

## Short Curriculum Vitae

Margarida Serra

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Margarida Serra is the Head of Stem Cell Bioengineering Laboratory from the Animal Cell Technology Unit at iBET and an Invited Assistant Professor NOVA School of science and Technology - Universidade Nova de Lisboa.

Margarida graduated in Biological Engineering at the Instituto Superior Técnico da Universidade Técnica de Lisboa, and holds a PhD in Engineering and Technology Sciences, Biomedical Engineering from Instituto de Tecnologia Química Biológica da Universidade Nova de Lisboa. ). Working in Animal Cell Technology (ACT) Unit since 2004, her PhD focused on the design of bioprocesses to produce human stem cells and derivatives for clinical application. She did part of her PhD studies at the Fraunhofer Institut for Biomedical Engineering (Germany), Cellartis AB (Sweden), and Uniklinik Köln (Germany) where she acquired expertise on culture and characterization of several human stem cell types including adult and pluripotent stem cells. The work developed was innovative as for the first time a bioprocess to expand human embryonic stem cells in scalable and fully controlled bioreactors preventing spontaneous differentiation was developed.

### Current Research:

**Current Research**, with funding from Fundação para a Ciência e Tecnologia, EU Framework programs and the Pharmaceutical industry, is driven by the vision to bridge engineering and stem cell biology, with the goal of accelerating next generation cell-based therapies from bench to bedside. The key research line has been focused on streamlining robust manufacturing of cell therapy products with improved functionality. In the last 5 years, her research has focused on the development of novel and biology-inspired cell culturing strategies that recreate environmental conditions excelling growth and differentiation/maturation of human pluripotent and adult stem cells, through metabolic and process understanding. Aiming at accelerating the translation of cell therapy products into the clinic, she has been applying robust multi-parametric techniques including omics technologies as complementary analytical tools to support bioprocess optimization and cells' potency assessment.

**CV Highlights:** (i) 48 published papers; 2 book chapters (ii) Supervision of 10 PhD students, 18 MSc students and 7 post-docs (iii) ACTIP Award in 2013/2014; (iv) visiting researcher at apceth Biopharma (Germany) (January 2011 and April 2016); (v) Pos-graduation teaching activities at NOVA (PhD Programs) and at several Portuguese Universities.

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