CANADA EXCELLENCE RESEARCH CHAIR POSITIONS

Western University (London, Canada) invites world-leading researchers to apply for one of several prestigious Canada Excellence Research Chair (CERC) opportunities.

Launched in 2008, the CERC Program supports Canadian universities in their efforts to build upon Canada's reputation as a global leader in research and innovation and to attract world-renowned researchers to Canada. The awards are among the most prestigious and generous available globally. The program stands at the centre of our national strategy to foster research excellence in Canada and improve the depth of knowledge and quality of life, strengthen Canada's international competitiveness, and to help train the next generation of highly skilled people. **The awards provide an opportunity for international researchers, including Canadian expatriates wishing to relocate to Canada, to lead a prestigious research program at Western and to contribute to Canada's excellence in research and innovation.**

The CERC nomination is a two-stage process where applicants first apply to this job posting. Successful applicants then work with our institution to submit a nomination to the 2026 CERC competition. The university will support successful nominees throughout the development of their applications. Following a highly competitive selection process, the CERC program awards successful researchers and their teams either $8 million or $4 million over 8 years to establish ambitious research programs at the nominating university. There are two award values to recognize the varying costs of research within different research disciplines and to be inclusive of all areas of research.

Research Alignment

Western anticipates nominating up to three candidates for CERC positions, based on award value. Applications from outstanding established scholars are welcomed in the following seven areas, with at most one nomination to be selected from a given area:

(1) Infectious Disease Epidemiology and Public Health Interventions
(2) Neuroscience and Brain Health
(3) Multi-Hazard Resilient Infrastructure
(4) Smart Infrastructure Technologies
(5) Electrochemistry and Materials Degradation
(6) Earth and Space Exploration – Astromaterials
(7) Political Polarization.

1. **Infectious Disease Epidemiology and Public Health Interventions**
   Western is internationally recognized for its leadership in infectious disease research on viral and bacterial pathogens as well as epidemiology, biostatistics, and public health sciences, mostly applied to chronic non-communicable disease. A CERC in Infectious Disease Epidemiology and Public Health Interventions will focus on assessing the efficacy and effectiveness of pharmacological and non-pharmacological interventions, such as vaccination, quarantine, case isolation, and contact tracing, in controlling the spread of infectious diseases. The CERC will develop mathematical models that integrate non-homogeneous factors of transmission, including mobility, social interactions, and healthcare interventions, to evaluate epidemic dynamics and inform public health strategies. This position will build upon Western's strengths in epidemiological research, computational modeling, and data-driven policy analysis to advance our understanding of infectious disease transmission and improve public health responses, including pandemic preparedness planning.

2. **Neuroscience and Brain Health**
   Western is internationally recognized for its excellence in neuroscience research, with established strengths in neuroimaging, cognitive and behavioural neuroscience, computational neuroscience, neuroinfectious disease, and clinical neurological and psychiatric disorders. A CERC in Neuroscience and Brain Health will build upon strengths in the Western Institute for Neuroscience and its world-class infrastructure to advance our understanding of brain structure, function, and plasticity across the lifespan. The successful candidate will lead innovative research on fundamental neural mechanisms and their applications to neurological or psychiatric conditions, leveraging Western's infrastructure and expertise in multimodal neuroimaging techniques, translational models, cognitive neuroscience, and advanced computational methods. This position will foster interdisciplinary collaborations across faculties to develop novel approaches for early detection, prevention, or treatment of neurological disorders, including development of novel biotherapeutics, while establishing Western as a global leader in addressing the growing challenges of brain health at all life stages. The CERC will enhance Western's capacity to translate basic neuroscience discoveries to transformative clinical applications, ultimately improving health outcomes and quality of life.

3. **Multi-Hazard Resilient Infrastructure**
   The increasing frequency and intensity of severe storms and natural hazards, including extreme wind, flooding, wildfires, hail, and other climate-related threats, present urgent challenges to securing climate-resilient, sustainable communities. Addressing these challenges requires a cross-disciplinary approach that integrates advances in engineering, architecture, building and environmental sciences, severe storms meteorology, climate science, geography, social sciences, and business. At Western, we are committed to developing innovative solutions that combine experimental and field measurements, post-damage assessments, AI/ML, digital twin technologies, and cutting-edge modeling to create adaptive communities and infrastructure systems capable of withstanding the full spectrum of climate and storm hazards. The CERC will focus on one or both of: (i) advancing the development of disaster-resilient homes, infrastructure, and communities optimized for extreme

weather, fire resistance, and multi-hazard resilience; or (ii) developing enabling technologies, such as digital twin frameworks that integrate experimental data, field measurements, physical-based modeling, and social data with AI/ML techniques to enhance predictive capabilities, improve hazard modeling, performance-based climate design, and leverage data-driven decision-making and resilience testing in real-world environments. The CERC will help to position Western as a global leader in creating resilient storm- and climate-hazard-resistant communities, while advancing interdisciplinary research across engineering, architecture, social sciences, meteorology, and environmental studies to provide lasting solutions to the challenges posed by a changing climate.

