



ERC-funded *Postdoctoral Scientist*

MITOCHONDRIAL SIGNALING MECHANISMS IN ANGIOGENESIS

Laboratory of Endothelial Molecular Biology

Dept. of Molecular Biotechnology and Health Sciences, University of Turin, IT

The **Laboratory of Endothelial Molecular Biology** led by Prof. Massimo Santoro is seeking applications for highly motivated postdoctoral scientists to work in the field of **angiogenesis and mitochondria**.

The successful applicant will be driving a cutting-edge research project to define the role of mitochondrial redox signaling and metabolism in endothelial cell during normal and pathological conditions. In this project we are interested in addressing the following research question:

- Which mechanisms do drive ROS signaling and redox homeostasis in mitochondria?
- Is mitochondria metabolism and mitochondrial ROS targetable in pathological angiogenesis?
- How mitochondria regulate endothelial metabolic state?

Combining advanced genetic approaches (CRISPR/Cas9) as well as advanced metabolic and confocal approaches (¹³C-flux analyses and light sheet microscopy) we are now planning to elucidate in more details the role of these mechanisms during in vivo angiogenesis in zebrafish and mouse models. We are focused in particular on the role of these ROS signaling pathways in altering the mitochondrial and nuclear genome. Such studies will offer unique prospects for designing new therapeutic strategies in tumor angiogenesis.

The candidate must be **highly motivated**, enthusiastic and efficient researcher with a PhD in a relevant discipline and experience in genetic, molecular and cellular biology methods. The candidate needs an outstanding publication record in peer-reviewed international journals (including at least one paper as a first author in top-journal). The candidate must be capable of working in a team as well as independently. The candidate is expected to independently establish all necessary techniques, introduce new technology, coordinate ongoing collaborations, and instruct other scientists. Excellent communication skills in spoken and written English are required.

We offer a dynamic working environment, stimulating scientific surrounding in a young, enthusiastic, motivated team (with English as main language) and the opportunity to work on high-impact projects. To meet the increasing demands of performing multidisciplinary research, the Molecular Biotechnology Center at UNITO offers Core facilities including: Imaging (e.g. 2-photon and light sheet microscopy), state-of-the-art transgenesis techniques (e.g. iCRISPR), MassSpec and metabolomics (LC-MS Q-Exactive, LC-MS QQQQ, GC-QQQ), histology, animal facilities (mouse, zebrafish and rabbit facility), and more. We offer a competitive salary (European Marie Curie Fellow range) and social security contribution.

Contact

Please send your application including a CV, a motivational letter describing why you want to join