Biosensor Engineering Internship - Biomarker Detection in the Brain (BDB) Team - Optical Fiber Biosensor Fabrication and Optimization

About BioMed X

BioMed X is an independent research institute located on the campus of the University of Heidelberg, Germany, with a world-wide network of partner locations. Together with our partners, we identify big biomedical research challenges and provide creative solutions by combining global crowdsourcing with local incubation of the world's brightest early-career research talents. Each of the highly diverse research teams at BioMed X has access to state-of-the-art research infrastructure and is continuously guided by experienced mentors from academia and industry. At BioMed X, we combine the best of two worlds - academia and industry - and enable breakthrough innovation by making biomedical research more efficient, more agile, and more fun.

About Team BDB

The objective of team BDB (Biomarker Detection in the Brain), headed by Dr. Khulan Sergelen, is to develop an in vivo continuous monitoring biosensor for direct detection of small-molecule biomarkers in brain tissue of rodent models to elucidate the pharmacodynamic (PD) effect and pharmacokinetic (PK) parameters of drugs against neuropsychiatric diseases. Our team will explore the multifaceted task of continuous monitoring biosensor development, including molecular design and assay development, biocompatible sensor architecture, and optical sensor integration for *in vivo* monitoring.

The Position

We are seeking a master's student (10-20 hours/week, 6-12 months) to conduct research on " Optical fiber biosensor fabrication and optimization". The ideal candidate should have a background in Physics, Optics, Engineering, or a related field, with an interest in biosensors. Experience with microfabrication techniques, surface plasmon resonance, and/or knowledge of optical biosensing is preferred. The project involves fabricating and optimizing plasmonic optical fiber biosensing probes. The student will fabricate plasmonic optical fiber probes, test sensing performance enhancement strategies, and perform biosensing experiments. This endeavor will provide hands-on experience with cleanroom fabrication, optical/plasmonic engineering, and biomolecular sensing.

How to Apply

If you are interested in the position, please submit your application by e-mail before **Wednesday, July 31, 2024**, to the attention of **Dr. Khulan Sergelen** (sergelen@bio.mx) and **Dr. Pragnya Satapathy** (satapathy@bio.mx).

Applicants will be interviewed upon incoming documents; hence, please get in touch as soon as you decide to apply.

Contact

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