RSC College | 2022 Presentation

Isabelle Archambault holds the Canada Research Chair on school, child well-being, and educational success and is co-holder of the Myriagone McConnell-UdM Chair in youth knowledge mobilization. Anchored in a social justice perspective, her work in recognized for its impact on the development of best practices supporting different populations of children, like those from low-socio-economic families, with an immigration background, or presenting mental health difficulties.

École de psychoéducation | Université de Montréal | RSC College

Genevieve LeBaron is an internationally renowned expert on modern slavery, known for her research on the business dynamics of forced labour in global supply chains. She advises leading national governments and international organizations combatting forced labour, has held ten research grants to investigate forced labour, and has won awards for her role in pioneering a rigorous and comparable empirical evidence base on forced labour in the contemporary global economy.

School of Public Policy | Simon Fraser University | RSC College

Catherine Lebel is a Tier 2 Canada Research Chair in Pediatric Neuroimaging who conducts interdisciplinary research using advanced magnetic resonance imaging (MRI) techniques to study brain maturation and how it is related to cognitive, behavioural, and environmental factors. She is recognized for her foundational contributions to the understanding of brain development in typically-developing children and those with neurodevelopmental disorders such as fetal alcohol spectrum disorder.

Department of Radiology | University of Calgary | RSC College

Asma Sayed is a Tier II Canada Research Chair (2020-24) in South Asian Literary and Cultural Studies at Kwantlen Polytechnic University. She is an internationally recognized scholar and public intellectual known for her ground-breaking research on heritage language literature in Canada; her interdisciplinary, transnational approach to cultural production; and her engagement with issues of equity, diversity and inclusion. Her current research focuses on the contributions of South Asian Canadian artists.

Department of English | Kwantlen Polytechnic University | RSC College

Noreen Kamal is an engineer and researcher working to improve healthcare systems. She aims to improve the delivery of healthcare to match the progression of the disease. Over the past 10 years, she has worked to improve treatment of stroke patients. Her work has significantly improved patient outcomes across Alberta. She is currently working to improve access and efficiency of stroke treatment across the four Atlantic Provinces.

Department of Industrial Engineering | Dalhousie University | RSC College

Laura Rosella is an epidemiologist and award-winning scholar leading internationally recognized research using population-level data and innovative analytics to improve population health, health-system functioning and reduce health inequities. She holds a Canada Research Chair in Population Health Analytics, the Inaugural Stephen Family Chair in Community Health at the Institute of Better Health, Trillium Health Partners, and several leadership positions focused on building public health analytics capacity in Canada.

Dalla Lana School of Public Health | University of Toronto | RSC College

Kisha Supernant (Métis) is an internationally recognized Indigenous archaeologist. She is Director of the Institute of Prairie and Indigenous Archaeology and an Associate Professor of Anthropology at the University of Alberta. An award-winning teacher, researcher, and writer, her research focuses on Indigenous archaeology, archaeological remote sensing, and heart-centered archaeological practice. She is at the forefront of supporting Indigenous communities locate unmarked graves around residential schools in Canada.

Institute of Prairie and Indigenous Archaelogy | University of Alberta | RSC College

Accessing up-to-date research is imperative for decision-making by patients, clinicians, and policymakers. But the vast, complex available research is often inconsistent in findings and conclusions, making it impossible to use for decision-making. **Andrea Tricco** is advancing the science of knowledge syntheses within health to meet this challenge. Her research is used to inform Canadian and international knowledge synthesis groups on how to provide relevant, timely and high-quality information to decision-makers.

Department of English and Film Studies | University of Alberta | RSC College

Stephanie Willerth engineers functional neural tissue using human induced pluripotent stem cells, having developed a novel bioink so she can bioprint these cells while maintaining high levels of cell survival and function. Her fundamental discoveries directly impact the health and wellbeing of patients who suffer from devastating illnesses such as Alzheimer's disease, Parkinson's disease and aggressive cancers such as glioblastoma.

Department of English and Film Studies | University of Alberta | RSC College

S. Karly Kehoe (RSC College President) is the Canada Research Chair in Atlantic Canada Communities. Her areas of expertise are migration, religion, slavery, ethnicity and national identity in the British Atlantic world. She is committed to public engagement and is a member of both the Global Young Academy and the Young Academy of Scotland. She is a fellow of the Royal Historical Society and a trustee of the Scottish Historical Review Trust.

