Dr. **Antonella Ragnini (**alias Antonella Ragnini-Wilson), PhD

Web site : https://www.researchgate.net/lab/Antonella-Ragnini-wilson-Lab-Antonella-Ragnini-Wilson; ORCID n. https://orcid.org/0000-0001-7963-7554

Professional activity,

2015 -**present: Agg professor/Senior Researcher at Department of Biology, University of Rome Tor Vergata**. My actual research is centred on understanding the mechanisms that stimulate oligodendrocyte stem cells to differentiate into mature, myelinating oligodendrocytes during the process of remyelination in the adult central nervous system (CNS). A key question in developmental biology is how certain drugs or endogenous factors by binding to Smoothened receptors of the Hedgehog signalling pathway (Smo) promote the differentiation of staminal cells. Dysregulation of this receptor's activity can lead to cancer while its inhibition favours stem cell differentiation and oligodendrogenesis. Through extensive drug screenings in the oligodendroglia cell line Oli-neuM, we have identified the critical role of Smo inhibition in driving the transition from premyelinating to fully myelinating oligodendrocytes. We have created and extensively used in drug screening the oligodendroglia cell line Oli-neuM (Porcu et al., 2015, Nocita et al., 2019, Del Giovane et al., 2022). I have established the HTS Phenotypical screening facility at UniTV in collaboration with Prof Gianni Cesareni allowing me and othersto perform several siRNA and drug library screens at University of "Tor Vergata".

2002-2015. **Head of Unit** at Consorzio Mario Negri Sud (S.Maria Imbaro , Chieti, Italy). **Head of High Throughput Microscopy Facility** at Consorzio Mario Negri Sud (Santa Maria Imbaro, Chieti). Coordinator of the application that the selection of the EUROBIOIMAGE call (2012) for advanced light microscopy nodes for HTS screening facilities at UniTV and CMNS.

2000-2002 **Guest Scientists** at Department of Microbiology and Genetics, University of Vienna, Dr. Bohrgasse 9 Wien (Austria),

2000. **Research position Sector Biochemistry,** at the Department of Biology University of Rome Tor Vergata.

1996-2000- **University Assistant Professor** Department of Microbiology and Genetics (Actually Max Perutz Laboratory) **University of Wien** Dr. Bohrgasse 9 Wien Austria

1991-1996 **Post Doc**, Department of Microbiology and Genetics (Actually Max Perutz Laboratory) **University of Wien,** Dr. Bohrgasse 9 Wien Austria

Award and degrees

During my career, I have been PI in several projects supported by grants of national and international organizations, among which **Telethon Foundation**, **Associazione Italiana Ricerca Cancro (AIRC)**, **Federazione Italiana sclerosis multipl a (FISM),** for further details https://orcid.org/0000-0001-7963-7554

1990-1991. Awarded of 1year **Post Doc Fellowship** Fondazione Cenci Bolognetti to be pursued at Dept of General Physiology, Laboratory of Fermentation Chemistry, University of Rome La Sapienza

1991: Awarded of the **PhD degree** at the University of Rome "La Sapienza".

1987-1990- **PhD Study** at Dept of Physiology, Laboratory of Fermentation Chemistry, **University of Rome "La Sapienza**" and Department of genetics **University Paris Sud Orsay** (France Supervisors Prof laura Frontali and Prof Hiroshi Fukuara

1986-1989: Awarded by Fondazione Cenci Bolognetti **international fellowship**, developed at Universitè Paris- SUD, (Orsay, France) supervisors Prof Hiroshi Fukuhara and Prof Laura Frontali

1985 : **Degree in Biological Science** (University of Rome la Sapienza) supervisor Prof Laura Frontali

Teaching activities

I have thought for the courses of Experimental Genetics and Microbiology at the University Of Wien where I have followed the PhD study of several students. At the University of Rome Tor Vergata, I taught Methodology of Biochemistry (dal 2007 al 2014), Intracellular trafficking and related human disease (from 2013 till present), High-throughput technologies (from 2016-2020), Regenerative medicine (from 2020-present). I am coordinating the OMIC course for the doctorate in Molecular and cellular biology at University of Rome Tor Vergata