

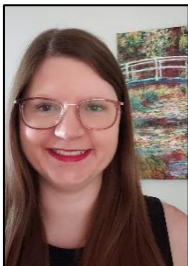
The 2020 L'Oréal-UNESCO For Women in Science Canadian Fellows

The L'Oréal-UNESCO 2020 Excellence in Research Fellowships



Dr. Emily Choy, McGill University and Environment and Climate Change Canada, Department of Natural Resource Sciences

Dr. Emily Choy is a postdoctoral fellow in the Department of Natural Resource Sciences at McGill University and Environment and Climate Change Canada. Her research is supported by the W. Garfield Weston Foundation and Fonds de Recherche du Quebec. Dr. Choy has worked in many remote areas across the Canadian Arctic; from Devon Island, Nunavut, to Kendall Island, Northwest Territories. Dr. Choy studies the effects of climate change on thick-billed murres, an Arctic seabird with a colony of 30,000 breeding pairs at Coat Island in Northern Hudson Bay, Nunavut. She is studying the physiological response of murres to Arctic climate change, specifically the effects of changes in prey availability on their energetics and warming temperatures on their performance and behaviour. She completed her PhD at the University of Manitoba on beluga whales as sentinel species of environmental change in the Beaufort Sea ecosystem in partnership with communities in the Inuvialuit Settlement Region, Northwest Territories. Dr. Choy was a Weston scientist on the Victoria Strait expedition in search of the lost Franklin ships and is currently a Scientific Advisor for the W. Garfield Weston Foundation's Northern Committee, a Fellow for the Royal Canadian Geographical Society and a council member for the Association of Field Ornithologists. Dr. Choy is very passionate about science outreach and is currently partnered with Earth Rangers in their Northern Project to teach kids about the conservation of Arctic wildlife.



Dr. Lindsay Oliver, Centre for Addiction and Mental Health (CAMH), Kimel Family Translational Imaging-Genetics Laboratory

Dr. Oliver's work to date has examined the neural circuitry and behavioural correlates of social cognition in psychiatric, neurodegenerative, and healthy populations, with the goal of informing and evaluating treatment options for individuals affected by social cognitive impairments. She completed her PhD at Western University and has been a postdoctoral fellow in the Kimel Family Translational Imaging-Genetics Lab at CAMH since April of 2017, under the supervision of Aristotle Voineskos. Since joining CAMH, she has been working with data from a NIMH-funded collaborative multi-centre study (Social Processes Initiative in Neurobiology of the Schizophrenia(s)) exploring links between social processing, everyday functioning and symptoms, and social cognitive brain-behavior relationships across people with schizophrenia spectrum disorders and healthy individuals. She considers this to have been an amazing opportunity, and her work in this context has garnered interest and acclaim, including two CAMH fellowships, a CIHR fellowship, oral presentations in conference panels, acceptance to competitive training opportunities, as well as three first-author publications. This work has also helped inform a federally funded clinical trial examining the effect of individually-targeted brain stimulation (repetitive transcranial magnetic stimulation) on social cognitive brain network connectivity in people with schizophrenia spectrum disorders. The results of this study could critically provide support for a novel therapeutic approach for social cognitive impairments in schizophrenia spectrum disorders, directly in line with Dr. Oliver's aspirations.

**The Natural Sciences and Engineering Research Council of Canada (NSERC) and L'Oréal-UNESCO
2020 For Women in Science Supplement**



Dr. Joey Bernhardt, University of British Columbia, Department of Zoology.

Dr. Joey Bernhardt is currently a Hutchinson Postdoctoral Fellow working in the Department of Ecology and Evolutionary Biology at Yale University. She was previously a Nereus Postdoctoral Fellow at Eawag and the Department of Biology at McGill University. She completed her PhD in the O'Connor Lab at the Biodiversity Research Centre at UBC.

Her research addresses how flows of energy and materials at the level of the individual cascade up to shape populations over gradients of temperature and resource supply. Dr. Bernhardt combines theory, experiments and synthesis to study how temperature-dependent metabolism mediates population and community dynamics in aquatic ecosystems. She addresses a longstanding challenge in ecology – to develop a mechanistic understanding of the distribution and diversity of life on Earth. Understanding patterns of species abundance and distribution now and into the future remains a challenge because the variety of biological responses to environmental variation at multiple scales complicates ecological predictions. A solution to this challenge lies in harnessing our understanding of the predictable effects of temperature and energy supply on metabolism — a process common to all of life.