Department of English and Film Studies | University of Alberta | RSC College

Benjamin Haibe-Kains is an international leader in Bioinformatics—the development of computational methods based on statistics and machine learning to analyze large, complex biomedical data. His work is improving the prediction of disease progression and therapy response, cornerstones of precision medicine. He is a champion of transparent and reproducible research, exploring how cloud computing and software virtualization can improve the way data, analytical tools and findings are disseminated.

Princess Margaret Cancer Centre, University Health Network & Medical Biophysics | University of Toronto | RSC College

Amanda Bittner is a political psychologist studying elections, voting, and public opinion. She is Canada's leading expert on how voters perceive and evaluate party leaders, and the impact those opinions have on elections. Her recent work on gender and survey research is quickly changing the way in which we study the role of gender in shaping political attitudes. Through her public-facing scholarship, Bittner's work is transforming public and political dialogue.

Department of Political Science | Memorial University of Newfoundland | RSC College

Arghya Paul has made seminal contributions to the development of sustainable nanomaterials and nanocomposite hydrogels for diverse biomedical applications. Examples include genomic DNA-based injectable materials for localized drug delivery, mineral-based nanoparticles for bone repair, 3D-printed scaffolds for patient's anatomy-specific tissue regeneration, biomimetic hydrogel coatings to combat medical device-associated complications. His work has led to transformative medical innovations, including development of next-generation of bioactive stents and other surgical implants.

Departments of Chemical and Biochemical Engineering and Chemistry | Western University | RSC College

Professor in political communication at l'Université du Québec à Trois-Rivières, **Mireille Lalancette** is a leading scholar of social media in Canadian politics and about woman political leaders. She publishes with collaborators throughout North America and Europe. Her expertise is in demand among journalists and by political institutions, including the Assemblée nationale du Québec. Dr. Lalancette reaches broad audiences by publishing widely in French and English.

Département de lettres et communication sociale | Université du Québec à Trois-Rivières | RSC College

Baiyu Helen Zhang, Professor and Canada Research Chair in Coastal Environmental Engineering, has made significant advances in handling coastal oil and emerging contamination. Her work resulted in prestigious invitations from Canada's Ocean Protection Plan's Multi-Partner Oil Spill Research Initiative as lead scientist, and United Nations Development Program as senior scientific advisor. She received Fellowship in the Canadian Society for Civil Engineering in recognition of her impact on the discipline.

Department of Civil Engineering | Memorial University of Newfoundland | RSC College

Angela Kaida, Associate Professor and Canada Research Chair (Tier II) in Global Perspectives in HIV and Sexual and Reproductive Health in the Faculty of Health Sciences at Simon Fraser University (SFU), is a leading researcher in global health epidemiology. Her exemplary community-based research and masterful knowledge translation strategies confront health inequities and transform health research practice and services for women affected by HIV in Canada and HIV endemic countries.

Faculty of Health Sciences | Simon Fraser University | RSC College

Xiuquan (Xander) Wang is internationally recognized for his contribution to the understanding of regional climate change impacts through his pioneering work in high-resolution regional climate modeling, statistical downscaling, and urban flood modeling. His research results provide scientific foundations to support the smooth transition from symbolic climate crisis declarations to real climate actions and have been widely used by thousands of researchers, resources managers, and climate practitioners around the world.

School of Climate Change and Adaptation | University of Prince Edward Island | RSC College

Oliver Sonnentag, the Canada Research Chair in Atmospheric Biogeosciences in High Latitudes, has developed an innovative research program at the interface of various disciplines in natural sciences, from biometeorology to ecophysiology and process-oriented ecosystem modelling. Well-integrated in national and international circumpolar research and synthesis initiatives, Sonnentag has made substantial contributions in improving our understanding of the impact of climate change and increasing anthropogenic pressures on northern Canada's vulnerable permafrost landscapes.

