

*Sharing Expertise for a Better Future Together*



RSC SRC



*2021 Annual Report*



## *The Enduring Mission of the RSC*

In order to establish the foundation for multiple initiatives, the Royal Society of Canada elects Fellows and Members while also presenting awards to highlight specific exceptional achievements. After rigorous evaluation and review of their accomplishments, leading individuals may be elected to one of the Society's three Academies—the Academy of Arts and Humanities; the Academy of Social Sciences; and the Academy of Science. There are currently 2,472 RSC Fellows. As a complement to the Academies, the RSC established The College of New Scholars, Scientists and Artists in 2014. The College recognizes individuals who have begun demonstrating leading scholarly, research or artistic excellence within 15 years of having completed their post-doctoral program or its equivalent. Members of the College are elected for a period of seven years. There are currently 428 Members of the College.

In addition to Fellows and Members of the College, the RSC includes Institutional Members from throughout Canada that play key roles in advancing inclusive excellence for the benefit of Canada and the world. The RSC administers over 20 prestigious awards, most of which are awarded to those at various career stages in recognition of outstanding achievement.

As emphasized in our by-laws, the RSC recognizes leaders in order to help them build a better future in Canada and around the world. For this reason, the RSC fulfills its mandate successfully to the extent that it recognizes excellence and then mobilizes the membership to make significant and substantial contributions of knowledge, understanding, and insight through engagement with the larger society.

# Message from the President



Dear RSC Colleagues and Friends,

Despite the restrictions imposed as a result of COVID 19, the RSC has successfully sustained our engagement to recognize excellence and to serve those living in Canada. This has only been possible thanks to the incredible dedication of the Board, Council, Academy and College committees, as well as many scholars from across the country, who have so generously given their time to ensure we meet our objectives.

This includes (i) the over 100 Fellows and College members who adjudicated the many excellent dossiers submitted for both membership and awards, as well as those who participated in the Committee on Membership, (ii) the more than 600 scholars artists and scientists from across disciplines and across generations who have contributed to the informed perspectives and Policy Briefings through the RSC Task Force on COVID-19, and (iii) those members who participated in our international activities, especially for the preparation of the G7 and G20 statements.

I would be very remiss if I did not also acknowledge the outstanding efforts of the Walter House team. Despite having to work under less-than-optimal conditions they have ensured that everything is completed properly and on time.

I am sure that as you read this report you will appreciate just how much the RSC has accomplished as a result of this collective effort. I extend my most sincere thanks to everyone whose contributions have made this all possible.

Sincerely,

A handwritten signature in black ink, which appears to read "Jeremy McNeil". The signature is fluid and cursive.

Jeremy McNeil, C.M., FRSC  
President

# Message from the Executive Director

Dear RSC Colleagues and Friends,

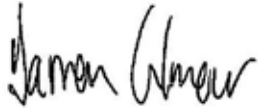
To the incredible outpouring of support noted by the President, we can add those who have participated as panelists in RSC activities over the course of the year and approach one thousand Canadians, many of whom had not previously been involved with the RSC.

To these individual contributions, the RSC has gone further this year due to strong and growing institutional partnerships, for example with the Globe and Mail, Let's Talk Science, and Canadian Science Publishing.

It would not have been possible to keep pace with the energy of these individuals and institutions without an outstanding Board of Directors, Council, and Standing Committees.

Our realizations over the past year inspire particular pride in the Walter House team, led by Linda Clauson. To Amelia Domaradzki, Chris Dragan, Erika Kujawski, Jo-Anne Sparkes, Michelle Seguin, Nic Lafrenière, and Russ MacDonald: thank you for your truly outstanding individual and collective efforts.

Sincerely,



Darren Gilmour  
Executive Director



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### *Board of Directors · November 2020 - November 2021*

**President** | Jeremy McNeil

**Past-President** | Chad Gaffield

**Vice-President (Academy of Arts and Humanities)** | Julia M. Wright

**Vice-President (Academy of Social Sciences)** | Janine Brodie

**Vice-President (Academy of Science)** | John Smol

**Vice-President (RSC College)** | Karly Kehoe

**Secretary** | Sheila Embleton

**Chair, Finance & Audit Committee** | Vijaya Raghavan

**Institutional Member Representative** | Ralph Nilson

**External Members** | Jennifer Brennan, Christina Tessier

## Task Force on COVID-19

The RSC Task Force on COVID-19 was established in April 2020 to equip Canadians with accurate information about our response to and recovery from COVID-19. The Task Force, chaired until September 2021 by Dr. Tom Marrie, initially brought together a small number of experts specializing in fields related to COVID-19. Since then, the Task Force has engaged over 700 individuals who have contributed 150 *Informed Perspectives* published in the *Globe and Mail*, *Le Devoir*, and elsewhere, and through the establishment of a series of Working Groups the Task Force has overseen the publication of 23 *Policy Briefings*, two collections of essays, and a collection of stories on Indigenous Health and Wellness, many of which have been published in *FACETS*, Canada's first and only open-access multidisciplinary science journal.



A list of *Informed Perspectives* published this year is on the next page, and a list of COVID-19 Working Groups and their reports starts on page 48.

### COVID-19 Task Force

Chad Gaffield (Chair)	University of Ottawa	Patrick McGrath	Izaak Walton Killam Hospital
Tania Bubela	Simon Fraser University	Tara Moriarty	University of Toronto
Timothy Caulfield	University of Alberta	Samira Mubareka	Sunnybrook Health Sciences Centre
Sean Caulfield	University of Alberta	Linda Rabeneck	University of Toronto
Victoria Esses	Western University	Rosemary Ricciardelli	Memorial University of Newfoundland
Fay Faraday	York University	Chantelle Richmond	Western University
Colleen Flood	University of Ottawa	Jennifer Robson	Carleton University
Noel Gibney	University of Alberta	Wendy Sligl	University of Alberta
Vanessa Gruben	University of Ottawa	Sharon Straus	University of Toronto
Laura Huey	Western University	Lindsay Tedds	University of Calgary
Carl James	York University	Gail Tomblin Murphy	Dalhousie University
Esyllt Jones	University of Manitoba	Jeff Turnbull	Ottawa Inner City Health
Peter Loewen	University of Toronto	Tracy Vaillancourt	University of Ottawa
Noni MacDonald	Dalhousie University	Janet Werker	The University of British Columbia
Christopher McCabe	University of Alberta	Julia M. Wright	Dalhousie University
Kim McGrail	The University of British Columbia		



From its inception through September 2021 Dr. Tom Marrie served as Chair of the Task Force. In recognition of his outstanding leadership, the RSC is presenting Dr. Marrie with the Centenary Medal. The Centenary Medal is presented by the RSC in recognition of outstanding contributions in advancement of the objectives of the Society. Thank you, Tom.



## *Informed Perspectives*

2020

### **COVID is our Moment to Renew Public Health**

Esyllt Jones, Heather MacDougall and Laurence Monnais, October 29

### **We Should Not Be Complacent About Canadians' Welcoming Attitudes Toward Immigrants**

Victoria Esses, Leah Hamilton and Aurelie Lacassagne, November 6

### **How COVID can re-shape education**

Paul Hackett, Madeleine Mant and Neil Orford, November 9

### **Flying Blind on COVID-19: Time to Do Better**

Ashleigh Tuite and David Fisman, November 19

### **An Inquiry of Inquiries: When Will We Commit to Fixing Long-Term Care?**

Eric KC Wong, Trina Thorne, Carole Estabrooks, and Sharon E. Straus, November 25

### **Investing Toward the Future Rather than the Past**

E. Richard Gold, Aled Edwards and Christopher McCabe, November 30

### **Reading the Entrails: Using Wastewater Epidemiology to Track Covid-19**

Alex MacKenzie, Robert Delatolla and Doug Manuel, December 1

### **Priority for COVID-19 vaccine must include those with intellectual / developmental disabilities**

Annette Majnemer and Patrick McGrath, December 4

### **Columbus and Pandemic Contagion: Historical Antecedents to COVID-19**

W. George Lovell, December 9

### **COVID-19 Risk in Pregnancy: Another Reason to Limit Community Transmission**

David N. Fisman and Ashleigh R. Tuite, December 10

### **Our Best Intentions Are Not Working—Recess Is Essential for Health and Learning**

Tracy Vaillancourt and Lauren McNamara, December 11

### **COVID-19 Vaccines and Serious Adverse Events Following Immunization: Action Needed!**

Shawn H.E. Harmon and Noni E. MacDonald, December 17

2021

### **The Vaccine Will Only Work if Enough People Take It**

Peter Loewen, Taylor Owen and Derek Ruths, January 5

### **What CARDs Will you Play to Improve your COVID-19 Vaccination Experience?**

Anna Taddio, January 5

### **New Ways Forward in Canadian Arctic Research**

Catherine Girard, Mark Mallory and Warwick F. Vincent, January 12

### **Vaccine Rollouts and the Role of Employers**

Shawn H.E. Harmon, January 14

### **Enhancing vaccine acceptance and delivery among youth who experience homelessness**

Audrey Steenbeek and Jeff Karabanow, January 18

### **Restoring a Margin of Safety**

Julia M. Wright, January 19

### **Without Action, Modern Slavery Will Surge in Supply Chains**

Genevieve LeBaron and Penelope Kyritsis, January 21

### **The Upside of Online: Psychology Studies During the Pandemic**

Alona Fyshe and Janet F. Werker, January 25

### **The Elderly, the Frail, and COVID-19 Vaccines: What we Know So Far**

Janet E. McElhaney, Anna Taddio and Shawn H.E. Harmon, January 25

### **Wiping the alcohol swab away from Covid-19 Vaccine Program**

Barry N. Pakes and Anna Taddio, January 25

### **Child Well Being as We Emerge from the Pandemic**

Susan Rvachew, January 26

### **COVID-19 and Heritage Language Learning**

Asma Afreen and Bonny Norton, January 29

### **Around the World, Vaccine Preferences Are Generous**

Peter Loewen, Raymond Duch and Philip Clarke, January 29

### **COVID -19 Vaccine: Religion, Trust and Vaccine Acceptance**

Paul Bramadat, Benjamin L. Berger, and Noni MacDonald, February 5

### **High Needle Fear and COVID-19 Vaccines**

C. Meghan McMurtry, February 9

### **Promoting Second Language Learning during the COVID-19 Pandemic: Parents' and Teachers' Coping Strategies**

Guofang Li, Roksana Dobrin-De Grâce, Zhuo Sun, Meishi Haslip, Diana Burchell, Julia Rivard Dexter and Xi Chen, February 9

### **Benefits of Being Raised Bilingually**

Krista Byers-Heinlein, Guofang Li, Adriel John Orena and Kyle Levesque, February 10

### **Building knowledge about immunization to promote good health**

Anna Taddio and Noni MacDonald, February 16

### **COVID-19 is Changing Our World: It's Time to Rethink International Education**

Roopa Desai Trilokekar, Leesa Wheelahan, and Julia M. Wright, February 16

### **How the pandemic has helped Canada mobilize expertise**

Darren Gilmour, February 17

### **Data Gaps Are Fueling Canada's Children's Mental Health Crisis, During COVID-19 and Beyond**

Katholiki Georgiades, Harriet MacMillan, Stelios Georgiades, Charlotte Waddell, Peter Szatmari, Tracy Vaillancourt and Emily Gruenwoldt, February 22

## **The Case for A COVID-19 Vaccination Certificate**

Colleen M. Flood and Bryan Thomas, February 22

## **Meeting the challenge of dyslexia in the pandemic and beyond**

Marc Joanisse, February 23

## **Face-Mask Use and Language Development: Reasons to Worry?**

Henny Yeung, Suzanne Curtin and Janet Werker, February 23

## **Migrant Workers Need Priority Access to the COVID-19 Vaccine**

Fay Faraday, Judy Fudge, Jill Hanley, Janet McLaughlin, Chris Ramsaroop, Ethel Tungohan and Anelyse Weiler, February 24

## **Why (and How) to Gift Your Child a World of Words**

Kathleen Hipfner-Boucher and Xi Chen, February 24

## **Reducing the Impact of COVID-19 on Black Communities in Canada: Building Confidence and Decreasing Vaccine Hesitancy**

Upton D. Allen, March 3

## **Beneficial Ways to Use Child Screen Time During the Pandemic and Beyond**

Haykaz Mangardich, Janet F. Werker and Susan Rvachew, March 4

## **Negotiating the Pandemic Twitterverse**

Muhammad Abdul-Mageed, March 8

## **Technology and a Child's Journey to Literacy**

Jenny Thomson and Hélène Deacon, March 9

## **Anaphylaxis and COVID-19 Vaccines**

Jeannette Comeau and Karina Top, March 10

## **Characteristics of a Fair Vaccine Injury Compensation Program for Canada**

Shawn Harmon, March 11

## **Science and the Uncertainty Dance**

Timothy Caulfield, March 12

## **COVID Reminded Us That Childcare Is Essential: Let's Make It Universal Too**

Yvonne Hii and Henny Yeung, March 12

## **Challenges Confronting Young Adults in the Era of COVID-19 Vaccines**

Françoise Baylis and Landon J. Getz, March 12

## **Physical activity— the forgotten core area of child development during the pandemic**

Tracy Vaillancourt, March 15

## **Virtual Visits: Indigenous Language Reclamation During a Pandemic**

Daisy Rosenblum, March 15

## **SARS-CoV-2 variants of concern remind us that we underestimate biology at our own peril**

Samira Mubareka, Andrew McArthur and Sandrine Moreira, March 16

## **Time to Innovate for Vulnerable People and Vulnerable Points in Society**

Monty Ghosh, Jeff Turnbull, Noni MacDonald, Andrew Bond and Aaron Orkin, March 16

## **COVID-19 Vaccines, Vaccine Acceptance: Words matter**

Meghan McMurtry, Anna Taddio, and Noni MacDonald, March 16

## **Language Learning in a Multicultural Society**

Katherine White and Suzanne Curtin, March 24

## **The Unequal Effects of COVID-19 on Multilingual Immigrant Communities**

Sienna Craig, Maya Daurio, Daniel Kaufman, Ross Perlin and Mark Turin, March 24

## **Why Disease Names Matter**

Heidi Tworek, March 24

## **Reducing Barriers to Vaccination: Decision-Making and Access**

Janet E. McElhane and Melissa K. Andrew, March 26

## **My COVID-19 Vaccine Experience as an urban Indigenous Woman in Ontario**

Chantelle Richmond, March 30

## **Vaccine Mistrust: A Legacy of Colonialism**

Margo Greenwood and Noni MacDonald, March 31

## **Keeping Everyone Safe: Infection Prevention & Control in COVID-19 Vaccine Clinics**

Jeannette Comeau, April 1

## **Key Strategies to Vaccinating Homeless Populations**

S. Monty Ghosh, Jeff Turnbull, Noni MacDonald, Andrew Bond and Aaron Orkin, April 12

## **Post-Pandemic Prosperity Requires a Public Dialogue on the Future of Immigration to Canada**

Chris Friesen, Jean McRae and Victoria Esses, April 12

## **Universities, Colleges, and COVID-19: Lessons Learned?**

Jennifer Brennan, Karen Foster and Julia M. Wright, April 13

## **Next Steps for Canada in Strengthening Smaller and Rural Communities through Immigration**

Natalya Brown, Aurélie Lacassagne and Jean McRae, April 20

## **Principles and Practices for Vaccine Trust**

Janice E. Graham, April 21

## **Comprehensive Harm Reduction Services for Marginalized and At-Risk Populations Are Essential to Canada's COVID-19 Recovery Plan**

Matthew Bonn, Vanessa Gruben, Elaine Hyshka and Carol Strike, April 26

## **Learning loss while out of school—is it now time to worry?**

Tracy Vaillancourt, Scott Davies and Janice Aurini, April 28

## **Jails and Prisons Remain a Hotbed for COVID-19—Vaccinate the People who Live or Work in Them**

David Pyrooz, Rosemary Ricciardelli and Sandra Bucerius, May 3

## **Preventing the next pandemic. Will Canada contribute or stand aside?**

Tania Bubela, June 28

## **SARS-COV-2: From Secret Life To Global Pandemic**

Andra Banete, Arinjay Banerjee, Bryan Griffin and Samira Mubareka, July 26

## **Listening to expertise: We can do better in higher education**

Julia M. Wright, September 1

## **Vulnerability via Digital Access—The Case for Free Universal High-Speed Internet**

Tracy Vaillancourt, Curtis Brown, Miriam Beauchamp and Jess Whitley, October 4



## Events & Activities

### The Importance of Languages in Global Context: An International Call to Action

December 1, 2020 | RSC Announcement

### How new Vaccines Protect Against COVID-19

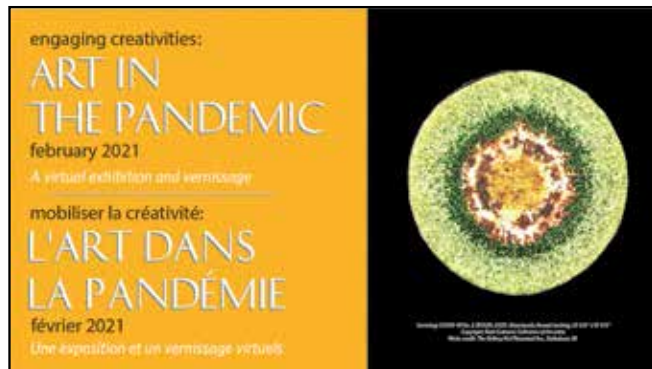
January 21 | Globe and Mail COVID-19 Vaccine Series

