

Global Excellence Initiative

Annual Report 2020



Universities Canada.

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Executive Summary

Canadians should be proud of the research being conducted at our universities and research institutes. From understanding the effects of loss of biodiversity to reviving lyrics penned by Holocaust victims, from unlocking the mysteries of the universe to unlocking the mysteries of cells and disease, Canadian researchers are providing insights and solutions to some of the world's biggest challenges and greatest questions. And in 2020, 23 researchers at Canadian institutions received international recognition for their work, earning prizes as diverse as the Sloan Research Fellowship, the BBVA Foundation Frontiers of Knowledge Award, and the Nobel Prize. This recognition increases Canadians' understanding of the impact and importance of research and secures our position as a research and innovation leader.

While we do not yet truly understand the full impacts of the pandemic on the Canadian research community, the Global Excellence Initiative continued to support an increasing number of nominations for prestigious international prizes in 2020. The number of requests for review and the number of dossiers successfully reviewed increased from the previous year, continuing a trend that began in 2017. Six of the 23 prize recipients submitted their dossiers for review, the highest number yet.

Thanks to the backing of our partner organizations, the Global Excellence Initiative has continued to provide support to researchers since 2013. In 2020, the Rideau Hall Foundation joined the partnership, allowing GEI to support an even larger number of Canadian researchers at all stages of their careers, and to promote award-winning researchers nationally and internationally. This new partnership provides additional supports to researchers who can benefit most from our services and those in historically underrepresented groups: early-career, women, and BIPOC researchers. By supporting researchers at all career stages, in all fields, and from large and small institutions alike, we are 'building a pipeline' to maximize their success in

pursuing national and international recognition. When our researchers succeed, Canada succeeds. We look to 2021 encouraged by the progress we have made and enthusiastic about what's to come.

The work of the initiative is possible thanks to the backing of our partner organizations:

- the Canada Foundation for Innovation (CFI)
- the Canadian Institutes for Health Research (CIHR)
- the National Research Council Canada (NRC)
- the Natural Sciences and Engineering Research Council (NSERC)
- the Rideau Hall Foundation, and
- the Social Sciences and Humanities Research Council (SSHRC)

















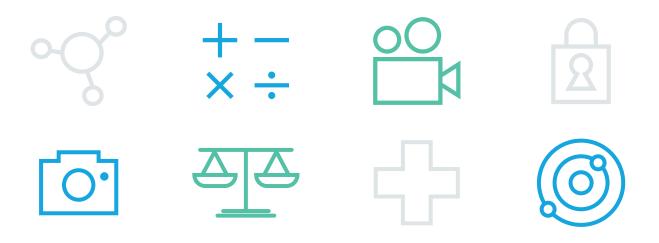
Objectives of the Global Excellence Initiative

The Global Excellence Initiative promotes the recognition of the contributions made by Canadian researchers both nationally and internationally. The goal of the initiative is to boost Canada's research profile on the global stage while celebrating Canadian researchers who have received globally benchmarked prizes. To this end, the number of international research prizes received by Canadians has increased, as has awareness, at home and abroad, of Canada's research excellence.

The Global Excellence Initiative focuses on:

Increasing Canadians' Increasing global Increasing the awareness of the awareness of number of national contributions of Canadian research and international leading Canadian excellence, research prizes researchers and augmenting won by Canadian inspire young Canada's visibility Canadians to pursue researchers and as a top location promote a culture academic studies and for study and careers in research of excellence research

See Appendix A for a detailed history of the Global Excellence Initiative.





GEI Recognized by Community Leaders A new partnership with the Rideau Hall Foundation

Since 2013, a growing number of organizations have recognized the value provided by the Global Excellence Initiative to researchers at Canadian institutions. Thanks to their support, the initiative has increased capacity and grown awareness of services offered within the Canadian research community. On December 3, 2020, Universities Canada and the Rideau Hall Foundation announced a new partnership to support the Global Excellence Initiative. The Rideau Hall Foundation and its founder and Chair, the Right Honourable David Johnston, 28th Governor General of Canada, recognize the pivotal role the initiative plays in supporting Canadian researchers as they pursue prestigious prizes and awards.