Département de géographie | Université de Montréal | RSC College

Andrea Gonzalez is a Tier II Canada Research Chair in Family Health and Preventive Interventions. Adopting a multi-method approach, her research focuses on the developmental consequences of adverse childhood experiences and intergenerational transmission. She has made major contributions in understanding and developing evidence-based approaches that reduce adversity in childhood, reverse their detrimental impact, and enhance the lives of children and families with far-reaching policy implications.

Department of Psychiatry & Behavioural Neurosciences | McMaster University | RSC College

Karen Foster is an Associate Professor of Sociology and Canada Research Chair (Tier II) in Sustainable Rural Futures for Atlantic Canada at Dalhousie University. She is an enormously talented, productive and engaged scholar, whose scholarship on work, transitions in rural society, equity and public policy crosses many domains and disciplines. She combines that expertise with deep commitment and an extraordinary ability to engage meaningfully with local communities and policy makers.

Department of Sociology and Social Anthropology | Dalhousie University | RSC College

Nathan Spreng is a Professor of Neurology and Neurosurgery in the Faculty of Medicine and Health Sciences at McGill University and the Director of the Laboratory of Brain and Cognition at the Montreal Neurological Institute. Dr. Spreng's research focuses on the organization of large-scale brain networks and how dynamic interactions among brain regions support cognitive and social functioning across the lifespan, both in normal human aging and neurodegenerative diseases.

Department of Neurology and Neurosurgery, Faculty of Medicine and Health Sciences | McGill University | RSC College

Meghan Winters is a CIHR Applied Public Health Research Chair in Gender and Sex in Healthy Cities. She is a population health researcher leading intersectoral scholarship to understand how city design impacts mobility, safety, and health, and also equity considerations within cities' policies and plans. She works with decision-makers and community groups at intersection of health, urban planning, and transportation to generate actionable evidence and tools to shape livable, sustainable, and equitable cities.

Faculty of Health Sciences | Simon Fraser University | RSC College

Aaron MacNeil conducts transformative research that integrates theory and data from population ecology, social-science, and economics to understand how the sustenance of coastal ecosystems and small-scale fisheries are affected by multiple stressors, including climate change. His expertise in Bayesian statistics, facilitation, and decision theory have allowed him to effectively bridge scholarly gaps between the natural and social sciences and communication gaps between scholars and decision-makers.

Department of Biology | Dalhousie University | RSC College

Fiona Clement is a Professor in the Department of Community Health Sciences at the University of Calgary with extensive expertise in Health Economics and Policy. With 147 publications, 54 government reports, 4960 citations, and an H-index of 40, she is a national leader in evidence-informed policy development. She is an international leader in the emerging field of Health Technology Reassessment that addresses optimal application of health technologies in healthcare.

Community Health Sciences | University of Calgary | RSC College

Emad Shihab is Concordia University Research Chair in Data Analytics for Software Ecosystems. He is an award-winning, world-renowned leader in software engineering and software quality. He develops techniques that leverage machine learning to predict software change risk, identify and prioritize technical debt, and test mobile applications. His techniques and tools have been adopted by several major companies, including Microsoft, Avaya, National Bank of Canada, BlackBerry, and Ericsson.

Department of Computer Science & Software Engineering | Concordia University | RSC College

Kimberley Brownlee is the leading expert in two areas of moral and political philosophy: a) the philosophy of social human rights, loneliness, and belonging, and b) the ethics of conviction and civil disobedience. She is a Professor and Tier 1 Canada Research Chair at UBC and is inspiring a growing community of scholars to turn their collective attention to previously neglected problems concerning sociability, rights, and belonging.

Department of Philosophy | The University of British Columbia | RSC College

As one of Canada's leading minds on Indigenous legal traditions and Aboriginal law, **Aimée Craft** of the University of Ottawa's Faculty of Law has devoted her career to deepening our understanding of Indigenous ways of knowing, while promoting truth, reconciliation and decolonization. Distinguished by its strong community-based focus, her research primarily explores Indigenous law related to protecting the earth and water, with a focus on Indigenous methods and collaboration.

Faculty of Law | University of Ottawa | RSC College

More than 300 million people worldwide have major surgery every year. One in five suffer complications, and one in six never regain their usual level of function. **Duminda Wijeysundera** is a clinician-scientist at Unity Health Toronto. His research in the field of anesthesiology and perioperative medicine discovers new ways to prevent and treat complications after surgery. Dr. Wijeysundera uses his findings to help people recover from surgery more effectively.