### Drug Shortages Summit

February 17 | Globe and Mail COVID-19 Vaccine Series

### What do COVID-19 Vaccines mean for me?

February 18 | Globe and Mail COVID-19 Vaccine Series



### Engaging Creativities: Art in the Pandemic

March 5 | RSC COVID Task Force Virtual Vernissage

### Joint Academy of Science Austria Day

March 18 | International Webinar

### Variants are here. Now what?

March 23 | Globe and Mail COVID-19 Vaccine Series

### S7 Academy Presidents Meeting

March 24 | International Meeting

### Preserving COVID-19 Experiences

March 30 | RSC COVID Task Force Webinar

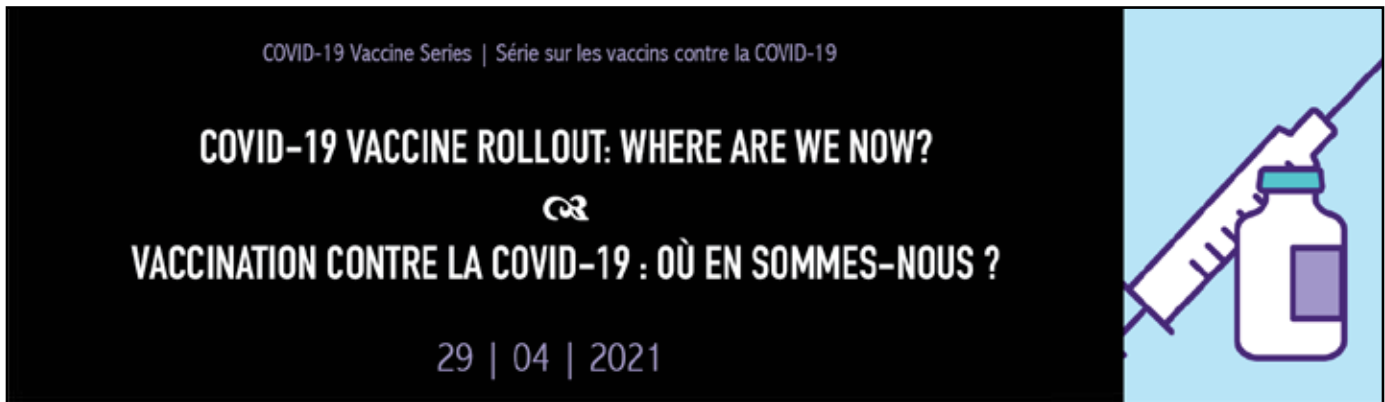
### Infoveillance Policy Workshops

April 7-May 14 | Five policy workshops

### Let's Talk Science Partnership

April 8 | RSC Announcement





**Royal Society of Edinburgh Roundtable**

April 13 | International Meeting

**COVID-19 Vaccine Rollout**

April 29 | Globe and Mail COVID-19 Vaccine Series

**Let's Talk COVID-19**

May 5 | Let's Talk Science Symposium

**I've taken the vaccine. Now what?**

June 2 | Globe and Mail COVID-19 Vaccine Series

**Reconciliation: Crazy Quilt**

June 17 | RSC College Meeting



**Justice Rosalie Silberman Abella Prize**

July 1 | RSC Announcement

**Coastal Communities and Cape Breton Settlement: Stories of Place**

August 27-28 | RSC Atlantic Event



**G20 Italy**

September 20 | International Meeting

**Kids and COVID-Back to School**

October 4 | RSC COVID Task Force Webinar

**Impacts of Climate Change on Biodiversity in the Oceans**

October 27 | International Webinar

## COEE 2020

*\*Find recordings of the COEE 2020 sessions on the RSC's YouTube channel.*

The 2020 Celebration of Excellence & Engagement was held virtually the week of November 22-29. The event saw the induction of 94 Fellows and 54 Members of the College, and the RSC honoured 16 medal and award winners. Highlights from the weekend included:

### *The G7 Research Summit: The Future of Digital Health · Wednesday, November 25*

The symposium examined the implications of the G7 Science Academies' *Statement on Centrality of Digital Health Collaboration to Health Progress* that embraced many disciplines, generations, and geographies.

### *The Legacy of Insulin Discovery: Origins, Access and Translation · Thursday, November 26*

The University of Toronto presented a symposium that celebrated the anniversary of the discovery of insulin, explored the legacy of this discovery, and examined its intersections with COVID-19 research.

### *Medal and Awards Ceremony · Friday, November 27*

This ceremony featured a series of awards and medals to honour individuals selected for their exceptional contributions.

### *Presentation of New Members of the College · Friday, November 27*

This ceremony welcomed new Members of the College in a format that showcased the interdisciplinary character of the College.

### *Induction of New Fellows · Friday, November 27*

This ceremony welcomed new RSC Fellows.

### *Partners*

The RSC would like to thank all of the institutions whose support made the 2020 Celebration of Excellence & Engagement possible. In particular, special thanks to the COEE 2020 Presenting Sponsor the University of Toronto.



## COEE 2021

Given the ongoing pandemic across Canada, the RSC has moved to a fully virtual Celebration of Excellence and Engagement for the week of November 15-20. With the amazing turnout and engagement during the 2020 COEE activities, and with enhanced digital capacities this year, an even broader audience from throughout Canada and around the world will participate in COEE 2021.

### Monday

The programme opens on November 15 with a day-long symposium on impacts of the pandemic on women in Canada, featuring over forty scholars from multiple disciplines participating in 11 panel discussions.

### Tuesday

On Tuesday the conversations include a symposium on *Building a Healthier Canada*, where the findings of Policy Briefing Working Groups studying post-pandemic models of care, the future of the nursing workforce, and the future of critical care in Canada will be presented. In addition, we are delighted to be partnering with Let's Talk Science to promote a multidisciplinary and multigenerational approach to One Health.

### Wednesday

On Wednesday, the G7 Research Summit will take stock of the results of COP 15 and COP 26 in a G7 Research Summit on climate change mitigation and adaptation strategies for Canada.

### Thursday

On Thursday, McGill University, as 2021 Presenting Partner of the COEE, will present a symposium on lessons learned from the pandemic.

### Friday

On Friday, we look forward to the highlight events of every COEE, welcoming new Fellows and College Members and award winners of the Class of 2021.

### Saturday

On Saturday, in addition to the annual meeting of the members, we feature individual presentations and lightning talks from members of the Class of 2021 and the broader RSC community.

### Partners

The RSC would like to thank all of the institutions whose support made the 2021 Celebration of Excellence & Engagement possible. In particular, special thanks to the COEE 2021 Presenting Sponsor McGill University.



## COEE Programming

\*Visit <https://rsc-src.ca/en/events/coee2021> for the latest schedule.

### Monday, November 15

9:00am-10:00am	Introductory Panel: Symposium on the Impact of COVID-19 on Women in Canada	
10:30am-11:30am	Women in Racialized Communities	Women in the Economy
1:00pm-2:00pm	LGBTQI2S Communities	Women and the Tax System
2:30pm-3:30pm	Women as Caregivers	
4:00pm-5:00pm	Gender-Based Violence During COVID-19	Women's Psychological Well-Being
6:00pm-7:00pm	Women as Learners	Women's Physical Health
7:30pm-8:30pm	Academy of the Arts and Humanities I Annual Meeting	RSC College Meeting

### Tuesday, November 16

9:00am-10:00am	COVID-19 and Intellectual and Developmental Disabilities	The Scope and Scale of Online Intimidation
10:30am-11:30am	Academic Freedom and Responsibility	Supporting Disabled Scholars
12:00pm-1:30pm	Workshop on Preparing an RSC Nomination	
12:30pm-3:30pm	Building a Healthier Canada: Strengthening the Workforce and Canadian Health Care Institutions	RSC and Let's Talk Science: One Health
4:00pm-5:00pm	Reducing Harm Through Decriminalization	Royally Wronged: The RSC and Indigenous Peoples
6:00pm-7:00pm	COVID-19, Children and Schools	Deepening and Broadening Political Institutions in Canada
7:30pm-8:30pm	Academy of the Social Sciences I Annual Meeting	RSC College Meeting

## *Wednesday, November 17*

9:30am-2:30pm	G7 Research Summit   Climate Change Implications and Mitigation Options for Canada			
4:00pm-5:00pm	Health Data in Canada			
5:00pm-7:00pm	Dinner Break			
7:00pm-7:30pm	Applied Science and Engineering   Divisional Meeting	Earth, Ocean, and Atmospheric Science   Divisional Meeting	Life Sciences   Divisional Meeting	Mathematical and Physical Sciences   Divisional Meeting
7:30pm-8:30pm	Academy of Science   Annual Meeting			

## *Thursday, November 18*

8:45am-5:00pm	McGill Symposium   Lessons Learned from COVID-19: Impacts, Consequences, Learnings and Looking Forward
5:30pm-6:00pm	McGill Digital Time Capsule Event   Celebrating McGill University's 200th Anniversary

## *Friday, November 19*

10:00am-11:30am	RSC Awards Ceremony
11:30am-1:00pm	Lunch Break
1:00pm-2:30pm	Presentation of New Members of the RSC College
3:00pm-6:00pm	Induction of the New RSC Fellows
6:00pm-7:00pm	Dinner Break
7:00pm-9:00pm	Celebrating the Class of 2014 of the RSC College

## *Saturday, November 20*

10:00am-11:30am	RSC Annual Meeting of the Members
11:30am-12:00pm	Lunch Break
12:00pm-1:00pm	The 2021 Romanowski Lecture
2:00pm-9:00pm	Members Spotlight: Lightning Talks

# 200 years of discovery and learning

For 200 years, McGill's scholars have been at the forefront of research that changes lives. From the founding moment of the Royal Society of Canada, our mission and histories have intertwined.

As McGill celebrates its past, we look to our next century – one that holds some of the greatest challenges ever known. Together, we will continue to connect bold thinkers who, through engagement and innovation, drive solutions for a better world.

*Here's to another century of collaboration.*

*Here's to the new inductees of the Royal Society of Canada.*



McGill

Proud sponsor of  
the Royal Society of Canada's  
2021 Celebration of Excellence  
and Engagement



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## New Fellows



### **ADEM, Alejandro | Department of Mathematics, The University of British Columbia**

Alejandro Adem is an internationally recognized mathematical scientist and scholar, and one of Canada's foremost experts in the field of algebraic topology. He has made important theoretical and calculational contributions to the cohomology of groups and topological symmetries, successfully applying them to solve long-standing conjectures. Through his versatile approach, Adem has opened fertile lines of research connecting areas such as representations, homotopy theory, orbifolds, and aspects of mathematical physics.



### **ARIFOVIC, Jasmina | Department of Economics, Simon Fraser University**

Bank of Canada Fellow Jasmina Arifovic is one of Canada's top macroeconomists and a leader in behavioural economics. She was among the first to integrate computational and experimental methods to explain how individuals and societies learn and adapt to market conditions. She collaborated with top international scholars and established a network of Canadian female economists, many of whom are her former students.



### **ARMSTRONG, Jeannette | Department of Community, Culture and Global Studies, The University of British Columbia**

Jeannette Armstrong, Syilx Okanagan, Associate Professor, Canada Research Chair, The University of British Columbia, Okanagan Campus. Recipient of the George Woodcock Lifetime Literature Achievement Award and the Eco Trust USA Buffett Award for Indigenous Leadership she works to change biases about Indigenous people. Her research in Okanagan Syilx environmental ethics is recognized globally. She serves on Canada's Aboriginal Traditional Knowledge Subcommittee of Committee on the Status of Endangered Wildlife In Canada.



### **BALAKRISHNAN, Narayanaswamy | Department of Mathematics and Statistics, McMaster University**

Narayanaswamy Balakrishnan is a world leader in Distribution Theory, Ordered Data Analysis, Reliability Analysis and Applied Probability. He is particularly known for his pioneering contributions to a wide range of areas in Applied Sciences and Engineering, through introduction of sophisticated models, development of efficient inferential methods and novel applications, and for his seminal books on theory and applications of Statistics and co-editing of the Encyclopedia of Statistical Sciences.



### **BANKES, Nigel | Faculty of Law, University of Calgary**

Nigel Bankes is internationally recognized in the fields of energy and natural resources law and how these bodies of law intersect with the rights of Indigenous peoples, particularly within Arctic regions. He is a recognized authority on US-Canada water relations including the Columbia River Treaty and has contributed significantly to the development of appropriate legal frameworks for greenhouse gas mitigation technologies, specifically carbon capture and storage.





**BEATY, Bart | Department of English, University of Calgary**

Bart Beaty helped found Comics Studies as a scholarly field. Operating at the intersection of literary studies, art history, communication theory, and the sociology of culture, his scholarship, in seventeen books and more than 200 essays, has completely defined this nascent subfield and he has positioned the University of Calgary as one of the most important institutions for research on graphic narrative anywhere in the world.



**BEAUDRY, Catherine | Département de mathématiques et de génie industriel, Polytechnique Montréal**

Catherine Beaudry is an internationally renowned specialist in the process and impact of innovation, from idea to commercialization. Her research focuses on the different mechanisms influencing the success of collaboration within industrial clusters, networks and innovation ecosystems. She is particularly recognized for her work on measuring the impact of university research funding and on identifying the innovation factors influencing business performance.



**BECHHOEFER, John | Department of Physics, Simon Fraser University**

John Bechhoefer's scientific contributions have ranged over pattern formation, liquid crystals, biological physics, nonequilibrium thermodynamics and statistical physics. Capitalizing on the control that can be exercised over small systems and creatively applying paradigm-shifting theoretical physics, he has tested fundamental principles that link information and feedback with thermodynamics and statistical physics, at scales that are appropriate to bacteria and cells.



**BERLINGUETTE, Curtis P. | Department of Chemistry, The University of British Columbia**

Curtis P. Berlinguette leads an interdisciplinary team of scientists and engineers at The University of British Columbia that are inventing and scaling disruptive clean energy materials. These efforts range from designing CO<sub>2</sub> utilization technologies to building self-driving labs to advancing the fusion sciences. This collective body of work extends from the fundamental sciences all the way through to building commercial products.



**BERRY, John | Department of Psychology, Queen's University**

John Berry has contributed significantly to the development of cross-cultural and intercultural psychology over the past 50 years. Recognised as a founder of these fields, he has developed the ecocultural framework that conceptualises the links among habitat, culture and individual behaviour. He has operationalised this framework in a series of comparative empirical field studies in many parts of the world, investigating cognitive style, intercultural relations, acculturation, and multiculturalism.



**BOUCHARD, Frédéric | Département de philosophie, Université de Montréal**

Frédéric Bouchard's work offers significant contributions to philosophy of biology and to philosophy of science. His novel accounts of evolutionary fitness and biological individuality provide an improved understanding of complex associations between species, from microbiomes to ecosystems. Also, governmental agencies regularly call upon his work on the role of experts in decision-making to help rethink issues related to sustainable development, public health, and innovation policy.



**BRUN, Yves | Département de microbiologie, Université de Montréal**

Yves Brun is an international leader in microbiology. His methods have revolutionized the study of bacterial cell wall synthesis and surface adhesion. His combination of phylogenetic information with state-of-the-art cell biology techniques has revolutionized our understanding of cell wall synthesis and has put classical comparative morphology on a firm molecular basis. His multidisciplinary research has played a leading role in understanding bacterial adhesive structures, surface sensing, adhesion mechanisms, and biofilms.



**CARPENDALE, Sheelagh | School of Computing Science, Simon Fraser University**

Sheelagh Carpendale, Tier 1 CRC in Information Visualization, is one of the world's top scholars in Information Visualization. Her work draws on her dual background in visual arts and computing science. By studying how people interact with information in work and social settings, she designs more natural, accessible, and understandable interactive visual representations of data to better support the everyday practices of people while viewing, representing, and interacting with information.



**CHAMBERS, Anne Lorene (Lori) | Department of Gender and Women's Studies, Lakehead University**

Lori Chambers is a legal historian who focuses on gender. She has published books on marital property law, the treatment of unmarried mothers, the law of adoption and child welfare, and intimate partner violence. She is currently involved in a number of projects on various aspects of police and legal responses to gender-based violence. She is also a community activist in the movement to end gendered, sexualized, and racially-motivated violence.



**CHARBONNEAU, Frédéric | Département des littératures de langue française, de traduction et de création, Université McGill**

Frédéric Charbonneau is a Full Professor of 18th Century French Literature at McGill University, where his work on the history of forms and ideas, including his seminal contribution to the study of Old Regime memoirs, led to the creation of a research chair he held for ten years. The dozen or so books he has published have profoundly renewed perspectives on some of the sources of our modernity, such as individual singularity.



**COOK, Richard John | Department of Statistics and Actuarial Science, University of Waterloo**

Richard Cook is a world leader in the development of statistical theory and methods for studying life history processes. His innovative modeling strategies for complex processes, and associated methods for the design and analysis of randomized trials and observational studies, have been highly influential both in statistics and in several areas of medical science.



**CÔTÉ, Sylvana | École de santé publique, Université de Montréal**

Sylvana Côté is an internationally recognized researcher in the fields of child development and psychosocial maladjustment prevention. Her scientific output in these fields is objectively outstanding in terms of quantity and quality by international standards. Her work over the past 20 years has already had a major impact on the advancement of knowledge, the training of students, public policy and public education.



**DAUVERGNE, Catherine | School for International Studies, Simon Fraser University**

Prominent socio-legal scholar Catherine Dauvergne, QC, is internationally recognized for her intellectual leadership in migration studies and her astute theoretical and methodological innovations. Her feminist analyses have changed how we think about borders as places where human rights and citizenship are contested. She has intervened in Canadian migration law, policy and practice and shaped emerging generations of lawyers and legal scholars.



**DAVIDGE, Sandra T. | Women and Children's Health Research Institute, University of Alberta**

Pioneering studies by distinguished university professor, Sandra T. Davidge, have unraveled novel and key mechanisms for cardiovascular regulation in pregnancy complications and subsequent impact on later-life cardiovascular health. Her internationally acclaimed exploration of the vascular impact of oxidative stress is driving new knowledge in women and children's health, including early prevention and intervention strategies for improving pregnancy outcomes to enhance life-long maternal and offspring cardiovascular health.



**DOBSON, Keith | Department of Psychology, University of Calgary**

Keith Dobson is a global expert in the field of mental health, with expertise in models of psychopathology, evidence-based psychosocial treatments of mental disorders, and interventions that reduce stigma towards mental health problems. He has published extensively about the ethics and the practice of professional psychology in Canada, and has led of many national and international organizations dedicated to the advancement of the discipline and practice of psychology.



**DOLOREUX, David | Département d'affaires internationales, HEC Montréal**

David Doloreux is a professor in economic geography and holds the Chair in innovation and regional development. He is internationally known for his works on management of innovation, the geography of innovation, and the economic development of regions, with expertise on industrial clusters and regional innovation systems. His work provided guidance to policy makers in the elaboration of regional economic development policies.



**DYKE, Arthur | Geological Survey of Canada, Retired**

Arthur Dyke has revolutionized our understanding of North American ice sheets and sea level change inspired by four decades of innovative mapping across Arctic Canada as a member of the Geological Survey of Canada. His prescient reconstructions of environmental change spanning the past 20,000 years are prominently recognized world-wide and continue to illuminate sister disciplines ranging from oceanography and geophysics to biology and archeology, elevating Canada's international scientific legacy.



