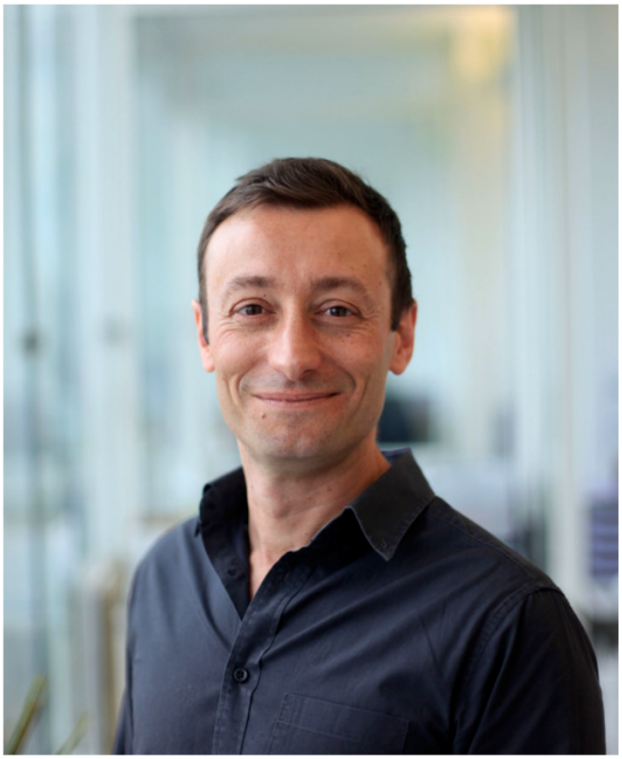
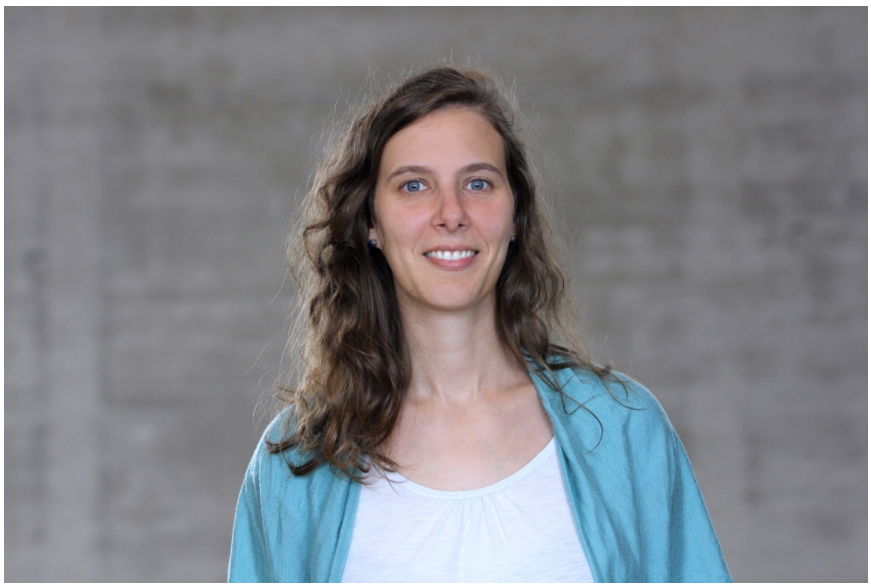
Our Keynote Lecturers



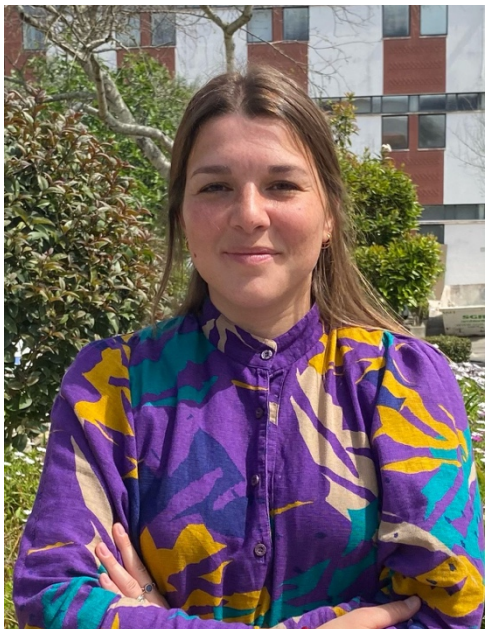
Marco Vignuzzi is a group leader at the Pasteur Institute. His lab is investigating the rules of RNA virus evolution and population dynamics and how these difficult to quantify aspects of infection shape viral fitness. His insights into the complex infection cycles of many important human pathogens come from bridging molecular virology experiments in the wet lab with mathematical and computational approaches. Marco did his PhD at the Institute Pasteur in the lab of Sylvie van der Werf before moving to California for his Postdoc at the UCSF.

