

For immediate release — Monday, July 17, 2024

Broad areas of research awarded federal funding

A spectrum of research projects at the University of Lethbridge have been awarded nearly \$2.6 million in federal funding from the Natural Sciences and Engineering Research Council of Canada (NSERC).

The funding is part of \$693.8 million for several NSERC research competitions recently announced on behalf of the Honourable François-Philippe Champagne, Minister of Innovation, Science and Industry.



“This investment in ULethbridge research activities speaks to the excellence and nationally competitive research we do — everything from mapping fuels for wildland fires to bee behaviour and the dynamics of black holes,” says Dr. Dena McMartin, vice-president research. “Our researchers investigate topics that impact the ways we understand the world around us and the complex influences and interconnectedness

of the natural environment, agriculture and food security, and deep space phenomena.”

In addition, Dr. Monique Giroux had her Tier 2 Canada Research Chair in Métis Music renewed for \$500,000 through the Social Sciences and Humanities Research Council.

In all, 14 ULethbridge projects are receiving funding support from NSERC through the Discovery Grant and Discovery Development Grant programs. Among them are the following projects:

- Dr. Laura Chasmer, a professor in the Department of Geography & Environment, will use novel Earth observation and geospatial data to examine how variations in vegetation ecosystems, both in space and in time, may enhance and reduce

wildfires in Western Canada. The research program, which will include Indigenous land managers and knowledge keepers, will develop new ways of understanding fire hazards and recommendations for ecosystem management to lessen the impact of fire and improve the resilience of ecosystems and communities.

- Dr. Sergio Pellis, Department of Neuroscience, will investigate the role of rough-and-tumble play or play-fighting in the development of cognitive and social skills in non-human mammals. Based on preliminary findings, Pellis hypothesizes that species with more complex social systems that require them to negotiate more varied relationships will have patterns of play that train youngsters for the social skills they'll need as adults.

Discovery Grants

The funding listed for the following projects is over five years:

- Dr. Theresa Burg, Biological Sciences — Evolution of High Latitude Birds (\$200,000)
- Dr. Shelley Hoover, Biological Sciences — Interactions between social bee behaviour and health (\$190,000)
- Dr. Steve Wiseman, Biological Sciences — Toxicant Induced Dysregulation of Oocyte Maturation (\$235,000)
- Dr. Nehal Thakor, Chemistry & Biochemistry — Regulation of mRNA Translation During Cellular Stress and Apoptosis (\$200,000)
- Dr. Laura Chasmer, Geography & Environment — Spatio-temporal variations in wildland fire fuel connectivity and behaviour using multi-data analytics (\$275,000)
- Dr. Joy Morris, Mathematics & Computer Science — Unexpected Symmetries of Graphs (\$135,000)
- Dr. David Euston, Neuroscience — Risk, Reinforcement Schedules, and Dopamine (\$165,000)
- Dr. Sergio Pellis, Neuroscience — Social play, the prefrontal cortex and the development of socio-cognitive skills (\$275,000)
- Dr. Alexandra Tetarenko, Physics & Astronomy — Unravelling how black holes power explosive outflows (\$145,000)
- Dr. Stephanus Henzi, Psychology — Contingency and Specificity in the Structure and Dynamics of Social Behaviour in Baboons and Vervet Monkeys (\$235,000)
- Dr. Jean-Baptiste Leca, Psychology — Mechanisms and evolution of material culture in primates: Does object play facilitate tool use? (\$268,690)
- Dr. Jamal Mansour, Psychology — Measuring cognitive processes that predict eyewitness identification performance (\$165,000)

Discovery Development Grants

The funding listed for the following projects is over two years:

- Dr. Philip Bonaventure, Geography & Environment — Climatic, geomorphic and ecosystem-driven multi-scale permafrost modelling and testing (\$40,000)
- Dr. David Morris, Mathematics & Computer Science — Arithmetic groups, orderability, bounded generation and automorphisms (\$40,000)

This news release can be found online at [2024 NSERC funding](#).

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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.