Stanford

Bruna Filipa Gomes Botelho Quintas

Postdoctoral Scholar, Cardiovascular Medicine

Resume available Online

Bio

BIO

Dr. Bruna Gomes is a cardiologist trained at the Heidelberg University Hospital in Germany. She obtained her medical degree (2008-2014) at the Faculty of Medicine of the University of Coimbra, Portugal. As a cardiologist resident (residency 2014-2021), she obtained considerable experience in distinct clinical settings varying from diverse cardiology wards to echocardiography, interventional cardiology, and cardiac MRI. During this period, she expanded her quantitative skill set to include biostatistics and bioinformatics (with special focus in deep learning and computer vision) to address open issues in diagnosing and treating structural heart disease.

Since July 2021 she is a postdoctoral researcher at Stanford University, currently refining her bioinformatics research skills at Prof. Ashley's lab.

In her spare time, she plays the piano, composes music, travels, and plays virtual reality games.

HONORS AND AWARDS

- Award for the best student of the class 2008-2014, Faculty of Medicine, University of Coimbra, Portugal (2015)

- Award for the top 3% best students, University of Coimbra, Portugal (2011,2012,2013,2014)

- Merit scholarship, University of Coimbra, Portugal (2011)

- Award for the top 3% best students, University of Coimbra, Portugal (2009,2010)

- Finalist of the XVII Portuguese Mathematics Olympiad, Portuguese Mathematics Olympiad (2008)

- Merit Prize awarding the best secondary school student, Rotary Club, Portugal (2008)

- Merit Prize awarding the students with the best secondary school diploma, Ministry of Education, Portugal (2008)

PROFESSIONAL EDUCATION

- Doctor of Medicine, University of Heidelberg (2018)

- Master of Medicine, Universidade De Coimbra (2014)

- Cardiology specialist, Department of Cardiology, Pneumology and Angiology, Heidelberg University Hospital, Germany (2021)

STANFORD ADVISORS

- Euan Ashley, Postdoctoral Faculty Sponsor

LINKS

- List of publications: https://www.ncbi.nlm.nih.gov/myncbi/bruna%20filipa.gomes%20botelho%20quintas.1/bibliography/public/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

The increasing availability of very large datasets, along with recent advances in deep learning based tools for automatic extraction of cardiac traits, has led to the discovery of further common variants associated with cardiac disease. However, the genetic underpinnings of valvular heart disease remains understudied. I am interested in developing deep learning techniques to automatically extract cardiac flow information to facilitate genome-wide association studies of cardiac flow traits.

Publications

PUBLICATIONS

- **Genetic architecture of cardiac dynamic flow volumes.** *Nature genetics*
  Gomes, B., Singh, A., O'Sullivan, J. W., Schnurr, T. M., Goddard, P. C., Loong, S., Amar, D., Hughes, J. W., Kostur, M., Haddad, F., Salerno, M., Foo, R., Montgomery, et al
  2023

- **Defining left ventricular remodeling using lean body mass allometry: a UK Biobank study.** *European journal of applied physiology*
  Gomes, B., Hedman, K., Kuznetsova, T., Cauwenberghs, N., Hsu, D., Kobayashi, Y., Ingelsson, E., Oxborough, D., George, K., Salerno, M., Ashley, E., Haddad, F.
  2023