Thanks to this new partnership, Canadian researchers now have added support in their efforts to apply for and receive career-boosting national awards. The Global Excellence Initiative has expanded its mandate to include more than 40 national prizes and fellowships, including granting council awards and medals, Royal Society of Canada medals, Killam Prizes, and Governor General's Awards.

Prize winners, reviewers, and adjudicators have told us that national prizes are important to a researcher's standing on the global stage. To be considered for major international awards, researchers often must have received national honors. By broadening our scope to include prestigious national prizes, the Global Excellence Initiative will assist early- and mid-career researchers in their individual paths to recognition. The initiative will also support a more diverse group of candidates - notably from underrepresented groups such as women, Black, Indigenous and researchers of colour — at all stages of their careers.

In conjunction with the announcement, the Rt. Hon. David Johnston and Paul Davidson, president, Universities Canada wrote a joint op-ed published on December 3, 2020 by McLean's. The piece highlights the strengths of the Canadian research landscape in the context of Canada's response to COVID-19 and in a post-pandemic recovery. Mr. Johnston and Mr. Davidson remind us that our research strength has greater value than new discoveries and solutions - it also helps build diversity and inclusion on our campuses, in our labs, and throughout the research ecosystem. And this provides even greater strength, and a competitive advantage.

To honour the awards and prizes staff at Canadian universities and research institutes. Mr. Johnston and Mr. Davidson hosted a virtual event on December 16, 2020 to celebrate those people who work behind the scenes to ensure the recognition of Canadian researchers at home and internationally. More than 35 participants joined the

event and learned about the expansion of the initiative during the session. The event generated increased awareness of the initiative by universities and research institutes, many of whom have inquired about the additional services provided by the Global Excellence Initiative.

The partnership with the Rideau Hall Foundation will also allow the Global Excellence Initiative to offer webinars throughout 2021 to provide additional support to researchers. Events will focus on topics of interest to researchers and awards and prizes staff, including effective communication to non-content experts, and how to write op-eds for non-academic publications.

The Rideau Hall Foundation's support of the Global Excellence Initiative will allow for continued growth and expanded support to researchers at Canadian institutions as they gain the national and international recognition they so richly deserve.



A Year in Review

The full impacts of COVID-19 on Canadian researchers' productivity, engagement, and advancement are not yet known. Anecdotal evidence suggests that while all researchers were impacted, not all researchers were impacted equally. Early- and mid-career researchers (those with young families impacted by daycare and school closures and those responsible for care of elder relatives) were the most heavily impacted. Many researchers affected by these forces chose not to pursue prize nominations due to the additional work required in preparing documents, and many potential reviewers contacted by the Initiative indicated they would have provided reviews but for the additional burdens caused by the pandemic.

The Global Excellence Initiative will continue to monitor trends to understand the longer-lasting impacts of the pandemic on researchers' careers; this may lead to consultations with the Canvassing Committee members, researchers, and prizes and awards staff to determine additional supports provided by GEI.

GEI: 2020 BY THE NUMBERS

Despite the conditions imposed by the pandemic, 2020 saw a significant increase in the number of dossiers submitted to the Global Excellence Initiative for external review from the previous year, continuing a trend that began in 2017. Equally encouraging, the number of dossiers reviewed and the number dossiers reviewed by more than one reviewer also increased year over year. Continuing the trend, more institutions participated than in previous years, including 10 members of the U15. Thanks to the support of our funders, the initiative was able to provide uninterrupted support to researchers at Canadian institutions in 2020.

The Global Excellence Initiative received 59 requests for review in 2020, an increase of almost 30% from 2019 and more than 100% increase since 2018.

Six of the 23 recipients of international prizes in 2020 submitted their dossiers to GEI for review and received feedback that helped strengthen their nominations and increase their chances of success.

Gilles Brassard, professor, Université de Montréal, won the prestigious BBVA Foundation Frontiers of Knowledge Award in Basic Sciences in 2020, after submitting his nomination for external review. Professor Brassard previously received the Wolf Prize in Physics (2018), and attributes his success for each of these prizes to feedback he received, and incorporated, through the GEI review process.

