

# Nine Social Science and Science Research Projects at Trent Receive Over \$1.3 Million in Federal Funding

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NSERC and SSHRC funding supports diverse research addressing global challenges such as rural aging, the environmental impact of hi-tech industry, and food security



Nine Trent University-led research projects across the social sciences and sciences have received a combined \$1.3 million in federal funding to explore a diverse range of topics ranging from environmental risks of hi-tech industry and the precarity of local farmers, to high-resolution sensing and historical manuscripts on slave branding.

"This investment by the Government of Canada reflects the sector-leading research being conducted at Trent University," said Dr. Cathy Bruce, acting vice-president Research and Innovation at Trent University. "The nine projects that received funding will not only drive innovation, but will address some of our biggest social challenges. I congratulate our researchers who were successful in their applications. Thanks to you, Trent University continues to define the leading edge in university research in Canada and around the world."

Three Trent researchers received \$492,500 in funding through the Natural Sciences and Engineering Research Council of Canada's (NSERC) Discovery Grants, its largest and longest-standing program, highly valued in the Canadian research community.

The program promotes and maintains a diversified base of high-quality research capability in the natural sciences and engineering in Canadian universities.

\$735,125 in Insight Grants through the Social Sciences and Humanities Research Council (SSHRC) was awarded to three Trent-led projects, in addition to \$114,359 in Insight Development Grant funding for two projects. These core SSHRC funding opportunities support research and research partnerships at various stages and across a plethora of topics important to society.

The funding for Trent was part of a national \$635 million investment in science, research and engineering by the Government of Canada to support more than 4,800 lead researchers and their teams.

“We are proud to continue investing in, and celebrating, the creativity and innovation that are at the heart of Canada’s research ecosystem,” said the Honourable François-Philippe Champagne, minister of Innovation, Science and Industry. “It is inspiring to see the ingenuity and dedication Canadian researchers embrace in exploring big ideas that will fuel the discoveries and innovations of tomorrow to make our world a better place and create prosperity for Canadians.”

The nine Trent University projects are detailed below.

#### **NSERC Discovery Grants**

- *Dr. Graham Raby, [Biology](#), \$165,000 Discovery Grant and \$12,500 Discovery Launch Supplement for Early Career Researchers*

Examining the causes and consequences of sex differences and body size variation in freshwater fish by quantifying patterns of thermal tolerance and preference, growth, feeding ecology/physiology, and metabolic rate.

- *Dr. Carlo Bradac, [Physics & Astronomy](#), \$165,000 Discovery Grant and \$12,500 Discovery Launch Supplement for Early Career Researchers*

Developing a new class of quantum-enabled nanosensors for high-resolution sensing and imaging applications. This research program will expand national expertise in quantum-based sensing that will be used for fundamental and practical studies in biomedicine, environmental science and quantum optics.

- *Dr. Huy Dang, [Trent School of the Environment](#) and [Chemistry](#), \$125,000 Discovery Grant and \$12,500 Discovery Launch Supplement for Early Career Researchers*

Gaining a deeper understanding of the environmental risks that the hi-tech industry poses to technology-critical elements, including rare earth and platinum group elements. The knowledge gained through this research will guide planning for hi-tech industries and waste recycling and disposal facilities.

#### **SSHRC Insight Grants**

- *Dr. Katrina Keefer, [History](#), \$399,797*

Developing a digital framework around historical manuscripts on slave branding to produce a traditional monograph, edited volume and a visual, searchable database permitting both scholars and the public to better understand the extent of racial injustice.

- *Dr. Mark Skinner, Canada research chair (CRC) in Rural Aging, Health, and Social Care, founding director of the [Trent Centre for Aging and Society](#) (TCAS) and dean of Humanities and Social Sciences, and Dr. Elizabeth Russell, TCAS director, [Psychology](#), \$183,263*

Building on research on older voluntarism and its implications for older people, volunteer-based programs and community development in aging rural communities. The project will expand this emerging field of research within established rural aging networks nationally and internationally, and will inform efforts to create supportive environments for aging in place and sustainable community development during and beyond the COVID-19 global pandemic.

- *Dr. Paul Manning and Dr. Anne Meneley, [Anthropology](#), \$152,065*

Bringing together a multidisciplinary team of researchers from Trent, Carleton and Ilia University (Georgia), to study an array of green objects in the gardens of billionaire and former Georgian prime minister Bidzina Ivanishvili, some of which have been growing for over 200 years, through historical, ethnographic, GIS modelling. Work will contribute to the multidisciplinary study of gardens and ecological and ethnographic issues in Georgia, making theoretical and areal contributions to varied literatures.

#### ***SSHRC Insight Development Grants***

- *Dr. Paul Szpak, CRC in Environmental Archaeology, [Anthropology](#), \$69,459*

Using stable isotope measurements of bones and teeth, Professor Szpak will help answer questions posed by the Wichita about how their recently repatriated ancestors lived before they are laid to rest. This research will be conducted in collaboration with the Wichita and Affiliated Tribes of the Great Plains region in the United States.

- *Dr. Michael Classens, [Sustainable Agriculture and Food Systems](#), \$44,900*

Investigating food insecurity and the precarity of local smallholder farmers/harvesters in the city region of Peterborough. This project will inform policy and program interventions at the local scale that will contribute to enhancing community food security for First Nation, rural and urban eaters and growers/harvesters within Peterborough, while adding nuance and context to international food systems research.

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#### ***About Trent University***

One of Canada's top universities, Trent University was founded on the ideal of interactive learning that's personal, purposeful and transformative. Consistently recognized nationally for leadership in teaching, research and student satisfaction, Trent attracts excellent students from across the country and around the world. Here, undergraduate and graduate students connect and collaborate with faculty, staff and their peers through diverse communities that span residential colleges, classrooms, disciplines, hands-on research, co-curricular and community-based activities. Across all disciplines, Trent brings critical, integrative thinking to life every day. Today, Trent's unique approach to personal development through supportive, collaborative community engagement is in more demand than ever. Students lead the way by co-creating experiences rooted in dialogue, diverse perspectives and collaboration. In a learning environment that builds life-long passion for inclusion, leadership and social change, Trent's students, alumni, faculty and staff are engaged global citizens who are catalysts in developing sustainable solutions to complex issues. Trent's Peterborough campus boasts award-winning architecture in a breathtaking natural setting on the banks of the Otonabee River, just 90 minutes from downtown Toronto, while Trent University Durham Greater Toronto Area, delivers a distinct mix of programming in the east GTA.

#### **For more information contact:**

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