**EICHENBAUM, Martin S. | Department of Economics, Northwestern University**

Martin S. Eichenbaum has been a leading contributor to the development, estimation and analysis of dynamic, stochastic models of business-cycle fluctuations. Variants of his models are widely used in academia and policy institutions to analyze aggregate fluctuations in economic activity and to design appropriate stabilization policies, including choice of exchange-rate regime. Recently, he played a key role in the development of models to understand the macroeconomic implications of pandemics.



**ESKIN, Michael N.A. | Department of Food and Human Nutritional Sciences, University of Manitoba**

Michael N.A. Eskin has made exceptional contributions to research on edible oils, particularly canola oil, for which he received many prestigious awards including the Order of Canada in 2016. He is one of world's leading food science writers with 17 books to his credit. His book, *Biochemistry of Foods*, now in its third edition, is used in university courses around the world and has been translated into several different languages



**FARZANEH, Masoud | Département des sciences appliquées, Université du Québec à Chicoutimi**

Masoud Farzaneh is an influential and world-renowned expert in engineering of power networks in cold climates. His pioneering studies resulted in the understanding of arc development on ice-covered insulators and in their improved design, the development of new generation icing models, de-icing techniques and anti-icing coatings, as well as in understanding the mechanisms of corona-induced vibrations of high voltage conductors. His research findings have greatly contributed to the creation of new, innovative and pioneering technologies.



**FORGET, Evelyn L. | Department of Community Health Sciences, University of Manitoba**

Evelyn L. Forget is a multidisciplinary economist whose imaginative health and social policy research highlights the voices, experiences and insights of vulnerable people and informs policy debates locally, nationally and worldwide. Her methodological innovations, which ground big data and experimental techniques in a profound understanding of history and culture, have reinvigorated research on social welfare policy and created new hope for people caught up in dysfunctional bureaucratic systems.



**GIRARD, Philip | Osgoode Hall Law School, York University**

Philip Girard's prize-winning work on the legal history of Canada has shaped the field and redefined its agenda for the twenty-first century. Tracing the roots of today's legal pluralism to the historic encounter of two European empires with Indigenous peoples in northern North America, he stresses how this pluralism allowed Quebec civil law to flourish on a continent of common law and now creates space for the renaissance of Indigenous law.



**GOLDMAN, Marlene | Department of English, University of Toronto**

Over her wide-ranging career, Marlene Goldman has made vital contributions to the understanding of marginalized identities as portrayed in Canadian literature. Her research has drawn pioneering connections between literature and health studies, notably in the areas of age-related dementia, shame, and stigma. Her interdisciplinary approach has also seen her adapt the work of major Canadian authors to film, highlighting the power of visual storytelling as a teaching tool.



**GRANT, Isabel | Peter A. Allard School of Law, The University of British Columbia**

Isabel Grant is an internationally renowned scholar in criminal law and mental health law whose work centres the inequality of women and people with disabilities in the criminal justice system. Her research on topics such as sexual assault against women with mental disabilities, homicide, HIV nondisclosure prosecutions, and violence against women continues to influence Canadian jurisprudence, legislation, policy and scholarship.



**GUY-BRAY, Stephen | Department of English Language and Literatures, The University of British Columbia**

Stephen Guy-Bray was one of the first Canadian scholars working in what was then Gay and Lesbian Studies; he has continued to make significant contributions in this field for the last thirty years. He specializes in Renaissance poetry and in poetics. He has been instrumental in extending queer theory to a consideration of how queerness inheres in literariness and in poetics.



**HENDRY, Andrew | Department of Biology, McGill University**

Andrew Hendry is an evolutionary ecologist and a leading figure in the fusion of ecology and evolution, based on his work on rapid evolution in natural populations of fish and birds. His fieldwork, review papers and books have been instrumental in changing our view of the species from a static category to a continually evolving dynamic entity.



**HILL, Michael | Departments of Clinical Neurosciences, Community Health Sciences, Medicine and Radiology, University of Calgary**

Michael Hill is a neurologist clinician-researcher whose work has focused on the care of the patient with stroke. His work in clinical epidemiology and leadership in randomized clinical trials of acute stroke therapy have had international impact in reducing neurological disability and death for patients around the world.



**HOGG, Robert S. | Faculty of Health Sciences, Simon Fraser University**

Eminent demographer Robert Hogg, OC, studies inequities in HIV morbidity and mortality among vulnerable populations. He has advanced understanding of how HIV interacts with behavioural and socio-demographic factors and influenced treatment approaches nationally and internationally. He is renowned for his scientific leadership and mentorship, and his work with communities to advocate for access to antiretroviral therapy.



**HOLDCROFT, Steven | Department of Chemistry, Simon Fraser University**

Steven Holdcroft, a world-leading authority on solid polymer electrolytes and electrochemical materials for clean energy technologies, has inspired advanced materials research groups worldwide in the search for clean, pollution-free energy conversion devices. He led the discovery of revolutionary ionic polymer membranes that are transforming the clean energy sector by facilitating hydrogen production from water, hydrogen energy conversion in fuel cells, and electrolytic CO<sub>2</sub> reduction.



**HYNDMAN, Jennifer | Centre for Refugee Studies, Faculty of Environmental and Urban Change, York University**

Jennifer Hyndman studies geographies of forced migration, ethnography of the international refugee regime, feminist geopolitics, critical refugee studies, and extended exile. Her research addresses violence in relation to diaspora and displacement among Tamils and other people on the move, international humanitarianism in war zones, as well as refugee and migrant inclusion in Canada.



**IBHAWOH, Bonny | Department of History and Centre for Peace Studies, McMaster University**

Bonny Ibhawoh is an internationally renowned historian of human rights and African studies, and the founding Director of McMaster University's Centre for Human Rights and Restorative Justice. A prolific scholar and public commentator, Ibhawoh's ground-breaking publications have shaped human rights scholarship. His significant academic and policy contributions to global human rights are evident in his appointment by the United Nations Human Rights Council as Chair of the UN Expert Mechanism on the Right to Development.



**JANOSZ, Michel | École de psychoéducation et Faculté de l'éducation permanente, Université de Montréal**

Michel Janosz is an internationally recognized scholar on the development and the prevention of youth psychosocial adjustment. He is mostly renowned for his work and knowledge mobilization activities on the prediction and types of school dropouts, on school violence prevention and school improvement and effectiveness.



**JOHNSON, Michele | Faculty of Arts & Professional Studies, York University**

An international leader in Black History, Michele Johnson is esteemed for rigorous and methodologically innovative studies of cultural production and performance, race and racialization, gender relations and labour among persons of African descent in the Caribbean and Canada. Equally committed to networking and communicating with multiple audiences, Johnson has employed her global prominence to benefit students and scholars around the world, and to promote wider community engagement with Black History.



**JONES, Lyndon | School of Optometry & Vision Science, University of Waterloo**

Lyndon Jones, an internationally renowned optometrist and biomaterial scientist, is recognised for his pioneering research relating to the science underpinning the interactions of novel and commercially available contact lens materials with the ocular surface, in addition to significant contributions relating to the etiology and management of dry eye. His ground-breaking work has resulted in the development of improved contact lenses and contact lens solutions for millions of wearers globally.



**KAVANAGH, Mary | Department of Art, Faculty of Fine Arts, University of Lethbridge**

Mary Kavanagh is a Professor and Board of Governors Research Chair whose pioneering artwork examines the material evidence of war, weaponized landscapes, and the nuclear era. An internationally respected artist, her multi-faceted and long-term projects operate at the intersection of artistic and scholarly practice, and she has shown through her work that public and private realms are intimately entangled, and that political and military conflict is encoded on the body.



**KELLEY, Shana | Leslie Dan Faculty of Pharmacy, University of Toronto**

Shana Kelley is a leader in the development of new sensing and profiling technologies for the analysis of disease-related molecules and cells. Kelley has pioneered ultrasensitive electrochemical sensors as well as single-cell characterization methods that have provided new tools for research and clinical medicine.



**KING, Malcolm | Department of Community Health and Epidemiology, University of Saskatchewan**

Malcolm King is a member of the Mississaugas of the Credit First Nation and a health researcher at the University of Saskatchewan. His internationally acclaimed research is aimed at improving wellness and achieving health equity for First Nations, Métis and Inuit through strengths-based approaches that respect self-determination and privilege Indigenous ways of knowing. He is also a Fellow of the Canadian Academy of Health Sciences.



**LaROCHE, Julie | Department of Biology, Dalhousie University**

Julie LaRoche is a marine microbiologist who uses biochemical and molecular biological approaches to unravel the factors that control primary productivity in the ocean. She has developed and applied several widely used molecular biological approaches that have had long-lasting impact on our understanding of nutrient limitation in phytoplankton and other marine microbes, especially with respect to iron limitation, which is prominent in large areas of the surface ocean.



**LEWIS, Jason Edward | Department of Design and Computation Arts, Concordia University**

Jason Edward Lewis' multidisciplinary research and creative practice has been central to developing Indigenous media art in Canada and worldwide, generating vital conversations at the intersection between Indigenous cultures and computational technologies. His outstanding contributions comprise scholarly writing, art making and technology research, as well as his leadership of the Initiative for Indigenous Futures and his co-founding of the Indigenous Futures Research Centre.



**LI, Xing-Fang | Department of Laboratory Medicine and Pathology, University of Alberta**

Xing-Fang Li is an internationally recognized expert in analytical chemistry and water research. Her innovative techniques enabled ultrasensitive detection of environmental contaminants, microbial pathogens, and biomolecular interactions. Her discovery of new classes of water disinfection byproducts, of toxicological significance, opens a vital new direction of research. Her patented technological innovations and research findings contribute greatly to public health protection in Canada and the world.



**LONDON, David | Département de physique, Université de Montréal**

David London has made groundbreaking contributions to theoretical particle physics, specifically in the area of phenomenology. He is best known for his work on CP violation in B-meson decays, where he proposed methods of measurements that have been used by experiments around the world. He has received national and international awards for research, as well as prizes for teaching from the Université de Montréal.



**LUTZ, Hartmut | Institute for English and American Studies, Universität Greifswald**

Pioneering Indigenous Studies and Literatures, Hartmut Lutz has promoted Canadian Multiculturalism by bringing Indigenous and non-Indigenous writers, artists, scholars and students to Europe and by translating and publishing First Nations, Métis and Inuit authors. He initiated studies on "Indian" stereotyping ("Indianthusiasm"), was the first to supervise Indigenous PhD-candidates from Canada in Germany, and taught in Europe, the USA, and Canada.



**MacDONALD, Noni | Department of Pediatrics, Dalhousie University**

Noni MacDonald is a Professor of Paediatrics at Dalhousie University and IWK Health Centre Halifax, Nova Scotia. Her two current major areas of research involve global health; 1) Vaccines including vaccine safety, hesitancy, demand, pain mitigation, education and policy; 2) MicroResearch, building capacity in community focused research in developing countries and in Canada ([www.microresearch-international.ca](http://www.microresearch-international.ca)) to find local solutions for community health problems that fit the context, culture and resources.



**MacMILLAN, Harriet | Departments of Psychiatry and Behavioural Neurosciences, and Pediatrics, McMaster University**

Harriet MacMillan is a pediatrician, psychiatrist and scientist who is internationally acclaimed for her research examining approaches to prevention of child maltreatment and intimate partner violence. She has led landmark clinical trials, which have advanced knowledge about identifying, preventing and responding to violence against children and women. Her pioneering work on the epidemiology of child maltreatment has contributed to understanding the health effects of family violence across the lifespan.



**MARSHALL, Toph | Department of Classical, Near Eastern, and Religious Studies, The University of British Columbia**

The tenuous job market of the 1990s, with sessional positions in five provinces, encouraged Toph Marshall to develop his practice-based research in the field of Greek and Roman theatre, focusing on stagecraft and how plays create meaning for an audience. With books on Aeschylus, Euripides, Aristophanes, and Roman comedy, he is now a leading scholar of ancient performance traditions. Other research has pioneered the study of classical reception in television and comic books.



**MATLASHEWSKI, Greg | Department of Microbiology and Immunology, McGill University**

Greg Matlashewski's research has been influential in the field of neglected tropical diseases. His research on leishmaniasis, a deadly parasitic disease, has resulted in better surveillance of cases in India, Nepal and Bangladesh, a better treatment for cutaneous leishmaniasis in Peru and the development of a vaccine soon to enter clinical trials. This research has impacted upon thousands of people in the developing world.



**McCOY, Kathy | Department of Physiology and Pharmacology, Cummings School of Medicine, University of Calgary**

Kathy McCoy is an internationally recognized leader in the field of microbiome and health research. She has made fundamental discoveries highlighting how the maternal and early life microbiome instructs development and function of the immune system. Her basic discoveries have also been instrumental in defining the mechanisms by which the microbiome regulates immune responsiveness during cancer immunotherapy.



**McLEOD, Carolyn | Department of Philosophy, Western University**

A bioethicist and feminist philosopher, Carolyn McLeod is known worldwide for her research in the ethics of reproduction, adoption, and parenthood. She has provided solutions to some of the deepest ethical problems in reproductive health policy and family policy and has developed innovative tools for tackling these and similar problems. Through her participation in multi-disciplinary and multi-organizational research teams, she has contributed directly to public policymaking affecting prospective parents in Canada.





**MUNRO, Murray | Department of Linguistics, Simon Fraser University**

Through his ground-breaking research in applied linguistics, Murray Munro has changed the way we think about second language acquisition and the intelligibility of second language learners. His work is recognized internationally for refuting widely-held assumptions that the window of opportunity for successful speech learning closes in childhood, with implications for psychology and child development. It also exposes unethical practices in language teaching and confronts discrimination against immigrants with foreign accents.



**MURRAY, Norman | Canadian Institute for Theoretical Astrophysics, University of Toronto**

Norman Murray is a world-renowned Canadian astrophysical theorist whose high impact work is imbued with powerful physical insight, creativity and technical skill expressed over an amazingly broad spectrum of astronomical problems. He has made seminal contributions to our theories of planet formation and evolution, chaos in the solar system, helioseismology, the physics of black hole accretion, and the effects of stars and supermassive black holes on galaxy formation.



**NASSAJI, Hossein | Department of Linguistics, University of Victoria**

Hossein Nassaji is internationally renowned for his pioneering work in classroom discourse, second language (L2) reading and vocabulary learning, form-focused instruction, and the application of socio-cultural theory to L2 learning. His research has reshaped our understanding of what L2 learning is, how it is developed, and what impact instruction has on its acquisition. He has transformed both theory and practice in these areas.



**NG, Raymond | Department of Computer Science, The University of British Columbia**

Raymond Ng is the founding Director of the UBC Data Science Institute and a professor in Computer Science. He is also the Canada Research Chair in Data Science and Analytics. His research spans diverse topics in data science, data mining, text analytics and health informatics. His most cited research is on outlier detection and data clustering. He has co-led several large-scale genomic projects, specializing in biomarker identification and development.



**NOËL, Alain | Département de science politique, Université de Montréal**

Professor of political science at the Université de Montréal, Alain Noël is known for his analyses of social policies, in Québec, in Canada, and in a comparative perspective. His innovative interpretations of redistribution policies, social investment and poverty reduction programs, the principle of universality, and fiscal federalism have a broad scientific diffusion and are influential among decision-makers. He publishes in the best international journals and is regularly consulted by governments.



**NORTHOFF, Georg | Department of Cellular and Molecular Medicine, University of Ottawa**

Georg Northoff is a transdisciplinary scholar and psychiatrist focusing on brain-mind connection in humans and artificial agents. He has developed a unique approach to brain-mind, including a study of their relationship to the world in terms of their temporo-spatial dynamic. Being educated in medicine/psychiatry, philosophy, and neuroscience, he also draws on disciplines such as physics, engineering, and psychology. His work draws global attention in both the West and East alike.



**OTERO, Gerardo | School of International Studies, Simon Fraser University**

Gerardo Otero, President of the Latin American Studies Association (2021-2022), is a leading authority in the sociology of economic change and development, political sociology, and the political economy of food and agriculture. Author of *Farewell to the Peasantry?* he has provided an influential analysis of political-cultural class formation. His theory and empirical analysis of the neoliberal food regime and its diet informs policy and practice in global food security.



**PETROWSKA QUILICO, Christina | C.M. School of the Arts, Media, Performance & Design, York University**

Appointed to the Order of Canada “for her celebrated career as a classical and contemporary pianist and for championing Canadian music”, Christina Petrowska Quilico, Professor of Musicology and Piano Performance at York University, has opened the ears of students and audiences with numerous premieres of music of our time, featuring many women composers and repertoire ranging from baroque to the present in solos, chamber works, 45 concertos, and on over 50 internationally acclaimed CDs.



**PETTY, Sheila | Faculty of Media, Art, and Performance, University of Regina**

Sheila Petty is internationally-known for her work in the area of African cinema/Women in African Cinema and her practice of ethical engagement with and respectful approach to researching other cultures. She is globally-known and respected for her capacity to construct cross-disciplinary research teams, scholarship and infrastructure. Her CFI-funded New Media Studio Laboratory for digital research spanning Fine Arts, Computer Science and Engineering is an early prototype of innovative interdisciplinarity.



**POIRIER, Guy | Department of French Studies, University of Waterloo**

Guy Poirier is a Professor in the Department of French Studies at the University of Waterloo. He works on topics related to French Renaissance: discourse and homosexuality in Renaissance France, Henri III of France in literature and pamphlets, etc. He also published in areas such as Québec literature and British Columbia French Literature. More recently, he has been the principal investigator of research projects on early modern French missionary texts (Japan, Charlevoix).



**POOR, H. Vincent | Department of Electrical and Computer Engineering, Princeton University**

H. Vincent Poor, the Michael Henry Strater University Professor at Princeton, has made fundamental contributions to information theory, signal processing, machine learning and network science, with a focus on their applications in wireless networks, energy systems, and related fields. A member of the U.S. National Academy of Engineering and the U.S. National Academy of Sciences, he received the IEEE Alexander Graham Bell Medal in 2017.



**RAYNAULD, Isabelle | Département d'histoire de l'art et d'études cinématographiques, Université de Montréal**

Isabelle Raynauld is a screenwriter, film director and Full Professor at the Department of Art History and Film Studies at the Université de Montréal. Her research on the history and theory of screenwriting practices has had a major impact on the advancement of knowledge in cinema and on the research of her peers in America and Europe. She has written and directed Jutra and Géméaux award-winning fiction and documentary films.



