

# MEMORANDUM

TO: Heather Davis-Fisch, Dean, Faculty of Fine Arts  
Jon Doan, Dean, Faculty of Health Sciences  
Kerry Godfrey, Dean, Dhillon School of Business  
Harold Janson, Dean, School of Liberal Education  
Matthew Letts, Dean, Faculty of Arts & Science  
Lisa Starr, Dean, Faculty of Education

FROM: Dena McMartin, Vice-President (Research)

DATE: December 17, 2024

SUBJECT: Upcoming Canada Excellence Research Chair (CERC) competition

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Colleagues,

We have been advised that the Government of Canada will be launching a CERC competition in January 2025. The CERC program offers institutions the opportunity to recruit world-leading researchers to establish ambitious research programs at Canadian Universities. Details pertinent to the CERC program are appended.

The CERC program requires a two staged application process where interested applicants must first apply to an open job posting at the University. Applicants who are successful through the internal selection process will be nominated to the CERC program. ORIS will provide substantial support in the preparation and development of the chair nomination including budget planning, proposal development, and editing.

Given the University's application quota, we anticipate **up to 2 candidates** will be selected to be nominated for CERC positions, but first we need to identify the research alignment of the search.

## NEXT STEPS

I am inviting Departments, Faculties, and Schools to submit proposals for Canada Excellence Research Chair (CERC) theme areas. The ideal thematic area supports a broad, ambitious, institutional strategy that focuses on an area where the University of Lethbridge can realistically achieve global leadership. Interdisciplinarity is key. In developing CERC theme area proposals, please consider the following:

- All CERCs must be aligned with the [Government of Canada's Science, Technology, and Innovation priority research areas](#).
- Proposals will only be considered in areas of establish research strength at the University of Lethbridge, with recognized international excellence.
- CERC nominees will have a strong track record of graduate, post-doctorate, technician (or equivalent), and research associate supervision and mentorship and thus the University of Lethbridge nomination theme areas should reflect strength in student research experience and programming.
- CERC theme areas must enhance interdisciplinary and collaborative research and build upon already successful research initiatives.
- CERCs are investments by Departments, Faculties, and Schools; proposals must demonstrate a commitment to supporting the recruitment and retention of the CERC.
- All CERC positions will be advertised openly and internationally. To ensure a fair and transparent recruitment process, theme areas must be broad enough to attract a large candidate pool, especially from equity deserving groups.

Please distribute the call for CERC theme areas widely to all faculty members within your Faculty/School. If there are multiple submissions within a Faculty, Deans will be asked to review and rank all proposals and provide a rationale for the ranking.

Expressions of interest can be submitted via email to Penny Pickles ([oris.initiatives@uleth.ca](mailto:oris.initiatives@uleth.ca)) by March 3, 2025. For more information and the EOI form, please consult the [ORIS website](#).

## ABOUT THE CERC PROGRAM

Funding available: Awards may be valued at \$4 million (\$500,000/year) or \$8 million (\$1M/year).

Term: 8 years, regardless of award size

Application limits: Researchers cannot apply directly. The CERC program limits institutional applications. As with previous competitions, institutional application limits are based on the average value of grants received by the University from the three federal granting agencies in the three years preceding the launch of the competition.

To provide more flexibility in choosing the value and number of applications universities can submit, the institutional application limit is expressed in dollar values. The University of Lethbridge's application limit is \$1M/year. Thus, the University may submit two applications requesting \$500,000/year or one application requesting \$1M/year.

Timeline: Below is the tentative timeline, which will be refined once competition dates are announced.

January 2025	Issue call for theme areas
March 3, 2025	Theme submission deadline
	March 31, 2025 – theme decisions announced
March 31, 2025	Theme selection. Successful proposal teams notified.
April 1, 2025	CERC job advertisement(s) posted
June 1, 2025	Internal review of applicants, shortlisting
July -October 2025	Faculty search process
November 2025	Candidates selected
January 2026	Registration deadline
March 2026	Application deadline

Selection criteria: While the criteria for the 2025 competition have yet to be announced, we assume it will be similar to the criteria for past competitions:

- highlight the institution's research strengths in the proposal field, assessed against global standards of excellence;
- the promise of the proposed field of the research Chair and the likelihood that work associated with the proposed Chair will be recognized as globally relevant and will advance the research on a global scale;
- the extent to which the proposal fits in one or more of the identified priority areas;
- ability of the institution to sustain the research initiative beyond the term of award; and
- the potential to apply the research results from the Chair to advance public policy and/or the potential to commercialize research discoveries from the Chair.