Department of Anesthesiology and Pain Medicine | Unity Health Toronto | University of Toronto | RSC College

Melanie Noel holds the Killam Memorial Emerging Leader Chair and is an internationally renowned expert on children's acute and chronic pain. She applies a transdisciplinary, integrative approach to science that unifies methods across psychology, neuroscience, genomics, and medicine and is recognized for foundational research on children's pain memories and co-occurring trauma and pediatric chronic pain. She received numerous career awards including from the International Association for the Study of Pain.

Faculty of Arts | University of Calgary | RSC College

Sapna Sharma has transformed the understanding and study of how lakes worldwide respond to climate change, including rapid ice loss, warming water temperatures, degrading water quality, and changing fish distributions. She reinvigorated the field of winter limnology using big data and cutting-edge statistical analysis. She is a remarkable science communicator, generating millions of media impressions by clearly conveying complex research and as founder of SEEDS, an outreach program for refugees.

Department of Biology | York University | RSC College

Charles Levkoe is a Canada Research Chair in Equitable and Sustainable Food Systems and Director of the Sustainable Food Systems Lab. His community engaged research uses a food systems lens to better understand the importance of, and connections between social justice, ecological regeneration, regional economies, and active democratic engagement. Charles studies the evolution of civil society networks that view the right to food as an essential part of more just sustainable futures.

Department of Health Sciences | Lakehead University | RSC College

Manisha Kulkarni conducts interdisciplinary and applied public health research on the socio-ecological determinants of vector-borne disease emergence and risk in global settings and directs the Global Health Program in the University of Ottawa's Faculty of Medicine. She is recognized internationally for her work on malaria and other vector-borne diseases which combines the fields of disease ecology, spatial epidemiology, and evaluation of vector control interventions to improve disease prevention and control.

School of Epidemiology and Public Health | University of Ottawa | RSC College

Robert Mizzi holds a Tier 2 Canada Research Chair in Queer, Community and Diversity Education and is an incoming member of the International Adult and Continuing Education Hall of Fame. Dr. Mizzi's programme of research spans across adult and community education, educational administration, and social inclusion. His research primarily examines educational interventions that fosters respect for and understanding of two-spirit, lesbian, gay, bisexual, transgender, and queer people in organizations.

Faculty of Education | University of Manitoba | RSC College

Abel Brodeur is an Associate Professor in the Department of Economics at the University of Ottawa. He specializes in applied microeconomics, in the areas of development, health and labor economics. His current work aims to evaluate the socio-economic consequences of COVID-19 and examines the causes and consequences of hate crime, mass shootings and terrorism. He is the recipient of many distinctions and a co-editor of the Canadian Journal of Economics.

Department of Economics | University of Ottawa | RSC College

Renée Hložek of the University of Toronto is one of the world's leading young cosmologists. Her experimental and theoretical analyses of the cosmic microwave background and the largescale distribution of galaxies have illuminated the nature of dark matter, as well as the size, age, geometry, and mass-energy content of the universe.

David A. Dunlap Department of Astronomy and Astrophysics & Dunlap Institute for Astronomy and Astrophysics | University of Toronto | RSC College

Véronique Dupéré is an Associate Professor at the École de psychoéducation of the Université de Montréal (UdeM) and holds the Canada Research Chair on the Transition to Adulthood. She is also co-holder of the McConnell-UdeM Chair on Youth Knowledge Mobilization (Myriagone). Her work aims to support educational success and socio-professional integration during the transition from adolescence to adulthood, particularly among young people in precarious economic or educational situations.

École de psychoéducation | Université de Montréal | RSC College

Jordan Abel is a queer Nisga'a writer from Vancouver. He is the author of *The Place of Scraps*, *Un/inhabited*, *Injun*, and *NISHGA*. Abel's next project, a work of fiction called *Empty Spaces* forthcoming from McClelland & Stewart in 2023. Dr. Abel is currently an Associate Professor in the Department of English and Film Studies at the University of Alberta.

