier; et al; Ibanez, Borja. 2015. Pathophysiology Underlying the Bimodal Edema Phenomenon After Myocardial Ischemia/Reperfusion J Am Coll Cardiol 2015; 66:816-28. * B Ibanez CORR AUTHOR (IF 17,8, Q1, D1). ISSN 1558-3597.
- 12 **Scientific paper.** Ibanez, Borja; Heusch, Gerd; Ovize, Michel; Van de Werf, Frans. 2015. Evolving Therapies for Myocardial Ischemia/Reperfusion Injury J Am Coll Cardiol 2015;65:1454-71. * B Ibanez CORR AUTHOR (IF17.8, Q1 D1). ISSN 1558-3597.
- 13 **Scientific paper.** Fernandez-Jimenez, Rodrigo; Sanchez-Gonzalez, Javier; Aueero, Jaume; et al; Ibanez, Borja. 2015. Myocardial Edema After Ischemia/Reperfusion Is Not Stable and Follows a Bimodal Pattern Imaging and Histological Tissue Characterization J Am Coll Cardiol 2015;65:315-23. * B Ibanez CORR AUTHOR (IF 17,8, Q1, D1). ISSN 1558-3597.
- 14 **Scientific paper.** Garcia-Alvarez, Ana; Garcia-Lunar, Ines; Pereda, Daniel; et al; Ibanez, Borja. 2015. Association of Myocardial T1-Mapping CMR With Hemodynamics and RV Performance in Pulmonary Hypertension JACC-CARDIOVASCULAR IMAGING. ELSEVIER SCIENCE INC. 8-1, pp.76-82. ISSN 1876-7591, ISSN 1936-878X.

C.2. Participation in R&D and Innovation projects

- 1 Horizon 2020 SC1-BHC-08-2020 "Remote Ischemic Conditioning in Lymphoma Patients Receiving Anthracyclines" (RESILIENCE). Project ID 945118 B. Ibañez (PICO). (Instituto de Salud Carlos III). 2021-2025. 5.999.531 €.
- 2 Horizon 2020 SC1-BHC-08-2020 "Remote Ischemic Conditioning in Lymphoma Patients Receiving Anthracyclines" (RESILIENCE). Project ID 945118. B. Ibañez (PI). (Instituto de Salud Carlos III). 2021-2025. 6.583.215 €.
- 3 ERC consolidator "Novel mitochondria-targeted therapies for cancer treatment-induced cardiotoxicity (MATRIX)". PRINCIPAL INVESTIGATOR ERC (European Research Council). (CNIC & Fundacion Jimenez Diaz). 01/09/2019-31/08/2024. 1.999.370 €.
- 4 RETOS-MICIN-Reappraisal of ischemia/reperfusion injury targets (RECENTRE)". Project ID: PID2019-107332RB-I00. PRINCIPAL INVESTIGATOR (Instituto de Salud Carlos III). 01/06/2020-31/05/2023. 375.000 €.
- 5 AC16/00021, H2020-ERA CVD Heart Failure Rescue by Nutritional Approaches: relevance of mitochondrial substrate utilization-FAT4HEART. PRINCIPAL INVESTIGATOR-GLOBAL COORDINATOR Instituto de Salud Carlos III. Horizon 2020 European Research Area Network on Cardiovascular Diseases (ERA-CVD) Joint Transnational Call (JTC2016 / APCIN-ISCIII-2016.). Borja Ibañez. (Instituto de Salud Carlos III). 01/01/2017-31/12/2019. 643.178 €. Principal investigator.
- 6 BBVA grant. Fat diet for heart failure Reversal: a conceptual change. PRINCIPAL INVESTIGATOR Ayudas Fundación BBVA a Equipos de Investigación Científica 2016. Borja Ibañez. (Instituto de Salud Carlos III). 30/09/2016-29/09/2019. 119.790 €. Principal investigator.
- 7 Technological development Health Research Projects -FIS DTS. Ref #DTS17/00136. "Development of a novel ultra-rapid 3D cardiac magnetic resonance sequence for clinical application" b. IBAÑEZ (PI). (Instituto de Salud Carlos III). 2018-2019. 77.550 €.
- 8 FIS, PI16/02110. "Selective blockade of beta1 adrenergic receptors as a therapy for acute cardiovascular disease in the light of a novel mechanism of action – a comprehensive translational study". PRINCIPAL INVESTIGATOR Borja Ibañez (PI). (Instituto de Salud Carlos III). 2017-2019. 195.415 €.
- 9 SAF2013-49663-EXP, Infarto agudo de miocardio:detener la isqvemias sin restablecer el flujo sanguíneo. desafio a un paradigma universal Explora ciencia. Borja Ibañez. (FUNDACION CENTRO NACIONAL DE INVESTIGACIONES CARDIOVASCULARES CARLOS III). 01/09/2014-31/08/2016. 99.220 €. Principal investigator.
- 10 Characterization of the dynamic changes in tissue composition of the myocardium after ischemia/reperfusion by using advanced imaging technology Ministerio de Economía y Competitividad-Instituto de Salud Carlos III (FIS). Borja Ibanez. (FUNDACION CENTRO NACIONAL DE INVESTIGACIONES CARDIOVASCULARES CARLOS III). 01/01/2014-01/01/2016. 145.200 €. Principal Investigator.

- 11 Allogenic adipose tissue-derived stem cells therapy in a porcine model of myocardial infarction: paracrine mechanisms, immune response and functional effects at short and long-term follow-up CENTRO DE ACUSTICA APLICADA Y EVALUACION NO DESTRUCTIVA; La Marató Foundation. Borja Ibañez. (FUNDACION CENTRO NACIONAL DE INVESTIGACIONES CARDIOVASCULARES CARLOS III). 2012-2015. Principal Investigator.
- 12 LiPHOS-317916, Living Photonics: Monitoring light propagation through cells for cardiovascular disease diagnosis Comisión Europea. Seventh Framework Programme. Borja Ibañez. (FUNDACION CENTRO NACIONAL DE INVESTIGACIONES CARDIOVASCULARES CARLOS III). 2012-2015. 310.250 €. Principal Investigator.

C.3. Participation in R&D and Innovation contracts

Master research agreement, Philips Iberica. "Role of T1W mapping in the evaluation of patients with acute myocardial infarction" Borja Ibanez Cabeza. 2011-01/01/2013.

C.4. Patents

Enrique Lara Pezzi; Borja Ibañez Cabeza; Enda Joseph Clinton; Jesús María Gomez Salinero; María Villalba Orero; David Sanz Rosa; Juan Antonio Bernal Rodriguez. EP14155721.5. AAV vectors for the treatment of ischemic and non-ischemic heart disease Spain. 2014. FUNDACION CENTRO NACIONAL DE INVESTIGACIONES CARDIOVASCULARES CARLOS III.