



TRENT *Breakthroughs*

CHALLENGING THE WAY WE UNDERSTAND THE WORLD, WITH NEW RESEARCH AND INNOVATION TRENDS AT TRENT

MAY 2021 EDITION

This edition of *Trent Breakthroughs* delves into some of the most pivotal topics shaping our communities, our country, and our world today, highlighting the significance of our Trent researchers locally, nationally, and internationally.

I continue to be inspired by the diverse research conducted by researchers at Trent. Articles about the impact of the pandemic on marginalized communities, the health of aquatic ecosystems, and the first identification of a crewmember of the Franklin expedition demonstrate just how far-reaching and meaningful Trent research is to our understanding of complex issues past, present, and future.

Exemplary of this is Dr. Sally Chivers, Trent's latest [Distinguished Research Award](#) recipient, a prolific scholar and leader in the interdisciplinary fields of age and disability studies, health humanities, and cultural gerontology. Her outstanding contributions to knowledge creation and innovative approach to examining pressing issues of aging and care have played a major role in shaping research in this field, and have rightly earned her recognition as a top scholar of age and disability studies both in Canada and internationally. Similarly, the Rural Aging Research Program, recent recipients of the [Trent University Research Impact Award](#), have enhanced our understanding of aging in rural communities, adding nuance and depth to this very current research field.

Here in the Office of Research & Innovation, we look forward to sharing new and refreshing examples of the type of research that has Trent University punching above its weight in university research in Canada and around the world. I invite you to reach out and share your thoughts. Watch for more news on Trent research.

Warm wishes for the days ahead,

Dr. Cathy Bruce
(Acting) Vice-President, Research and Innovation



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THE FUTURE IS NOW: TRENT'S IMPACT IN THE NEWS

In the lab, throughout the community, and around the globe, Trent faculty, students, and alumni are conducting research that makes a difference. We've selected a few of our most recent and inspiring research success stories to share with you.

[How Deep is the Internet's Carbon Footprint?](#)



Dr. Anne Pasek, Canada Research Chair in Media, Culture and the Environment, is part of an international research team that will launch an interdisciplinary investigation into the carbon footprint of the global subsea fibre cable network, which currently carries 99% of transoceanic Internet traffic. She notes that it is important to move through disciplinary spaces, systems, and politics to best understand this subsea puzzle.



Facilitating International Research with Partners in China

Trent's Dr. Douglas Evans, professor emeritus in the School of the Environment and director of the International Institute for Environmental Studies, was recently recognized as the recipient of the Jiangsu Province International Science and Technology Cooperation Award - the highest honour available to an international scientist in Jiangsu.



Racialized Communities Are Up Against More than COVID-19

"Now is a pivotal moment for Canadians to work together to identify and respond to the needs of Black communities more effectively to address the disparities that COVID-19 highlights." Trent Durham's Professor Dalon Taylor reflects on how the COVID-19 pandemic has highlighted, and even compounded, inequities faced by Black communities in accessing healthcare.



Exploring the Math Behind COVID-19 Modelling

As one of Canada's leading mathematicians and a director with the Centre for Disease Modelling at York University, the research of Trent alumna, Dr. Jane Heffernan '96 puts her disease modeling expertise to work examining COVID vaccination and immunity.



Fishing for Answers

Sandra Klemet-N'Guessan, a Ph.D. candidate in the Environmental and Life Sciences (ENLS) graduate program, wants to get to the bottom of what could be happening in the future as Canada's waters are becoming browner, and how that helps to predict the future state of aquatic ecosystems.

Evaluating Opportunities for Inuit Youth

Fourth-year Indigenous Environmental Studies &



Sciences student, Tia Bankosky, is putting the reflection, cross-cultural communication, and research skills she acquired at Trent into practice through a new community-based research project with Nunavut-based Ayalik Fund. The goal? To create a new evaluation protocol for programs that help Inuit youth flourish.

