Research Intern - Optimization and Characterization of Biomaterials (Team BDB)

About BioMed X

BioMed X is an independent research institute with sites in Heidelberg, Germany, New Haven, Connecticut, XSeed Labs in Ridgefield, Connecticut, and a worldwide 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 the group 'Advanced Biomarker Detection for Pharmacological Monitoring in the Brain' (BDB), 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 – internship or master's thesis) to conduct research on "Optimization and Characterization of Biomaterials." The ideal candidate should have a background in Biotechnology, Materials Science & Engineering, Biochemistry, or a related field, with an interest in biosensors and biomaterials. Experience with fluorescent assays and microscopy, cell culture, or biomaterials-related techniques will be greatly appreciated.

The project involves the design and characterization of biocompatible materials for future *in vivo* applications. The student will conduct biocompatibility testing, such as cell viability and cytotoxicity, protein adhesion screenings, and others. This endeavor will provide hands-on experience with various laboratory techniques, including cell culture, fluorescence microscopy, and, to some extent, surface plasmon resonance (SPR), depending on the student's interests.

How to Apply

If you are interested in the position, please submit your application by e-mail before May 31, 2024, to the attention of Dr. Cátia Santa (santa@bio.mx) or Dr. Khulan Sergelen (sergelen@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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