Additional information: <https://www.cerc.gc.ca/home-accueil-eng.aspx>  
<https://www.ulethbridge.ca/research/2025-cerc-competition>

# Science, Technology and Innovation Priorities for the Canada Excellence Research Chairs Program and the Canada First Research Excellence Fund

CHALLENGE	<input type="checkbox"/> Healthy People and Populations	<input type="checkbox"/> Innovative and Resilient Communities	<input type="checkbox"/> Sustainable Food Systems	<input type="checkbox"/> Clean, Sustainable and Prosperous Canada	<input type="checkbox"/> Technologically Advanced Canada
DESCRIPTION	Enhancing the health and wellness of people in Canada across all life stages.	Creating vibrant communities that are affordable, inclusive, healthy, clean and secure.	Maximizing Canada's agri-food potential to support economic growth and secure, equitable access to food.	Fighting climate change, promoting a resilient ecosystem and protecting Canada's environment while harnessing the potential of our natural resources to advance net-zero and adaptation goals to support a resilient, sustainable economy, and high quality of life.	Advancing transformative and enabling technologies that will support a technologically advanced economy and society.
OBJECTIVES	<ul style="list-style-type: none"> <li>Promote physical and mental health and wellness, including addressing the social, economic, and environmental determinants of health</li> <li>Prevent and treat disease whether chronic, rare, or infectious, including emerging public health threats and future pandemics</li> <li>Advance OneHealth approaches, recognizing links between human, animal, and environmental health</li> <li>Support Canada's readiness for health emergencies</li> <li>Strengthen health care and primary care</li> <li>Address the profound systemic inequities and disparities impacting the health and wellness of women, Indigenous Peoples, Black and racialized peoples, newcomers, faith-based communities, persons with disabilities, 2SLGBTQI+ peoples and other marginalized communities</li> </ul>	<ul style="list-style-type: none"> <li>Reduce economic and societal inequality, including through addressing systemic barriers to economic and social inclusion</li> <li>Improve and strengthen public institutions and public trust</li> <li>Create clean and safe environments</li> <li>Support inclusive and safe societies</li> <li>Support diverse forms of creativity and cultural expression to foster innovation and creative industries</li> <li>Improve housing supply, access, affordability and sustainability</li> <li>Develop social acceptability or large transformational projects</li> </ul>	<ul style="list-style-type: none"> <li>Protect food sources through clean innovations in agri- and aqua-culture that enhance biosecurity, support biodiversity, and improve water and waste management</li> <li>Enhance food quality, safety, stability, and shelf life</li> <li>Develop and apply innovative technologies to improve agricultural processes and products and reduce carbon emissions</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate climate change risks and opportunities across natural resource sectors, advance climate science for better predictions and mitigation, and measure the impacts of transitioning to green economies</li> <li>Advance multidisciplinary science for climate resilience, preserve and protect natural environments, and integrate diverse knowledge systems for effective climate adaptation and progress towards net-zero</li> <li>Develop and advance sustainable approaches to resource extraction and processing, energy diversification, and acceleration of green technologies to maximize economic value and minimize adverse environmental impacts</li> <li>Foster and accelerate the transition to low-carbon buildings, transport and infrastructure, and address challenges in difficult-to-decarbonize sectors of the Canadian economy, such as aerospace</li> </ul>	<ul style="list-style-type: none"> <li>Develop enabling and digital technologies and leverage disruption to support innovation</li> <li>Transform manufacturing processes and practices to enhance productivity</li> <li>Advance knowledge on public acceptance and adoption of new technologies</li> <li>Accelerate transition to a more digitally enabled society</li> </ul>