AS OF DECEMBER 31, 2020

Advised of request	59
Declined to proceed	12
Not reviewed	1
Reviewed	46
1 reviewer per dossier	6
2 or more reviewers	40
Nominator requested	1
Female nominees	22 (37%)
Male nominees	37 (63%)

AS OF DECEMBER 31, 2019

Advised of request	43
Declined to proceed	6
Not reviewed	5
Reviewed	32
1 reviewer per dossier	11
2 or more reviewers	21
Nominator requested	3
Female nominees	16 (37%)
Male nominees	27 (63%)

AS OF DECEMBER 31, 2018

Advised of request	28
Declined to proceed	5
Not reviewed	6
Reviewed	17
1 reviewer per dossier	10
2 or more reviewers	7
Female nominees	11 (36%)
Male nominees	17 (64%)



INSTITUTIONS 2020 (15)

Carleton University *	3
University of Guelph *	2
Université Laval *	1
University of Manitoba	3
McGill University	14
Memorial University of Newfoundland	1
Université de Montréal	1
NRC	3
Univeristy of Ottawa	3
Queen's University	4
Université de Sherbrooke	2
University of Toronto	8
Western University	11
University of Victoria	2
York University *	1
	59

* New in 2020

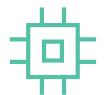
INSTITUTIONS 2019 (12)

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Concordia University	1
McGill University	19
McMaster University *	1
NRC*	1
Queen's University	5
Université de Montréal *	1
Université de Sherbrooke	1
University of Manitoba	5
University of Ottawa	2
University of Toronto *	1
University of Victoria *	3
Western University	3
	43

^{*} New in 2019

INSTITUTIONS 2018 (8)

Concordia University	1
McGill University	15
Queen's University	3
Université de Sherbrooke	1
University of Manitoba	2
University of Ottawa	1
Simon Fraser University	3
Western University	2
	28









A DECEMBER SOCIAL MEDIA CAMPAIGN

Universities Canada organized a targeted social media campaign on December 10, 2020 to celebrate Dr. Houghton's receiving the Nobel Prize medal. High profile Canadians, including two recent Canadian Nobel laureates, Dr. Art McDonald and Dr. Donna Strickland, offered their congratulations to Dr. Houghton in videos shared on Twitter. The 12 posts from Universities Canada and the Global Excellence Initiative garnered over 24,000 impressions and engagement from notable Canadians such as Prime Minister Justin Trudeau and Minister Navdeep Bains (Industry, Science, and Economic Development).



2020: A banner year for Canadian researchers

2020 saw 23 researchers at Canadian institutions receive international recognition for their work and advancements across a broad spectrum of fields, from arts to medicine, from history to mathematics, from astronomy to social sciences. The range of prizes received, by early-career to well-established researchers, showcases the depth and breadth of Canadian research and its impact on the global stage. The full list of recipients is available on page 9.

Amongst the 23 winners is Dr. Michael Houghton, Director of Li Ka Shing Applied Virology Institute (LKSAVI) and Professor, Department of Medical Microbiology & Immunology (University of Alberta) recipient of the 2020 Nobel Prize in Physiology or Medicine. With his collaborators, Drs. Harvey Alter and Charles Rice, Dr. Houghton discovered the hepatitis C virus, leading to improved blood safety and hepatitis C treatment. Dr. Houghton joined the University of Alberta in 2010, drawn in part by the support offered to researchers and the strength of Canada's research ecosystem. Members of the Global Excellence Initiative's Canvassing Committee were honoured to support Dr. Houghton's nomination for the Nobel Prize in Physiology or Medicine and were pleased to see his work recognized with this highest of honours.