4. **Smart Infrastructure Technologies**

   The rapid evolution of smart infrastructure presents unprecedented opportunities and challenges in resilience, efficiency, privacy, security, and sustainability. Addressing these challenges requires innovations in Machine Learning (ML), Artificial Intelligence (AI), and optimization methodologies to ensure scalable, adaptive, and energy-efficient solutions. Western is well-positioned to be a global leader in smart infrastructure technologies, leveraging expertise in AI-driven intelligence, digital twin frameworks, and next-generation connectivity solutions. A CERC in Smart Infrastructure Technologies will: (i) develop innovative solutions for secure and time-sensitive infrastructures and next-generation smart grids; (ii) advance fundamental research in distributed AI intelligence and energy-efficient computation to manage complex, heterogeneous networks; and (iii) bridge the gap between infrastructure, connectivity, and application-specific needs by integrating cutting-edge technologies like digital twin frameworks to enhance real-time decision-making and predictive analytics. This research will accelerate Western's leadership in enabling next-generation applications across autonomous vehicles, drone systems, disaster-resilient networks, and sustainable smart infrastructure, ensuring a lasting impact on global technological advancement.

5. **Electrochemistry and Materials Degradation**

   Western has a global reputation for excellence in electrochemical materials science, materials degradation, and sustainability-driven research. A CERC in the electrochemistry of batteries, battery materials development and degradation studies will strengthen and expand Western's leadership in battery innovation, fostering collaborations across materials science, chemistry, and engineering. The successful candidate will lead an innovative research program focused on developing sustainable and scalable technologies for energy storage systems and advancing fundamental understanding and predictive modeling of physico-chemical processes at solid-liquid interfaces and interphases. This work will directly address key challenges in battery degradation, lifetime optimization, and next-generation energy storage. Leveraging Western's world-class infrastructure and interdisciplinary research environment, the CERC will drive breakthrough advancements in battery manufacturing and performance, supporting Canada's transition to a sustainable energy future.

6. **Earth and Space Exploration – Astromaterials**
   Western has globally recognized strength in space science and exploration. A CERC in Astromaterials will expand on this foundation by focusing on the fundamental composition and evolution of planetary surfaces throughout the solar system. The successful candidate will advance research on space weathering processes and their effects on the properties of planetary materials, enhancing our ability to interpret remote sensing data from airless bodies. The CERC will develop advanced analytical techniques for the characterization of extraterrestrial samples, such as advanced microscopy, spectroscopy, mass spectrometry, or X-ray diffraction approaches. This research may examine aspects such as volatile compounds, organic materials, isotopic signatures, or mineralogical transformations in astromaterials to better understand solar system formation and contribute expertise to future mission development. Leveraging the resources of Surface Science Western and contributing astromaterials expertise to the user group will provide substantial opportunities for cross-disciplinary research in materials science, including corrosion, materials degradation, and critical elements research. The CERC will build upon existing research strengths at the Institute for Earth & Space Exploration in both planetary science and space technology development, positioning Western as a global leader in understanding the formation and evolution of planetary bodies.

7. **Political Polarization**
   Around the world we are witnessing significant challenges to democracy in the form of extreme polarization as partisan groups see themselves as further and further apart. Basic norms of democratic behaviours are being challenged by partisan groups that refuse to acknowledge the legitimacy of their political opponents. This polarization is especially dangerous and can seep into social, non-political interactions, and lead to violent encounters. Hyper-polarization can also threaten the peaceful transfer of power and other fundamentals of democracy. This CERC in Political Polarization will focus on understanding the roots of partisan and political identities in countries around the world; when and under which conditions those identities have deleterious consequences for social cohesion; what factors contribute to democracies becoming threatened; and what solutions may be available for addressing these challenges at the elite and individual level. The successful candidate will work closely with existing Canada Research Chairs in Political Psychology and Political Methodology and complement Western's recognized research strengths in political behaviour, social psychology, and communications. The candidate will be expected to engage in significant knowledge mobilization efforts.

Candidates

In accordance with the CERC program, candidates should be top-tier researchers whose accomplishments have major societal impact and who are recognized internationally as leaders. Societal impact may include translation and mobilization of the candidate's research to knowledge users, publications for non-academic audiences, community outreach, policy consultations, media coverage, and collaborative partnerships. In cases where the nominee is an Indigenous (First Nations, Inuit or Métis) researcher based in Canada, the impact can be at the international level and/or at the community, regional, or national level. Candidates must be full professors (or equivalent) or associate professors

expected to be promoted to full professor within one or two years of the nomination. Alternatively, if they come from outside the academic sector, nominees must possess the qualifications necessary to be appointed at these levels.

Researchers who hold a full-time academic appointment at a Canadian institution are eligible to be nominated; however, they may not be nominated by the institution at which they currently hold their appointment. If an institution nominates a researcher who is currently at a Canadian institution, the institution must demonstrate the net benefit to the country in moving the researcher from one Canadian institution to another.