Department of English and Film Studies | University of Alberta | RSC College

Trevor Lantz, University of Victoria, Environmental Studies. Dr. Lantz's interdisciplinary research program explores the causes and consequences of Arctic ecological change using remote sensing, finescale field studies, and collaboration with Indigenous experts. By identifying the factors that make some areas of the Arctic more susceptible to change, his research is making a meaningful contribution to northern decision-

making and climate change adaptation.

School of Environmental Studies | University of Victoria | RSC College

Susan Andrews is an internationally recognized scholar of East Asian religiosities whose research explores storytelling as both a record of lived religion and an engine of religious change. An expert in narrative, Andrews is an award-winning educator with a penchant for research-driven, campus–community partnerships that explore issues of immediate and lasting social significance, including representation and identity.

Department of Religious Studies | Mount Allison University | RSC College

Aisha Ahmad is an internationally recognized and award-winning expert in International Security. Her research investigates the links between jihadist insurgents and criminal networks in war zones around the world. She is the author of the decorated book *Jihad & Co.: Black Markets and Islamist Power* (2017), and has conducted fieldwork in Afghanistan, Pakistan, Somalia, Mali, Iraq, and Lebanon. She has advised militaries, governments, and international organizations on critical global security concerns.

Department of Political Science | University of Toronto, Scarborough | RSC College

Eric Li is an Associate Profess and Principal's Research Chair (Tier 2) in Social Innovation for Health Equity and Food Security at the University of British Columbia – Okanagan Campus. His research employed an interdisciplinary and community-based approach to addressing wicked problems such as health inequity and food insecurity. He actively engages trainees at all levels (undergraduate to post-doctoral) to co-develop innovative and community-centered solutions and initiatives to tackle societal and system-wide challenges.

Faculty of Management | The University of British Columbia - Okanagan | RSC College

Tristan Glatard is Canada Research Chair (Tier II) in Big Data Infrastructures for Neuroinformatics. He conducts world-class interdisciplinary research that uniquely combines computer science and neuroimaging. His research generates new tools and methods for more open, reproducible, and accessible science broadly speaking, and for neuroinformatics in particular.

Department of Computer Science and Software Engineering | Concordia University | RSC College

Janelle Joseph is Canada's leading scholar of critical studies in race and sports. She is renowned internationally for her interdisciplinary research promoting anti-racism and intersectional inclusion through sports, leisure, and physical activity. Her activist, diaspora, and embodiment work in Black communities is especially impactful. Recognized for the largest-ever study of anti-racism in university sport in Canada, her groundbreaking research has transformed sport, anti-racism policy, education, and practice in numerous national organizations.

Faculty of Kinesiology and Physical Education | University of Toronto | RSC College

A member of Carleton University's music faculty, **Jesse Stewart** is a composer, percussionist, artist, researcher, and educator. He has published widely on subjects including jazz, improvisation, hip hop, and experimental music, and he has been commissioned widely as a composer and artist. An active performer, he was honoured with the 2012 "Instrumental Album of the Year" Juno award for his work with genre-defying trio Stretch Orchestra.

School for Studies in Art and Culture | Carleton University | RSC College

Leyla Soleymani is an Associate Professor in the Departments of Engineering Physics and Biomedical Engineering at McMaster and is an University Scholar and Canada Research Chair (Tier II) in Miniaturized Biomedical Devices. Dr. Soleymani's research is focused on developing biomedical technologies for rapid disease diagnostics and health monitoring, as well as solutions for reducing the spread of infectious diseases. Dr. Soleymani holds several patents in the areas of biosensing and biointerfaces with multiple diagnostics technologies licensed to pharmaceutical and biotechnology companies.

Department of Engineering Physics | McMaster University | RSC College

Nafissa Ismail is the holder the Research Chair in 'Stress and Mental Health' at the University of Ottawa. She is interested in women's health and in the prevention of mental illnesses. She is known for her contributions to the identification of the biological pathways through which females become more sensitive to stress during adolescence and more vulnerable to psychological illnesses. Her work also demonstrates that the gut microbiota contributes to developing resilience to stress.

École de psychologie | Faculté des sciences sociales | University of Ottawa | RSC College

Ervin Sejdić is the Research Chair in Artificial Intelligence for Health Outcomes at North York General Hospital and an Associate Professor in The Edward S. Rogers Sr. Department of Electrical & Computer Engineering at the University of Toronto. He is a leader in the development of biomedical devices and the application of machine learning to better understand markers of disease, particularly as they relate to swallowing and gait.

