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Receiving Hours: every Monday, 11-12

Curriculum Vitae

Education

- Bachelor Degree in Cellular and Molecular Biology at University of Rome Tor Vergata in 2007 (graduated magna cum laude)
- Master Degree in Cellular and Molecular Biology at University of Rome Tor Vergata in 2010 (graduated magna cum laude)
- Biologist qualifying examination in 2010
- PhD in Cellular and Molecular Biology in 2013 at University of Rome Tor Vergata.

Positions

- November 2024: Assistant Professor at the department of Biology, University of Rome Tor Vergata.
- April 2021 – September 2024: type A Researcher contract (RTD A), at the department of Biology, University of Rome Tor Vergata.
- September 2019 – March 2021: senior post-doc contract at the University of Rome Tor Vergata.
- April 2017 – August 2019: post-doc contract supported by "AIRC fellowship 2016", University of Rome Tor Vergata.
- January 2017 – March 2017: Umberto Veronesi Post-Doctoral Fellowship-Year 2017 with the project TG2 regulation of Heat Shock Proteins in cancer.
- January 2014 – December 2016: junior post-doc contract, University of Rome Tor Vergata.

Grants

FR research activity is supported from Cystic Fibrosis Foundation (FFC), Italian Association on Alzheimer Research (AIRALZH), Ministry of Health, Italian Association on Cancer Research (AIRC), Ministry of Research.

Main Research activity

FR research activity has been mainly focused on the role of Transglutaminase 2 protein (TG2) in the autophagic and apoptotic processes in relation to human disorders. During the PhD, she studied the mitochondrial dynamics, in particular the mitophagy process. The obtained results highlighted an essential role, played by TG2, in the regulation of mitochondria functionality and energetic metabolism (Rossin et al., 2014). During the postdoc she continued to investigate the mitochondria homeostasis focusing the attention on the ER-mitochondria contact sites (MAMs) and the cellular function of this compartment (Reali et al., 2015; D'Eletto et al., 2018). She also coordinated different projects mainly regarding the study of the chaperones activity and the regulation of cellular to proteotoxic stresses (Diaz-Hidalgo et al., 2015). Throughout these years, FR highlighted the nuclear function of TG2 showing that it is necessary to activate HSF1, the master transcriptional regulator of the stress-responsive genes (Rossin et al., 2018). In the last years, FR addressed her studies on TG2 implication in different human diseases and design novel therapeutic approaches. In this regard, she moved her attention on Cystic fibrosis pathogenesis (Villella et al., 2019; Rossin et al., 2020; Occhigrossi et al., 2023) and cancer biology (Occhigrossi et al., 2022; Muccioli et al., 2023) dissecting the role of TG2 in the regulation of innate immunity. Recently her research interests have been also extended to the role played by TG2 in the regulation of gene expression and particularly the effect on the Wnt/β-catenin axis, focusing the attention on cellular processes, such as embryonal development and cancer progression (Rossin et al., 2021). Finally, in the last years she obtained financial support as PI for research projects regarding the characterization of TG2 involvement in Alzheimer's Disease and TG2 role in the crosstalk between Cancer Associated Fibroblasts and melanoma cells.

Publications

Author of more than 35 papers in international peer reviewed journals indexed by PubMed (ORCID ID: 0000-0002-4313-8347 Researcher ID: K-5184-2018 Scopus Author ID: 37073306000).