

2018–19 Government of Canada fellows' biographies

Aimee Gunther, University of Waterloo

Hosted by Defence Research and Development Canada

Aimee Gunther is a knowledge translator and science policy analyst who moonlights as a doctoral researcher at the University of Waterloo, developing quantum imaging technologies. She believes in accessibility, whether for communicating non-trivial science research, promoting strategic policy improvements to policymakers, or advocating for more equitable access to science funding and knowledge in Canada.

Aimee is a demonstrated campus leader, avid science communicator, and NSERC-funded scholar, who spearheaded a volunteer team to create a local 4,100 square-foot science museum exhibit garnering over 40,000 visitors.

**Alana Westwood, Dalhousie University**

Hosted by Natural Resources Canada

Alana Westwood has a PhD in biology from Dalhousie University and was most recently a Science and Policy Analyst with the Yellowstone to Yukon Conservation Initiative. She blends her degrees in applied biology and philosophy to pursue more effective approaches to conservation.

As a member of the Boreal Avian Modelling (BAM) Project, Alana is focused on solutions to support government, industry, and non-governmental organizations to manage boreal birds. Past projects with BAM and others have included analyzing the role of science in environmental assessment legislation and developing predictive models for reintroducing endangered species. She teaches field botany at Dalhousie University and regularly gives guest lectures and interpretive walks about native flora and fauna.

**Christine Gonsalves, Laurentian University**

Hosted by Indigenous and Northern Affairs Canada

Christine Gonsalves completed her BSc in biology and psychology at Ryerson University and a Master of Human Kinetics at Laurentian University. She is currently completing her PhD at Laurentian University, focusing on the use of social media for women's cardiovascular health promotion.

Christine's doctoral research is helping to fill in gaps in current understanding of how social media is used for public cardiovascular health promotion, the "typical" woman that emerges as being at risk of cardiovascular disease, and how women might reduce or manage risk. She has also conducted research topics that include women's exercise and sport participation, Indigenous health and disease risk reduction, and Indigenous health programming.



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Daniel Grégoire, University of Ottawa*Hosted by International Development Research Centre*

Daniel Grégoire completed his BSc with honours in biology at the University of Ottawa, where he is also currently finishing his PhD. For his undergraduate research project, he led a team of scientists who assessed the impact of human pathogens released into streams bordering agricultural fields after rain events. His experiences provided him with a strong interest in ecotoxicology and environmental microbiology, which he pursued further in graduate studies.

His doctoral research focuses on characterizing new pathways for mercury transformation in photosynthetic and fermentative microbes. His research inspired him to start a company, Microbright, alongside Dr. Alexandre Poulain, where he finds new ways to apply his research within the context of mine waste management.

**Elisabeth Mantil, Carleton University***Hosted by Canadian Food Inspection Agency*

Elisabeth Mantil completed a BSc in food science and nutrition that incorporated the development of biological and chemical skills with a solid foundation in food safety, risk assessment, risk communication, biostatistics, economics, and quality assurance. Continuing into her PhD, she has further developed her knowledge and application of microbial and analytical chemistry techniques.

Elisabeth also took part in industry collaborated research projects while at Carleton University and the University of Ottawa. She was a team leader during an industry-linked project and has also been a Carleton athlete.

**Elnaz Shadabi, University of Manitoba***Hosted by Canadian Food Inspection Agency*

Elnaz Shadabi received her PhD from the Department of Medical Microbiology and Infectious Diseases at the University of Manitoba. She conducted part of her research at the National Microbiology Laboratory in Winnipeg, as well as at the Institute of Tropical and Infectious Diseases at the University of Nairobi. The focus of her project was to identify mutational patterns in HIV that have distinct effects on disease progression in a population of high-risk behaviour HIV-positive women in Nairobi, Kenya.

Elnaz received a CIHR Doctoral Research Award and was accepted into the University of Manitoba's three-year CIHR International Infectious Disease and Global Health Training Program. She has also participated in health system improvement projects with partner institutions internationally and worked at the National Collaborating Centre for Infectious Diseases, coordinating policy and knowledge translation projects.



