

## **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 (Health & Pharma Division, iBET).

**Margarida Serra** 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 for the production of 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. Following PhD, she became a Researcher Associate (2011), a Senior Scientist (2015) and the Head of Stem Cell Bioengineering Lab (2018) at the ACT where she is leading projects focused on Stem Cell Bioprocessing for Cell Therapy. She has been heavily involved in EU and national funded projects and has been establishing contract research services with Cell Therapy Industries & Biotech Companies as a way to promote translability of the research developed.

**CV Highlights:** (i) Author/co-author of 38 scientific manuscripts in peer-reviewed journals and 2 book chapters (over 806 citations; h-index =14 - Scopus metrics); (ii) Over 80 oral (15 as invited speaker) and 160 poster communications; (iii) Supervision of 7 PhD students (3 thesis defended), 14 MSc students (10 thesis defended); (iv) Two research grants awarded by FCT (one as Principal Investigator and one as Co-PI); (v) ACTIP Award in 2013/2014; (vi) visiting researcher at apceth Biopharma (Germany) (January 2011 and April 2016); (vii) Coordinator of Curricular Units of two PhD Programs in Bioengineering and Health Sciences; (viii) Member of organizing/scientific committee of two international scientific meetings; (ix) Consulting Editor of Cytotechnology Journal and reviewer in several international scientific journals.

**Current Research** 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 (CTP) with improved functionality, to support phase I/II clinical trials. In the last 5 years, her research has focused on the development of novel 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 CTP translation into the clinic, she has been applying robust multi-parametric techniques including proteomics, transcriptomics, metabolomics and fluxomics as complementary analytical tools to support bioprocess optimization and CTP potency assessment.

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