Rita Mateus is a joint group leader at the Max Planck Institute of Molecular Cell Biology and Genetics and at the Cluster of Excellence Physics of Life in Dresden, Germany. She has always been interested in understanding how cells coordinate precise growth and form of tissues, allowing them to become fully functional. To this end, Rita did her PhD in Prof. Antonio Jacinto's laboratory, where she investigated how, upon injury, the zebrafish caudal fin precisely regenerates its shape and size, over and over, error-free. During her postdoc in the group of Prof. Marcos Gonzalez-Gaitán, Rita turned to development to investigate how morphogens control organ growth, using the zebrafish pectoral fin as a model.

In parallel, she became more and more interested in understanding size and shape at the subcellular level, in particular to try to understand the physics and biology underlying structural colors, that require the formation of specific organelles with particular morphologies. Now, in her laboratory, Rita is pursuing these two research avenues to explore the biophysical properties involved in controlling growth across these very different scales.

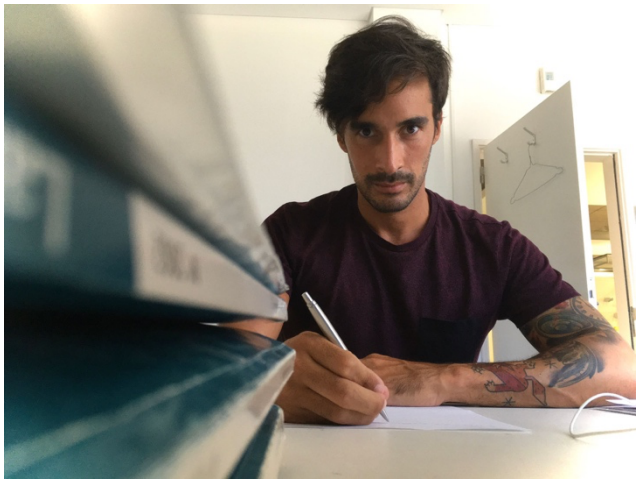


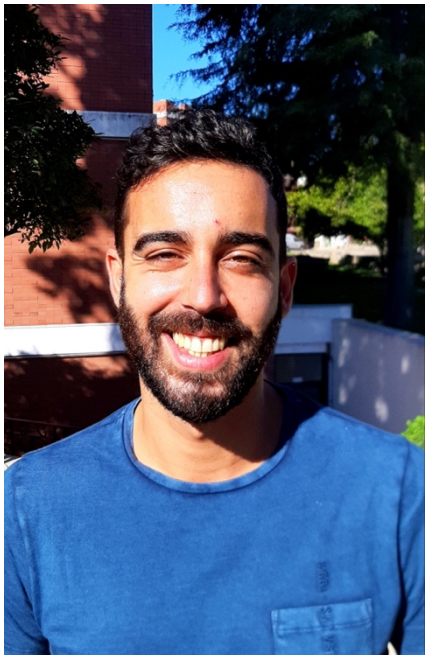
Our Alumni



Catarina Nunes is an IBB alumnus from the 2016 cohort. She did her PhD work under the supervision of Dr. Élio Sucena, working on the regulation of immunity by ecdysone signalling during metamorphosis, using the model organism Drosophila melanogaster. During her work, Catarina found that the steroid signalling responsible for regulating metamorphosis is also responsible for orchestrating a pre-emptive immune response that might have had evolutionary implications. Currently, she is a research associate at the Imperial College London, working with Dr. Marc Dionne on immunometabolism and the interplay between stress response and immunity in D. melanogaster.

Nuno Brito Santos is an alumnus from the 3rd edition of the PGCD. He did his PhD with Maria João Amorim, working on the interaction between influenza A virus and a host regulator of complement activation. His research unveiled a novel pathway regulating lung immunopathology upon infection. Currently, he is a postdoc at The Francis Crick Institute, working in molecular mechanisms of SARS-CoV-2 replication in David Bauer's lab.





Rafael Paiva is an IBB alumnus from the class of 2016. He did his PhD in the lymphocyte development and leukemogenesis lab working under the supervision of Vera Martins. During this time, he studied how the thymus can maintain its function when the supply of bone marrow progenitors is hampered and how this promotes leukemogenesis. Specifically, he identified a population of CD4 CD8 double negative thymocytes that acquires self-renewal properties thereby autonomously maintaining T cell development. Notwithstanding, the same population overtime was prone to DNA damage and originated aberrant CD4 CD8 double positive thymocytes lacking productive T cell receptor β rearrangements in a Notch1-dependent manner. Rafael is currently in a transition period and will be starting in March a postdoc in Olivier Lantz group at Institut Curie, Paris, working on the differentiation and function of mucosal associated invariant T cells.