

PDF in Mechanical and Chemical Engineering for Application in Synthetic Biology

The Pardee (<u>www.pardeelab.org</u>) and Sinton Labs (<u>www.sintonlab.com</u>) at the University of Toronto are seeking a postdoctoral fellow with expertise in mechanical engineering and/or chemical engineering. The proposed project aims to develop a fluid-handling device to manipulate synthetic biology reactions, temperature control and optical monitoring.

The group offers a collaborative mission-driven environment with diverse expertise and methods. The ideal applicant will have an engineering PhD from mechanical or chemical or related discipline. The position marries engineering method-side innovation with a deep understanding of the biological application – specifically the implementation and scaling of production of therapeutic proteins and gene circuit based sensors in benchtop, accurate, automated commercialization-ready units. Assets include: Robust and creative device engineering, hardware and mechatronic design, device integration across fluids-hardware-sensors-software, controls, electronics integration, device programming, process engineering, fluid handling, fabrication (CAD, 3D printing, laser cutting) and competence with basic molecular biology and biochemistry.

The role involves generating publications, contributing to grants and progress reports, mentorship of junior lab personnel, some lab management, and the maintenance of meticulous records. Appointment will be made for one year with the option of renewal.

To apply please send a curriculum vitae, a statement of research interests and experience, and contact information of three references via e-mail to <u>keith.pardee@utoronto.ca</u> and <u>sinton@mie.utoronto.ca</u>, with "PDF – MECH/CHEM" in subject line.