University of Lethbridge

NEWS RELEASE

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University of Lethbridge researchers secure support through Alberta's Major Innovation Fund

From using robotic systems in health-care delivery and building on quantum technologies to adapting highly sensitive space instruments to space and defence applications, University of Lethbridge researchers are involved in a host of projects receiving grants through Alberta's Major Innovation Fund.

Nate Glubish, Minister of Technology and Innovation, announced today an investment of $27.3 million into innovative research in Alberta's post-secondary institutions. The funding is designed to accelerate research and commercialization in medical devices, electronic and mobile health, clean energy and space and defence technologies. The funding goes to the University of Alberta (U of A) and the University of Calgary (U of C) to lead four province-wide strategic initiatives. ULethbridge and Athabasca University are partners in the projects.

"Supporting fundamental research and initiatives that commercialize new technologies is critical to strengthening and diversifying the Alberta economy," says Dr. Dena McMartin, ULethbridge vice-president (research). "This investment will encourage new and traditional sectors to grow, improving the economic prospects and quality of life for all Albertans."

Led by the U of C under the Space and Defence Technologies theme, Drs. David Naylor and Locke Spencer, professors in the Department of Physics & Astronomy, will be involved in migrating the technologies developed by the Astronomical Instrumentation Group (AIG) at ULethbridge. Advances made by the AIG resulted in the most sensitive instruments to be deployed in space.

"The announcement of the Major Innovation Fund for the Space and Defence Technologies theme is reflective of our increasingly more complex world," says Naylor. "The MIF funding will

allow us to migrate the technologies in which we are recognized as world leaders and develop them to meet the broader needs of the space and defence community."

Another project led by the U of C is centred on quantum technology innovations and ULethbridge's Dr. Saurya Das, a professor in the physics and astronomy department, is one of nine principal investigators.

"The second quantum revolution is on, which will change the way one thinks of computers and computation and will revolutionize communication and commerce," he says. "Alberta researchers are key players in this, and their research will help diversify Alberta's economy, create jobs, develop made-in-Alberta quantum technology, and make it accessible to end users in Alberta and beyond. ULethbridge researchers have been working on problems in Quantum Computation and Quantum Sensing and have made significant contributions to the project. In the process, they have published papers in top-rated international journals and trained students and postdocs."

Dr. Matthew Tata, a professor at the Canadian Centre for Behavioural Neuroscience, is the ULethbridge lead for a U of A-led project. A-MEDICO is a pan-Alberta network of researchers, industry and health-care professionals working on medical technologies for broad applications, especially for underserved populations. Tata was previously involved in a MIF project that focused on medical robotics, image-guided surgery and machine intelligence-based solutions for medicine.

"In both of these projects, my team is focused on applying state-of-the-art machine learning techniques for audio processing," says Tata. "We have been developing audio AI for human-robot interaction in health care and industrial scenarios."

This news release can be found online at Major Innovation Fund.

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Contact:

Caroline Zentner, public affairs advisor
University of Lethbridge
403-394-3975 or 403-795-5403 (cell)
caroline.zentner@uleth.ca

Our University's Blackfoot name is Iniskim, meaning Sacred Buffalo Stone. The University is located in traditional Blackfoot Confederacy territory. We honour the Blackfoot people and their traditional ways of knowing in caring for this land, as well as all Indigenous Peoples who have helped shape and continue to strengthen our University community.