**ROUX, Benoît | Department of Biochemistry and Microbiology, University of Chicago**

Benoît Roux has performed ground-breaking computer simulations that have served to establish the physical principles governing the function of biological macromolecules. His innovative work has revealed the critical role that molecular flexibility and thermal fluctuations play in defining the function of ion channel and protein kinase. His contributions have fundamentally advanced our understanding of many problems, including cellular excitability and cancer biology.



**RUDD, Christopher | Département de médecine et spécialités médicales, Université de Montréal**

Christopher Rudd is an internationally renowned immunologist who uncovered how T-cells of the immune system are activated to respond in infections and cancer immunology. He discovered that T-cells become activated via a phosphorylation cascade involving specific kinases and adaptor complexes. He held professorial positions at Harvard and Cambridge Universities before returning to Canada, has won many international awards where his work laid the foundation for present immune therapies against cancer including chimeric antigen receptor (CAR) therapy.



**SAIN, Mohini M. | Department of Mechanical & Industrial Engineering, University of Toronto**

Mohini M. Sain is known globally for his transformative role in the development and commercialization of low carbon technology. One of world's earliest proponents of renewable functional materials, Sain's seminal research on the bioengineering science of micro/nanocellulose, lignin and polysaccharides, has helped form the foundation of today's multi-billion dollar global wood composite industry. Sain's award-winning discovery of in-situ hyper-low temperature exfoliation of 3D-natural materials has garnered acclaim from global manufacturers.



**SCHELLENBERG, Betty | Department of English, Simon Fraser University**

Betty Schellenberg is an internationally recognized scholar of eighteenth-century literary culture and women's participation therein. Grounded in the archival record, her innovative method integrates theories of book history, media change, and social networks to remap the British literary landscape. Having opened the field to more inclusive approaches, she continues to pioneer a feminist scholarship that takes into account both manuscript-based cultures and popular reading practices.



**SERLETIS, Apostolos | Department of Economics, University of Calgary**

Apostolos Serletis is President of the Society for Economic Measurement and one of the world's most eminent economists. His methodological and empirical innovations have advanced scholarship in several areas in the fields of macroeconomics and monetary economics. The result has been better measures of aggregated monetary services, better measures of productivity growth, and better estimation methods.



**SIMARD, Jacques | Faculté de médecine, Université Laval**

Jacques Simard's international research contributed to the discovery of breast, ovarian and prostate cancer susceptibility genes BRCA1 and BRCA2, resulting in a genetic predisposition test used worldwide. His international studies on deciphering the genetic architecture of breast cancer, provided the long-awaited knowledge to develop personalized risk assessment tools to improve prevention and early detection of the disease, targeting women most likely to benefit, especially through a populational risk stratified screening approach.



**STENSETH, Nils Chr. | Centre for Ecological and Evolutionary Synthesis, Department of Biosciences, University of Oslo**

Nils Chr. Stenseth pioneered the integration of climatic drivers with population ecology to understand dynamical, evolutionary change in terrestrial and marine animal systems. His research breadth extends from organismal genomics and the evolutionary ecology of Canadian mammals and fishes to disease systems for plague, including COVID-19. Stenseth's intellectual versatility enabled him to break long-standing barriers and to contribute profoundly to inter-disciplinary thinking within the fields of ecology and evolutionary biology.



**STOLLE, Dietlind | Department of Political Science, McGill University**

Dietlind Stolle, James McGill Professor of Political Science at McGill University and former Director of the Inter-University Centre for the Study of Democratic Citizenship, is internationally acclaimed for her innovative work on how social capital, generalized trust, political participation, and ethnic diversity contribute to a democratic political culture. Her current research generates new insights into support for democratic backsliding in longstanding democracies. Her widely-cited international publications have won several awards. Professor Stolle has also been nationally recognized for her creative approach to teaching.



**STRAUS, Sharon | Department of Medicine, University of Toronto**

For Sharon Straus, everything begins and ends with patients and their essential care partners. Her clinical work leads to co-creation of research with patients and other partners to advance use of evidence to improve patient relevant outcomes, avoid research waste, and strengthen our health care systems. She is also internationally known for her work on advancing gender equity in academic medicine and mentorship.



**SUTHERLAND, Robert | Department of Neuroscience, University of Lethbridge**

Rob Sutherland played a remarkable role in scientific leadership over the past thirty years. His work transformed the field of cognition and memory in animal models and humans by developing new ways of measuring cognition, new theories on the organization of long-term memory, and new understandings of loss and recovery of function after brain injury. His transdisciplinary approach led to many contributions that are transformative, most with very high impact.



**SZATMARI, Peter | Hospital for Sick Children, Centre for Addiction and Mental Health, Department of Psychiatry, University of Toronto**

Peter Szatmari is a clinician-scientist in child and youth mental health. His work has made significant contributions to understanding the clinical epidemiology of mental disorders in the pediatric population and the natural history and genetic basis of autism spectrum disorder. His innovative and internationally recognized research program of clinical trials in youth depression seeks to transform the lives of children and youth struggling with common mental disorders.



**TCHEUYAP, Alexie | Department of French, University of Toronto**

Alexie Tcheuyap's research explores the intersectionalities between literature and madness, film adaptation theories, (post)nationalist discourse analysis, and the rhetoric of violence and fear. A Fellow of St. Michael's College, Senior Fellow of Massey College and of the European Institutes of Advanced Study (Collegium de Lyon), he has published a substantial and authoritative body of work on African literature, film and media.



**TURECKI, Gustavo | Department of Psychiatry, McGill University**

Gustavo Turecki's pioneering work has played a major role in the understanding of suicide, particularly, how traumatic early-life experiences modify brain function through genomic regulation, which in turn influences the development of behavioural traits. His work has also shed light on molecular processes that occur in the brain of individuals affected with major depressive disorder and those that explain response to antidepressant treatment.



**VAILLANCOURT, Tracy | Faculty of Education, University of Ottawa**

Tracy Vaillancourt, a Tier 1 CRC in school-based mental health and violence prevention and elected president of the International Society of Research on Aggression, is a global leader in research on violence and mental health. She has impacted research, practice, and policy working with national and international committees such as the RSC COVID-19 task force, the U.S. National Academies of Sciences, Engineering, and Medicine committee on bullying, and the European Standards of Care for Newborn Health. Her work improves youth's lives worldwide.



**van der KOOY, Derek | Department of Molecular Genetics, University of Toronto**

Derek van der Kooy is recognized for the discoveries and characterizations of stem cells in the brain, retina and pancreas. His lab revealed the neural circuits underlying mammalian motivation, as well as genes responsible for learning and memory in the model organism, *C.elegans*.



**WEISZ, George | Department of Social Studies of Medicine, McGill University**

George Weisz is an internationally recognized scholar in the field of comparative medical history. His work has analyzed major developments in the history of modern and contemporary healthcare. These include medical specialization, chronic disease, quantification, medical professions and medical training, holism and reductionism in medical science, and variation and standardization in healthcare. He currently works on the history of global health.



**WILSON, Roger | Department of Classical, Near Eastern, and Religious Studies, The University of British Columbia**

Roger Wilson is the world authority on the archaeology of Roman Sicily. For over thirty years his ground-breaking books and articles have reshaped our understanding of the province and its complex cultural interactions. He has also conducted fundamental research on Sicilian mosaics in their Mediterranean context. His meticulous excavations have shed new light through pioneering use of scientific techniques on topics such as ancient Sicily's rural economy and human health.



**WORM, Boris | Department of Biology, Dalhousie University**

Boris Worm is an international leader in ocean biodiversity and conservation research. His work on the impacts of fishing, pollution, and climate change has raised public awareness of the perilous state of marine ecosystems and contributed towards science-based management solutions. As a founder of the Ocean School, developed in collaboration with the National Film Board of Canada, he also works to foster ocean literacy and engagement for youth around the world.



**WYLIE, Alison | Department of Philosophy, The University of British Columbia**

Alison Wylie is internationally recognized for catalyzing a thriving field at the intersection of philosophy of science and the historical sciences, and for game-changing insights in feminist philosophy. She deploys incisive analyses of archaeological practice to show how even fragmentary trace evidence can yield robust knowledge of the past. Her work reframing epistemic ideals like objectivity has had an impact on archaeological practice as well as in philosophy.



**YAFFE, Martin | Sunnybrook Research Institute, Department of Medical Biophysics, University of Toronto**

Martin Yaffe is a medical physicist specializing in imaging research applied to earlier diagnosis of breast cancer. He is recognized for the development of digital mammography, now used clinically worldwide and for his research on breast density as a risk factor for cancer and an impediment to its accurate detection. He is now applying medical imaging principles to improve quantitative biomarker analysis in pathology. He is Co-Director of the Imaging Research Program of The Ontario Institute for Cancer Research.



**YANG, Qiang | Department of Computer Science and Engineering, Hong Kong University of Science and Technology**

Qiang Yang is a world leader and pioneer in the artificial intelligence fields of transfer learning and federated learning, as well as automated planning and case-based reasoning. His work allows artificial intelligence and data analytic methods to be effective for small and decentralized data while preserving privacy and security, and has had a major impact on industry and society. He also contributes to professional artificial intelligence and data science societies.



**YEATES, Keith | Department of Psychology, University of Calgary**

Keith Yeates is a world-leading neuropsychologist whose prolific and ground-breaking research focuses on pediatric traumatic brain injury (TBI), a major cause of acquired disability. His investigations of the family's role in children's recovery from TBI, the social outcomes of childhood brain disorders, and the impact of childhood concussion have transformed the science of pediatric TBI and markedly improved clinical care and outcomes for children with TBI and their families.



**ZAGHIB, Karim | Département de génie des mines et des matériaux, Université McGill et Investissement Québec**

Karim Zaghbi is internationally recognized for his breakthroughs in electrochemistry, energy transition and sustainability. He introduced the safest and low-cost LiFePO<sub>4</sub> lithium-ion battery technology with natural graphite and developed several environment friendly nanotechnological processes such as lithium-titanate (LTO) production used for ultrafast charge (<10 min), which are widely deployed in electric vehicles and energy storage. His patents were licensed to 62 companies worldwide and in Canada, creating jobs locally.



**ZHANG, Xuebin | Senior Research Scientist, Environment and Climate Change Canada**

Xuebin Zhang is a climate scientist who uses observations and climate model simulations to unravel climate responses to human activities. He is recognized for his work linking human induced greenhouse gas to changes in mean and extreme temperature and precipitation. His research has significantly contributed to the understanding of changes in Canadian climate and its implications to different sectors such as infrastructure.

## College Members



**ANDREAZZA, Ana | Department of Pharmacology and Psychiatry, University of Toronto**

Ana Andrezza is a Professor of Pharmacology and Psychiatry at University of Toronto. She holds a Canada Research Chair in Molecular Pharmacology of Mood Disorder and the Thomas C. Zachos Chair in Mitochondrial Research. Her research focuses on the effects of mitochondrial dysfunction on neurotransmission phenotypes, to unveil the brain's mitochondrial signatures and advance discovery of novel and effective treatments for complex brain illnesses.



**ANONBY, Erik | School of Linguistics and Language Studies, Carleton University**

Artist scholar Erik Anonby probes, taps and maps the contributions of linguistic diversity to individual human experience, collective heritage and survival. Scholarship, community and creative impulse meet in his paintings, poetry, public outreach, seven books, and a body of other academic and popular publications. Recipient of the Humboldt Foundation's Fellowship for Experienced Researchers, Anonby leads an international 60-member research network in the Atlas of the Languages of Iran (ALI).



**AXSEN, Jonn | School of Resource and Environmental Management, Simon Fraser University**

Jonn Axsen heads SFU's Sustainable Transportation Research Team and conducts community-engaged research to inform effective policy design for low-carbon commercial and consumer vehicles and alternative fuels. He also explores consumer attitudes about new mobility innovations and accesses the socioeconomic and environmental impacts of emerging technologies. He has produced numerous policy briefs for governments in Canada and internationally, and regularly serves on expert committees for electric vehicles and sustainable transport policy.



**AZAD, Meghan | Department of Pediatrics and Child Health, University of Manitoba**

An international expert in human milk science, Meghan Azad's research has broadly publicized how infant nutrition and the microbiome shape lifelong health. Azad leads a diverse team ([www.azadlab.ca](http://www.azadlab.ca)) with collaborators in over 20 countries. She co-founded the Manitoba Interdisciplinary Lactation Center (MILC) and co-directs the International Milk Composition Consortium. Azad's trailblazing research is shaping policy and practice regarding infant feeding, human milk banking and maternal-child healthcare.



**BAN, Natalie | School of Environmental Studies, University of Victoria**

Using innovative methodologies, Natalie Ban's uniquely interdisciplinary and applied research focuses on the connections between people and biodiversity in the marine environment in order to advance biodiversity conservation and resource management. Together with partners, Dr. Ban braids Indigenous knowledge systems and Western science, draws upon theories and methods from the natural and the social sciences, and is highly collaborative within and beyond academia.



**BARRETT, Rowan | Department of Biology, McGill University**

Rowan Barrett is Canada Research Chair in Biodiversity Science at McGill University and is internationally recognized for his work on the genetic basis of adaptation to changing environmental conditions and contemporary evolution. His research integrates theoretical and empirical approaches in population genomics, community ecology, and molecular genetics to solve key questions concerned with the reciprocal interactions between ecological and evolutionary processes in natural populations of diverse organisms.



**BEATTY, Ruth | Faculty of Education, Lakehead University**

Ruth Beatty is an award-winning settler educator and scholar known for her leadership in culturally responsive mathematics instruction. Her research on connections between Indigenous ways of knowing mathematics and the Western mathematics found in provincial curricula is changing the ways we teach and learn mathematics. Her collaborations with members of Anishinaabeg, Cree, and Métis communities support the development of innovative practices in elementary and secondary mathematics education that benefit all students.



**BINKLEY, Lisa | Department of History, Dalhousie University**

Lisa Binkley's research seeks to reclaim Indigenous women's histories through the study of textiles as material culture. In her research, teaching, and community engagement, she builds relationships between Indigenous and settler peoples through a focus on craft as practice and as object of study. With developing interests in repatriation of physical objects and digital archives, she is already an authority in histories of textiles and the needle-arts.



**BISWAS, Asim | School of Environmental Sciences, University of Guelph**

Asim Biswas is recognized internationally for integrating technology and data with soil knowledge to increase productivity and resilience of agricultural and other land-based production systems. His pioneering research on soil spatial variability quantification is important to precisely manage production inputs for agricultural, environmental, and economic sustainability. Beyond the farm, the ability to digitally and inexpensively map soil composition has numerous applications for policy development and natural resource management.



**BITTNER, Amanda | Department of Political Science, Memorial University of Newfoundland**

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.



**BURKE, John | Department of Biochemistry and Microbiology, University of Victoria**

John Burke has created new knowledge on the role of lipid signalling in pathogen infections and in cancers. He develops cutting-edge methods and infrastructure to study lipid signalling proteins and their role in human health and is developing novel therapeutics for cancer, malaria and viral infection. He has established extensive international collaborative networks to advance translational research towards novel therapeutics.





**CASTLEDEN, Heather | School of Public Administration, University of Victoria**

Heather Castleden is a community-engaged human geographer; she has spent two decades doing research in partnership with Indigenous peoples across the country by aligning her expertise with their priorities for sovereignty and resurgence in governance across multiple spheres including treaty implementation, water management, and renewable energy development. She also concentrates her energies in supporting research ethics and accountability, the politics of knowledge production, and decolonizing settler colonialism in institutional settings.



**CÉNAT, Jude Mary | École de psychologie, Université d'Ottawa**

Jude Mary Cénat is a world-renowned researcher exploring the impact of infectious diseases and natural disasters on population mental health, racial disparities in mental health and social services, and global mental health. He has developed innovative, interdisciplinary projects with major impacts on the resilience of vulnerable communities, as well as public policies and mental health training.



**DANG-VU, Thien Thanh | Department of Health, Kinesiology and Applied Physiology, Concordia University**

Thien Thanh Dang-Vu is a Professor at Concordia University, where he is Director of the Sleep, Cognition and Neuroimaging Laboratory. He is also a neurologist, and Associate Director for Clinical Research at the *Institut Universitaire de Gériatrie de Montréal*. As a clinician-scientist, his work on the brain mechanisms of sleep has opened new perspectives in the investigation of sleep functions and neural networks involved in sleep disturbances



**DASOG, Mita | Department of Chemistry, Dalhousie University**

Mita Dasog is an Assistant Professor and Izaak Walton Killam Memorial Research Chair at Dalhousie University. She conducts interdisciplinary research on the development of next-generation semiconducting and plasmonic nanomaterials composed of earth-abundant and inexpensive elements for solar-driven hydrogen production, water disinfection, and desalination. Beyond her research, she is actively involved in public and government outreach activities.



**De LUNA, Phil | Director, National Research Council Canada**

Phil De Luna is a highly cited award-winning material scientist and cleantech innovator. As the youngest-ever Director at the National Research Council, he leads a program that focuses on developing new technologies to decarbonize our economy through CO<sub>2</sub> conversion, clean hydrogen production, and artificial intelligence for materials discovery. For his pioneering work on renewable electrofuels, he was named a Forbes Top 30 Under 30 and a Governor General Gold Medalist.



**DESCOTEAUX, Maxime | Département d'informatique, Université de Sherbrooke**

Maxime Descoteaux is a leading expert in neuroinformatics, imaging, technology startups, and scientific popularisation. He is currently studying anatomical, diffusion and function MRIs of the human brain, developing methods to better understand the neuronal architecture and how certain brain regions communicate with each other.



**DeWOLFE, Yvonne Michelle | Faculty of Science and Technology, Mount Royal University**

Michelle DeWolfe holds the Mount Royal University Board of Governors Research Chair in Science, Technology and Society. Her research on the genesis and metal endowment of ancient submarine volcanic rocks is internationally recognized in geoscience and has led to important economic benefits for Canada in pursuit of societally critical metals such as Cu, Zn, Au, and Ag. She is committed to providing a diversified training environment and teaching excellence.



**DiPAOLA, Steve | School of Interactive Arts and Technology, Simon Fraser University**

Steve DiPaola is a pioneer in human-centric, cognitive-based artificial intelligence and computer graphics. DiPaola's sustained research excellence has produced pioneering interdisciplinary theories, methods, cutting-edge technologies which using parameterized computer techniques create and model processes that analyse, simulate, and generate human expression, behaviour, empathy and creativity. DiPaola is also a pioneer in AI and computational based Art. His artwork has been exhibited internationally at major museums and galleries.



