



University of
Lethbridge

NEWS RELEASE

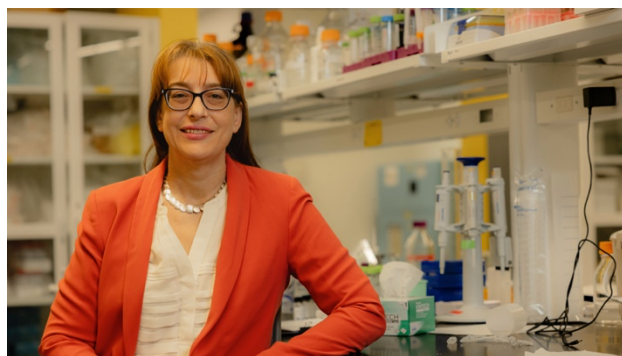
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Canadian Space Agency grant will help further research into the health effects of space travel

Dr. Gerlinde Metz, a neuroscientist at the University of Lethbridge's Canadian Centre for Behavioural Neuroscience, and a team of researchers have received a \$225,000 grant from the Canadian Space Agency to build a better understanding of how the human body adapts to life in space.

The grant was announced recently by the Honourable Mélanie Joly, Minister of Industry and Minister responsible for Canada Economic Development for Quebec Regions, as part of \$2.8 million in research grants to 14 Canadian post-secondary institutions.

"Canada's investments in astronomy and planetary science are a powerful catalyst for scientific advancement and innovation," said Joly. "These strategic commitments will empower Canadian researchers with the tools and opportunities they need to develop world-class expertise, driving cutting-edge discoveries and technological breakthroughs right here at home."



"We are grateful for this funding, as it will allow us to determine the complex biological responses to long-duration spaceflight over time," says Metz. "Our previous research has shown that space travel resulted in sex-specific changes in metabolites involved in energy metabolism, which may be linked to bone loss, muscle regulation and immunity dysfunction."

Space travel imposes stresses on astronauts, including noise, vibration, loss of G forces and radiation exposure. Numerous studies have revealed physical complications from spaceflight, including loss of bone and muscle mass.

The grant enables the research team, including Tony Montina from ULethbridge's Department of Chemistry & Biochemistry and a collaborator from NASA/Pittsburgh, to

participate in NASA's first comprehensive multi-level analysis of the world's largest existing group of astronauts.

The research project could also help identify protective factors and ways to counteract the negative effects of spaceflight.

[Read online.](#)

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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.