#### Identity:

Title: MD, PhD Family Name(s): Antoni First Name(s): Bayes-Genis Age: 55

Application for the following position in the HFA Board or Nominating Committee: Treasurer



#### **Place of work**

If you work in multiple places, please provide the one where you spend the most time or that you consider to be your main place of practice.

Institute/organisation:	Hospital Universitari Germans Trias i Pujol
Department:	Cardiology – Heart Institute
Address:	C/ Canyet SN
Post code / Zip:	08916 Badalona, Barcelona
Country:	Spain

## General Curriculum Vitae (500 words max)

Please also include your H index and top 5 to 10 publications in the last 5 years

Prof Antoni Bayes-Genis has published >835 SCI papers. Full professor at the Universitat Autònoma Barcelona and director/co-director of 20 PhD Thesis. Over 20-year research experience in the field of cardiology, specifically in heart failure and cardiac regeneration.

**Bibliometric impact** (Scholar- search Feb 10 2024): H-index: 88, i-10 index: 534, citations: 41086

## Main contributions:

## In the field of heart failure:

- Characterization of the clinical use of natriuretic peptides for diagnosis, prognosis and monitoring in heart failure. Pioneer in the description of the value of NT-proBNP in the Emergency Department. "Peptide for Life" project leader within the HFA to promote the use of natriuretic peptides for early diagnosis of heart failure.
- 2. Study of novel biomarkers in heart failure, with emphasis on the value of ST2 for prognostication and CA125 for assessment of congestion.
- 3. Proteomic analysis of cardiogenic shock.
- 4. Development of the Barcelona Bio-HF Calculator (BCN BioHF Calculator) to assess the risk of death and HF hospitalization. Online web available.
- 5. Study of reverse remodeling heart failure recovery.
- 6. Study of sudden death predictors in patients with HF.

In the field of basic research:

- 1. Pioneers to identify the limited regenerative capacity of the heart (cardiac chimerism experiments) and the presence of cardiac microchimerism.
- 2. Identification and characterization of a new source of stem cells from human epicardial fat.

- 3. Development of the PeriCord implant, which contains decellularized pericardium refilled with umbilical cord MScs. First-in-hum study PERISCOPE ongoing.
- 4. Research on clonal haematopoiesis and atrial fibrillation development.

# Top publications in the last 5 years:

In Heart Failure:

- 1. Lázaro I, et al. Relationship of Circulating Vegetable Omega-3 to Prognosis in Patients With Heart Failure. *J Am Coll Cardiol. 2022* Nov 1;80(18):1751-1758.
- 2. Bisbal F, et al. Atrial Failure as a Clinical Entity: JACC Review Topic of the Week. <u>J Am Coll</u> <u>Cardiol. 2020</u> Jan 21;75(2):222-232.
- 3. Rueda F, et al. Protein-based cardiogenic shock patient classifier. *Eur Heart J. 2019* Aug 21;40(32):2684-2694.
- 4. Pascual-Figal DA, *et al*. Clonal Hematopoiesis and Risk of Progression of Heart Failure With Reduced Left Ventricular Ejection Fraction. *J Am Coll Cardiol. 2021* Apr 13;77(14):1747-1759.
- 5. Pascual-Figal DA, et al; DAPA-MODA Study Investigators. Impact of dapagliflozin on cardiac remodelling in patients with chronic heart failure: The DAPA-MODA study. <u>*Eur J Heart Fail.*</u> 2023 Aug;25(8):1352-1360.

# In the field of basic research

- 1. Hulsmans M, et al. Recruited macrophages elicit atrial fibrillation. <u>Science. 2023</u> Jul 14;381(6654):231-239.
- 2. Heyde A, et al. Increased stem cell proliferation in atherosclerosis accelerates clonal hematopoiesis. *Cell. 2021* Mar 4;184(5):1348-1361.e22.
- Monguió-Tortajada M, et al. Acellular cardiac scaffolds enriched with MSC-derived extracellular vesicles limit ventricular remodelling and exert local and systemic immunomodulation in a myocardial infarction porcine model. <u>Theranostics. 2022</u> Jun 6;12(10):4656-4670.
- 4. Iborra-Egea O, et al. Deep Learning Analyses to Delineate the Molecular Remodeling Process after Myocardial Infarction. <u>*Cells. 2021*</u> Nov 23;10(12):3268.
- 5. Prat-Vidal C, et al. First-in-human PeriCord cardiac bioimplant: Scalability and GMP manufacturing of an allogeneic engineered tissue graft. *EBioMedicine*. 2020 Apr;54:102729.

**Describe previous experience within the HFA, ESC and/or your National Cardiac/ HF Society** *150 words maximum* 

I am a fellow of the Spanish Cardiac Society since 1993, and my involvement in the HFA board began in 2020. Initially, I served as a regular board member from 2020 to 2022. In the most recent term (2022-2024), I took on the role of Executive Committee member and clinical section chair.

I have been deeply involved in numerous consensus documents and scientific statements by the HFA, taking a leadership role particularly in those pertaining to biomarkers. In 2022, I had the honor of co-chairing the HFA congress in Madrid alongside Brenda Moura, marking the first face-to-face congress post-COVID.

I lead the "Peptide for Life" project within the HFA, which focuses on expediting heart failure diagnosis in both hospital and community settings. Our efforts include conducting international

surveys, developing novel algorithms, crafting policy roadmaps, and advocating for improved diagnostic processes.

## **Why are you motivated to join the HFA Board or Nominating Committee?** 150 words maximum

My desire to join the new HFA board (2024-2026) stems from several motivations:

- 1. To sustain my engagement in scientific endeavors within the HFA. Throughout these last four years, I have gained valuable insights into the operations of the HFA board, collaborated closely with ESC staff and members, and actively engaged in various HFA initiatives.
- 2. To continue the "Peptide for Life" project, which still has untapped potential for expansion.
- 3. To actively participate in and gain a deeper understanding of the financial aspects of the association by serving as treasurer.

#### How will you combine your HFA position with your daily clinical/research workload? 80 words maximum

Since 2010, I have served as the head of the Heart Institute at Hospital Germans Trias I Pujol. The initial years were dedicated to building and structuring the department, which demanded considerable time and effort. However, in recent years, I have been fortunate to have more flexibility to focus on research and strategy. Importantly, I have received full support from the hospital governance to actively participate in and allocate part of my time to HFA duties.