

Short Curriculum Vitae - Antonio Roldao
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António Roldão graduated in Chemical Engineering at the Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa (FCT-UNL) in Portugal, and holds a PhD in Engineering and Technology Sciences, Systems Biology from Instituto de Tecnologia Química e Biológica António Xavier (ITQB NOVA) in Portugal.

Working in Animal Cell Technology since 2004, his PhD focused on the design and implementation of *in silico* mathematical models for process control and optimization of a human vaccine candidate, namely Rotavirus-VLPs. His work pioneered the area as for the first time a comprehensive, integrative view of the production system was captured in mathematical and thermodynamic equations. In his Post-Doc in Jens Nielsen lab at Chalmers University of Technology in Sweden (2010-2014), the top cited scientist working in metabolic engineering of yeast cells for generation of novel products, he was a senior researcher and director of fermentation infrastructure. In 2014 he moved back to iBET where he is currently the Head of Cell-based Vaccine Development Laboratory and Coordinator of Late-stage R&D Bioproduction Unit (www.ibet.pt). He is also senior researcher at iNOVA4Health – Advancing Precision Medicine at iBET.

CV Highlights: (i) Author of 39 scientific manuscripts in peer-reviewed journals and author/co-author of 3 book chapters; (ii) Supervision of 19 researchers, i.e. 5 MSc student, 4 Research Technicians, 3 PhD students and 7 Post-docs; (iii) Best PhD thesis of ITQB-NOVA in 2011; (iv) Coordinator of 1 national PhD course and 1 international MSc course modules on Animal Cell Technology and Manufacturing and Quality Process Control, (v) Post-graduation teaching activities at NOVA (PhD Programs) and other Portuguese Universities; (vi) Co-chair of the Baculovirus Expression Technology track at ISBioTech Meeting since 2019; (vii) ESACT office from 2010-2015 and members of ESACT XC since 2022, participated in the organization of ESACT course series “Cells for Compound Screening” 2014-2015 and “Animal Cell Technology” 2011-2015 in Llafranc (Spain), member of the poster jury at ESACT 2019 in Copenhagen (Denmark), member of the organizing committee of “27th ESACT” meeting, and co-chair of the “Formulation and Stability” session at Vaccine Technology IX (2024).

Current research, with funding from Fundação para a Ciência e Tecnologia (Portugal), EU framework programs and the pharmaceutical industry, is driven by the aim to develop novel complex biopharmaceuticals with impact in Human and Animal Health. The basis for his work lies on the use and integration of multidisciplinary technologies such as synthetic biology, evolutionary and bioprocess engineering, and bottom-up systems biology to fasten the generation of the products I’m interested in, particularly virus-like particles (VLPs) as vaccine candidates and viral vectors (e.g. AAVs, Adenovirus, Lentivirus) for gene therapy.

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