

EDUCATION

2008- 2012 **Imperial College, London, UK**
PhD in Medical Sciences

Thesis: "LRP-dependent and -independent endocytic pathways of Tissue Inhibitor of Metalloproteinase-3 (TIMP-3)"

Supervisors: Prof. Hideaki Nagase and Dr. Linda Troeberg

2004-2007 **University of Palermo, Italy**
Laurea Specialistica in Biotecnologie per l'Industria e la Ricerca Scientifica (110/110 cum laude)

Dissertation Project: "The development of a novel platform for *in vitro* diagnostics".

Supervisors: Prof. Daniel Gygax and Prof. Maria Letizia Vittorelli

2005-2006 **University of Applied Sciences Northwestern Switzerland (FHNW), CH.**
Research student under ERASMUS placement

2001-2004 **University of Palermo, Italy**
Laurea Triennale in Biotecnologie Biofarmaceutiche (110/110)

Dissertation Project: "SK-HEP1 cells transfection with a FGF-2-GFP fusion protein"

Supervisor: Prof. Maria Letizia Vittorelli

RESEARCH EXPERIENCE

2019- to date **Department of Research, ISMETT-IRCCS, Ri.MED Foundation, Palermo, Italy**

- Having worked as a Principal Investigator in proteomics, I have supervised the set up of a state-of-the-art proteomic facility within ISMETT, and started proteomic studies on a collaborative basis for international research groups (for example, Dr. Linda Troeberg, University of East Anglia - UK; Prof. Rob van 't Hof, University of Liverpool - UK; etc).
- I have started my research group, and therefore guided recruitment of personnel (a technician, a PhD and an undergraduate student) and supervised purchase of lab equipment and reagents, within my budget limits.
- I have coordinated my laboratory and its related work, *i.e.* setting up tools for managing our resources (software for the management of lab reagents and materials, meetings to discuss lab-related problems and projects progress); assigning tasks, fixing objectives and giving deadlines to my collaborators; setting up internal and international collaborations, necessary to accomplish our research objectives.
- I have sought for grant opportunities, within Italy and Europe, to grow my research lab, and I have developed entrepreneurship management skills from supervising the establishment of a spin-off company within Ri.MED to provide proteomic services and make profit that can be reinvested in R&D, thus supporting my scientific research.

2014-2018 **Department of Neuroproteomics, German Center for Neurodegenerative Diseases (DZNE), Munich Germany**

- Have worked as a Marie-Curie fellow in Professor Stefan Lichtenthaler's group (DZNE Munich) at investigating the role of iRhom2, an AD genetic risk factor, and TNF-signaling in neuroinflammation and development of AD. I identified iRhom2 as a new potential therapeutic target for Alzheimer's.
- Identified cell surface proteins controlled by iRhom2 in macrophages and microglia by unbiased proteomics.
- Have held the position of mouse facility manager of the department and supervised several MSc and PhD students from different countries (Italy, China, Germany).
- Have been involved in the organization of conferences ("ShRIMP meeting" 2015, Mazara del Vallo, Italy; "Proteases in the Brain kickoff meeting" 2015, Munich, Germany) and preparing grant applications (i. g. EU Joint Programme Neurodegenerative Disease Research JPND-2017)
- Have peer-reviewed several manuscripts for internationally renown journals in proteomics and neurobiology (*i.e.* "Current Proteomics", Brain Research")

- 2013-2014 **Department of Biochemistry, Graduate School of Medicine, Nagoya University, Nagoya, Japan**
- Worked as a JSPS fellow as part of Professor Kenji Kadomatsu's group to the development of a tool to increase levels of the metalloproteinase inhibitor TIMP-3 in the tissue, which can potentially be exploited for the therapeutic treatment of arthritis.
- 2012-2013 **Department of Matrix Biology, KIR, NDORMS, University of Oxford, UK**
- Involved in a collaboration project between Professor Hideaki Nagase's group (University of Oxford) and Professor Gillian Murphy Group (Cancer Research UK Cambridge Institute) on investigating the role of TIMP-3 as a molecular scavenger of metalloproteinase in cancer.
- 2007-2012 **Department of Matrix Biology, KIR, Imperial College London, UK**
- Worked as part of Professor Hideaki Nagase's internationally renowned research group in the field of matrix biology research.
 - During my PhD, I studied the role of LRP-1 in regulating tissue levels of TIMP-3 by endocytosis. My discoveries have been published in peer-reviewed journals and presented at several international conferences.
- 2005-2006 **Department of Chemistry and Nanotechnologies, FHNW, Basel, Switzerland**
- Contributed to develop a novel technology for measuring oxidative stress in humans.
 - Having worked at the development of a novel technology for measuring oxidative stress in collaboration with the biopharmaceutical company "Buhlmann Laboratories", I learned to work within budget limits and meet deadlines.

AWARDS AND SCHOLARSHIPS

- Nominated to represent the Technische Universität München (TUM) at the 3rd Research Alumni Conference Germany (Berlin 23 – 25 September 2015), organized by the Alexander von Humboldt Foundation and sponsored by the German Federal Ministry of Education and Research
- Best presentation award, International Proteolysis Society meeting, Oxford UK (2017)
- Kennedy Institute of Rheumatology (KIR) Trustee scholarship to undertake a PhD at Imperial College, London (2008-2012) and elected Kennedy Institute of Rheumatology students representative (2010)
- Overseas studies scholarship from University of Palermo to fund a six-month project at Imperial College London (05/2007-11/2007).
- "ERASMUS" studentship (10/2005-07/2006), sponsored by the EU to fund the research project at FHNW, Basel (Switzerland).
- Summa cum Laude and "Menzione per la tesi", (Italian equivalent to prize for the MSc dissertation) for MSc in Biotechnology (2007).

MAJOR COLLABORATIONS & MEMBERSHIPS

- Stefan Lichtenthaler, TUM/DZNE Munich, Germany
- Carl Blobel, Weill Cornell Medical College New York, USA
- George Bou-Gharios, University of Liverpool, UK
- Ahuva Nissim, Queen Mary University College London, UK
- Kenji Kadomatsu, Nagoya University School of Medicine, Japan
- *Member of British Society for Matrix Biology - BSMB (since 2007)*

CONFERENCE ORGANIZATION AND PARTICIPATION

- Shedding and Intramembrane Proteolysis in the Brain, Mazara del Vallo (Italia), 2015. Organizer
- Proteases in the Brain, Munich (Germany), 2017. Organizer
- BSMB meeting, St Catherine's College (Oxford, UK) 2015 & University of East Anglia (Norwich, UK) 2019. Speaker
- Gordon Research Conference in metalloproteinases, University of New England (Biddeford, USA) 2017 & Il Ciocco Resort (Braga, Italia) 2019 ; poster presenter