

Short Curriculum Vitae

Daniel Simão

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Daniel Simão is the Head of Bayer Pharma Satellite Lab, integrated in the Animal Cell Technology Unit of IBET's Health & Pharma Division.

Daniel Simão graduated in Biology (University of Lisbon) and holds an MSc in Molecular Genetics and Biomedicine (NOVA School of Science and Technology). Obtained his PhD in Bioengineering Systems from the MIT-Portugal Doctoral Program in 2016. Having pursued his PhD studies in the Advanced Cell Models Laboratory (iBET and ITQB NOVA), D. Simão focused mostly on the development of stem cell-based 3D *in vitro* models of central nervous system for preclinical research. His work contributed for the establishment of neural differentiation methodologies based on stirred culture systems, interrogating functional aspects of neuron-glia interactions and applying such models for evaluation of viral vectors for gene therapy. Joined the Adenovirus Receptors, Trafficking and Vectorology Laboratory at IGMM (Montpellier, France) for a short post-doc, working on the construction and production of CAV-2 vectors for gene transfer to central nervous system. In 2017, joined the Bayer Pharma Satellite Lab working on the development of a microfluidics-based antibody discovery platform and next-generation sequencing technology applications.

Major research activities at Bayer Pharma Satellite Lab are in the field of antibody discovery using phage display technology. Core competences include the design and execution of antibody library selection; screening strategies for the characterization of the selected antibody fragments against disease-relevant targets; development of expression platforms for production of complex biopharmaceuticals (e.g., monoclonal antibodies, recombinant proteins); and assay development (biochemical or cell-based) for validation of targets and tool antibodies.

CV Highlights: **(i)** 13 published papers and 1 book chapter; **(ii)** Over 50 poster communications and 10 oral communications in national and international conferences; **(iii)** Tutoring of undergraduate and master students (4); co-supervision PhD students (1); **(iv)** Invited lecturer at Master and PhD programs (NOVA Medical School and ITQB/iBET); **(v)** Principal Investigator of the FCT project AstroReact; **(vi)** Team member in several National (FCT, Portugal) and International Research Projects (EU); **(vii)** Scientific reviewer for journals in the areas of Biotechnology; **(viii)** Best Young Scientist Oral Presentation award (ESTIV, 2016)

Current Research:

Current research activities include the discovery of novel antibodies of interest for cardiac fibrosis, through whole cell phage-display technology and cell-based phenotypic screenings in human cardiac primary and hiPSC-derived cardiac fibroblasts (collaboration with Stem Cell Bioengineering Lab). Also, with funding from Fundação para a Ciência e Tecnologia (Portugal) and in collaboration with the Advanced Cell Models Lab, is focused on understanding the role of astrocyte-induced neural microenvironment remodeling in traumatic brain injury pathobiology.

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