BREAKING BARRIERS: TRENT RESEARCHERS MAKE HEADLINE NEWS

The breakthrough research conducted by faculty at Trent has not gone unnoticed in the news. Check out the buzz these Trent researchers are making regionally, nationally, and around the world.



His Ship Vanished in the Arctic 176 Years Ago. DNA Has Offered a Clue
New York Times
A team of researchers, including Dr. Anne Keenleyside, associate professor in Trent's Anthropology department, and Trent alumnus, Dr. Douglas Stenton, recently identified the first crewmember of the ill-fated 1845 Franklin expedition.



Filming Firsts: Capturing Wildlife Behaviour on Camera
The Nature of Things
Groundbreaking Trent University research into the winter habits of flying squirrels and brown bats was featured on CBC's *The Nature of Things*. The episodes captured first-ever documented footage of flying squirrels, which fluoresce under UV light while gliding.



Exploring Experiences of LGBTQ+ Youth in Lockdown
The Globe and Mail
Trent Psychology professor Dr. Karen Blair, along with graduate student Bre O'Handley, take the lead on research showing how the pandemic has left many young LGBTQ+ Canadians feeling disconnected from communities of support created away from home.



How Yukon First Nations Blazed a Trail of Indigenous Governance
Toronto Star



Coy or Cunning - Can Urban Coyotes Coexist with Humans?
CBC Quirks & Quarks
Canada Research Chair in



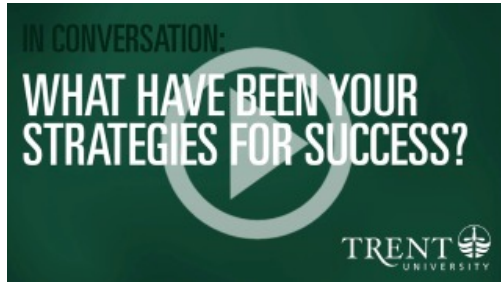
Solving the pandemic puzzle
The Hamilton Spectator
Dr. Jim Schaefer, Biology professor at Trent, explores

Professor David Newhouse, director of the Chanie Wenjack School for Indigenous Studies, weighs in on the historic Umbrella Final Agreement, a non-binding framework designed to guide final agreements with individual First Nations.

Integrative Wildlife Conservation, Dr. Dennis Murray explains how the wily coyote came to be Canada's top urban predator and their important role in the ecosystem.

how we have witnessed puzzle-solving on a global scale over the past 16 months as thousands of researchers, scientists, and medical professionals discover "new pieces" to the pandemic puzzle.

#TrentU Luminaries



Asking big questions and exploring the possibilities: that's what the Trent community is known for. This month, through our [Luminaries](#) campaign on LinkedIn, we are sharing the stories of community members who are making a remarkable contribution to the world of research and action. [Tap into the Trent community on LinkedIn](#) where you can read, share, and comment on these inspiring stories.

RESEARCH ON DISPLAY: FOSTERING INNOVATION

Funding is essential to paving the way for Trent's researchers to make new and important discoveries, advancing the way we understand the world and the environment we share. Here is a sampling of recent funding Trent researchers have received.

Dr. Whitney Lackenbauer, Canada research chair in the Study of the Canadian North and professor of Canadian Studies, is diving into research to strengthen community development for Indigenous youth in Northern Canada. Trent Durham's Dr. Marina Morgenshtern is exploring the experiences of skilled immigrants seeking employment in Durham Region. What do these two different projects have in common? The goal of community betterment and a combined [\\$50,000 in funding from SSHRC Partnership Engage Grants](#).

Marisol Campos-Navarrete, a Ph.D. candidate in Trent's Indigenous Studies program, was recently honoured with a Doctoral Research Award, with a [nearly \\$20,000 funding boost, from the International Development Research Centre](#) for her research on economically self-sustaining enterprises run by local Indigenous women in Mexico.

Dr. Graham Raby, assistant professor of Biology, was awarded a [four-year grant of \\$292,000 from the Great Lakes Fishery Commission](#) to conduct research into how walleye metabolism varies according to water temperature, location, body size, and sex.

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