Two tenure track faculty openings in Biomedical Engineering at the University of Waterloo

The Biomedical Engineering Program (BME) in the Department of Systems Design Engineering (SYDE) at the University of Waterloo invites applications from highly qualified scholars for two tenure track positions at the rank of Assistant Professor (anticipated start date July 1, 2024). The rank of Associate Professor may be considered for an exceptional candidate. Successful candidates must have a PhD in engineering or an equivalent discipline and preferably postdoctoral training and research experience, clinical or industrial experience after PhD.

Position 1: Biomaterials, Tissue Engineering and Living Models
Applicants should have demonstrable research strengths in the broad technical area of experimental models with applications in human health, including *in vitro* (cell level), in *vivo* (animal models) and/or *ex vivo* (explanted tissues or organs) models. Areas of research interest may include biomaterials, functional tissue engineering, mechanobiology, mechanotransduction, experimental models of human disease, and 3D bioprinting.

Position 2: Implantable Medical Devices
Applicants should have demonstrable research strengths in the broad technical area of implants and implantable medical devices (e.g., FDA class III or equivalent). Areas of research interest may include implantable sensors and sensing devices, implantable active drug delivery systems, implanted brain-computer interfaces, and novel or established implant technologies for various fields of medicine and dentistry (orthopaedics, cardiovascular, ophthalmic, etc.). Applicants with expertise and experience in clinical translation, regulations, and safety of implantable devices are particularly encouraged to apply.

Applicants for both positions must have excellent communication skills and dedication to both teaching and research. Duties include teaching in the undergraduate programs covering core courses and electives in their area of research, in topics related to biomaterials science and engineering, physiological systems, design of medical devices (including translation, regulations, and safety), prototyping, simulation, and modeling of biomedical systems. Advising graduate and undergraduate students, and administrative service to the department, faculty, and university are required.

Successful applicants must be committed to establishing an interdisciplinary internationally recognized research program. Collaborations with other BME faculty at Waterloo and the external research community are encouraged.

The successful applicant is required to have an engineering license for practice (full) or teaching (limited) in Canada, or to apply for a Canadian engineering license within the first year of joining the University. Due to program accreditation requirements, all new faculty members are required to obtain the license within five years of initial appointment at the University of Waterloo, and maintain it during their employment at the University.

Applications received by **January 31, 2024,** will be given full consideration. However, applications will continue to be reviewed until the two positions are filled. References are requested but will only be contacted for applicants invited for an interview. The salary range for the Assistant and Associate positions is $120,000 to $160,000. Negotiations beyond this salary range will be considered for exceptionally experienced candidates. All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

Applicants must complete an online application that includes a single PDF containing the following in order:

1. A brief cover letter indicating which of two the positions they are applying for;
2. A statement of teaching philosophy and interests (two-page maximum);
3. A research statement including accomplishments, goals, and five-year plan (two-page maximum);
4. A diversity impact statement addressing how your teaching and research programs have/will advance equity, diversity, and inclusion goals (consult https://www.nserc-crsng.gc.ca/_doc/EDI/Guide_for_Applicants_EN.pdf) (one-page maximum);
5. A current curriculum vitae;
6. A list of up to three DOIs for journal articles in a related field, and a statement of the applicant's contributions to each.

The cover letter must be addressed to:

Profs. Maud Gorbet and Thomas Willett
Search Committee Co-Chairs, Department of Systems Design Engineering
University of Waterloo

The links for submission of applications are as follows:
Position 1: https://ofas.uwaterloo.ca/application-preview/77

Position 2: https://ofas.uwaterloo.ca/application-preview/78

Questions regarding the application process, assessment process or eligibility, including accommodation requests, can be addressed by Alex Pastrik at sydeaac@uwaterloo.ca. The University of Waterloo is committed to accessibility for persons with disabilities.

The Department of Systems Design Engineering (SYDE) with more than 1,000 students and 42 dedicated faculty is uniquely positioned to lead the interdisciplinary Biomedical Engineering program, Waterloo's most competitive and in-demand major. Its faculty members develop design- and system-focused

curriculum and conduct world-leading research in biomedical engineering, socio-environmental systems, human factors, as well as mechatronic and physical systems. SYDE also hosts the Centre for Society, Technology and Values (CSTV). The University of Waterloo is Canada's largest engineering school and ranks among the top 50 engineering schools worldwide. Waterloo Engineering boosts over $96 million of research funding per year. Waterloo is home to 74 Canada Research Chairs and is well-known for its 100% creator-owned IP policy, with SYDE alumni among the University's most successful entrepreneurs. Waterloo's world-renowned cooperative education program partners with more than 7,000 employers in sixty countries. The University of Waterloo covers 1,000 acres in the heart of Waterloo, Ontario, Canada, an hour west of Toronto.
Three reasons to apply: https://uwaterloo.ca/faculty-association/why-waterloo

The University of Waterloo acknowledges that much of our work takes place on the traditional territory of the Neutral, Anishinaabeg, and Haudenosaunee peoples. Our main campus is situated on the Haldimand Tract, the land granted to the Six Nations that includes six miles on each side of the Grand River. Our active work toward reconciliation takes place across our campuses through research, learning, teaching, and community building, and is centralized within our Indigenous Initiatives Office (https://uwaterloo.ca/human-rights-equity-inclusion/indigenousinitiatives).

The University of Waterloo values the diverse and intersectional identities of its students, faculty, and staff. The University regards equity and diversity as an integral part of academic excellence and is committed to accessibility for all employees. The University seeks applicants who embrace our values of equity, anti-racism, and inclusion. As such, we encourage applications from candidates who have been historically disadvantaged and marginalized, including applicants who identify as Indigenous peoples (e.g., First Nations, Métis, Inuit/Inuk), Black, racialized, people with disabilities, women and/or 2SLGBTQ+.