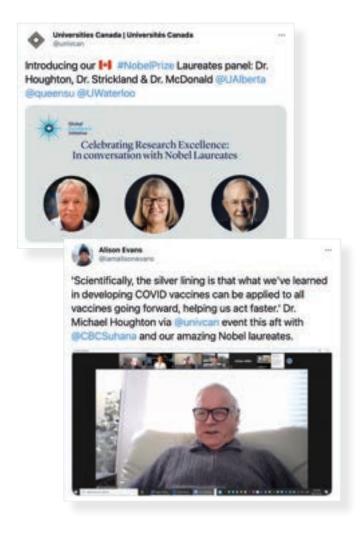
CANADIAN RECIPIENTS OF INTERNATIONAL PRIZES AND AWARDS

Recipient	Institution	Award/Prize
Brassard, Gilles **	Université de Montréal	BBVA Foundation Frontiers of Knowledge Award in Basic Sciences
Brook, Taylor		Guggenheim Fellowship (Creative Arts - Music Composition)
Caron-Huot, Simon **	McGill University	Sloan Research Fellowship in Physics
Cherry, John	University of Guelph	Stockholm Water Prize
Dong, Ruobing	University of Victoria	Sloan Research Fellowship in Physics
Drucker, Daniel	University of Toronto	Warren Alpert Foundation Prize
Dyzenhaus, David	University of Toronto	Guggenheim Fellowship in Social Sciences - Law
Grier, James	Western University	Guggenheim Fellowship - Music Research
Hložek, Renée	Univeristy of Toronto	Sloan Research Fellowship in Physics
Houghton, Michael	University of Alberta	Nobel Prize in Physiology or Medicine
Kremen, Claire	The University of British Columbia	Volvo Environment Prize
Liu, Adrian **	McGill University	Sloan Research Fellowship in Physics
Marois, Christian **	National Research Council of Canada	Guggenheim Fellowship - Astronomy and Astrophysics
Muehlmann, Shaylih Ryan	The University of British Columbia	Guggenheim Fellowship - Anthropology and Cultural Studies
Pauly, Daniel	The University of British Columbia	BBVA Foundation Frontiers of Knowledge Award in Ecology and Conservation Biology
Rochman, Chelsea	University of Toronto	Sloan Research Fellowship in Ocean Sciences
Shternshis, Anna	University of Toronto	Guggenheim Fellowship - European and Latin American History
Stephan, Douglas **	University of Toronto	Guggenheim Fellowship - Chemistry
Sunday, Jennifer **	McGill University	Sloan Research Fellowship in Ocean Sciences
Towell, Larry		Guggenheim Fellowship - Photography
Varma, Ila	University of Toronto	Sloan Research Fellowship in Mathematics
Walsh, Shannon	The University of British Columbia	Guggenheim Fellowship - Film & Video
Zatorre, Robert	McGill University	C.L. de Carvalho-Heineken Prize in Cognitive Sciences

^{**} submitted dossier and received review

Celebrating Research Excellence: In conversation with Nobel Laureates

The 23 winners of international prizes in 2020 are profiled on Universities Canada's website and in the publication, "Canadian excellence, global recognition", launched on March 3, 2021 by Mr. David Johnston, 28th Governor General of Canada and founder of the Global Excellence Initiaitve. Co-hosted by His Excellence Urban Ahlin, Ambassador of Sweden to Canada and Paul Davidson. president, Universities Canada, the virtual gathering, "Celebrating Research Excellence: In conversation with Nobel Laureates" featured three of Canada's most recent Nobel laureates: Dr. Arthur McDonald (Nobel Prize in Physics, 2015), Dr. Donna Strickland (Nobel Prize in Physics, 2018) and Dr. Michael Houghton (Nobel Prize in Physiology or Medicine, 2020). Moderator Suhana Meharchand (CBC News anchor) led the laureates on an insightful and inspiring hour-long conversation, discussing how the COVID-19 pandemic has impacted public perception of research in Canada, and what are the biggest challenges for Canadian researchers in the years to come. The laureates also answered participants' questions, as varied as what actions can be taken to engage and retain women and researchers from under-represented groups, and the impact of artificial intelligence and quantum computing on future research. Attended by more than 160 participants, the event reinforced the importance of a robust research ecosystem on future research and the role interdisciplinarity will play as Canadians continue to search for solutions to our greatest challenges.







Conclusion

In a year when the importance of research was highlighted by the race for vaccines against a global pandemic, Canadians should be proud of the work being done at universities and research institutions across the country. As Mr. Johnston and Mr. Davidson wrote in their op-ed published online by McLean's.

