



DEPARTMENT OF
**Mechanical and
Materials Engineering**

Tier 1 Canada Research Chair in Cell Mechanics and Mechanobiology

**Department of Mechanical and Materials Engineering
Faculty of Engineering and Applied Science
Queen's University at Kingston**

October 2021

Queen's University is situated on traditional Anishinaabe and Haudenosaunee Territory.

The Department of Mechanical and Materials Engineering at Queen's University invites applications for a **Tenured faculty position at the rank of Associate Professor or Professor** with specialization in cell mechanics and mechanobiology, with a preferred starting date of July 1, 2022. The successful candidate will join an exciting new interdisciplinary research initiative, **C², from Cells to Community: Connecting Mechanobiology and Physical Activity to Promote Health and Wellness for Canadians**, where their expertise in cell mechanics and cellular response to mechanical stimulation will inform the development of effective musculoskeletal therapies and treatments to promote healthy active living in Canada's aging population. The C² program is housed within the Centre for Health Innovation (formerly the Human Mobility Research Centre) and comprises a 15+ member team of established researchers and state-of-the-art labs encompassing complementary expertise in cell biology, biomaterials, biomechanics, robotics, and community-based research. The successful candidate will submit an external nomination for a seven-year term position as a Tier 1 Canada Research Chair, eligible for renewal once, to a maximum of two seven year terms as a Tier 1 Canada Research Chair.

This appointment is open only to qualified individuals who self-identify as women¹. We welcome and support applications from such candidates who also identify as members of other equity-deserving groups, i.e. Indigenous/Aboriginal peoples, persons with disabilities, racialized/visible minorities, and members of 2SLGBTQ+ communities.

Queen's University is committed to academic and research excellence while advancing inquiry to solve problems and promoting a more equitable, diverse and inclusive research enterprise. To fully realize this goal, we must ensure that we have diversity of perspective and experiences to boldly take on societal, cultural and environmental challenges. Queen's University has an employment equity program that meets the goals of the Canada Research Chairs program and the requirements of our collective agreement with the Faculty Association. Until such time as we

¹ "Women" is used because the CRC Program currently employs the categories of the four federally designated groups (FDG) - Women, Indigenous Peoples, Persons with Disabilities, and Members of Visible Minorities - to monitor progress towards meeting equity goals. Queen's has an under-representation of women among Tier 1 Chairholders. The Tri-Agency Institutional Programs Secretariat (TIPS) has established targets for CRC representation, with staggered deadlines for meeting targets between the period of 2020 to 2029. This initiative follows the provisions for a special program as described by the Ontario Human Rights Commission.

have met our Canada Research Chairs Program equity targets (<http://queensu.ca/vpr/prizes-awards-chairs/canada-research-chairs-program-crccp>), preference will be given to members of the Four Designated Groups under the Canada Research Chairs program: women, Indigenous/Aboriginal peoples, persons with disabilities and racialized persons/visible minorities. All applicants will be invited to self-identify once they have applied. Self-identification information will be held in confidence by the Human Rights and Equity Office and one specially trained member of the selection committee. All qualified candidates are encouraged to apply; however, in accordance with Canadian Immigration requirements, Canadian citizens and Permanent Residents of Canada will be given priority.

Canada Research Chairs were established as part of a national strategy to foster research excellence (www.chairs-chaire.gc.ca). The successful candidate must submit an external application to the Tri-agency Institutional Program Secretariat that meets the requirements for the successful nomination of Tier 1 Chair as defined by the Canada Research Chairs Program:

- be outstanding and innovative world-class researchers whose accomplishments have made a major impact in their fields;
- be recognized internationally as leaders in their fields;
- have superior records of attracting and supervising graduate students and postdoctoral fellows (taking into account different practices in the relevant field or discipline) and, as chairholders, be expected to attract, develop and retain excellent trainees, students and future researchers; and
- be proposing an original, innovative research program of the highest quality.

Your Career with Queen's Engineering

Among our top priorities in the Faculty of Engineering and Applied Science is providing opportunities for early career academics to develop distinguished research and exceptional teaching contributions while fostering an environment where all faculty can thrive. To promote on-going success, there is support for course development and delivery that is provided by the Department, the Queen's Centre for Teaching and Learning, and the Faculty of Engineering and Applied Science. Faculty have access to a range of educational technologies including industry-leading instructional design support offered through the [Engineering Teaching and Learning Team](#). Support for faculty to develop strong research programs includes Special Research Grant opportunities, grant writing workshops and review services, and one-to-one mentorship from experienced colleagues. Queen's Engineering is also committed to increasing the proportion of women in engineering, supported by the recent establishment of [a Chair for Women in Engineering](#).

The Department of Mechanical and Materials Engineering is comprised of approximately 30 faculty members, 700 undergraduate students, 175 graduate students, and it currently holds the inaugural Chair for Women in Engineering, Dr. Heidi Ploeg. Research in the Department is supported by four research chairs: a Tier 1 CRC in Mechanics of Materials, an NSERC Industrial Research Chair in Nuclear Materials, a University Network of Excellence in Nuclear Engineering (UNENE) Research Chair in Corrosion Control and Materials Performance, and a Tier 1 CRC in Turbulence Simulation and Modelling. The Department benefits from strong collaborations with the Centre of Health Innovation (formerly the Human Mobility Research Centre) and [Ingenuity](#)

[Labs, and it](#) also boasts a number of world-class experimental research facilities, including the Reactor Materials Testing Laboratory ([RMTL](#)) and the Optical Towing Tank for Energetics Research Laboratory ([OTTER Lab](#)). More details about the Department can be found at me.queensu.ca.