**GUTA, Adrian | School of Social Work, University of Windsor**

Adrian Guta is a social worker and health researcher committed to promoting social justice through community-engaged research. He conducts interdisciplinary research that examines the social, cultural, and ethical implications of health issues, biomedical technologies, and medical and public health practices. His work has advanced theorizing in the health sciences and informed policy and programing at partner organizations.



**HAGGARD, Daryl | Department of Physics, McGill University**

Daryl Haggard is a world-expert in observational studies of black holes, including Sagittarius A\*, the supermassive black hole in our Milky Way Galaxy. She uses radio, submillimeter, infrared, and X-ray telescopes to probe exotic black hole environments, where strong gravity plays a key role. She is also internationally known for her contributions to multi-messenger astrophysics, including the joint discovery of X-ray and gravitational wave emission from the first known collision of two neutron stars.



**HEFFERNAN, Jane | Department of Mathematics and Statistics, York University**

Jane Heffernan is a recognized international leader in Infectious Disease Modelling. Her Modelling Infection and Immunity Lab tackles important questions in Mathematical Epidemiology and In-host Pathogen Dynamics, using mathematical and computational modelling to ascertain key characteristics of pathogens, individual hosts, and populations that allow for disease spread, and to determine public health and medical intervention strategies that will be needed to contain or eradicate an infectious disease.



**HUDON, Catherine | Département de médecine de famille et médecine d'urgence, Université de Sherbrooke**

Catherine Hudon leads an innovative research program mobilizing various partners in Canada and internationally to improve care integration, health equity and health of people with complex needs, facing challenges of physical, mental and social health. Adopting a participatory approach with citizens and organizations, she uses mixed methods to develop, implement and evaluate innovations to better answer this population's needs, and improve efficiency of the health and social services.



**JERBI, Karim | Département de psychologie, Université de Montréal**

Karim Jerbi is a Canada Research Chair in Computational Neuroscience and Cognitive Neuroimaging. He leads an internationally recognized research program at the crossroads between neuroscience and artificial intelligence. His multidisciplinary research provides insights into the role of large-scale neural networks in cognition, states of consciousness and brain disorders. He is strongly committed to promoting equity, diversity and inclusion, and has a keen interest in the convergence between brain science, creativity, artificial intelligence and art.



**KAIRY, Dahlia | École de réadaptation, Université de Montréal**

Dahlia Kairy's interdisciplinary and intersectoral research on innovative accessible technologies such as telerehabilitation and virtual reality has been integrated into clinical practice and improved the health and well-being of people with disability. The collaborative and innovative research approaches integral to her work are invaluable to ensure that ethically sound innovations that address patients' needs are developed, implemented by clinicians and made available to all Canadians.



**KAMAL, Noreen | Department of Industrial Engineering, Dalhousie University**

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.



**LAMONTAGNE, François | Faculté de médecine et des sciences de la santé, Université de Sherbrooke**

François Lamontagne is a Full Professor at the Faculty of Medicine and Health Sciences of the Université de Sherbrooke and a researcher at the CIUSSS - Estrie CHUS within the Population, Organization and Practices research Axis. His research focuses on critical care, the drafting of guidelines et access to quality health care in situations with limited resources. This research also examines undesired outcomes associated with clinical practice of unproven scientific effectiveness. He leads a programme which aims to characterize and improve clinical research capacity across Canada.



**LAWFORD, Karen | Department of Gender Studies, Queen's University**

Karen Lawford is an Indigenous midwife (Namegosibiing, Lac Seul First Nation, Treaty 3) and a Registered midwife (Ontario). Her research focuses on gender-inclusive sexual and reproductive healthcare for Indigenous peoples, and maternity care for rural and remote reserves. Dr. Lawford is a founding member of the National Aboriginal Council of Midwives. She was the 2020 Indspire Laureate in Health for her research and policy work on mandatory evacuation for birth.



**LIBOIRON, Max | Department of Geography, Memorial University of Newfoundland**

Max Liboiron creates innovative infrastructures for brining anticolonial research methods into an array of disciplines and spaces. Best known for founding CLEAR, a plastic pollution laboratory whose methods foreground humility and good land relations, Liboiron has influenced policy on both plastics and Indigenous research and invented open-source technologies and protocols for community monitoring of plastics. They are author of *Pollution is Colonialism* (Duke Press, 2021).



**LIGHTFOOT, Sheryl | Department of Political Science, The University of British Columbia**

Sheryl Lightfoot, Canada Research Chair of Global Indigenous Rights and Politics, is internationally recognized for her expertise and groundbreaking research on the United Nations Declaration on the Rights of Indigenous Peoples and its implementation as well as its wider impacts on theory and practice at the international level. A globally recognized expert in international Indigenous politics, her research addresses the complex issues underlying the claims and negotiation of the rights of Indigenous peoples in various political spaces.



**MADIGAN, Sheri | Department of Psychology, University of Calgary**

Sheri Madigan leads an internationally recognised research program focused on understanding how early experiences influence children's learning, social behaviour, and mental health. A Tier II Canada Research Chair in Determinants of Child Development at the University of Calgary, Dr. Madigan uses innovative methodologies to create and mobilize knowledge that advances the field of developmental science and impacts the lives of children and their families.



**MARTIN, Debbie | School of Health and Human Performance, Dalhousie University**

Debbie Martin's research has been influential in advancing Indigenous health research that is led by Indigenous peoples and guided by their health priorities. She leads two large multi-year network grants that offer funding and various forms of mentorship and research supports to Indigenous peoples and communities within the Atlantic region. She is also Chair of the Institute of Indigenous Peoples' Health Advisory Board at the Canadian Institutes for Health Research.



**McCONNACHIE, Alan | Herzberg Astronomy and Astrophysics Research Centre, National Research Council Canada**

Alan McConnachie is internationally recognized for his critical contributions to our understanding of the Local Universe, the galaxies that surround our Milky Way. He has led panoramic imaging surveys responsible for unveiling the luminous halos surrounding galaxies and for challenging and advancing galaxy formation theories. He is a Canadian leader in wide-field astronomy and a passionate advocate of the next generation of Canadian astronomical facilities.



**MEKHAIL, Karim | Department of Laboratory Medicine and Pathobiology, University of Toronto**

Karim Mekhail is an internationally renowned leader in spatial genomics—the study of how the positioning and movement of DNA inside living cells impact gene stability and expression. His contributions include redefining long-held models of human protein production, the discovery of the first molecular DNA ambulance that transports damaged DNA to its repair centers, using mechanical and aerospace sciences to decipher complex genetics, and uncovering several other mechanisms impacting cancers and neurodegenerative disorders.



**MENON, Bijoy | Departments of Neurosciences, Radiology and Community Health Sciences, University of Calgary**

Bijoy Menon is a neurologist and a Professor in the Departments of Neurosciences, Radiology and Community Health Sciences at the University of Calgary. He leads an internationally recognized research program that is pushing the boundaries of modern stroke care by using advanced image processing techniques, statistical and clinical trial methodologies and Artificial Intelligence based algorithms to develop cutting edge imaging tools and better treatment for people suffering from acute stroke.



**MICHAUD, Pierre-Carl | Département d'économie appliquée, HEC Montréal**

Pierre-Carl Michaud is recognized worldwide in the field of the economics of demographic change. He holds the Research Chair in intergenerational economics and is the Director of the Retirement and Savings Institute at HEC Montréal. In his research, he is particularly interested in questions related to health as well as personal and public finances combining dynamic programming, econometrics and microsimulation.



**NEISH, Catherine | Department of Earth Sciences, Western University**

Catherine Neish is a planetary scientist who studies the geologic processes that shape the worlds in our solar system. She is the leading expert in impact cratering on Saturn's moon Titan. Her work on the production of biological molecules on Titan's surface was one of the driving motivations for NASA's newly selected Dragonfly mission. As a Co-Investigator on that mission, she will use a quadcopter to investigate prebiotic chemistry on Titan.



**OUELLET-MORIN, Isabelle | École de criminologie, Université de Montréal**

Isabelle Ouellet-Morin is Associated Professor of criminology at the Université de Montréal, Canada Research Chair in the Developmental Origins of Vulnerability and Resilience, co-leads an accelerator for new technologies in mental health and develops mobile applications and tools to prevent victimization and promote resilience in youth. She is internationally recognized in developmental psychopathology and psychoneuroendocrinology for her research on stress mechanisms underlying the impact of childhood adversity on mental health and behaviours.



**PERREAU, Melissa | Department of Biomedical Sciences, University of Guelph**

Melissa Perreault is a citizen of the Métis Nation of Ontario and is an emerging leader in preclinical neurophysiological research. Her innovative research linking innate sex-specific brain wave patterns to stress susceptibility and resilience is laying the foundation for a transformative approach to the treatment of depression and other mental health disorders: the use of brain waves as biomarkers to identify at-risk individuals and to improve treatment assessment.



**PRADO, Carla | Department of Agricultural, Food & Nutritional Sciences, University of Alberta, University of Alberta**

Carla Prado is the Campus Alberta Innovates Program Chair in Nutrition, Food and Health at the University of Alberta. Her expertise in clinical nutrition is internationally recognized. Her research on assessing body composition and low muscle mass ignited its application in predicting health outcomes, including cancer survival. This work is changing clinical practice. She is now designing targeted nutritional strategies to optimize body composition and improve health in multiple diseases.



**ROSELLA, Laura | Dalla Lana School of Public Health, University of Toronto**

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.



**SHRAYA, Vivek | Department of English, University of Calgary**

Vivek Shraya is an artist whose body of work crosses the boundaries of music, literature, visual art, theatre, and film. Her album *Part Time Woman* was nominated for the Polaris Music Prize, and her best-selling book *I'm Afraid of Men* was heralded by Vanity Fair as "cultural rocket fuel." A seven-time Lambda Literary Award finalist, Vivek is an Assistant Professor of Creative Writing at the University of Calgary.



**SUPERNANT, Kisha | Institute of Prairie and Indigenous Archaeology, University of Alberta**

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.



**THOMPSON, Cheryl | School of Creative Industries, Ryerson University**

Cheryl Thompson is one of Canada's leading Black studies scholars. She is author of *Beauty in a Box: Detangling the Roots of Canada's Black Beauty Culture* and *Uncle: Race, Nostalgia, and the Politics of Loyalty*. She is internationally recognized as a key thinker on media and archives. Her work on blackface has broadened the scope of Canadian history, performance and theatre studies, archival and museum studies. The recipient of numerous SSHRC grants, in 2021, she won an Ontario Early Researcher Award.



**TRICCO, Andrea | Li Ka Shing Knowledge Institute, Unity Health Toronto**

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.



**van ANDERS, Sari | Department of Psychology, Queen's University**

Sari van Anders is the Canada 150 Research Chair in Social Neuroendocrinology, Sexuality, and Gender/Sex, and Professor of Psychology, Gender Studies, and Neuroscience. Her research provides novel models of gender/sex and sexual diversity, new understandings of sexual phenomena, and innovative approaches to feminist and queer neuroscience, asking hormonal questions that have evolution and social construction in their answers. She also works towards social justice and change within academia.



**VAN LIESHOUT, Ryan | Department of Psychiatry and Behavioural Neurosciences, McMaster University**

Ryan Van Lieshout's internationally recognized research has made seminal contributions to our understanding of how pregnancy and early postpartum exposures affect offspring brain development and increase the risk of psychopathology across the lifespan. His work identifying modifiable risk factors for psychiatric problems and developing interventions aimed at disrupting the intergenerational transmission of mental disorders has had a significant positive impact on the mental health of mothers and their offspring.



**VAUGHAN, Kathleen | Department of Art Education, Concordia University**

Kathleen Vaughan is professor of Art Education and Concordia University Research Chair in Art + Education for Sustainable and Just Futures. An interdisciplinary artist-educator, she collaborates with community members and university researchers to raise awareness, promote positive change and enhance sustainable making/teaching/research practices, at sites including Montreal and Iceland. Dr. Vaughan is a pioneer of research-creation methodologies, integrating oral history and visual methods into innovative works of art and scholarship.



**WEINBERG, Anna | Department of Psychology, McGill University**

Anna Weinberg is a clinical psychologist at McGill University, and the Canada Research Chair in Clinical Neuroscience. She investigates patterns of neural response that make people vulnerable to the development of depression and anxiety—two of the most common forms of illness in the world. Her work examines both how variation in these neural responses emerges (e.g., through genetic influence, or stressful experiences), and how these responses predict mental health across the lifespan.



**WILLERTH, Stephanie | Department of Mechanical Engineering, University of Victoria**

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.



**WONG, Wendy H. | Department of Political Science, University of Toronto**

Wendy H. Wong is the Canada Research Chair in Global Governance and Civil Society and Professor of Political Science at the University of Toronto. She is an internationally-recognized, award-winning scholar who adopts a unique interdisciplinary perspective to study the organizational dynamics of collective action by nongovernmental organizations (NGOs), international human rights, and emerging technologies' effect on politics and society. As Research Lead, Schwartz Reisman Institute, she is advancing human rights-based, data governance research.

## Award Winners

### **ALICE WILSON AWARD**

*For outstanding academic qualifications in the Arts and Humanities, Social Sciences or Science to women who are entering a career in scholarship or research at the postdoctoral level.*



#### **BAKER, Jacquie | Department of Cardiac Sciences, University of Calgary**

Jacquie Baker's research focuses on debilitating disorders of the autonomic nervous system; disorders uniquely positioned between cardiology and neurology. Her doctoral studies at Western University explored brain activity in Autonomic Failure patients. As a Postdoctoral Fellow at the University of Calgary, she is developing a new technique to assess autonomic activity and microvascular function within the brain and exploring a novel therapy to improve blood pressure regulation. This research will translate into cutting-edge clinical care.



#### **BLANCHET, Rosanne | Cumming School of Medicine, University of Calgary**

Registered Dietitian by training, Rosanne Blanchet completed one postdoctoral fellowship at the University of Alberta and one at the Cumming School of Medicine at the University of Calgary. She recently joined the School of Public Health at the Université de Montréal as an assistant professor. Her research examines how social determinants and policies shape nutrition and health, particularly among individuals from racial/ ethnic/cultural minority groups.



#### **GRIEVES, Leanne | Department of Biology and the School of Earth, Environment & Society, McMaster University**

Leanne Grieves is an NSERC Postdoctoral Fellow in the Department of Biology and School of Earth, Environment & Society at McMaster University in Hamilton, Ontario. Dr. Grieves was a Vanier Scholar and NSERC Gilles Brassard Doctoral Prize for Interdisciplinary Research Awardee at Western University, where she completed her Ph.D. in 2020. Dr. Grieves' research combines field and laboratory methods to study the behavioural, chemical and microbial ecology of birds.



#### **WAGNER, Sarah | Department of Sociology, University of Victoria**

Sarah Wagner is a critical ethnographer with interest in the intersections of everyday communication practices and (digital) media services. Spanning localities in Japan, Argentina, Bolivia, and western Canada, Sarah has initiated community-based projects that examine the social and civic dimensions of digitalization. At present she is working on a stakeholder-driven project that addresses the communication inequalities of long-term care residents in British Columbia.



## CENTENARY MEDAL

*For outstanding contributions to the objectives of the Society.*



### **MARRIE, Tom | Faculty of Medicine, Dalhousie University**

Tom Marrie is an internationally recognized and respected authority on infectious diseases, especially noted for contributions to the understanding and treatment of pneumonia. Dr. Marrie's investigations and insights have had a major influence on the clinical approach to diagnosing and treating pneumonia. His research has been instrumental in the identification of novel infectious disease agents that cannot be cultured using conventional laboratory methods.

## HENRY MARSHALL TORY MEDAL

*For outstanding research in any branch of astronomy, chemistry, mathematics, physics, or an allied science.*



### **MANNERS, Ian | Department of Chemistry, University of Victoria**

Ian Manners is one of the most highly prolific scientists in the world, a global leader in the fields of inorganic polymers, catalytic main group chemistry and nanoscience. He has an exceptional ability to combine the seemingly disparate areas of fundamental inorganic chemistry and material science, which has led to major advances in fundamental chemistry and exceptionally interesting new materials with a wide range of applications, from electronics to medicine.



### **VINCTER, Manuella | Department of Physics, Carleton University**

Manuella Vincter is an internationally-renowned physicist and leading expert in phenomena involving the electroweak and strong fundamental forces. Her research contributed to the discovery of the Higgs boson and consolidates the Standard-Model foundations of the Large Hadron Collider's programme. She is ATLAS Deputy Spokesperson at CERN and has been honoured with a Canada Research Chair, Killam Fellowship, and Humboldt Fellowship.

**JASON A. HANNAH MEDAL***For an important publication in the history of medicine.*

A New Field of Mind: A History of Interdisciplinarity in the Early Brain Sciences

**STAHNISCH, Frank W. | Departments of History and Community Health Sciences, University of Calgary**

Frank W. Stahnisch holds the Alberta Medical Foundation/Hannah Professorship in the History of Medicine and Health Care at the University of Calgary. His research comprises the history and philosophy of neuroscience, history of medicine and public mental health. His book *A New Field in Mind: A History of Interdisciplinarity in the Early Brain Sciences* examines the relationships between disciplines that created new epistemological and social contexts for neuroscience to evolve.

advancing innovative healthcare  
with compassion at its core*This award is made possible with the support of the Associated Medical Services Incorporated (AMS).***JOHN L. SYNGE AWARD***For outstanding research in any of the branches of the mathematical sciences.***McNICHOLAS, Paul | Department of Mathematics and Statistics, McMaster University**

Paul McNicholas is an internationally recognized leader in computational statistics research. His work is at the forefront of investigations in classification and clustering using mixture models, and he has developed important methodology covering almost every aspect of the field. He has pioneered new methods and tools to analyse large or complex datasets and collaborates with researchers from diverse disciplines to apply these approaches to difficult real data problems.

**McLAUGHLIN MEDAL***For important research of sustained excellence in medical science.***EVANS, Alan | Department of Neurology, McGill University**

Alan Evans is a world authority in computational neuroimaging, with 650+ publications and numerous prizes. He is ranked in the top 1% of highly cited international scientists in Neuroscience and Behaviour. He pioneered the use of advanced mathematical and computational techniques to study the brain's structure and function using neuroimaging, particularly in neurodevelopment and neurodegenerative disorders. He has built an international neuroinformatics network using a high-performance computing hub at McGill.