In accordance with Western's faculty hiring requirements, successful candidates must have a Ph.D. or equivalent (e.g., JSD, MD, DDS, with relevant professional designation or licensure) in a discipline appropriate to the field of research, be engaged in a program of research, and have a demonstrated record of excellence in scholarly research and teaching. Assessment of candidates will be based primarily on research excellence, as reflected in the quality of peer-reviewed publications, success at securing research support, and other evidence of knowledge mobilization and impact. The assessment will also include how the candidate embeds equity, diversity, and inclusion principles in their research, and the candidate's teaching and mentoring record and philosophy. Western recognizes that its commitment to equity, diversity and inclusion is central to the university's mandate as a research-intensive institution of higher learning and a community leader. Western understands that its pursuit of research excellence and commitment to equity, diversity and inclusion are mutually supporting.

Successful candidates will be appointed as a faculty member, to an appropriate department, school, or faculty as early as January 2027. Duties will include research, teaching and service. Awardees will have up to 12 months to take up the award after the notice of award and acceptance have been signed by all parties (expected start no later than January 2028). Candidates who are unsuccessful in a CERC application at the national competition may be considered as a nominee for a Canada Research Chair, as available.

Western recognizes that life circumstances such as illness, disability, family, and community responsibilities (e.g., maternity leave, parental leave, leaves due to illness, leaves due to caring for family members, slowdowns due to chronic illness or disability, or COVID 19 impacts) are often an expected part of life and are likely to have an impact on a nominee's record of research achievement. These impacts will be taken into careful consideration during the assessment process. Potential candidates are encouraged to explain within their application the impact that career interruptions have had and to submit a full career or extended CV.

About Western University

Western is a leading research-intensive university, ranking in the top one per cent of universities in the world. Founded in 1878, Western is in London, Ontario, Canada – on lands connected by the London Township and Sombra Treaties of 1796 and the Dish with One Spoon Covenant Wampum – the ancestral territory of the Anishinaabek, Haudenosaunee, Lūnaapéewak and Chonnocton Nations. We combine research

excellence with a transformational student experience to create meaningful impact in our communities and beyond. As a founding member of Canada's U15 group of research-intensive universities, Western is a medical-doctoral institution home to 1,500 faculty members and 44,000 students from 128 countries. Our scholars have led world-changing advancements in wind engineering, neuroscience, economics, cancer, and gender-based violence prevention, among others. Our researchers continue to push the boundaries of knowledge and make discoveries that improve our environment, health, economies, culture, and societies. Their pursuit of knowledge benefits from strong partnerships globally and locally, including with affiliated research hospitals, and from world-class infrastructure that includes institutionally supported core research facilities and four interdisciplinary research institutes leading efforts to tackle some of the grand challenges of our time. For more information about Western's strategic priorities and areas of research activity, please see Western's strategic plan, the Western Research strategic plan and the Indigenous strategic plan.

How to Apply

Applications will be reviewed by a multi-disciplinary committee and must include the following:

1. Completed Canada Excellence Research Chair Application.
2. Cover letter that also identifies which of the seven areas align with your research.
3. Detailed curriculum vitae.
4. A plan identifying the proposed research program, including how you embed equity, diversity, and inclusion principles in your research. (Maximum five pages)
5. Highlights of your most significant contributions to your field, including how they have led to societal benefits, and how they connect with your research plan. (Maximum two pages)
6. A statement of your teaching and mentoring philosophies. (Maximum two pages)
7. The names and email addresses of three references.

The application should be submitted as a single PDF file to:
cerc2026@groups.uwo.ca

This ad will be posted on Western's Faculty Relations website on May 8, 2025 and will be posted for a minimum of 30 days. Review of applications will begin on June 9, 2025, and continue until the nominations are filled.

Positions are subject to budget approval. Applicants should have fluent written and oral communication skills in English.

The University invites applications from all qualified individuals. Western is committed to employment equity and diversity in the workplace and welcomes applications from women, members of racialized groups, Indigenous peoples, persons with disabilities, persons of any sexual orientation and persons of any gender identity or gender expression.

Western, like many postsecondary institutions in Canada, is moving beyond the sole reliance upon Indigenous self-identification in hiring designated Indigenous roles to safeguard against use of incorrect, incomplete, or misleading information regarding

claims of Indigenous identity. Indigenous candidates who are invited for an interview will be asked to have their claim to Indigenous membership or citizenship (First Nations, Métis, and Inuit) affirmed through a relational accountability process, led by the Office of Indigenous Initiatives (OII), that is consistent with Indigenous ways of knowing, being, and doing. Please contact the OII directly for details on the affirmation processes: https://indigenous.uwo.ca/.

Accommodations are available for applicants with disabilities throughout the application and recruitment process. If you require accommodations, please contact Sherri Castrilli at cerc2026@groups.uwo.ca*.*

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