Edward S. Rogers Department of Electrical and Computer Engineering | University of Toronto | RSC College

Julia Christensen, Canada Research Chair in Northern Governance and Public Policy, is an internationally recognized scholar in housing, home and health in the circumpolar North. Her scholarship is at the forefront of efforts to understand the northern housing crisis and dismantle it through community-led solutions. Her collaborations with Indigenous and regional governments have informed a series of policy initiatives that respond to the unique cultures and contexts of northern communities."

Department of Geography and Planning | Queen's University | RSC College

Sheila Garland is an internationally renowned clinical psychologist whose research bridges the areas of psychology, oncology, and sleep medicine. She applies sophisticated quantitative, qualitative, and patient-oriented research methods to improve the lives of people impacted by cancer. Her pioneering work on the influence that poor sleep has on cancer recovery, and the establishment of effective interventions, has improved the nights, and days, of cancer survivors worldwide.

Department of Psychology | Memorial University of Newfoundland | RSC College

Sharmistha Mishra is an epidemiologist and a Tier 2 Canada Research Chair in Mathematical Modeling and Program Science. Her research on disentangling sources of heterogeneity in the risks and spread of infectious diseases is grounded in the real-world implementation of public health programs. Her team examines transmission pathways structured by systemic inequities, and tests interventions tailored to disproportionate risks to inform public health and policy decisions in Canada and internationally.

Department of Medicine | Unity Health Toronto | University of Toronto | RSC College

Patricia Pelufo Silveira is the scientific director of the Genomics and Epigenetics Pillar of the Ludmer Centre for Neuroinformatics & Mental Health, based at the Douglas Research Centre, and an associate professor at the Department of Psychiatry, Faculty of Medicine and Health Sciences at McGill University. She is a pediatrician specialized in Neonatal Follow Up and a neuroscientist.

Department of Psychiatry | McGill University | RSC College

Daniel Alessi is an internationally recognized expert in applying the tools of environmental geochemistry and geomicrobiology to complex water, environmental, and green technology challenges. He is widely regarded as a leader in studying the water cycle in hydraulic fracturing, in modelling the cycling of elements in the environment, and in the development of remediation and sorbent technologies to selectively extract contaminants and resources from water and soil.

Department of Earth and Atmospheric Sciences | University of Alberta | RSC College

Debra Thompson, Canada Research Chair in Racial Inequality in Democratic Societies, is an internationally recognized expert on the comparative politics of race. Her research focuses on the relationships among race, the state, public policy, and inequality in Canada and beyond. She is the author of the award-winning book, The Schematic State: Race, Transnationalism, and the Politics of the Census (2016) and The Long Road Home: On Blackness and Belonging (2022).

Department of Political Science | McGill University | RSC College

Jérôme Dupras holds the Canada Research Chair in Ecological Economics and is an internationally recognized specialist in the socio-economic valuation of biodiversity. His work on socio-ecological modelling, natural infrastructures and environmental governance has been widely used by various stakeholders in civil society to build a new case in favour of nature conservation and to develop innovative land-use planning programs and policies.

Département des sciences naturelles | Université du Québec en Outaouais | RSC College

Sonja Boon is an award-winning researcher, writer, and teacher whose work addresses the complex issues of migration, memory, gender, bodily experience, and identity, as these are lived and experienced. An inter- and multi-disciplinarian, Boon's scholarship has been lauded for its methodological innovation and its theoretical contributions. Her ground-breaking research has been praised as being "extraordinary", "valuable", and "critical" to gender studies and beyond.

Department of Gender Studies | Memorial University of Newfoundland | RSC College

Sandra Rehan is an international leader in the molecular ecology and behavioural genetics of bees. Rehan's research combines comparative genomics and socio-demography to provide critical insights into the diversity, decline and sustainability of wild bees. Rehan is advancing our understanding of the causes of wild bee declines by developing comprehensive wild bee population genomic and disease ecology models. These results will ultimately be used to implement critical conservation strategies.

Department of Biology | York University | RSC College