

Curriculum vitae - Ario de Marco, PhD e-mails : ario.demarco@ung.si

Lab of Environmental and Life Sciences, **University of Nova Gorica**
Glavni Trg 8 - SI-5271, Vipava, Slovenia. Phone: +386 (05) 9099722

1. Education

1990 - 1993 **PhD in Plant Physiology and Biochemistry** University of Udine, Italy, TH
Darmstadt, Germany
1981 - 1986 **M. Sc. in Agricultural Sciences** University of Udine, Italy

2. Employment

Since 06/2010 University of Nova Gorica (**Slovenia**): Associate Professor
2011-2012 Novartis Vaccines & Diagnostics: Scientific consultant
2011-2014 Institut Curie (**Paris**): Director of the therapeutic antibody platform
04/2006-03/2011 IFOM-IEO Campus (**Milano**): Head of the Protein Chemistry Unit
09/2000-03/2006 EMBL (**Heidelberg**). Head of the Protein Expression Unit

3. 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 treated
- 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 and isolate antibodies specific for receptors in their native conformation inclusive post-translational modifications and embedded in their natural lipid environment. We are interested in expanding the approach to microvesicles, bacterial cells, and microalgae
- Nanobody optimization by combined structural and *in silico* approaches