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Jaigris Hodson, Royal Roads University*Hosted by Environment and Climate Change Canada*

Jaigris Hodson specializes in understanding how messages travel in a digital-first media environment. She has published in academic and non-academic forums and presented at associations including Social Media Camp, Startup School, and TEDxVictoria. She is currently working on two SSHRC-funded research projects — one examining how research curation can help spread scientific and technical information, and the other on the dark side of research sharing online: the effects of online harassment on women scholars.

Before arriving at Royal Roads, Jaigris taught at Ryerson University, worked on diversity and innovation projects in the office of the Vice President, Research and Innovation, and, most recently, held the role of founding director of Ryerson's Launch Zone (now The Sandbox). While teaching at Ryerson, she also spent a year as director of digital insights with leading public relations firm GCI Canada. She maintains an active role as a social media consultant and has consulted for the Canadian Country Music Association, the Unison Benevolent Fund, and other small and large organizations.

**Jespal Panesar, University of Waterloo***Hosted by Employment and Social Development Canada*

Jespal Panesar is a PhD candidate in the School of Environment, Resources and Sustainability at the University of Waterloo. She holds an MSc in Capacity Development and Extension from the University of Guelph. Her research interests include regional water cooperation in South Asia, as well as collaborative approaches to water sharing and governance, such as understanding the enabling role of boundary organizations in science-policy intersections to support evidence-based policy decisions and outcomes.

As a research assistant with the University of Waterloo, Jespal researched the role of stakeholder engagement in the Canadian aggregate industry involving the private sector, civil society organizations, and community organizations. She has also taught an undergraduate course on urban water and wastewater management systems and worked as a program manager and consultant for non-governmental organizations to manage international development projects on water sanitation, health, and education.



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Kathlyn Woolfson, Western University*Hosted by the Canadian Food Inspection Agency*

Kathlyn Woolfson is a biology PhD candidate at Western University with a diverse background in plant physiology, phytochemistry, and molecular biology. Her research has addressed questions about the phytochemistry of culturally and economically important plants used for food and medicine.

She completed a BSc in biology, with honours, at the University of Ottawa. Her first research project involved the ethnobotanical investigation and validation of anti-inflammatory activity of traditionally used Q'eqchi'Maya medicinal plants. She received her MSc in biological sciences (plant sciences) from Brock University, where she studied the phytochemistry of a medicinal plant and its mechanism for a specialized defence strategy that is shared by several related species. At Western, she is studying the stress-induced production of a protective chemical in potatoes.

**Konstantin Petoukhov, Carleton University***Hosted by Agriculture and Agri-Food Canada*

Konstantin Petoukhov has a passion for research, innovation, and evidence-based solutions. He is a doctoral candidate in the Department of Sociology and Anthropology at Carleton University, where his dissertation integrates the fields of sociology, law, and victimology in a critical examination of the Indian Residential Schools Independent Assessment Process. A recipient of scholarships from SSHRC at the master's and doctoral levels, as well as the Ontario Graduate Scholarship and the University of Manitoba Graduate Fellowship, Konstantin has written and published on restorative justice, reparations, settler colonialism, and the Truth and Reconciliation Commission of Canada. He has also presented at national conferences, including the Congress of the Humanities and Social Sciences.

Prior to his doctoral studies, Konstantin worked as a researcher and policy analyst for several provincial government departments in Winnipeg, Manitoba. His work has contributed to building innovative solutions to health care accessibility, creating safer spaces for incarcerated individuals, and improving conditions for children living in foster care.



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Lushani Nanayakkara, University of Regina*Hosted by Fisheries and Oceans Canada*

Lushani Nanayakkara has a lifelong interest in connecting science and society. Throughout her academic career, she has continuously sought opportunities to interact with stakeholders outside of research and science, to become a better interdisciplinary researcher and apply her research to address societal challenges. She has an interdisciplinary PhD in ecology from the University of Regina.

