

CV Profile (max. 2 pages length)

Daniela Lufrano

Research interests

I am a Biochemist interested in molecular aspects and applications of peptides/proteins, protease inhibitors, and enzymes: protein biochemistry and biophysics; proteomic; identification of natural bioactive compounds; recombinant expression, purification and characterization; protein biomarkers research; development of methods to detect peptide compounds and assays for enzymatic/inhibitory activities. I am very interested as well in never stop learning and exploring new research areas (for example, I would be fascinated to learn about peptide-based drugs development).

Education

- **PhD:** Doctor in Biological Sciences from Faculty of Exact Sciences, National University of La Plata (UNLP), Argentina. Title: "Structure-function relationship of cirsin, an aspartic protease from "*Cirsium vulgare*", and derived peptides with biological activities." (01/04/2008- 20/12/2012)
- **Undergraduate Degrees:** Biochemist, UNLP (Argentina) (01/04/1997- 26/02/2008)
Chemist (basic studies of Biochemist), UNLP (Argentina) (01/04/1997- 29/03/2006)

Experience in research (Notice that management and teaching activities are not considered)

- **Research Assistant** 01/12/2016-present (maternity leave 17/03/17 – 12/10/17): **39 months**
Laboratory of Neurophysiology, Multidisciplinary Institute of Cellular Biology, UNLP (Argentina).
Project: Study of the proteolytic processing of the mature peptide "hunger hormone", ghrelin.
design and conduct *in vitro* experiments and data interpretation (isolation and identification of proteases from biological samples, immunocapture and identification of ghrelin-derived peptides, fluorescent ligand binding assays) # coordinate *in vivo* experiments with other members within the group # co-supervise a predoctoral student # prepare congress abstract and posters # prepare papers and subsidy applications # establish collaborations with other institutions.
- **Postdoctoral fellow** 01/04/2013-31/03/2015: **24 months**
Plant Proteins Research Center (CiProVe), UNLP (Argentina)
designed and performed experimental work and data interpretation (isolation and cloning of a plant protease inhibitor, evaluation of protective effects against hEGF degradation *in vitro*) # prepared congress abstracts and posters # participated in writing research papers # co-supervised undergraduate students.
- **Short-term research stays** 01/02/2015 -14/04/2015: **2.5 months**
Protein Engineering and Proteomics Unit, Institute of Biotechnology and Biomedicine, UAB (Spain).
performed sub-cloning, established expression and purification of hEGF in *P. pastoris* (screening of two strains).
- **Short-term research stays** 01/04/2014-28/06/2014: **3 months**

Protein Engineering and Proteomics Unit, Institute of Biotechnology and Biomedicine, UAB (Spain).

accomplished sub-cloning, expression in bacteria and purification of a plant carboxypeptidase inhibitor along an already established protocol, and determination of carboxypeptidases inhibitory activity.

- **Predoctoral fellow** 01/04/2008-30/08/2010 and 01/09/2011-31/03/2013: **47 months**

Plant Proteins Research Center (CiProVe), UNLP (Argentina).

Project: Study of a plant aspartic protease and potential applications of its membranolytic domain.

carried out research experimental activities and data interpretation (isolation of proteases from natural sources, characterization of enzymatic properties, peptide-induced leakage of liposomes, microdilution antibacterial assay)

conducted literature reviews # prepared congress abstracts and posters # participated in writing research papers.

- **Short-term research stays** 02/02/2012-15/05/2012: **3.5 months**

Protein Engineering and Proteomics Unit, Institute of Biotechnology and Biomedicine (Spain).

accomplished sub-cloning into expression plasmids, heterologous protein expression in HEK-293F cells, purification and cytotoxicity evaluation.

- **Erasmus doctoral "sandwich" fellow** 01/09/2010 – 30/08/2011: **12 months**

Molecular Biotechnology Unit, Biocant Park – Biotechnology Innovation Center (Portugal)

executed experimental work related to predoctoral project (sub-cloning into expression plasmids, mutagenesis, expression in *E. coli* and *Kluyveromyces lactis* and purification of proteins, biochemical characterization of recombinant peptidases) # conducted literature reviews # communicated results # participated in writing research papers.

- **Short-term research stay** 18/02/2009 -31/05/2009: **3 months**

Centre for Neuroscience and Cell Biology, University of Coimbra (Portugal)

carried out cloning from mRNA and subcloning of a plant aspartic protease into a bacterial expression vector.

Sector of activity

Biotech & Pharm – Agri-Food Industry

Select the option/s about your profile

PhD and 2 additional years of full-time research experience: **Yes**

A minimum of 6 years of fulltime experience in research after Master's degree (*Notice that PhD studies are considered research experience*): **Yes**

Contact information

Contact Person: Daniela Lufrano // Email address: dalu07@gmail.com ; dlufrano@biol.unlp.edu.ar