

## **PhD Position “Electrophysiology to Optimize Hearing in Cochlear Implant Recipients”**

### **The project**

After cochlear implantation surgery, recipients currently have many follow-up appointments in the clinic during which the cochlear implant’s sound processing parameters are optimized. The project aims to develop and test a set of measurements to partially automate this process and transfer it to the home environment.

The successful applicant will join the research group “Otology and Biomechanics of Hearing” at the University Hospital Zurich (<https://www.otobm.uzh.ch/en.html>) and will be enrolled in the Clinical Science or Neuroscience doctoral program at the University of Zurich. The project is conducted in collaboration with the company Sonova.

### **Your tasks**

- Develop and perform electrophysiological measurements in cochlear implant recipients during and after surgery
- Investigate electrical impedance measurements through the cochlear implant electrode array in the laboratory
- Contribute to the development of an algorithm for adapting sound processing parameters based on the measurements
- Test the developed methods in a clinical study
- Analyze data, write publications, and present research outcomes at conferences

### **Qualifications**

We are looking for an enthusiastic PhD candidate with:

- An interest in electrophysiology, hearing research, and working with patients in a clinical environment
- A background in audiology, natural science, engineering, medicine, or similar
- Excellent English speaking and writing skills
- German speaking skills, or a willingness to learn German
- Programming knowledge (Matlab, Python or R) is preferred

### **What we offer**

- An interdisciplinary work environment with researchers from diverse clinical, engineering, and scientific backgrounds, as well as audiologists and clinicians. Researchers are involved in both fundamental and translational projects related to hearing.
- Central work location in the vibrant city of Zurich, with access to clinical facilities and well-equipped laboratories.
- Possibilities for education and networking by participating in courses and events organized by the PhD program, and attending national and international conferences
- Involvement in shaping and teaching courses about hearing
- Contact and collaboration with industrial partners

The preferred start date is the 1st of September 2022. The project duration is three years, and the employment and salary conditions adhere to the regulations of the University of Zurich and Innosuisse (the Swiss Innovation Agency).

Applications including CV, motivation letter, certificates and references can be sent to [orl.research@usz.ch](mailto:orl.research@usz.ch). For questions related to the vacancy, please contact PD Dr. Flurin Pfiffner: +41 41 255 58 21