**15 PhD (ESR) positions in vision restoration - ITN project**

**15 Early Stage Researchers (ESRs; PhD students) positions are available for 3 years within the framework of the European training (ITN) project ENTRAIN VISION.**

**=> Submission deadline: 13th April 2020**

**About the project ENTRAIN VISION**

Blindness is the most feared handicap leading to the greatest exclusion from society by reducing patient autonomy and mobility. Clinical trials have demonstrated the possibility to regain some useful vision with retinal prostheses in patients having lost photoreceptors. New approaches are entering into clinical trials such as photovoltaic implants, optogenetic therapy and even cortical prostheses for patients having lost eye to brain connection.

In the ENTRAIN VISION project, the Early Stage Researchers (ESRs) will work on these innovative technologies for restoring vision in blind patients. Their training in academic institutes or industry will be completed by several secondments, including at least one at an industry partner. In addition, several summer schools will address scientific subjects on vision restoration and transferable skills in technology transfer, clinical trials, start-up creation, and communication to the media.

* **ESR1:** Visual restoration with a whole diamond visual prosthesis
- Sorbonne Université (Paris, France)
* **ESR2:** Optimization of Optogenetic therapy by targeting a new retinal cell type
- Sorbonne Université (Paris, France)
* **ESR3:** Use of virtual reality for a rational design of retinal prostheses
- EPFL (Geneva, Switzerland)
* **ESR4:** Use of optical tweezers for retinal cells separation toward transplantation and optogenetic therapy
- UMFCD (Bucharest, Romania)
* **ESR5:** Towards object encoding using electrical and optogenetic artificial retinal stimulation at high spatio-temporal resolution
- NMI (Tübingen, Germany)
* **ESR6:** Investigation of the electrical-stimulation induced beneficiary effects on diseased retina
- EKUT (Tübingen, Germany)
* **ESR7:** Characterization of healthy and diseased mouse models from retinal circuits to visually guided behavior
- Aalto University (Aalto, Finland)
* **ESR8:** From the retina to behavior: The absolute sensitivity limit of vision in healthy and diseased mouse models
- Aalto University (Aalto, Finland)
* **ESR9:** Imaging enhancement techniques for bioelectronic visual aids
- UMH (Elche, Spain)
* **ESR10:** Development of a cortical visual neuroprosthesis for the blind
- UMH (Elche, Spain)
* **ESR11:** Simulation of prosthetic stimulation in neural substrate
- CUNI (Prague, Czech Republic)
* **ESR12:** Optogenetic encoding schemes in retina, LGN and V1
- CUNI (Prague, Czech Republic)
* **ESR13:** Development of membrane-targeted azobenzene-based compounds for vision restoration
- IIT (Genova, Italy)
* **ESR14:** Development and testing of organic nanoparticle-based light actuators for retinal applications
- IIT (Genova, Italy)
* **ESR15:** Development of clinical endpoints of daily-life activity for low vision patients to assess the effect of visual restoration
- Streetlab (Paris, France)

**Application**

Candidates are requested to read details about each position and the application and selection process in the recruitment guidelines.

=> The recruitment guidelines are available to [download here.](http://www.institut-vision.org/images/ENTRAIN_Vision_ESR_recruitement_guidelines.pdf)
=> The application form is available to [download here.](http://www.institut-vision.org/images/ENTRAIN_Vision_ESR_recruitement_form.pdf)

**Eligibility criteria**

Candidates must be in the first four years of their research career and not hold a PhD. They must not have resided in the country of their host organization more than 12 months in the 3 years prior to their recruitment.

**Benefits**

ITNs are financially supported by the European Commission under the Marie Skłodowska-Curie Actions (MSCA) because they provide excellent research, training and career aspects. The benefits of being a PhD student in an ITN network include:

* The chance to participate in specially developed courses (e.g. on specific techniques, academic soft skills)
* building your personal professional network at a very early stage of your career due to the embedding of our PhD projects in an academic/industrial network
* being exposed to industry and the challenges in industry already during the PhD, as all ESR will be either hosted or seconded to a private sector partner
* the opportunity to spend some time in the labs of other partners (and get familiar with other disciplines, techniques, cultures etc.), as the research projects are designed such that they will mostly have interdisciplinary components
* Being advised by excellent group leaders – they are all outstanding in their research and training

The ITN programme offers a highly competitive and attractive salary and working conditions. The successful candidates will receive a salary in accordance with the MSCA regulations for early stage researchers. The salary includes a generous living allowance, a mobility allowance and a family allowance (depending on family situation):

* Living Allowance of €3270/month (gross) to be paid in the currency of the country where the Host Organisation is based and with a correction factor to be applied per country. The exact (net) salary will be confirmed upon offer and will be based on local tax regulations and on the country correction factor (to allow for the difference in cost of living in different EU Member States)
* Mobility allowance of €600/month to be paid to all ESRs recruited
* Family allowance of €500/month, depending on family situation.

The ESR will be contractually employed for 36 months by their host institution and will be covered under the social security scheme of the enrolling country.