



DiBio
DIPARTIMENTO DI BIOLOGIA

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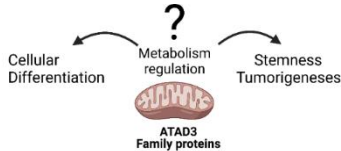
UNIVERSITÀ
DEGLI STUDI
DI PADOVA

Post-doctoral position Lab. Maria Eugenia Soriano

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Mitochondria Pathophysiology Lab.
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Project: "Exploring the ATAD3B expression regulation and its metabolic implications"



The project aims to identify **key players in mitochondrial function regulation and metabolism**. In particular, the project focus on understanding whether and how the mitochondrial protein ATAD3B modulates stemness by affecting mitochondria-driven metabolism. The project will be done in collaboration with Prof. Graziano Martello, Dept of Biology, University of Padua.

Valued expertise: The candidate will work in vitro with stem and undifferentiated cells to study how the expression of the ATAD3B protein impacts cell differentiation and reprogramming vs. pluripotency. The approaches include the generation of cell lines stably expressing ATAD3B, and cells in which the gene expression is activated or repressed through molecular-genetic strategies. Mitochondrial functionality approaches, metabolism studies, and biochemical and microscopic characterization.

Where?

Padova is a beautiful University town of old traditions. The Department of Biology, is located in Vallisneri building (University of Padova) and close to the Venetian Institute of Molecular Medicine.

The lab is part of the Research Unit of Bioenergetic Organelles. The research will be performed in a very stimulating environment since we share space, lab meetings and scientific discussions with Luca Scorrano, Elena Ziviani, Paola Costantini, and Marta Giacomello Labs. Moreover, collaborations and scientific discussions are extended to other departments and Institutions such as Citta della Speranza, VIMM, and the Department of Biomedical Sciences.

The fellowship is for 24 months, starting on 31.12.2022. Applications must be sent ASAP

The salary is 1.429 euro/month (net).

Requisites: PhD or master's degree in biology or similar, with 4-10 years of research experience.

If interested, please send your CV to mariaeugenia.soriano@unipd.it

Relevant publications:

Giovanni Rigoni; Enrique Calvo; Christina Glytsou; Marta Carro-Alvarellos; Masafumi Noguchi; Charlotte Quirin; Federico Caicci; Natascia Meneghetti; Mattia Sturlese; Takaya Ishihara; Stefano Moro; Chiara Rampazzo; Naotada Ishihara; Fabrizio Bezzo; Leonardo Salviati; Jesús Vazquez; Gabriele Sales; Chiara Romualdi; Jose Antonio Enriquez; Luca Scorrano; Maria Eugenia Soriano. A searchable compendium of complexomes for mitochondrial complexes functionalization. Submitted

Betto RM, Diamante L, Perrera V, Audano M, Rapelli S, Lauria A, Incarnato D, Arboit M, Pedretti S, Rigoni G, Guerineau V, Touboul D, Stirparo GG, Lohoff T, Boroviak T, Grumati P, Soriano ME, Nichols J, Mitro N, Oliviero S, Martello G. Metabolic control of DNA methylation in naive pluripotent cells. *Nat Genet.* 2021Feb;53(2):215-229.

Glytsou C, Calvo E, Cogliati S, Mehrotra A, Anastasia I, Rigoni G, Raimondi A, Shintani N, Loureiro M, Vazquez J, Pellegrini L, Enriquez JA, Scorrano L, Soriano ME. Optic Atrophy 1 Is Epistatic to the Core MICOS Component MIC60 in Mitochondrial Cristae Shape Control. *Cell Rep.* 2016 Dec 13;17(11):3024-3034. doi: 10.1016/j.celrep.2016.11.049. PMID: 27974214; PMCID: PMC5186903.

Quintana-Cabrera R, Mehrotra A, Rigoni G, Soriano ME. Who and how in the regulation of mitochondrial cristae shape and function. *Biochem Biophys Res Commun.* 2018 May 27;500(1):94-101. doi: 10.1016/j.bbrc.2017.04.088. Epub 2017 Apr 21. PMID: 28438601.

Herkenne S, Ek O, Zamberlan M, Pellattiero A, Chergova M, Chivite I, Novotná E, Rigoni G, Fonseca TB, Samardzic D, Agnellini A, Bean C, Di Benedetto G, Tiso N, Argenton F, Viola A, Soriano ME, Giacomello M, Ziviani E, Sales G, Claret M, Graupera M, Scorrano L. Developmental and Tumor Angiogenesis Requires the Mitochondria-Shaping Protein Opa1. *Cell Metab.* 2020 May 5;31(5):987-1003.e8

Quintana-Cabrera R, Quirin C, Glytsou C, Corrado M, Urbani A, Pellattiero A, Calvo E, Vázquez J, Enriquez JA, Gerle C, Soriano ME, Bernardi P, Scorrano L. The cristae modulator Optic atrophy 1 requires mitochondrial ATP synthase oligomers to safeguard mitochondrial function. *Nat Commun.* 2018 Aug 24;9(1):3399.