ITN Marie Curie Action

Ealry Stage Research Position

Project Description

Mitochondrial European Educational Training intends to educate a young generation of scientist in the appreciation and dissection of the multifaceted aspects of mitochondrial medicine, to implement up-to-date and innovative technologies and integrated methodologies in the field of mitochondrial physiopathology to dissect disease mechanisms and generate animal models and to develop career pathways in order to fill in the current need for researchers with an all-round knowledge of both biological, clinical and managerial issues related to the rapidly emerging branch of mitochondrial medicine. MEET gathers centres of excellence in a unique network made up of clinically-focused, industrially-oriented and basic research groups dealing with a complex array of pathologies and patients, as well as drug development. MEET will ensure that the health market be fed with all-round young clinicians and investigators whose soft skills, that the projects intends to fully develop along with a thorough technical portfolio, will allow a smooth enrolment in health institutions, industry and Academia.

Job Title

ESR (Early Stage Researcher) position for 36 months at Department of Pharmacy and Biotechnology, University of Bologna, Italy

Job description: Application refers to an Early Stage Researcher (ESR) position to be trained at the Department of Pharmacy and Biotechnology, University of Bologna, in the framework of the MEET project.

The ESR will dissect the molecular and biochemical impact on cancer cells upon induction of genetically-determined respiratory complex I (CI) disruption. He/she will knock-out NDUFS3 complex I subunit by

using a genetic approach such as zinc-fingers technology. He/she will use this approach to obtained cell clones without CI (CI-KO clones) from different tumor cell lines. ESR will dissect the biochemical and molecular impact of CI disruption on CI assembly/activity, NAD and NADH levels and TCA metabolite levels. In particular, ESR will measure the levels of KG and SA, two TCA metabolites directly involved in the destabilization and stabilization of HIF1a, the master regulator of tumor growth and metastasis. ESR will test tumorigenic potential of CI-KO clones *in vitro* and in nude mouse models. ESR will also evaluate the metabolic and transcriptomic profile of xenografts.

Benefits (Vacation days): 30 days/year in addition to November 1, December 8-25-26, January 1, 6, April 25, May 1, June 2. Easter and Easter Monday (they change each year)

Required Educational Level

Degree: Degree/Master degree in Biology, Biotechnology and Medicine

Degree Field: Biochemistry, Cell and Molecular Biology, Human Molecular Genetics

Languages: English

Skill: Proven working experience in a research lab, proficiency in basic techniques in biochemistry (enzymatic assays, spectrophotometry, western blotting, etc) and/or cell biology (management of cell cultures) and/or molecular genetics (PCR, DNA sequencing).

Additional Requirements:

- Team spirit, good communication skills and transnational mobility

Specific Requirements:

- List of training experiences abroad (Erasmus Project, mobility fellowship. Leonardo project ..)
- List of certified\ attested| true copies of all undergraduate level certificates of other university grades.

We offer:

- 3-year employment contract (38.000 euro/year) + mobility allowance €1000/month or €800/month)
- A highly multidisciplinary, cross-cultural and competitive training programme in mitochondrial research.
- Secondments and a targeted training programme

***Elegibility**: The applicants must not have resided or carried out their activity (work, studies, etc) in Italy for more than 12 months in the 3 years immediately prior to his/her recruitment.

Recruitment Procedure:

The applicants may be a national of a Member State, of an Associated Country or of any other Third Country

Selection criteria:

The applicants should be fluent in written and spoken English

First selection step: careful evaluation of the curriculum and at least 2 references letters
Second selection step: interview (Skype Conference or phone Interview) with candidates
Evaluation period: 1 month
Level of English: Good

Please send your cv and reference letters to: Anna Maria Porcelli **annamaria.porcelli@unibo.it** and Serena Paterlini **serena.paterlini2@unibo.it**