

The Multi-scale Biomechanics and Engineering of Soft Tissue (MuBEST) laboratory at the Department of Mechanical and Aerospace Engineering, Carleton University is inviting applications for a funded Master/Doctoral Researcher position to investigate the mechanisms governing tissue integration. We are seeking an outstanding, highly motivated, and qualified candidate to investigate the development of tissue adhesion over time by using a custom-built optico-mechanical loading system. The goals of the master/doctoral study are to identify the mechanisms governing the biological formation of adhesion between the engineered and the native biological tissues and use the mechanistic models to develop tissue engineering methods that can improve graft-host integration. Experimental and numerical modelling approach will be employed to achieve the goals of the study.

Requirements:

Strong programming and data analysis skill (e.g., python, Matlab, labview, etc.)
Experienced in mechanical testing and laser imaging or near infrared spectroscopy
Experienced in theoretical and Finite Element modelling of soft biological tissues
Excellent time management and organization skills
Strong writing and communication skills

The successful candidate will work on-site in MuBEST laboratory at Carleton University (www.carleton.ca/mubest-lab) under the guidance of Prof. Eng Kuan Moo. The MuBEST lab is collaborating with the 'Cell and Tissue Engineering Lab' (led by Prof. Andrew Harris) and the 'Impact Research Lab' (led by Prof. Oren Petel) at the MAE department. The successful candidate will have the opportunity to engage with the larger research community in MAE department by participating in any inter-laboratory activities. Carleton University is a dynamic and innovative research and teaching institution with a national and international reputation as a leader in collaborative teaching and learning, research and governance. To learn more about our university and the City of Ottawa, please visit www.carleton.ca/about.

Qualified applicants should prepare a single application package which includes the following: 1) a curriculum vitae, 2) academic transcript, 3) a one-page statement of research interest, 4) contact information of three referees. The application package can be sent directly to Prof. Moo at engkuanmoo@cunet.carleton.ca. Application will be reviewed on an ongoing basis until the position is filled. Students who are citizens or permanent residents in Canada will be given priority.

Commitment to Equity and Diversity

We hire on the basis of merit and is strongly committed to equity and diversity within its community. We welcome applications from racialized persons/visible minorities, women, indigenous persons, persons with disabilities, ethnic minorities, and persons of minority sexual orientations and gender identities, as well as from all qualified candidates with the skills and knowledge to productively engage with diverse communities.