Criteria:

Candidates must have a PhD or equivalent degree in Mechanical, Chemical, Materials or Biomedical Engineering, or a related discipline, completed at the start date of the appointment.

The main criteria for selection are:

- demonstrated excellence in research, including a strong publication record commensurate with years since PhD obtained;
- expertise that complements existing research areas in the department;
- a high potential for excellence in teaching at both the undergraduate and graduate levels, and an ongoing commitment to academic and pedagogical excellence in support of the department's programs;
- evidence of an ability to work collaboratively in an interdisciplinary and student-centred environment;
- Professional engineering licensure in Canada, or the eligibility to obtain licensure, is a requirement. Note that all forms of engineering licensure in Canada are considered acceptable (e.g., P.Eng., temporary engineering license, provisional engineering license, etc.); and
- evidence of high-quality scholarly output that demonstrates potential for independent research leading to peer assessed publications and a comprehensive strategy and/or demonstrated ability to attract and retain external research funding.

The successful candidate will be required to make contributions through service to the department, the Faculty, the University, and/or the broader community. Salary will be commensurate with qualifications and experience.

Queen's University Commitment to Equity, Diversity and Inclusion

Within the Faculty of Engineering and Applied Science, innovation thrives with new perspectives and experiences, and the diversity of our workforce enhances our research and teaching excellence. People from across Canada and around the world come to learn, teach and carry out research at Queen's University. With foundational values of collaboration, respect and diversity, we are committed to embracing an inclusive environment and supporting each member of our community to reach their fullest potential. We encourage those who share our commitments to diversity and inclusion to join our Faculty.

The University is situated on the traditional territories of the Haudenosaunee and Anishinaabe, in historic Kingston on the shores of Lake Ontario. Kingston's residents enjoy an outstanding quality of life with a wide range of cultural, recreational, and creative opportunities. Visit [Inclusive Queen's](#) for information on equity, diversity and inclusion resources and initiatives.

Faculty and their dependents are eligible for an extensive benefits package including prescription drug coverage, vision care, dental care, long term disability insurance, life insurance and access to the Employee and Family Assistance Program. You will also participate in a pension plan.

Tuition assistance is available for qualifying employees, their spouses and dependent children. Queen's values families and is pleased to provide a 'top up' to government parental leave benefits for eligible employees on maternity/parental leave. In addition, Queen's provides partial reimbursement for eligible daycare expenses for employees with dependent children in daycare. Details are set out in the Queen's-QUFA Collective Agreement. For more information on employee benefits, see [Queen's Human Resources](#).

Additional information about Queen's University can be found on the [Faculty Recruitment and Support](#) website.

To comply with federal laws, the University is obliged to gather statistical information as to how many applicants for each job vacancy are Canadian citizens / permanent residents of Canada. Applicants need not identify their country of origin or citizenship; however, all applications must include one of the following statements: "I am a Canadian citizen / permanent resident of Canada"; OR, "I am not a Canadian citizen / permanent resident of Canada". Applications that do not include this information will be deemed incomplete.

A complete application consists of:

- a cover letter (including one of the two statements regarding Canadian citizenship / permanent resident status specified in the previous paragraph);
- a current Curriculum Vitae that includes a comprehensive list of publications (with supervised students on publications clearly identified), awards, and grants received;
- a statement of research interests and achievements;
- a statement of teaching interests and experience (including teaching outlines and evaluations if available);
- a statement identifying their strengths and experiences with respect to increasing equity, diversity, and inclusion in their institutional environment; and,
- The names and contact information of three references

Applications will begin to be reviewed on January 15, 2022, and will continue to be received until the position is filled. Applicants are encouraged to send all documents in their application packages electronically as PDFs to the Mechanical and Materials Engineering (MME) Administrative Assistant at mmehead@queensu.ca although hard copy applications may be submitted to:

Dr. Keith Pilkey
Professor and Head
Department of Mechanical and Materials Engineering
Room 201, McLaughlin Hall
130 Stuart Street
Queen's University
Kingston, Ontario
CANADA K7L 3N6

The University will provide support in its recruitment processes to applicants with disabilities, including accommodation that takes into account an applicant's accessibility needs. If you require accommodation during the interview process, please contact the MME department at mmehead@queensu.ca.

Academic staff at Queen's University are governed by a [Collective Agreement](#) between the University and the [Queen's University Faculty Association \(QUFA\)](#), which is posted at <http://queensu.ca/facultyrelations/faculty-librarians-and-archivists/collective-agreement> and at <http://www.qufa.ca>.

Appointments are subject to review and final approval by the Provost. Only nominees external to Queen's University will be considered. (Please note that, for the purposes of this competition, Queen's Term Adjuncts and Adjunct-1s will be considered as external nominees).