"At a time of crisis, countries look to their strengths. We ask ourselves how we can build upon and leverage our assets to get through something as destructive to our physical, mental and economic well-being as the COVID-19 pandemic. In Canada, we are fortunate to have many strengths. High on that list, and perhaps most relevant to our response to COVID-19 and our post-pandemic recovery, is our outstanding research and innovation talent.

Signs of this strength are all around us. Among them are the major international research awards bestowed upon top Canadian scientists every year. We like to look at that list, and read these stories, to gauge Canada's position as an international leader in research innovation. The 2020 list is impressive."

Since 2013, thanks to the support of our funders, the Global Excellence Initiative has proudly supported and promoted Canadian researchers as they attain the global recognition they deserve. The initiative offers its services to researchers across all fields and all disciplines, who strive to make sense of the unknown and discover solutions that benefit Canadians and the global population. Researchers and institutional administrators recognize the value the initiative offers, requesting dossier review in increasingly greater numbers every year, and receiving valuable feedback that not only improves nominations but increases chances for success. Of the 23 researchers who received international prizes in 2020, six submitted their dossiers for external review and incorporated the feedback received - the highest number yet.

But there is more work to be done. The diversity of our population and the research community is not adequately represented in our nominations for national or international prizes. The Canvassing Committee has reiterated its commitment to the principals of equity, diversity, and inclusion in its scouting and nomination recommendations to institutional leadership, as well as the composition of the committee itself. And we must continue to encourage the nomination of non-traditional researchers and actively

seek to support and promote researchers who have not yet received the spotlight they deserve.

The partnership with the Rideau Hall Foundation will allow the Global Excellence Initiative to offer broader supports to, and to a larger cross-section of, researchers at Canadian institutions. Early-career and BIPOC researchers will benefit from the external review of dossiers for prestigious national prizes, which will help them as they advance in their careers and provide a foundation as they seek international recognition. This partnership ensures that Canada is building a support network for all researchers at our institutions, regardless of career-stage, and offers a community of support larger than any researcher's individual network.

As Mr. Johnston likes to say, "Canada punches above its weight in research and innovation". And with the support of our funding partners, the Global Excellence Initiative is honoured to play an important role in ensuring that our researchers receive their richly deserved accolades.

The work of the Global Excellence Initiative is made possible thanks to the support of our partner organizations:







Conseil national de recherches Canada







Conseil de recherches en sciences humaines



Appendix A: More Information on the **Global Excellence Initiative**

BACKGROUND

While Canada has a strong record of research achievements, relatively few Canadians have received high recognition internationally for their contributions. The Right Honourable David Johnston, 28th Governor General of Canada, recognized the need for a proactive strategy to identify candidates for international awards and prizes. In 2012, he launched the Global Excellence Initiative to promote the recognition of the contributions made by Canadian researchers, both nationally and internationally. He recruited leaders from civil society, academia and government to identify, support and promote Canadian researchers in all fields of study and across all disciplines.

The initiative is supported by a number of partners including the Canada Foundation for Innovation (CFI), the Canadian Institutes for Health Research (CIHR), Innovation, the National Research Council Canada (NRC), the Natural Sciences and Engineering Research Council of Canada (NSERC), the Rideau Hall Foundation, and the Social Sciences and Humanities Research Council (SSHRC).

Universities Canada assumed the stewardship of the initiative upon the end of Mr. Johnston's term, on October 1, 2017. With this change, support to the committees, coordination of the external review process of nominations for international prizes, and promotion of winners of these international awards have been centralized and streamlined.

GOVERNANCE

The initiative is guided by the work of three committees:

The Champions Group, a steering and advisory committee, is made up of the heads of the granting councils, the Canada Foundation for Innovation, the National Research Council Canada, and leaders from civil society and government representatives. This group is chaired by Paul Davidson, president of Universities Canada.