While pursuing her BA in zoology at Ohio Wesleyan University, she integrated the science of invasive species with management implications, paving the way for a long-term interest in socio-ecological systems and their management. She received an MSc in environmental sciences and policy from Johns Hopkins University, where she completed several policy research internships at not-for-profit organizations and think tanks. Through her internship experiences and dissertation research on socio-ecological systems, she translated scientific knowledge into broad contexts, to enable productive exchanges between scientists and decision makers.

**Monica Granados, McGill University***Hosted by Environment and Climate Change Canada*

Monica Granados is a conservation scientist interested in using all we know about food webs to monitor changes in freshwater systems and provide tangible recommendations to decision makers. With an MSc from the University of Toronto and PhD from McGill University, she has worked with a diversity of taxa including fish, crayfish, and mussels using laboratory experiments, field methods, and theory to better understand how who-eats-whom in an ecosystem changes in response to different human impacts, including introduced species and climate warming.

Monica has previously worked as a postdoctoral fellow for Wildlife Conservation Society Canada and the University of Guelph, and as a consultant for both the Toronto and Region Conservation Authority, and Environment and Climate Change Canada. She is an advocate of open science, practicing by making her research publicly available, and has delivered workshops on practicing in the open in Toronto and Montreal.



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Shawn McGuirk, McGill University

Hosted by the Natural Science and Engineering Research Council

Shawn McGuirk is a PhD student and Vanier Scholar at the Goodman Cancer Research Centre at McGill University, where he studies the role of metabolism in cancer progression, from tumour onset to metastasis and therapeutic resistance. He also develops open-source software tools to facilitate complex analyses such as metabolic profiling and contributes to student life by founding the McGill Biochemistry and Goodman Cancer Centre Graduate Student Societies.

With fellow trainees, Shawn also founded ProVivoX Inc., which won top prizes at the NIH/CAI Breast Cancer Startup Challenge and Fondation Montréal's "Your ideas are good business" contest. In addition to serving on the board of directors of the Association francophone pour le savoir (Acfas), Shawn is a long-standing member and current president of the non-profit student advocacy group Science & Policy Exchange, whose mandate is to elevate the student voice in science policy.

**Stefanie Sultmanis, University of Toronto**

Hosted by the Canadian Food Inspection Agency

Stefanie Sultmanis has a strong interest in improving crop production and protecting the food that we eat. She is also passionate about teaching and committed to improving science literacy and accessibility among the general public. She has a BSc in psychology and biology (with high distinction) from the University of Toronto. As an undergraduate, she completed research projects exploring the effects of environmental stress on crops to improve food security. She also worked in education at the Toronto Zoo, communicating, educating, and sharing ideas about plants, animals, and conservation with people of all ages.

Stefanie's doctoral work at the University of Toronto focused on how different photosynthetic pathways (how plants make food) evolve, develop, and grow, and whether we can engineer our major crops to grow more efficiently. Through international collaboration, she applied innovative technologies to the field of plant research and identified genetic mechanisms for engineering better crops. Her work led to invitations to present at international conferences and her election as Gordon Research Conferences' Co-Chair.



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Virginie Lachapelle, Université de Montréal*Hosted by the Canadian Food Inspection Agency*

Virginie Lachapelle holds a PhD in veterinary medicine, as well as a PhD in food safety and hygiene. Through her research, she studied the prevalence of viral infections, notably rotavirus, in pork throughout the production process, from maternity and nursing to fattening, and evaluated their involvement in diarrhea outbreaks on the farm. Over the course of her PhD, she organized two sampling inspections in the pork industry, which involved the coordination of industry stakeholders such as veterinarians, technicians, producers, animal transporters, and abattoir administrators. This project was supervised by a multidisciplinary team from the Université de Montréal, Agriculture and Agri-Food Canada, and the Canadian Food Inspection Agency, which gave her a unique opportunity to develop her expertise in animal and food virology.



As a veterinarian specializing in research, Virginie lectured on emerging viral zoonotic diseases and food virology at the Université de Montréal and had the opportunity to research other concerns in the animal industry, notably, ovine paratuberculosis and the effect of acid treatment on surface microflora on pork carcasses.