

Curriculum vitae - Ario de Marco, PhD Dr Ing

e-mail: ario.demarco@ung.si

Lab of Environmental and Life Sciences, University of Nova Gorica
Vipavska cesta 13, S-5000, Nova Gorica, Slovenia

Education

2017. Dr. Ing. in Landscape Architecture Technical University of Munich (TUM), Munich, Germany

1993 PhD in Plant Physiology and Biochemistry, University of Udine, Italy, TH Darmstadt, Germany

Employment

Head of the Protein Expression Unit at EMBL (Heidelberg), Head of the Protein Chemistry Unit at IFOM-IEO Campus (Milano), Director of the therapeutic antibody platform at Institut Curie (Paris).

At University of Nova Gorica since 2010

Scientific interests and expertise

- Chaperone-assisted recombinant protein expression. Combinations of both molecular and chemical chaperones have been optimized to improve the yields of functional recombinant proteins in bacteria

- Recombinant protein aggregates and protein quality evaluation. Both the biotechnological aspects and the issues related to the quality of proteins used as intermediate reagents in research (analytical controls, minimal information, standardized annotation) are considered

- Recombinant antibody technology. We generated the first phage display naïve library of antibodies in single-domain format and demonstrated its effectiveness to isolate specific and highly affine binders for tumor biomarkers. A wide spectrum of vectors has been developed to produce antibodies fused to tags optimized for different applications and the panning conditions have been set to pan directly on cells, extracellular vesicles, protoplasts, microalgae, cyanobacteria, and to recover epitope-specific binders

- Nanobody and alternative scaffold optimization by combined structural and *in silico* approaches