AREAS OF FOCUS	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Aging population</b> (e.g., chronic conditions, dementia, healthcare systems, safe long-term care)</li> <li><input type="checkbox"/> <b>Antimicrobial resistance</b> (e.g., OneHealth, microbiology, genetics)</li> <li><input type="checkbox"/> <b>Autism</b></li> <li><input type="checkbox"/> <b>Brain health</b> (e.g., Alzheimer's, dementia)</li> <li><input type="checkbox"/> <b>Cancer prevention</b> (e.g., firefighters)</li> <li><input type="checkbox"/> <b>Indigenous health</b></li> <li><input type="checkbox"/> <b>Mental health and wellness</b></li> <li><input type="checkbox"/> <b>Post-traumatic stress injuries</b></li> <li><input type="checkbox"/> <b>Precision medicine</b> (e.g., treatment, prevention, diagnostics, imaging and analytics, rare diseases)</li> <li><input type="checkbox"/> <b>Primary care</b> (e.g., delivery models, access, outcome improvements, digital health and health data, health</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Advancing equality</b> (e.g., social, economic, health)</li> <li><input type="checkbox"/> <b>Data</b> (e.g., data privacy, security, collection, analysis, skills, literacy, communication, governance, use)</li> <li><input type="checkbox"/> <b>Disaster preparedness and recovery</b> (e.g., emergency management)</li> <li><input type="checkbox"/> <b>Governance and public institutions</b> (e.g., democracy, security, public trust, mis and dis-information, law)</li> <li><input type="checkbox"/> <b>Healthy communities</b> (e.g., social dimensions of aging; economic, social and environmental determinants of health; vulnerable populations)</li> <li><input type="checkbox"/> <b>Housing security</b> (e.g., innovative housing solutions and construction practices, addressing homelessness)</li> <li><input type="checkbox"/> <b>Inclusive growth</b> (e.g., immigration and settlement, business sector innovation, productivity, social innovation, skills, youth labour market transition, digital economy, marginalization / inclusion, research barriers, interprovincial and international trade)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Agri- and aqua-culture</b> (e.g., regenerative agriculture, genomics-enabled agriculture, innovations in fisheries management )</li> <li><input type="checkbox"/> <b>Agriculture and irrigation technology</b> (e.g., smart / precision agriculture, plant biotechnology, nanobiotechnology)</li> <li><input type="checkbox"/> <b>Bioeconomy</b> (e.g., bioprinting, digital integration, water utilizations)</li> <li><input type="checkbox"/> <b>Climate change research</b> (e.g., sustainable practices, climate impact)</li> <li><input type="checkbox"/> <b>Food sovereignty</b> (e.g., Northern and Indigenous communities)</li> <li><input type="checkbox"/> <b>Indigenous-led agriculture</b> (e.g., Indigenous plants,</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Alternative energy technologies</b> (e.g., carbon dioxide conversion, industrial-scale hydrogen production, high-performing clean battery technology, small modular reactors, wind and solar power, geothermal and waste heat)</li> <li><input type="checkbox"/> <b>Circular economy</b> (e.g., waste treatment, management and value creation, greening manufacturing, sustainable materials)</li> <li><input type="checkbox"/> <b>Clean transportation</b> (e.g., electrification, green aviation, clean fuels and materials)</li> <li><input type="checkbox"/> <b>Climate monitoring and modeling</b> (e.g., measurement, climate monitoring, modeling and prediction, sensing technologies)</li> <li><input type="checkbox"/> <b>Climate resilience</b> (e.g., mitigation, adaptation and resilience; human impacts; climate policy; natural climate solutions)</li> <li><input type="checkbox"/> <b>Conservation and restoration ecology</b> (e.g., biodiversity, genetic diversity, OneHealth, pollution, microplastics)</li> <li><input type="checkbox"/> <b>Construction sector</b> (e.g., low carbon and net-zero materials, efficient appliances and systems, innovative housing, efficient building envelopes)</li> <li><input type="checkbox"/> <b>Critical minerals and battery technologies</b></li> <li><input type="checkbox"/> <b>Energy and energy security</b> (e.g., sustainable oil and natural gas technologies and processes)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Artificial intelligence</b> (e.g., safety, machine and deep learning; human emotions/language applications, including both official languages and Indigenous languages; surveillance; computer vision)</li> <li><input type="checkbox"/> <b>Big data technologies and analytics</b> (e.g., Internet of Things, blockchain, predictive and cognitive analytics)</li> <li><input type="checkbox"/> <b>Biomanufacturing</b> (e.g., bioproducts, process optimization)</li> <li><input type="checkbox"/> <b>Blue economy</b> (e.g., coastal resilience, pollution management, autonomous systems, future-ready technology, energy systems)</li> <li><input type="checkbox"/> <b>Climate science</b> (e.g., autonomous monitoring systems, modelling for environmental prediction, agriculture practices and natural resource management)</li> <li><input type="checkbox"/> <b>Critical minerals</b> (e.g., mineral processing, energy storage)</li> <li><input type="checkbox"/> <b>Cybersecurity</b> (e.g., confidential computing technology, privacy, cryptography and cybercrime)</li> <li><input type="checkbox"/> <b>Genomics and applied science</b> (e.g., climate smart agriculture, precision health and</li> </ul>

