PhD positions in Retinal Research, CNR Neuroscience Institute, Pisa, Italy

SwitchBoard is an In Innovative Training Network (ITN) funded by the European Commission's Horizon 2020 programme under the **Marie Curie Actions**, comprising 11 European Universities, research institutions and companies, coordinated by Eberhard Karls Universität Tübingen. The duration of the project, entitled "In the eye of the observer: Visual processing at the heart of the retina", is 48 months, starting on November 01, 2015. **The network will progressively open a total of 15 (3 year) full-time positions for PhD training within the project.**

Program description

Owing to its regular structure and ease of experimental access, the retina is amongst the best understood self-standing neuronal networks in neuroscience. Indeed, recent advances hold the exciting promise that an in-depth understanding of the bipolar cells – an entire class of neurons – and their role in the first critical steps of visual processing is within reach. The "Switchboard" proposal aims to train young researchers in world-leading research labs towards completing this goal. This will be accomplished by exposing the students to a host of cutting-edge techniques and a broad spectrum of research approaches within the training network – from imaging at synaptic resolution, transgenetics and retina degeneration models to the application of retinal circuit principles for signal processing in artificial vision chips.

The Retinal Neurobiology laboratory of Dr. Enrica Strettoi, at the CNR Neuroscience Institute, in Pisa, has a long-standing tradition in studies of retinal wiring diagram and neuronal remodeling following diseases leading to photoreceptor death (Retinitis Pigmentosa). Animal models of inherited photoreceptor degeneration are studied with the purpose to implement various therapeutic strategies to delay vision loss. See http://www.in.cnr.it/index.php/en/joomlaorg-2/pisa-en/people-pi/168-enrica-en

The PhD student recruited under the program will investigate alterations in the structure and molecular signature of neurons postsynaptic to photoreceptors (particularly bipolar cells) in animal models of retinal inherited degenerations, with the final goal of limiting regressive remodeling of these cells, which are crucial for vision restoration approaches. Methods used will be single cell labelling, qRT-PCR, transcriptome analysis, immunocytochemistry, light and electron microscopy, quantitative neuroanatomy, basic biochemistry (western blot), animal behavior.

Eligibility

The "Switchboard" program is supported by a Horizon 2020 MARIE SKŁODOWSKA-CURIE grant. According to the grant rules:

Pisa

Fellows have to be '**Early-Stage Researchers (ESR)'** at the time of recruitment, which implicates:

- No PhD
- Research experience ≤ 4 years
  Fellows are therefore in the first four years (full-time equivalent research experience) of their research career (counted from the diploma that gives the rights to embark in a doctoral degree) and have not yet been awarded a doctoral degree.
- Fellows should hold a University degree or equivalent, allowing access to a PhD program, in a relevant scientific or medical discipline (i.e. Biology, Biotechnologies, Medicine, Pharmacy etc.).
- To be eligible for a PhD position, there are no nationality restrictions. **However, you cannot have resided or carried out your main activity in the country of the recruiting institution (in this case, Italy) for more than 12 months during the previous 36 months**.

Training and Mobility Rules

The fellow will be enrolled in the PhD program of the Tuscany Doctorate School in Neuroscience headed by the University of Florence and comprising the Universities of Pisa and Siena as well.
The student will follow a multidisciplinary training consisting of a number of seminars, workshops and laboratory activities.

Fellows are required to undertake transnational mobility (i.e. move from one country to another) when taking up their appointment.

Employment conditions (three years contract)

PhD candidates will start their project before the end of December 2015. The total contract amount is € 150.061,31 and it will include the following costs: living allowance: 119461,32 euro; mobility allowance: 21600,00 euro, family allowance: 9000,00 euro and will be paid by the EU grant through the CNR on a monthly base, **for a total of three years**. The grant covers mobility expenses and travel expenses. Only candidates who are married at the time the contract begins are entitled to the family allowance.

The CNR, the Tuscany Doctorate School in Neuroscience, and all the project partners are equal opportunities institutions and honor EU and national employment laws in relation to researcher recruitment. They ensure that fellows have the same rights, health and safety standards as local researchers.

The candidate we are looking for should:

1. Have a strong interest in retinal research and more in general in Neuroscience.
2. Have a strong interest in laboratory approaches to pathological conditions affecting the retina and be willing to work with rodent models
3. Have good academic records and be motivated about doing research
4. Welcome the opportunity to conduct research abroad and work within an international and multidisciplinary team.

Pisa

How to apply

Please submit a statement of your motivation, a copy of your CV and contact details for 2 referees (name, work address, phone, email) in a single PDF document. At the top of your motivation letter, make sure to indicate your nationality and country of residence over the last 3 years. Applications will be accepted before November 10, 2015.
Applications and questions can be emailed to: enrica.strettoi@in.cnr.it
and in cc to Dr. Michaela Bitzer (University of Tubingen), managing coordinator of the project, michaela.bitzer@klinikum.uni-tuebingen.de
and in cc to Dr Mariagrazia Piga, administrative official of the CNR Neuroscience Institute mgpiga@in.cnr.it

Selection process

Selection criteria will be based upon university education, previous research experience, CV evaluation, content of reference letters. An internet-based interview will be also carried on. A panel of 5 scientists with a variety of skills, including the head of the recruiting laboratory, will be responsible for the selection.

Feedback

The applicants will be informed about the outcome of the selection process by email, within a week after the deadline.

Firmato da
Matteoli Michela