## MIROSLAW ROMANOWSKI MEDAL

*For scientific work relating to environmental problems.*



**MOHANTY, Amar | Department of Plant Agriculture and School of Engineering, University of Guelph**

Amar Mohanty is a pioneer in advanced biomaterial research with lifelong dedication to developing sustainable materials to reduce the environmental impacts of plastics. His vision in circular economy and innovation in bioproducts for mitigating climate change catalyzed ground-breaking discoveries. His transformative use of renewable resources from non-food agricultural, forestry, and post-industrial streams has led to award-winning products. His compostable packaging and 'green' automotive parts are commercially adopted in global markets.

## PIERRE CHAUVEAU MEDAL

*For a distinguished contribution to knowledge in the humanities.*



**KYMLICKA, Will | Department of Philosophy, Queen's University**

Will Kymlicka is an exceptional, prolific scholar who has made exemplary contributions to the conceptualization of multiculturalism, citizenship and animal rights. Professor and Canada Research Chair in Political Philosophy, he is amongst the top 2-3 influential political philosophers in the English-speaking world. A common thread throughout his work is the need to rethink inherited ideas of social membership and political citizenship to recognize better the genuine diversity of contemporary societies.

## RUTHERFORD MEMORIAL MEDAL IN CHEMISTRY

*For outstanding research in chemistry.*



**VETRONE, Fiorenzo | Centre Energie, Matériaux et Télécommunications, Institut national de la recherche scientifique**

Fiorenzo Vetrone has made seminal contributions to the development of luminescent rare earth doped nanomaterials. His work is internationally regarded and has led to pioneering breakthroughs in unraveling the photophysics of the upconversion at the nanoscale. His achievements also include the development of new synthetic techniques to prepare colloidal, multi-architected and hybrid nanostructured rare earth nanomaterials as well as their application in luminescence nanothermometry, drug delivery, photodynamic therapy and bioimaging.

## RUTHERFORD MEMORIAL MEDAL IN PHYSICS

*For outstanding research in physics.*



**BOVY, Jo | David A. Dunlap Department of Astronomy and Astrophysics, University of Toronto**

Jo Bovy is an internationally-recognized expert in galaxy formation and evolution and the astrophysical study of dark matter. He has made seminal contributions to our knowledge of the structure of the Milky Way and the most precise measurements of the amount and distribution of dark matter near the Sun. He is also a leading expert in the analysis of modern, large astronomical data sets and in the development of open-source code, including his widely-used galpy library for galactic dynamics.

## SIR JOHN WILLIAM DAWSON MEDAL

*For important contributions of knowledge in multiple domains.*



**POTVIN, Catherine | Département de biologie, Université McGill**

Catherine Potvin is a Professor in the Department of Biology at McGill University where she holds the Canada Research Chair on Climate Change Mitigation and Tropical Forests. Since obtaining her Ph.D. from Duke University in 1985, she has always worked on issues related to global climate change. Her research focuses on the need to reduce deforestation and forest degradation in the tropics. Interested in evidence-based policy, she served as Panama's negotiator in the U.N. Framework Convention on Climate Change and lead the Sustainable Canada Dialogues, an initiative that mobilizes 80 scholars from across Canada to propose a blueprint for Canada's transition to a low carbon economy.

## YVAN ALLAIRE MEDAL

*For outstanding contributions in governance of public and private organizations.*



**PURI, Poonam | Osgoode Hall Law School, York University**

Poonam Puri is one of the world's leading scholars of corporate governance, corporate law, securities regulation and investor protection. Her scholarship has been influential and impactful and she has been published in leading journals and presses from around the world. She has guided significant regulatory and policy reform in Canada and internationally, leading large research teams. She has shaped governance best practices of boards of public and private organizations and has been entrusted with training the next generation of governance leaders and board directors in Canada.



*This award is made possible with the support of the Institut sur la gouvernance d'organisations privées et publiques (IGOPP).*

## College Graduating Class

Members are elected to the College for a seven-year term, and 2021 will mark the graduation of the inaugural cohort. Elected in 2014, Members of the inaugural cohort were instrumental in the development and growth of the College.

**Alidad Amirfazli**, York University  
*President, 2014-2016*

**Daniel Ansari**, Western University

**Karen Bakker**, The University of British Columbia

**Roberta Barker**, Dalhousie University

**Alain Beaulieu**, Université Laval

**Kristian Behrens**, Université du Québec à Montréal

**Daniel Bernstein**, Kwantlen Polytechnic University

**Sally Bick**, University of Windsor

**Alexandre Blais**, Université de Sherbrooke

**Carrie Bourassa**, University of Saskatchewan

*Member-at-Large, 2014-2016*

**Marjorie Brand**, University of Ottawa

**Satinder Kaur Brar**, Institut national de la recherche scientifique

**Sarah Brophy**, McMaster University

**Aurélie Campana**, Université Laval

**Pascale Champagne**, Queen's University

**Aashish Clerk**, University of Chicago

**Sylvain G. Cloutier**, École de technologie supérieure

**Catherine Connelly**, McMaster University

**Jean-François Cordeau**, HEC Montréal

**Ashlee Cunsolo**, Memorial University of Newfoundland

**Michael Dawson**, St. Thomas University

**Martin Descarreaux**, Université du Québec à Trois-Rivières

**Benoît Dupont**, Université de Montréal

**Erika Dyck**, University of Saskatchewan

**Chris Eliasmith**, University of Waterloo

**Carolyn Emery**, University of Calgary

**Sarah Flicker**, York University

**Cynthia Ross Friedman**, Thompson Rivers University

**Éric George**, Université du Québec à Montréal

**David Granville**, The University of British Columbia

**Sepali Guruge**, Ryerson University

**Sheryl Hamilton**, Carleton University

**Sunny Hartwig**, University of Prince Edward Island

**Steven High**, Concordia University

**Josephine Hill**, University of Calgary

**David Hornidge**, Mount Allison University

**Andrew Iwaniuk**, University of Lethbridge

**Nathalie Jette**, University of Calgary

**Esyllt Jones**, University of Manitoba

**Susan Juby**, Vancouver Island University

**Paul Khairy**, Université de Montréal

**Kiera Ladner**, University of Manitoba

**Christian Landry**, Université Laval

**Laura Loewen**, University of Manitoba

*Secretary, 2015-2017*

**Isaac Luginaah**, Western University

**Patrick MacDonald**, University of Alberta

**Mark Mallory**, Acadia University

**Regan Mandryk**, University of Saskatchewan

**Christian Marois**, National Research Council of Canada

**Randall Martin**, Dalhousie University

**Vincent Martin**, Concordia University

**Alexandra Mazalek**, Ryerson University

**Sean McGrath**, Memorial University of Newfoundland

*Member-at-Large, 2016-2018*

**Cynthia Milton**, University of Victoria  
*President, 2016-2018*

**Amira Mittermaier**, University of Toronto

**Stuart J. Murray**, Carleton University

**Lenore Newman**, University of the Fraser Valley

**Morten Nielsen**, Queen's University

**Ryan Norris**, University of Guelph

**Valerie Oosterveld**, Western University

**Isabel Pedersen**, Ontario Tech University

**Lisa Porter**, University of Windsor

**Patrice Potvin**, Université du Québec à Montréal

**Milica Radisic**, University of Toronto

**Sheryl Reimer-Kirkham**, Trinity Western University

**David Risk**, St. Francis Xavier University

**Shayna Rosenbaum**, York University

**E. Natalie Rothman**, University of Toronto

**Jennifer Rowsell**, Brock University

**Alain Simard**, Northern Ontario School of Medicine

**Andrew Staniland**, Memorial University of Newfoundland

**Gregory Steinberg**, McMaster University

**Chloë Taylor**, University of Alberta

**Susan Tighe**, University of Waterloo

**Peter Twohig**, Saint Mary's University

**Tracy Vaillancourt**, University of Ottawa

**Robert A. Ventresca**, King's University College

*Member-at-Large, 2014-2016*

**David Vocado**, Simon Fraser University

**Dana Wessell Lightfoot**, University of Northern British Columbia

**Anne Wilson**, Wilfrid Laurier University

**Elke Winter**, University of Ottawa  
*Member-at-Large, 2016-2018*

**Ying Zheng**, Western University

## Life Members

Each year the RSC recognizes its Life Members—those who have been Fellows for 25 years. This year's Life Members are those who were elected in 1996.

**Karl Aust**, University of Toronto, Academy of Science

**Robin Barrow**, Simon Fraser University, Academy of the Arts and Humanities

**Monique Bégin**, University of Ottawa, Academy of Social Sciences

**J. Richard Bond**, University of Toronto, Academy of Science

**Keith Bradley**, University of Victoria, Academy of the Arts and Humanities

**Gilles Brassard**, Université de Montréal, Academy of Science

**Louis Cabri**, Consulting Inc., Academy of Science

**André-Pierre Contandriopoulos**, Université de Montréal, Academy of Social Sciences

**Paul Copper**, Laurentian University, Academy of Science

**Paul Corkum**, National Research Council, Academy of Science

**Regna Darnell**, Western University, Academy of Social Sciences

**Julian Davies**, The University of British Columbia, Academy of Science

**Nadia Fahmy-Eid**, Université du Québec à Montréal, Academy of the Arts and Humanities

**Thomas Flanagan**, University of Calgary, Academy of Social Sciences

**Michael Fleet**, Western University, Academy of Science

**James Franklin**, Franklin Geosciences Ltd., Academy of Science

**Paul Garfinkel**, University of Toronto, Academy of Social Sciences

**Walter Goffart**, University of Toronto, Academy of the Arts and Humanities

**Antonio Gomez-Moriana**, Simon Fraser University, Academy of the Arts and Humanities

**Michael Gray**, Dalhousie University, Academy of Science

**Yolande Grisé**, Simon Fraser University, Academy of the Arts and Humanities

**Ian Heath**, York University, Academy of Science

**Geoffrey Hinton**, University of Toronto, Academy of Science

**David Jeffrey**, Baylor University, Academy of the Arts and Humanities

**Danielle Juteau**, Université de Montréal, Academy of Social Sciences

**Musa Kamal**, McGill University, Academy of Science

**Raymond Kapral**, University of Toronto, Academy of Science

**Gary Latham**, University of Toronto, Academy of Social Sciences

**Digby Macdonald**, University of California Berkeley, Academy of Science

**Paul Magocsi**, University of Toronto, Academy of the Arts and Humanities

**Jacob Masliyah**, University of Alberta, Academy of Science

**Peter McCormick**, University of Ottawa, Academy of the Arts and Humanities

**Ira Nadel**, The University of British Columbia, Academy of the Arts and Humanities

**Jaan Noolandi**, Xerox Research Centre of Canada, Academy of Science

**Thomas Pangle**, University of Texas at Austin, Academy of Social Sciences

**Vimla Patel**, Arizona State University, Academy of Social Sciences

**Nicholas Pippenger**, Harvey Mudd College, Academy of Science

**Regula Qureshi**, University of Alberta, Academy of the Arts and Humanities

**Stephen Randall**, University of Calgary, Academy of Social Sciences

**Barry Sessle**, University of Toronto, Academy of Science

**Cyril Simard**, Société internationale des entreprises ÉCONOMUSÉE, Academy of the Arts and Humanities

**Anthony Sinclair**, The University of British Columbia, Academy of Science

**John Smol**, Queen's University, Academy of Science

**Jane Stewart**, Concordia University, Academy of Science

**Frank "Max" Taylor**, The University of British Columbia, Academy of Science

**Étienne Tiffou**, Université de Montréal, Academy of the Arts and Humanities

**Nicole Tomczak-Jaegermann**, University of Alberta, Academy of Science

**Richard Tremblay**, Université de Montréal, Academy of Social Sciences

**Dennis Vance**, University of Alberta, Academy of Science

**Christopher Webster**, University of Toronto, Academy of Social Sciences

**Mitchell Winnik**, University of Toronto, Academy of Science

**Sandra Witelson**, McMaster University, Academy of Science

**James Wuest**, Université de Montréal, Academy of Science

## *Institutional Members*

As a member-based organization, the RSC has relied historically on the annual support of individual members elected for their achievements and commitment to contribute to a better future. Since 2004, a membership category for institutions has enabled the RSC to significantly expand its structure as well as its scope of activities. This expansion now includes the RSC College; our fully renovated head offices at Walter House; and a major role with the collaborating academies of the G7 and G20 countries. Today the following organizations are Institutional Members of the Society.



*In Memoriam**"Lives Lived: 2021" visit [rsc-src.ca/en/resources](https://www.rsc-src.ca/en/resources)*

**János D. Aczél**, Elected 1971,  
University of Waterloo, Academy of  
Science (Died 2020)

**Alain Baudot**, Elected 1993, York  
University, Academy of Arts and  
Humanities

**Jonathan Borwein**, Elected 1994,  
University of Newcastle, Academy of  
Science (Died 2016)

**Laurence Bongie**, Elected 1998,  
The University of British Columbia,  
Academy of Arts and Humanities  
(Died 2020)

**Thomas Cavalier-Smith**, Elected  
1997, University of Oxford, Academy  
of Science

**Michael Collie**, Elected 1987, York  
University, Academy of Arts and  
Humanities (Died 2011)

**Leo Driedger**, Elected 1997,  
University of Manitoba, Academy of  
Social Sciences (Died 2020)

**James Eayrs**, Elected 1965,  
Dalhousie University, Academy of  
Social Sciences

**George T. Ewan**, Elected 1975,  
Queen's University, Academy of  
Science (Died 2020)

**Michael Fleet**, Elected 1996,  
Western University, Academy of  
Science (Died 2017)

**David A.I. Goring**, Elected 1970,  
McGill University, Academy of  
Science

**John Grace**, Elected 2001, The  
University of British Columbia,  
Academy of Science

**William Graham**, Elected 1987,  
University of Alberta, Academy of  
Science

**Edmond Granirer**, Elected 1975,  
The University of British Columbia,  
Academy of Science (Died 2020)

**Harold Kalant**, Elected 1981,  
University of Toronto, Academy of  
Science

**Dimitri Kitsikis**, Elected 1999,  
University of Ottawa, Academy of  
Arts and Humanities

**Krešimir Krnjević**, Elected 1975,  
McGill University, Academy of  
Science

**His Royal Highness The Prince  
Philip, Duke of Edinburgh**, Elected  
1957, Academy of Social Sciences

**Louis Nirenberg**, Elected 2011,  
New York University, Academy of  
Science (Died 2020)

**Fernand Ouellet**, Elected 1967,  
York University, Academy of Arts and  
Humanities

**Leo Panitch**, Elected 1994, York  
University, Academy of Social  
Sciences (Died 2020)

**Sharon Pollock**, Elected 2007,  
Academy of Arts and Humanities

**David Schindler**, Elected 1983,  
University of Alberta, Academy of  
Science

**Henry Schogt**, Elected 1977,  
University of Toronto, Academy of  
Arts and Humanities (Died 2020)

**Philip Seeman**, Elected 1985,  
University of Toronto, Academy of  
Science

**Louis Siminovitch**, Elected 1965,  
University of Toronto, Academy of  
Science

**Victor Snieckus**, Elected 1993,  
Queen's University, Academy of  
Science (Died 2020)

**Thomas H. B. Symons**, Elected  
1977, Trent University, Academy of  
Arts and Humanities

**Stephen Tobe**, Elected 1987,  
University of Toronto, Academy of  
Science (Died 2020)

**James Kay Graham Watson**,  
Elected 1990, National Research  
Council Canada, Academy of  
Science (Died 2020)

**Zena Werb**, Elected 2020,  
University of California, San  
Francisco, Academy of Science  
(Died 2020)

**Françoise Winnik**, Elected 2016,  
Université de Montréal, Academy of  
Science

**Mark Zanna**, Elected 1999,  
University of Waterloo, Academy of  
Social Sciences (Died 2020)



## COVID-19 Working Groups

The RSC COVID-19 Task Force established a series of Working Groups mandated to develop Policy Briefings. Policy Briefings are intended (i) to contribute to framing public discourse on urgent issues and, (ii) to ensure that decision makers have peer-reviewed evidence bases to inform their work.

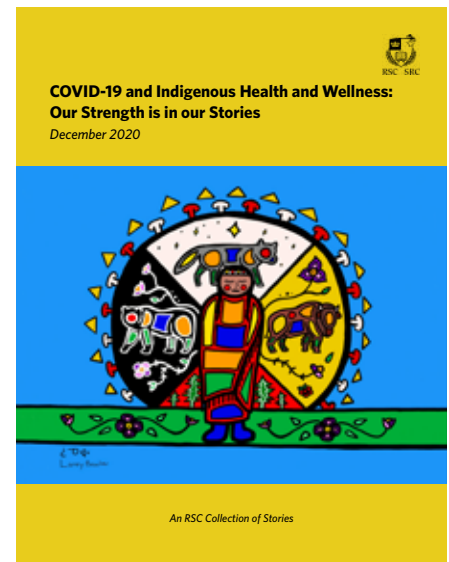
	<b>COVID-19 and Indigenous Health and Wellness: Our Strength is in our Stories</b> <i>December 2020</i>		<b>Supporting Canada's COVID-19 Resilience and Recovery Through Robust Immigration Policy Programs</b> <i>March 2021</i>
	<b>Renewing the Social Contract: Economic Recover in Canada from COVID-19</b> <i>December 2020</i>		<b>Investing in a Better Future: Higher Education and Post-COVID Canada</b> <i>March 2021</i>
	<b>Correctional Services During and Beyond COVID-19</b> <i>January 2021</i>		<b>Enhancing COVID-19 Vaccine Acceptance in Canada</b> <i>April 2021</i>
	<b>The Epidemiology of COVID-19 in Canada in 2020: The Pre-Vaccine Era</b> <i>February 2021</i>		<b>Impacts of COVID-19 in Racialized Communities</b> <i>May 2021</i>
	<b>Seeking Shelter: Homelessness and COVID-19</b> <i>February 2021</i>		<b>Time to be Counted: COVID-19 and Intellectual and Developmental Disabilities</b> <i>June 2021</i>
	<b>Engaging Creatives: Art in the Pandemic</b> <i>February 2021</i>		<b>Caught in the Currents: Evaluating the Evidence for Common Downstream Police Response Interventions in Calls Involving Persons with Mental Illness</b> <i>June 2021</i>
	<b>Remembering is a Form of Honouring: Preserving the COVID-19 Archival Record</b> <i>February 2021</i>		<b>Excess All-Cause Mortality During the COVID-19 Epidemic in Canada</b> <i>June 2021</i>
	<b>The Limits of Our Knowledge: Tracking the Size and Scope of Police Involvement with Persons with Mental Illness</b> <i>March 2021</i>		<b>Impact of COVID-19 on Language and Literacy in Canada</b> <i>August 2021</i>
	<b>Beyond the COVID-19 Crisis: Building on Lost Opportunities in the History of Public Health</b> <i>March 2021</i>		<b>Children and Schools During COVID-19 and Beyond: Engagement and Connection Through Opportunity</b> <i>August 2021</i>

## COVID-19 and Indigenous Health and Wellness: Our Strength is in our Stories | December 2020

This Report, “COVID-19 and Indigenous health and wellness: Our strength is in our stories” is written as a collection of stories. As Indigenous scholars, practitioners and learners, we offer this writing to support an improved understanding about how COVID-19 is impacting the health and wellness of Indigenous peoples. We do so in a way that emphasizes the *relational* and *holistic* nature of Indigenous health and wellness; Indigenous health and wellness reflects an inter-relationship between humans and the natural world, and this inter-relatedness extends to mental, emotional, physical, and spiritual domains. Thus, our relationships are key to survival, strength, and ultimately, living well.

