

## Bertarelli Fellowships in Translational Neuroscience and Neuroengineering Call for applications from EPFL Master students

→ **deadline February 2, 2025 (midnight)** ←

### Bertarelli Program in Translational Neuroscience and Neuroengineering Harvard Medical School and EPFL

First-year EPFL Master students are invited to apply for a <https://fondation-bertarelli.org> sponsored Fellowship, supporting an academic mobility year spent in Boston/Cambridge, MA (USA) in 2025-2026, to carry out research at Harvard Medical School (HMS) that will qualify as EPFL Master thesis. The Bertarelli Fellowship Program (hereafter “Program”) grants awardees a discretionary allowance of **USD 35,000** for expenses related to travel and living costs during the mobility year (for further details: see pages <https://neuro-x.epfl.ch/en/bertarelli-fellowships-program/> and <https://bertarelli.hms.harvard.edu/education>).

#### *Background*

Understanding of brain circuitry and signaling has advanced phenomenally in recent years, based on developments in technology for recording signals associated with small sets or larger groups of neurons in the brain, as well as analysis of the complex data that derives from these neuronal networks and its association with function (*e.g.* motor, cognitive, sensory). These advances have given rise to the field of neuroprosthetics, focused on development of technology to deepen our understanding of the brain, spinal cord and peripheral nervous system, and on the use of this technology and knowledge for recovery or augmentation of neural function lost to disease or trauma.

Aligned with recent breakthroughs in understanding neural circuitry and signaling, and translating that understanding toward restoration of function, the Bertarelli family funds Professorships at the EPFL and HMS, research endeavors, as well as an EPFL-HMS collaborative education effort in neuroengineering and related topics.

Areas of interest include, but are not limited to:

- Signal processing and device engineering for advanced auditory augmentation.
- Noninvasive sensing for brain-machine interfaces.
- High-density electrode-array based neural recording in the brain.
- Combined stimulation and recording, for development of mechanistic insight into deep brain stimulation.
- Stabilization of the implant-nervous system interface, and induction of neural tissue regeneration.
- AI based decoding of neural signals and recordings, and development of prosthetic control algorithms.

#### *Procedure – how to apply*

The Call is open to 1<sup>st</sup> year Master students in Life Sciences Engineering (LSE), Neuro-X, Basic, Engineering and Computer Sciences. An application dossier should consist of: a) 1-2 page Statement of Purpose, outlining motivation and research interests; b) CV; c) transcript of BSc and MSc grades, as available; d) list of labs envisaged to be joined if awarded a Fellowship (<https://pinphd.hms.harvard.edu/faculty> or <https://brain.harvard.edu/scientists> list potential host labs). Reference letters are not requested.

Applications must be submitted by email to [dietrich.reinhard@epfl.ch](mailto:dietrich.reinhard@epfl.ch)  
in single file pdf format, **by February 2, 2025, midnight**

A limited number of applicants will be interviewed at Campus Biotech (Geneva) in week 7, 2025, by a jury composed of EPFL faculty members; the jury will select up to six Fellowship awardees, based on dossier and interview. Outcomes will be communicated before February 17, 2025, start of the spring semester.

#### *Important notes and recommendations*

- The Call is open exclusively to students enrolled in semester Ma1, having completed at most one semester of Ma-level course work.
- Bertarelli Fellows having joined EPFL at the Master may leave to HMS only after validating 90 ECTS at EPFL.
- Current EPFL Excellence Fellowship guidelines/requirements apply in full: check <https://www.epfl.ch/education/master/master-excellence-fellowships/how-to-apply/> for specifics.
- Non-LSE applicants are advised to discuss potential restrictions with their Section Office prior to submitting.
- The Program does allow for flexible departure dates, namely in fall or spring: in latter case, graduation is delayed.
- Applicants should not contact HMS investigators at this stage; green light to do so will be issued in due course.