PhD Student in Microfluidic Proteomics

microfabrication | surface chemistry | biochemistry | programming | control theory

The Micro and NanoBioengineering group of McGill University seeks outstanding applicants for an interdisciplinary PhD in microfluidic proteomics starting January 2007 or earlier. Deadlines for application to the department are August 15th for international students and October 15th for Canadian students.

The work is the conception and development of arrays of microfluidic systems for high throughput proteomic analysis with high sensitivity, selectivity and reproducibility. Accurate protein fingerprints may help diagnose, understand, and treat a wide array of diseases and help advance personalized medicine. This project aims at overcoming the limitations of current analysis technologies which are inadequate for large scale, high sensitivity protein fingerprinting.

The candidate will design microfluidic systems (see our recent review Advanced Materials 17, 2911 - 2933, 2005,) fabricate them in the Nanotools Microfab, and use them with test samples. The candidate will benefit from an interdisciplinary environment and collaborate with many scientists and engineers such as biologists, biochemists, chemists, bioinformaticians and clinicians.

Applicants are expected to hold a M. Sc. in one of the fields of nanotechnology, chemistry, physics, material sciences, electrical, mechanical, chemical, or biomedical engineering, to have an excellent track record, and an interest for interdisciplinary research with biomedical applications. The candidate should be open-minded, ingenuous, and bring expertise in at least one of the fields of microfluidics, microfabrication, bioassays, surface chemistry, biochemistry, programming, or control theory.

Candidates are invited to send an email with the subject “PhD in microfluidic proteomics” including a cover letter, their complete curriculum vitae, the names of three references, and if available, published papers or manuscripts in preparation (preferred electronic format is pdf) to:

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For detailed procedures please consult: http://www.bmed.mcgill.ca/how_to_apply.html