In parallel with her research, Dr. Bernhardt strives to share her science and engage with policymakers, coastal communities, and the public. She has collaborated with *The West Coast Aquatic Management Board* and the *Tsawalk Partnership*, a coastal planning initiative created to ensure the sustainability of marine ecosystems on the West Coast of Vancouver Island (WCVI) for future generations. She has worked with the marine spatial planning team of WCA, the Natural Capital Project and local First Nations to inform their marine plan by mapping and modeling ecosystem services, bringing science to the resolution of conflicts among different interests, and making implicit decisions explicit.

The L'Oréal Canada France Canada Research Fund 2020 Fellows



Hope Boyce, McGill University, McGill Space Institute

Hope Boyce is a PhD Candidate in Astrophysics in the Haggard Research Group at McGill University. She studies the Compact Objects, Galaxy Evolution and Active Galactic Nuclei under supervisors Daryl Haggard and René Doyon. Her research focuses on innovative observational studies of massive black holes, including our Milky Way's own black hole, Sagittarius A* (Sgr A*). Her excellence in research have distinguished her and resulted in a departmental award of the Mary Louise Taylor Fellowship for two years running, as well as Canada's prestigious Natural Sciences and Engineering Research Council (NSERC) Doctoral Fellowship. In addition to Hope's excellent academic and research record, she has been increasingly involved in work surrounding equity and inclusion in STEM, public outreach, and media engagement. She was the lead organizer for the 2019 Women in Physics Canada Conference (Montréal, QC, Canada), which attracted more than 100 scientists from across Canada.



Mackenzie Urquhart-Cronish, University of British Columbia, Department of Botany

Mackenzie Urquhart-Cronish is a PhD student in the Botany Department and Biodiversity Research Centre at the University of British Columbia (Vancouver, BC) under the supervision of Dr. Amy Angert. As an evolutionary ecologist, Mackenzie uses a combination of simulation modelling, fieldwork, greenhouse experiments, and genomic analyses to investigate the ecological pathways and evolutionary consequences of geographic range expansion. In her current research, she is using the plant, *Mimulus lewisii* (pink monkeyflower), as a focal species to investigate ecological and evolutionary dynamics following primary succession after alpine and continental glaciers recede. She will use the funding opportunity from L'Oréal to collaborate with Dr. Sally Otto (UBC) and Dr. Ophélie Ronce (Université de Montpellier) on modelling the effects of stochastic evolutionary processes on life-history trait evolution during spatial spread.

Mackenzie is also interested in the intersection of science and equity, inclusivity, and diversity and has recently published on the topic of women in science in Canada. She is passionate about identifying and addressing the specific systemic barriers that limit women's career successes in the natural and physical sciences and trying to create equitable opportunities within academia for women and underrepresented groups. Outside of research, Mackenzie enjoys playing badminton, sewing, and watching movies.



Justine Salam, University of Waterloo, Balsillie School of International Affairs

Justine Salam is a PhD candidate in Global Governance at the Balsillie School of International Affairs, University of Waterloo. She specializes in energy and environmental studies and her research interests span from Alberta oil to grassroots environmental social mobilization in Quebec and France. Her first academic ties to France came through a visiting fellowship to study constitutional arrangements on natural resources management in federal states at the Paris Institute of Political Studies. She was trained on federalism and natural resources governance in Italy, Austria, and Canada. She then worked as an Energy Security Intern at NATO Headquarters in Brussels, Belgium, focusing on smart energy, the protection of critical infrastructure, and energy efficiency in the military. In 2018-2019, Justine went back to France to interview social movement organizers and citizen groups who fought against fossil fuel development in their region; the interviews laid the foundation to disseminate successful strategies for these initiatives. She presented her research at multiple international conferences in North America, Europe, South-East Asia, and the Middle East, and won numerous awards.

Justine is equally passionate about higher education and career development. In parallel of her studies, she works as a Graduate Professional Skills Program Specialist at the University of Waterloo where she delivers professional development programming targeting 6,000+ Master's and PhD students. Outside of post-secondary education, she sits on the board of the WINS Foundation, an education NGO that offers sponsorship and English classes to low-income students in Indonesia. She took multiple trips there to teach English and ended up joining a local reef conservation NGO aiming to restore marine life and protect sea turtle hatchlings from poachers. In her spare time, she is an avid kayaker and camper. She is a certified Rescue Scuba Diver at the Professional Association of Diving Instructors (PADI) and is currently training to become a Ski Instructor Level 1 for the Canadian Ski Instructor Alliance (CSIA).