The current membership of the Champions Group:

- Alejandro Adem, President, Natural Sciences and Engineering Research Council of Canada
- Howard Alper, Distinguished Professor, University of Ottawa and Chair, Canvassing Committee
- Mitch Davies, President, National Research Council Canada
- The Honourable Elizabeth Dowdeswell, Lieutenant Governor of Ontario
- John Hannaford, Deputy Minister, International Trade, Global Affairs Canada
- Brent Herbert-Copley, Executive Vice-President, Social Sciences and Humanities Research Council
- The Right Honourable David Johnston, 28th Governor General of Canada, and Chair, Rideau Hall Foundation; Honourary Chair, Champions Group
- Jeremy McNeil, President, Royal Society of Canada
- Bernard Miller, Counsel, McInnis Cooper (representing the Killam Trusts)
- Roseann O'Reilly Runte, President, Canada Foundation for Innovation
- Janet Rossant, President and Scientific Director, The Gairdner Foundation
- Michael Strong, President, Canadian Institutes of Health Research



The Canvassing Committee is comprised of former Canadian university presidents, established and earlycareer researchers, and leaders from civil society. This committee is chaired by Howard Alper, past chair, Science, Technology and Innovation Council (STIC) and distinguished professor, University of Ottawa. The role of this committee is to identify potential benefactors of this program and recommend to the leader of the candidate's institution that the candidate be nominated for a specific award. The Committee is dedicated to supporting the candidate and their institution throughout the application process.

- Catherine Beaudry, Professor, Canada Research Chair in Creation, Development and Commercialization of Innovation, Polytechnique Montreal
- Colin Dodds, Former President, Saint Mary's University
- Aleeza Gerstein, Assistant Professor, University of Manitoba
- Dennis Hall, Professor and Canada Research Chair in Boron Chemistry for Catalysis and Drug Discovery, University of Alberta
- Cheryl Misak, University Professor, University of Toronto
- Robert Prichard, Chair, Torys LLP
- Roderick McInnes, Professor, department of biochemistry, McGill University and director, Lady Davis Research Institute
- Rémi Quirion, Chief Scientist of Québec
- Molly Shoichet, Professor and Canada Research Chair in Tissue Engineering, University of Toronto
- Juan Luis Suarez, Professor, Western University
- Louis Taillefer, Professor and Canada Research Chair in Quantum Materials, Université de Sherbrooke

A third group, Corresponding Members is composed of Canadian expats in various fields of research and study. This group will be asked, from time to time, to provide advice on Canadian researchers working abroad who should be nominated for international prizes and awards, and to promote Canadian researchers and research within their international networks.

Corresponding Members:

- Robert Birgeneau, Arnold and Barbara Silverman Distinguished Professor of Physics, Materials Science and Engineering, and Public Policy, University of California at Berkeley
- Irene Bloemraad, Professor and Thomas Garden Barnes Chair of Canadian Studies & Director of the Berkeley Interdisciplinary Migration Initiative, University of California at Berkley
- Michele Lamont, Director of WCFIA; Robert I. Goldman Professor of European Studies; Professor of Sociology and AAAS, Harvard University
- Margaret MacMillan, Honorary Fellow and Former Warden, St. Antony's College, University of Oxford
- Michael Spence, Philip H. Knight Professor and Dean, **Emeritus, Stanford Graduate School of Business**

















PROCESS

While identifying candidates for prestigious international and national awards and prizes is the first step in increasing the number of prizes received by Canadian researchers, support throughout the nomination process is crucial to success.

Building on the known strengths of peer review, the external review of nominations for international prizes is a process that allows for constructive comments and feedback from experts in the field of study covered by the award, with the aim of strengthening the nomination and increasing chances of success. Reviewers are selected from a pool of Canadian and international, high-profile individuals who have been successful in obtaining international awards and prizes. Reviews are anonymous and conducted in confidence, unless the reviewer expresses interest in self-identifying to the nominee and nominating institution.

Universities Canada coordinates the external review of draft nomination packages from submitting institutions and serves as the liaison between nominating institutions (and their nominees), and the reviewers offering valuable feedback. The external review process operates in the following manner:

6 weeks to deadline: dossier forthcoming List of potential reviewers prepared 3 weeks to deadline: dossier submitted Dossier to reviewers 10 days to deadline: feedback from reviewers to nominating institution Modifications to dossier as desired Nomination deadline