	<p>workforce)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Substance use</b></li> <li><input type="checkbox"/> <b>Public and population health</b></li> <li><input type="checkbox"/> <b>Regenerative medicine</b> (e.g., stem cells, tissue engineering, cell therapy)</li> <li><input type="checkbox"/> <b>Suicide prevention</b></li> <li><input type="checkbox"/> <b>Vaccinology and therapeutics</b> (e.g., vaccine development, CAR-T cell research)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Inclusive societies</b> (e.g., reconciliation, systemic barriers, official languages, Indigenous languages, cross-cultural understandings, social cohesion, transportation, affordable housing)</li> <li><input type="checkbox"/> <b>Resilient infrastructure</b> (e.g., public transit, energy efficient and climate resilient infrastructure, rural and northern infrastructure, supply chains)</li> <li><input type="checkbox"/> <b>Northern and arctic</b> (e.g., climate resilience, social sustainability, security)</li> <li><input type="checkbox"/> <b>Technological solutions</b> to address community opportunities and challenges (e.g., smart cities)</li> <li><input type="checkbox"/> <b>Technology and society</b> (e.g., security, AI safety, bioscience, surveillance, impact of technology on relationships and human systems, protecting youth from online harm and cyberbullying, social media literacy, transportation, broadband)</li> </ul>	<p>products, and knowledge)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Livestock health and sustainability</b> (e.g., livestock vaccine research)</li> <li><input type="checkbox"/> <b>Plant and soil health</b></li> <li><input type="checkbox"/> <b>Proteins and alternative food sources</b></li> <li><input type="checkbox"/> <b>Safety and security of food supply chain</b> (e.g., technology-enabled solutions)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Forestry</b> (e.g., forest ecology, fire science, sustainable forest management)</li> <li><input type="checkbox"/> <b>Green chemistry</b> (e.g., carbon capture materials, reagents, green catalysts)</li> <li><input type="checkbox"/> <b>Modern mining</b> (e.g., sustainable mining technologies and processes)</li> <li><input type="checkbox"/> <b>Net-Zero and clean technologies</b> (e.g., novel technology development, greenhouse gas abatement, carbon capture, utilization and storage)</li> <li><input type="checkbox"/> <b>Northern and arctic</b> (e.g., polar science, geospatial monitoring, Indigenous resilience and adaptation, Indigenous knowledge, blue economy)</li> <li><input type="checkbox"/> <b>Reducing energy consumption for data centres</b></li> <li><input type="checkbox"/> <b>Water</b> (e.g., oceans science and technologies, blue economy, freshwater marine and coastal ecosystems)</li> </ul>	<p>medicine, sustainable food systems, environmental solutions, assessment and monitoring, AI tools)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Materials and processing technologies</b> (e.g., new and advanced materials; chemical manufacturing; metal, non-metal, self-driving labs; composite material and photonics manufacturing; nanotechnology; battery technologies)</li> <li><input type="checkbox"/> <b>Micro-electronics and semi-conductor design and manufacturing</b></li> <li><input type="checkbox"/> <b>Next generation communication technology</b> (e.g., 6G, Internet of Things)</li> <li><input type="checkbox"/> <b>Photonics</b> (e.g., computing, sensing and imaging; health care; manufacturing; communications)</li> <li><input type="checkbox"/> <b>Quantum technologies</b> (e.g., quantum computing, quantum sensing, quantum communications)</li> <li><input type="checkbox"/> <b>Small modular reactors and nuclear fusion</b></li> <li><input type="checkbox"/> <b>Smart and digital manufacturing</b> (e.g., robotics, embedded sensors, 3D printing)</li> <li><input type="checkbox"/> <b>Space economy</b> (e.g., technology, security, privatization)</li> </ul>
<b>CROSS-CUTTING DISCIPLINES AND APPLICATIONS</b>	<b>Enabling technologies (e.g., AI, blockchain, genomics, quantum)</b>				
	<b>Social sciences and humanities, including ethics, law, policy, education</b>				
	<b>Societal impacts (e.g., Northern and arctic, rural and Indigenous communities, youth, under-represented communities, sustainable communities, security)</b>				