Due in large part to our relational understanding of health, combined with a shared experience of colonialism, Indigenous experiences of COVID-19 are indeed unique within the broader Canadian experience and health impact. We share our stories—with our vulnerabilities and learning laid bare—as a means of humanizing COVID-19 to the broader research and policy community. We take this approach to call attention to the dearth of Indigenous-specific COVID-19 data, but also as an expression of our self-determination to share our knowledge in a way that is meaningful to us as Indigenous scholars, practitioners and learners. Our communities have much at stake, and we bear important responsibilities to protect them now and in the future.

[Read the full report online.](#)

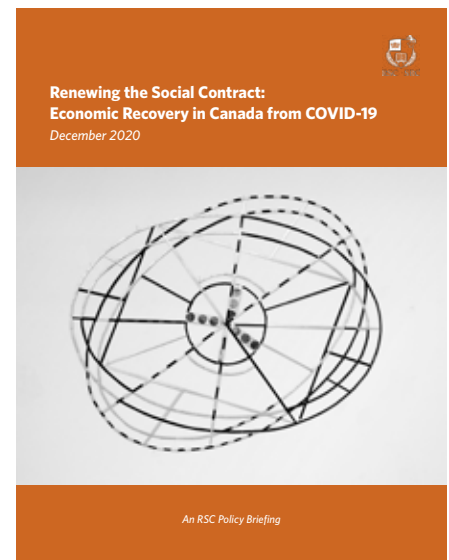


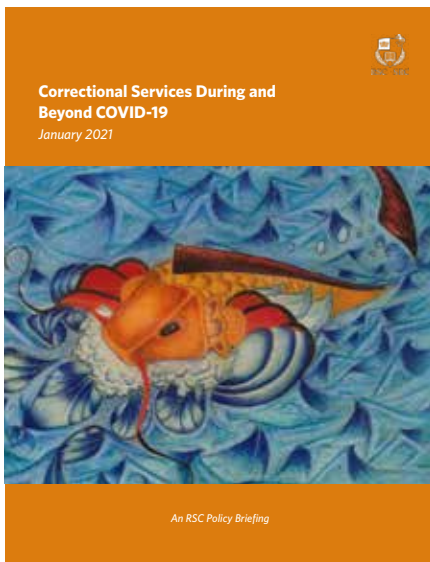
## Renewing the Social Contract: Economic Recover in Canada from COVID-19 | December 2020

COVID-19 has exposed the inadequacy of Canada’s crisis response infrastructure and policies. But it has exposed much broader and deeper systemic problems that flow from how we have chosen to organize our society. We have discovered the scale and depth of the Canadian precariat—those individuals and households who live with combinations of insecure income with little or no savings to rely on, employment, housing and residency which make for a profoundly and relentlessly insecure life. COVID-19 has shown us how the unintended creation of the precariat, through decades-long pursuit of lower labour costs, has created a large pool of individuals who simply cannot afford to follow policies that are essential for the good of society. COVID-19 has exposed the reality that our society and economy are two sides of the same coin.

COVID-19 has also demonstrated that previously unthinkable policies can be implemented, both nationally and globally. Over the first six months of 2020, the global economy was essentially paused. Those who have argued that incrementalism is the only feasible strategy for addressing even society’s most pressing issues, have been proved wrong. Massive investment will be required for Canada to recover from this crisis and with that massive investment comes the opportunity to think carefully and ambitiously about the Canada we want our children and grandchildren to inherit.

[Read the full report online.](#)



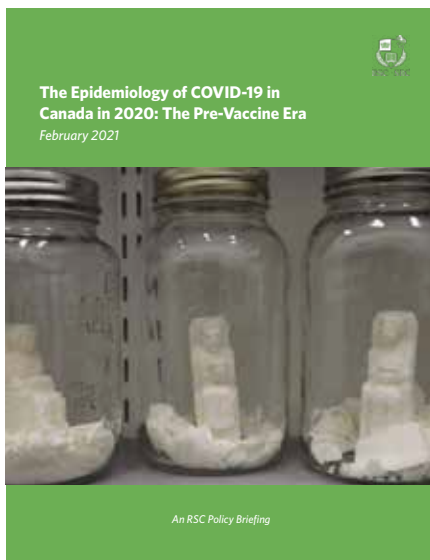


## Correctional Services During and Beyond COVID-19 | January 2021

Correctional services, both institutional and within the community, are significantly impacted by COVID-19. The COVID-19 pandemic has shown those living and working in correctional facilities are particularly susceptible to exposure to potential contagions. Canadian correctional institutions, like prisons in many other countries, are affected by high population turnover, “overcrowding and restricted movement, inaccessible or poor health care, [...] high prevalence of chronic disease and comorbidity, and an aging custodial population [which] exacerbate [...] risks” and fears of contagion among staff, officers, and incarcerated persons (Pyrooz, Labrecque, Tostlebe, & Useem, 2020np; see also Akiyama, Spaulding, & Rich, 2020; Maruschak, Berzofsky, & Unangst, 2015; Novisky, 2018). The pandemic also poses acute challenges and agonizing decisions for correctional administrators whose responsibilities now include challenges imposed by the COVID-19 pandemic, as well

for those working in community correctional service as they work to support the re-entry experiences of formerly incarcerated individuals.

[Read the full report online.](#)



## The Epidemiology of COVID-19 in Canada in 2020: The Pre-Vaccine Era | February 2021

A novel coronavirus, now known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was first identified in Wuhan, China in late December 2019. Coronavirus disease 2019 (COVID-19), caused by SARS-CoV-2, predominantly manifests as pneumonia, however, COVID-19 can also present with an array of extrapulmonary signs and symptoms.(1) In this document we will describe the epidemiology—the study of disease incidence, distribution and control—of COVID-19 in Canada as of late 2020. We will explore the timeline, distribution and determinants of SARS-CoV-2 transmission within Canada as well as describe Canada’s public health response to COVID-19 within various sectors and populations including Canadian workplaces; healthcare settings including long-term care; and school settings. Our current understanding of the epidemiology of COVID-19 continues to evolve, and this summary, written in late 2020, prior to availability of vaccines for COVID-19 prevention, reflects

information available as of November 30, 2020. It should be acknowledged that the epidemiology will continue to evolve over the weeks and months that follow.

[Read the full report online.](#)

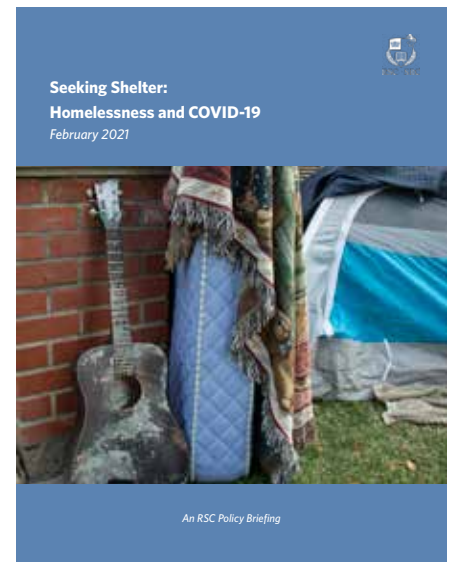
## Seeking Shelter: Homelessness and COVID-19 | February 2021

Those experiencing homelessness in Canada are impacted inequitably due to their increased exposure, vulnerability of environment and medical comorbidities, and their lack of access to preventive care and treatment in the context of the pandemic. In shelter environments one is unable to effectively physically distance, maintain hygiene, obtain a test or isolate. As a result, unique strategies are required for this population to protect them and those who serve them.

The recommendations provided in this Policy Brief are intended to reduce or prevent further negative consequences from the COVID-19 pandemic for people experiencing homelessness. This brief can also be applied to other rapidly emergent acute respiratory infections.

These recommendations recognize the need for short term interventions to mitigate the immediate risk to this community, including coordination of response, appropriate precautions and protective equipment, reducing congestion, cohorting, testing, case and contact management strategies, dealing with outbreaks, isolation centres and immunization. Longer-term recommendations are also provided with a view to ending homelessness by addressing the root causes of homelessness and by the provision of adequate subsidized and supportive housing through a Housing First strategy.

[Read the full report online.](#)



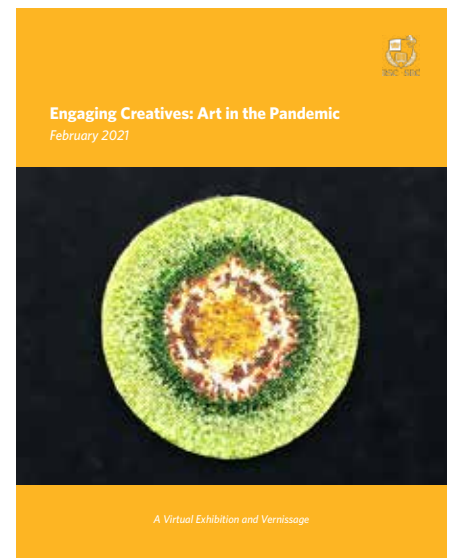
## Engaging Creatives: Art in the Pandemic | February 2021

Given the important role that art and creative research can play in responding to, and helping us understand, the complex issues that have arisen out of the pandemic, the RSC has also created a COVID-19 Working Group to integrate and underscore artistic and other creative responses to this crisis. As part of this initiative, this website was developed to exhibit and host creative work in a wide range of disciplines and forms, including music, sound, literature, visual art, theater, performance and media arts, as well as academic writing on the place of creative work in relation to pandemics in both a historic and contemporary context.

The site is intended to have several functions, including acting as a place to experience creative research related to COVID-19, creating an archive to document this cultural moment, and offering an opportunity to explore new creative practices.

The lived experience of illness and of coping with a pandemic can be difficult to articulate as well as difficult to process. It is vital for artists and other creative researchers to work alongside other disciplines to help explore the full impact this crisis is having on our society. The anxiety, fear, and uncertainty that this crisis has produced is having very real impacts on how Canada responds to COVID-19 – influencing public policy decisions and attitudes towards science and healthcare.

[View the gallery online.](#)





## Remembering is a Form of Honouring: Preserving the COVID-19 Archival Record | February 2021

COVID-19 presents an opportunity to preserve a rich and diverse historical record—one intended to honour all experiences and voices, and in recognition of ongoing systemic inequalities shaping the pandemic. But policy changes are necessary in three key areas: how memory institutions are funded and supported; the gaps in our capacity to preserve the digital records that reflect how we communicate with one another today; and how to preserve and make accessible valuable scholarly research into the societal impact of COVID-19. Our goal is to begin a conversation about priorities for archival preservation, the need for greater equity and justice in our preservation practices, and ways to safeguard the existence of historical records that will allow us in future to bear witness, with fairness and truth and in a spirit of reconciliation, to our society's response to COVID-19.

[Read the full report online.](#)



## The Limits of Our Knowledge: Tracking the Size and Scope of Police Involvement with Persons with Mental Illness | March 2021

Following protests of police involvement in several high-profile deaths of individuals experiencing a mental health crisis, a number of Canadian individuals and groups have advocated in response for various policy positions—ranging from enhanced police training and new policing programs to reallocating police funding to healthcare and social work groups and, in some instances, outright abolishment of public police. Consistently lacking from much of the public discourse is a thorough understanding of the myriad of ways in which policing intersects with mental health issues, the prevalence of mental health issues within police calls for service, the nature of interactions between persons with mental illness (PMI) and police, and the unique challenges in this area facing Indigenous communities in Canada.

The purpose of the present working paper is to begin to flesh out those areas in which we have some knowledge of this topic, as well as identify key areas in which little is known. The structure of this working paper is as follows. First, we speak to the challenges researchers face in trying to use existing data sources to develop estimates of the size and scope of mental health-related demands upon police. Then, we begin to explore the various intersections of policing and mental health. Where possible, we use police figures to highlight the volume of service calls for different types of interactions. Third, we look at previous attempts by researchers at estimating the overall prevalence of mental health-related calls in policing, noting both the strengths and limitations of previous work.

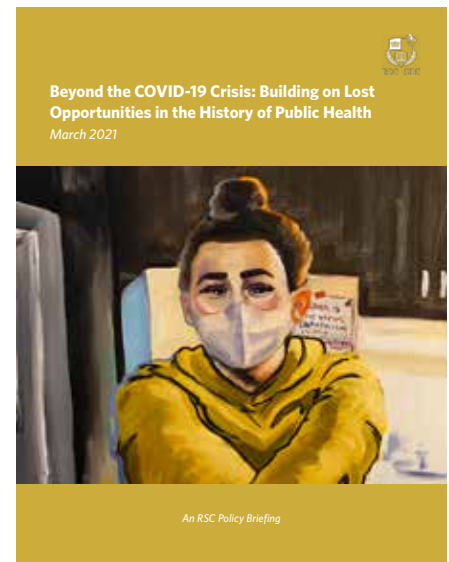
[Read the full report online.](#)

## Beyond the COVID-19 Crisis: Building on Lost Opportunities in the History of Public Health | March 2021

The influenza pandemic of 1918-1920, which killed 50,000 Canadians, spurred the creation of a federal department of public health. But in the intervening century, public health at all levels has remained, as Marc Lalonde put it in 1988, the “poor cousin” in the health care system. (Lalonde 1988, p.77) Punctuated by sporadic investment during infectious disease crises, such as polio in the early 1950s, public health is less of a priority as the cost of tertiary health interventions rises. While public health potentially involves a broad range of interventions, this paper focuses on the history of public health interventions around infectious disease.

COVID-19 has forced us to re-learn the importance of maintaining basic infectious/communicable disease control capacity, and revealed the cost of our failure to do so. It has also drawn our attention to the intersection between social inequality, racism and colonialism, and vulnerability to disease. In addition to investing in our capacity to contain disease outbreaks as they occur, we must plan now for how to achieve greater health equity in the future, by addressing underlying economic and social conditions, and providing meaningful access to preventive care for all. This is how we build a truly resilient society.

[Read the full report online.](#)

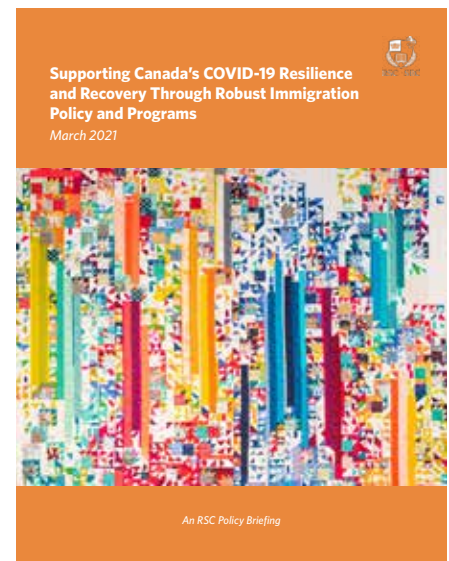


## Supporting Canada's COVID-19 Resilience and Recovery Through Robust Immigration Policy and Programs | March 2021

Canada has been seen globally as a leader in immigration and integration policies and programs, and as an attractive and welcoming country for immigrants, refugees, temporary foreign workers, and international students. The COVID-19 pandemic has revealed some of the strengths of Canada's immigration system, as well as some of the fault lines that have been developing and have deepened over the last few years. In this briefing, we provide an overview of Canada's immigration system prior to the pandemic, and the policies and programs in place to support immigrant selection, settlement, and integration. We then discuss the system's vulnerabilities as revealed by the pandemic, and explore a post-COVID-19 immigration vision.

Canada's immigration process has been highly selective, garnering support from the Canadian public for its strong focus on highly skilled immigrants and the economic contributions they can make, while overlooking the fact that many temporary foreign workers in Canada who are deemed low-skilled are in fact involved in essential work. Canada has created a bifurcated migration system with high-skilled migrants becoming permanent residents, and migrants deemed lower-skilled becoming permanently temporary. Yet as the pandemic has revealed, many temporary foreign workers, including agricultural workers, are essential to the functioning of our economy and the food security of our country.

[Read the full report online.](#)





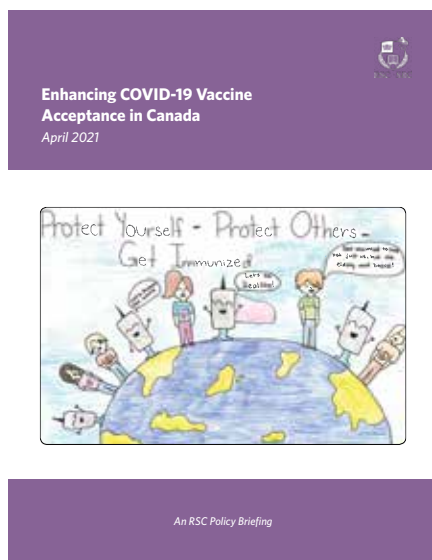
## Investing in a Better Future: Higher Education and Post-COVID Canada | March 2021

Post-secondary education (PSE) is a vital part of civil society and any modern economy. When broadly accessible, it can enable socioeconomic mobility, improve health outcomes, advance social cohesion, and support a highly skilled workforce. It yields public benefits not only in improved well-being and economic prosperity, but also in reduced costs in healthcare and social services. Canada also relies heavily on the PSE sector for research.

