

## CV Daniela Sarnataro

### Position

Associate Professor of Applied Biology at University of Naples Federico II - School of Medicine, Dept of Molecular Medicine and Medical Biotechnology-Italy

### Education

1990-1995: Undergraduate student at University of Naples of Federico II, Faculty of Pharmacy

Dec 1995: Doctor degree "Summa cum Laude" in Pharmaceutical Chemistry at Univ of Naples Federico II

1999 to 2003: PhD student at University of Naples Federico II

2003: PhD in Cellular and Molecular Biology and Pathology at University of Naples Federico II

2013: Master in "Expert and Manager of Scientific Research"- CEINGE, Advanced Biotechnology

### Research and Professional experience

1997-1999: fellow in the laboratory of Prof. Nitsch (Dept. of Cell and Molecular Biology & Pathology, University of Naples). She collaborated in the project: role of lipid rafts in the polarized intracellular protein transport.

1999-2003: PhD student at University of Naples. In the laboratory of the Prof. Zurzolo (Dept. of Cell and Molecular Biology & Pathology) she studied the role of intracellular trafficking and folding in the pathogenesis of neurodegenerative prion diseases.

2003-2010: Post-Doc at Department of Molecular and Cellular Biology and Pathology (now dept of Molecular Medicine and Medical Biotechnology)

2010-2012: Scientific consultant at Dynamic Imaging Microscopy (DIM) facility (advanced confocal microscopy) – CEINGE Institute. She developed the cutting-edge technologies of FRET/FLIM for the study of molecular dynamics and molecule interaction in cell cultures and tissues.

2013-2016: Researcher in Applied Biology (RTDb). Scientific responsible of a team work for the following projects: "Analysis of prion-related proteins in the pathogenesis of neurodegenerative prion diseases" and " Effects of small organic compounds, such as NSC derivatives, on the trafficking and degradation of prion protein and its receptor". Production of corresponding and senior author manuscripts.

2014-2018: Co-Director at Dynamic Imaging Microscopy (DIM) facility – CEINGE Institute.

From 29/12/2016: Associate Professor of Applied Biology, University of Naples Federico II. Main research interest:

1) Alteration of intracellular trafficking and protein folding in Prion and Alzheimer's disease

She used her knowledge on intracellular trafficking and protein folding to study the pathogenetic mechanisms of neurodegenerative diseases such as prion and Alzheimer's disease. Her group contributed to understanding the role of the signaling peptide of secretory proteins, such as the prion protein and its homologs, in sub-compartmental protein sorting and the role of protein folding in the localization and formation of aggregates (amyloids) of proteins involved in neurodegenerative diseases.

2) Role of laminin receptor (RPSA)-inhibitors in the pathogenesis of neurodegenerative prion and Alzheimer's disease

She has woven a wide network of collaborations also with other universities (University of Florence - Prof.ssa Mocali, Prof. Nacmias) and Departments (Dep. Pharmacy Drug Discovery Lab,

coordinated by Prof Lavecchia; Dept. of Translational Medical Sciences) to study modulation of maturation and trafficking of prion proteins and beta- amyloid precursor protein (APP) in cellular model of Alzheimer's disease. She also is studying the role of mitochondria and related mitophagy as the mechanism underlying the pathogenesis of neurodegenerative diseases. Her research activity has led to more than 60 scientific publications on international peer-reviewed journals.

#### Editorial activity

- "Managing Editor" for Frontiers in Bioscience, Special issue: "Proteinopathies and neurodegeneration"

link: <https://bioscience.org/special-issues-and-managing-editors/>

- "Lead Guest Editor" for International Journal of Molecular Sciences. Special issue: "Misfolding Diseases, Intracellular Trafficking and Therapeutic Approaches"

link: [https://www.mdpi.com/journal/ijms/special\\_issues/mis](https://www.mdpi.com/journal/ijms/special_issues/mis)

- Editorial board member of Molecular and Cellular Neuroscience

- Review Editor Frontiers in Molecular Bioscience- Cellular Biochemistry

- Reviewer for many international journals including: International Journal of Molecular Sciences, Scientific Reports, Pathogens, Cell & Mol Life Science, eLife, Biochemical Journal, Biomolecules, BMC Mol & Cell Biology, Journal of Personalized Medicine.

Invited presentations to internationally established conferences and/or international advanced school

In the past 10 years, Dr. Sarnataro has been invited as speaker and/or moderator in over than 30 different prestigious meetings and school in Italy and Europe.

#### Other assignments

From 2013: Member of teaching staff of "Advanced Cell Biology Course on Protein Traffic" and "Methods in Cell Biology", Doctoral School in Molecular Medicine, University of Naples Federico II.

From 2013: "Member of teaching staff" of the single-cycle master degree course in Medicine and Surgery, Cell and Molecular Biology (BMC) course for the School of Medicine Federico II.

From 2013: Member of College of Teachers in the PhD course "Genetic and Molecular Medicine" and European School of Molecular Medicine (SEMM) in coordination with University of Milan and Naples Federico II.

2014: Member of the Organizing Committee of XVI AIBG meeting (Italian association of Biology and genetic), Napoli.

The mentoring/tutoring of PhD activity of Dr Sarnataro has provided various post-doctoral researchers, which have now successfully integrated in excellent research institutions in Italy, Europe and India.

From 2016: Coordinator and teaching staff of the single-cycle master degree in Odontoiatria, Federico II

From 2020: Reviewer for Incipit PhD program

#### Membership

From 2007: AIBG (Associazione Italiana di Biologia e Genetica)

From 2009: ABCD (Associazione di Biologia Cellulare e del Differenziamento)

From 2014: Neapolitain Brain Group (NBG)

From 2015: Associazione Parkinson Parthenope

#### Research grants:

01-01-2006 to 01-01-2007: Azioni integrate Italia-Spagna "Tipo B" 2006 (AIIS05D9F5): Role of endocannabinoid system in neurodegenerative diseases, Università di Salerno. Role: Research

associate.

2014: Responsible del progetto: Exploratory Telethon application " Role of GPI anchor remodeling in Mental Retardation Mabry syndrome"- selected in first step evaluation.

01-07-2016 to 31-12-2017 Responsible of the international project: "Evaluation of anti-prion activity of the small organic compound NSC47924 and derivatives, specific inhibitors of non-integrin laminin receptor". Ermenegildo Zegna Founder's Scholarship, 3 years project for Post-doc position for a PhD.

01-01-2019 to now: Finanziamento della Regione Campania “Realizzazione di Progetti di Sviluppo/Potenziamento del sistema regionale delle infrastrutture di ricerca per la lotta alle patologie oncologiche”, approved Febbraio 2018 after peer review, coordinatin by CNR IBP (Dr. D. Corda) and presented by Ceinge, responsible Prof. F. Salvatore. Title of the project: Campania Imaging Infrastructure for Research in Oncology (CIRO). 2019-2023.

Publications at <https://pubmed.ncbi.nlm.nih.gov/?term=sarnataro+d&sort=date&size=50>