



Internship in biophotonics

Title: Biophotonics Student/Engineer

Position: Six (6) months internship

Posted on: 12th November 2020

Location: Wyss Center for Bio and Neuro Engineering, Campus Biotech, Geneva Switzerland

About the Wyss Center for Bio and Neuroengineering, Geneva, Switzerland

The Wyss Center is an independent, non-profit research and development organization that advances our understanding of the brain to realize therapies and improve lives. The Wyss Center staff, together with the Center's academic, clinical and industrial collaborators, pursue innovations and new approaches in neurobiology, neuroimaging and neurotechnology. Wyss Center advances reveal unique insights into the mechanisms underlying the dynamics of the brain and the treatment of disease to accelerate the development of devices and therapies for unmet medical needs. The Wyss Center was established by a generous donation from the Swiss entrepreneur and philanthropist Hansjörg Wyss in 2014. Additional resources from funding agencies and other sources help the Wyss Center accelerate its mission.

About the position

The **Biophotonics Student/Engineer** will work closely with the Wyss Center's technical team, working on medical implantable systems designed to acquire and wirelessly transmit neuronal signals. More information about this project can be found on our [website](#). The successful candidate will work on the modeling and characterization of optical data transmission from the implant to the outside of the human body. The project will offer the intern the opportunity to interact with experts from scientific, engineering, and regulatory domains.

Key responsibilities:

The **Biophotonics Student/Engineer** will perform the following tasks:

- Extensive literature review of the anatomy and optical properties of the *in-vivo* human scalp.
- Development and optimization of optical models of the human scalp.
- Model validation based on data retrieved from human subjects.
- Application of these optical models towards improved design and characterization of implantable systems for humans, as well as improved design of human clinical trials.

This successful candidate will be mentored and guided by the Electronics Engineer at the Wyss Center.

Required competence and experience:

- MS student/graduate or PhD student/graduate in biomedical optics/biophotonics or related discipline
- Hands-on experience of optical simulation software
- Knowledge of methods for extracting optical properties of tissues
- Results oriented, with urgency and drive to learn and contribute
- Good verbal and written communication skills in English; French a plus

This position is available **immediately**

To apply, please send your CV and covering letter describing your qualifications, background and interest in this position to HR@wysscenter.ch no later than 11th December 2020.