During the COVID-19 pandemic, despite all of the disruptions the pandemic has caused, PSE has maintained educational programs, contributed research to the pandemic response and other critical areas, and provided experts for myriad science tables, task forces, and committees key to public health and government decision-making. While we applaud the hard work and commitment of faculty, staff, and students,

we must also recognize that the pandemic effort has stretched already strained PSE resources and people even further. The cost of this cannot be ignored. It is critical to support PSE's recovery so that it can continue to support Canada's pandemic recovery, maintain Canada's global position in research and international education, and continue to advance national interests in vital areas such as climate change, reconciliation, and information literacy.

**[Read the full report online.](#)**



## Enhancing COVID-19 Vaccine Acceptance in Canada | April 2021

COVID-19 vaccine acceptance (the intent to receive a vaccine i.e. attitude not a behaviour) exists on a continuum ranging from a small minority of people who strongly oppose vaccination, through the heterogeneous 'vaccine-hesitant' or the 'moveable middle' group with varying levels of concern and uncertainty, to the majority who are willing to be vaccinated but may not turn their intention into action. However, vaccine acceptance varies over time as personal decisions may be influenced by many factors. These include (i) knowledge, attitudes, cultural and religious beliefs; (ii) the communication environment including social networks; (iii) the rate of COVID-19 in a community, and (iv) the organization of health and community services and policies. Therefore to engage and empower people to make informed choices about COVID-19 vaccines, we need carefully designed interventions tailored to community needs and concerns that build trust in health authorities and those delivering

vaccines, as well as promote acceptance.

The Royal Society of Canada (RSC) Working Group on COVID-19 Vaccine Acceptance has developed a COVID-19 Vaccine Acceptance Framework, inspired by the one prepared by Hasnan and Tan and with the World Health Assembly's Immunization Agenda 2030 goal of leaving no one behind.

**[Read the full report online.](#)**

## Impacts of COVID-19 in Racialized Communities | May 2021

COVID-19 has shown us that it knows more about ourselves as a society than we admit. The disproportionate effects of COVID-19 on Black, Indigenous and racialized populations is revealing in many ways. The great urgency for change lies bare at the tentacles of anti-Black racism. John Hopkins University, Coronavirus Resource Center highlights that as of October 18, 2020, there have been more than 1.1 million deaths worldwide; the U.S has the highest mortality rate at nearly 220,000 deaths and Brazil second at more than 153,000 deaths.

One in 1,125 Black Americans has died (or 88.4 deaths per 100,000), 1 in 1,375 Indigenous Americans has died (or 73.2 deaths per 100,000), and 1 in 2,450 White Americans has died (or 40.4 deaths per 100,000), according to APM Research Lab. Meanwhile, in Canada, the federal government does not collect race-based data, and only recently have some provinces, such as Ontario, started to do so. Black community groups, such as Alliance for Healthier Communities, have been rallying for race-based data collection in order to disaggregate the data not only for accountability but for the health and safety of marginalized people. It is only by clusters of COVID-19 in highly concentrated marginalized communities that we can deduce its impact. Hence, the range of data that we examine is from the U.S. Canada's failure to collect race-based data is symptomatic of an ongoing denial and complacency of anti-Black racism.

[Read the full report online.](#)



## Time to be Counted: COVID-19 and Intellectual and Developmental Disabilities | June 2021

The COVID-19 pandemic has impacted the lives and well-being of all people globally, with consequences being observed across all domains from physical and mental health to education and employment outcomes, to access to community supports and services. However, the disproportionate impact of the COVID-19 pandemic and its associated public health restrictions on individuals with intellectual and developmental disabilities (IDD) has largely been overlooked. Not only do people with IDD have a greater risk of severe complications and death from the virus as shown in large scale studies, but they also face significant short- and long-term consequences of COVID-related public health measures on their mental health and well-being.

At a time when this vulnerable population is already feeling undervalued, ignored, and forgotten, it is imperative that the risks facing adults and children with IDD – as well as their families and caregivers - are recognized, valued, and addressed through a disability-inclusive approach to Canada's pandemic policy response planning. This requires both a mainstreaming of disability inclusion into all COVID-19 response and recovery policies as well as disability-specific policies to address the unique barriers and challenges encountered by people with IDD during the pandemic. The recommendations in this policy briefing aim to achieve a more inclusive, accessible, and sustainable Canada for people with IDD both during and after the pandemic – an approach that will result in benefits for all of society.

[Read the full report online.](#)





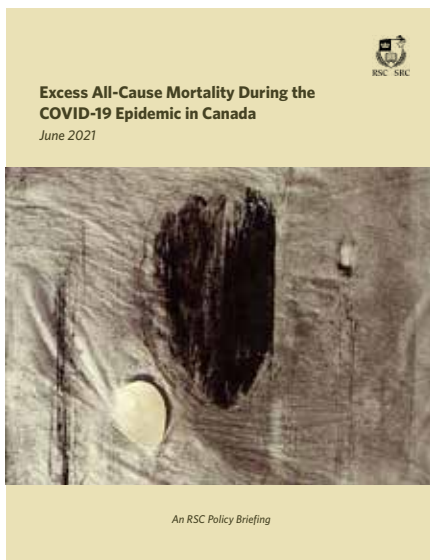


## Caught in the Currents: Evaluating the Evidence for Common Downstream Police Response Interventions in Calls Involving Persons with Mental Illness | June 2021

In the wake of several high-profile cases involving deaths in police custody of persons with mental illness (PMIs), there has been significant public interest in police reform in this area. Much of this interest, and the resulting demands for change, is couched in the language of public health. Mental illness is seen as a health condition in which social determinants—that is, those economic, cultural, environmental, institutional, and other factors that can influence health outcomes—can function as supports or barriers to well-being. In this language, the metaphor of a stream or river is invoked in order to visualize where appropriate responses to mental health conditions should lie. ‘Upstream’ solutions are those programs, practices, policies, or other innovations that address factors which are limiting or preventing individual and community access to healthcare treatment. An example of an ‘upstream’ initiative might be a community-

based outreach program aimed at moving mentally ill, homeless citizens into secure housing and treatment. Such approaches are contrasted with ‘downstream’ initiatives, which often entail programs or practices to respond to individuals who, lacking healthcare access and/or other necessary supports, are now in immediate crisis.

[Read the full report online.](#)



## Excess All-Cause Mortality During the COVID-19 Epidemic in Canada | June 2021

It is widely assumed that 80 per cent of Canada’s deaths due to COVID-19 occurred among older adult residents of long-term care homes, a proportion double the 40-per-cent average of peer countries in the Organisation for Economic Co-operation and Development (OECD). But an in-depth analysis of all deaths that have so far been reported across Canada during the pandemic casts doubt on this estimate. It reveals evidence that at least two thirds of the deaths caused by COVID-19 in communities outside of the long-term care sector may have been missed.

Between February 1 and November 28, 2020, our study finds that the COVID-19 deaths of approximately 6,000 people aged 45 and older living in communities across Canada appear to have gone undetected, unreported or unattributed to COVID-19. This suggests that if Canada has continued to miss these fatalities at the same rate since last November,

the pandemic mortality burden may be two times higher than reported.

Our conclusion is based on an examination of the best available reports of excess deaths across Canada, the pattern of COVID-19 fatalities during the pandemic, cremation data showing a significant spike in at-home versus hospital deaths in 2020 and antibody surveillance testing that collectively unmasked the likely broad scope of undetected COVID-19 infections.

[Read the full report online.](#)

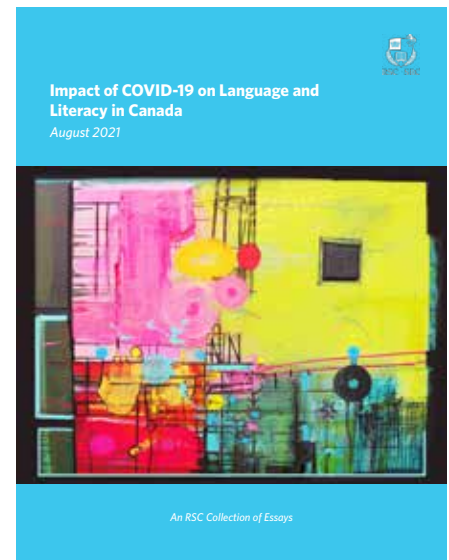
## Impact of COVID-19 on Language and Literacy in Canada | August 2021

One of the most significant achievements of a young baby's life is the emerging ability to understand and use language to communicate. Language is an inherently social phenomenon—its meaning and power stem from how it is used by members of a community to convey thoughts, ideas, feelings, and to identify tangible elements in the environment. Due to the inherently social nature of language, children rely on information provided by parents to learn the words and rules of their native language.

In older children, youth, and adults, we tend to think of language in the context of an even broader term, literacy. While broader definitions of literacy are sometimes used to indicate fluency in the use of the many skills needed to succeed in society, in this report, unless specifically noted, we define literacy as a person's ability to read and write. Early literacy is linked to better educational attainment levels, improved employment opportunities, and increased earning potential. Moreover, early literacy paves the way for adult literacy later.

Over the past year, the COVID-19 pandemic has impacted the lives and well-being of individuals and communities all over the world. The series of papers collected in this report explore and review the impact of the pandemic on various aspects of language and literacy development.

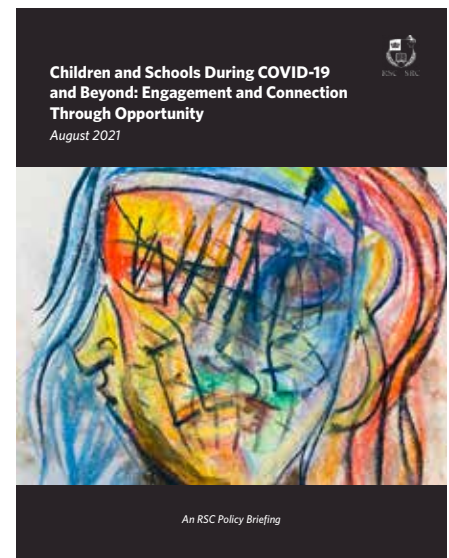
[Read the full report online.](#)



## Children and Schools During COVID-19 and Beyond: Engagement and Connection Through Opportunity | August 2021

Over the past eighteen months, the pandemic has not only claimed the lives of millions world-wide, it has also upended nearly every public and private institution around the globe. Healthcare and long-term care were hit especially hard, but so were school systems, with over 90% percent of the world's 1.6 billion students (along with their caregivers and educators) impacted by school closures. In Canada, all provincial and territorial schools were closed for extended periods at some point during the pandemic, the longest being in Ontario where children and youth were out for more than half of the 2020-2021 academic year. Educators and school boards adapted to the unprecedented disruptions in education, developing multiple models of educational provisions, including fully remote online learning and blended learning programs for children and youth who could not attend school in person. Parents and other caregivers, many of whom were lacking necessary resources, also shouldered the weight of supporting their children's learning during the pandemic. Despite these valiant efforts, these variations in versions of learning developed urgently at a time of crisis, were experienced by 5.7 million Canadian children and youth who were dealing with numerous challenges, with far-reaching and potentially long-lasting consequences.

[Read the full report online.](#)



## *Academic Freedom & Responsibility*

### *Topical Focus Working Group Members*

Pierre Anctil

Dean Eurich

Len Findlay, Chair

Rhoda Howard-Hassmann

Robert Leckey

Jill Vickers

In the summer of 2021, the Royal Society of Canada's Committee on Public Engagement struck a Topical Focus Working Group to study and reflect on Academic Freedom and Responsibility. The group will report over the course of 2022.

### **Working Group Charge**

Fundamental questions regarding the role of the university in contemporary society crystallize around what constitutes academic freedom. While this notion is arguably meant to protect a safe space of critique of or dissent from state or corporate control, the university is increasingly dependent on both sectors for the resources it needs to function, expected to produce economically productive citizens, and offer the central avenue for social mobility in a stratified society—all of which imbricate it in the very interests it is meant to be free to critique.

The notion of academic freedom is also meant to protect a safe space of knowledge production, understood as a process separable from immediate social, economic or political interests or conditions. This understanding has been destabilized as we increasingly see knowledge production as a situated, political, social construction—with the inevitable result of requiring debate over what should count as legitimate knowledge and why. To the extent to which the university did indeed democratize in the period following WWII, it has increased the diversity of stakeholders, and therefore of voices and positions and interests in defining legitimate knowledge.

The university is a participant in contemporary reckonings with the violences of colonialism and capitalism, past and present, especially as linked to a wide variety of patterns of domination, including systemic racism and patriarchy. This leads to questions about the university as a legitimate and privileged space of knowledge production, as a source indeed of authorization, or what we might call “expertise”.

Somewhere, then, the notion of a space safe for dissent encounters the notion of a space capable of exerting a violence of its own, as we try to hold in one frame the ideas of academic freedom, human dignity and equity of access to resources.

The aim of this TFWG is: 1) to articulate the core elements of what these debates have in common: what the core issues are; 2) to summarize key elements of major perspectives on these issues; 3) to provide a set of principles and goals which might be useful as a guide to thinking through specific cases. At the same time, TFWG members will be requested to refine this charge and develop their own approach to responding to it.

Outputs: The TFWG is expected to prepare a document or a series of documents for public release, but the group is free to determine the form, the target audience, and authorship. Ideally, certain outputs will be available for the 2021 COEE.

## G7 Statements

### *Reversing biodiversity loss – the case for urgent action*

This statement has been created by the Science Academies of the Group of Seven (G7) nations. It represents the Academies' view on the magnitude of biodiversity decline and the urgent action required to halt and reverse this trend. The Academies call on G7 nations to work collaboratively to integrate the multiple values of biodiversity into decision-making, and to pursue cross-sectoral solutions that address the biodiversity, climate and other linked crises in a coordinated manner.

*Read the full statement online.*

### *Data for international health emergencies: governance, operations and skills*

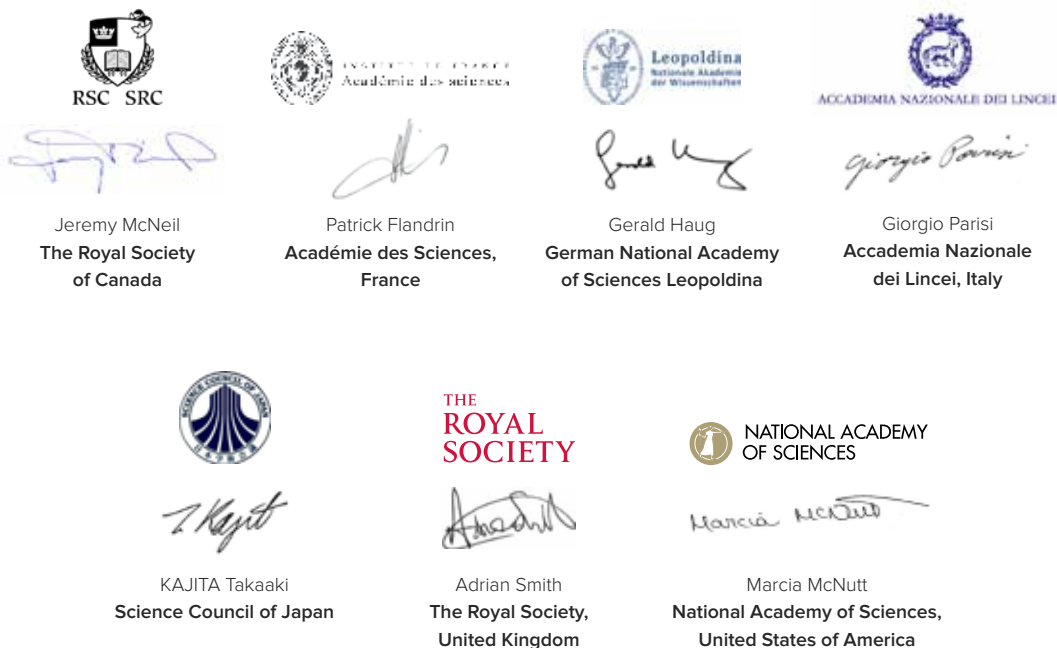
This Statement has been created by the Science Academies of the Group of Seven (G7) nations. It represents the Academies' view on the need for the G7 countries to realise a better level of 'data readiness' for future health emergencies.

*Read the full statement online.*

### *A net zero climate-resilient future – science, technology and the solutions for change*

This Statement has been created by the Science Academies of the Group of Seven (G7) nations. It represents the Academies' view on the need for the G7 countries to anticipate the risks associated with climate change, face the transition that this requires, carefully design, plan and accelerate action to reach net zero by 2050 or earlier. We invite those countries to deploy technologies and nature-based solutions that are available now and to invest in research and innovation to address the outstanding challenges. All nations of the world must work in partnership: science is a global endeavour and the last year, more than any other, has demonstrated the power of global science.

*Read the full statement online.*



## G20 Statements

### *Pandemic preparedness and the role of science*

Based on consideration by the Scientific Academies of the G20 countries of how the experience of the response to COVID-19 might inform pandemic preparedness in the future, the governments of G20 are urged to undertake the following actions:

1. Promote the creation of a global network of surveillance, with agreed criteria
2. Promote the distributed manufacture and delivery of diagnostics, drugs, vaccines, medical supplies and equipment
3. Launch an Intergovernmental Convention

*Read the full statement online.*

### *Crises: economy, society, law, and culture – Towards a less vulnerable humankind*

The current COVID-19 pandemic, and systemic crises such as climate change, reveal deep-seated structural fragilities and criticalities in the material and cultural spheres of world societies. However, crises entail opportunities if they induce awareness of the challenges confronting humankind as a whole and stimulate the transformations needed to achieve less vulnerable societies. This statement focuses on present-day fragilities and challenges and aims to highlight and strengthen the role of coordination between local, national, and international actors to increase resilience at a global scale.

*Read the full statement online.*



# How to Support the RSC

## *Opportunities for Giving*

The Royal Society of Canada is a Charitable Organization, (Charitable Reg. #10793 5991 RR0001). Donations and Sponsorships from both private and corporate entities enable the Royal Society of Canada to pursue its core mission and mandate.

## *Annual Fund*

The Annual Fund enables the RSC to enhance programmes and activities to achieve the objectives of the strategic plan.

## *Walter House*

The headquarters of the RSC is funded exclusively by the membership. Support for the home of the membership enables our heritage home to serve as a convening hub.

## *Planned Giving Options*

For individuals interested in legacy giving please contact us.

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## *Financial Statements*

The RSC's fiscal year runs from July 1 to June 30. The Financial Statements have been prepared in accordance with Canadian accounting standards for not-for-profit organizations and audited annually by Deloitte. The financial statements are available online at <https://rsc-src.ca/en/resources>.



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