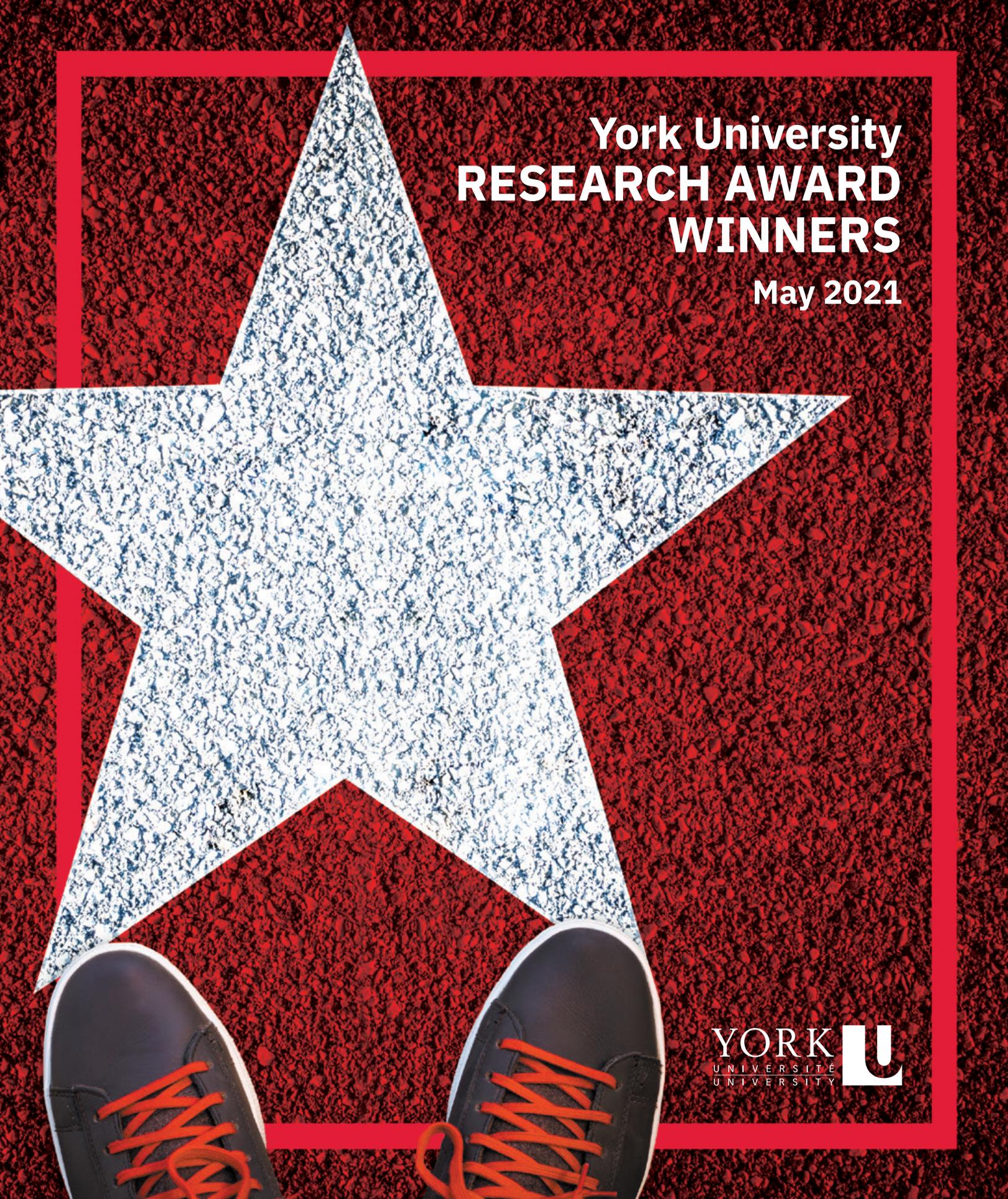


York University
RESEARCH AWARD
WINNERS

May 2021





Turtis
Lecture Halls

125 Campus Walk



A Message from President & Vice-Chancellor **Rhonda L. Lenton** and Vice-President Research & Innovation **Amir Asif**

It is with great pleasure that we acknowledge the 2020 York University Research Award Winners and congratulate them on their remarkable achievements.

York is a dynamic, research-intensive University that is committed to enhancing the well-being of the communities we serve. We believe in the power of using research, scholarship, creativity, education and dialogue to create social and economic impact. We combine innovative scholarship, discovery and artistic creation with renowned strengths in community-engaged and industry-partnered research to address complex social, economic, environmental and health issues like climate change, inequality and the pandemic.

Building on our strength and expertise in sustainability, disaster and emergency management, health and health governance, artificial intelligence, social justice and beyond, we have identified five areas of opportunity to further accelerate our research growth and success: (1) digital cultures; (2) healthy individuals, healthy communities and global health; (3) Indigenous futurities; (4) integration of artificial intelligence into society; and (5) public engagement for a just and sustainable world. The researchers highlighted within these pages have produced groundbreaking discoveries in these areas of opportunity and others to advance our understanding of the world and drive positive change in our local and global communities.

On behalf of everyone in the York community, we would like to extend our warmest congratulations to this year's Research Award Winners, and our sincerest appreciation to all of our researchers and scholars for their continued commitment to excellence.

Sincerely,

Rhonda L. Lenton
President & Vice-Chancellor
York University

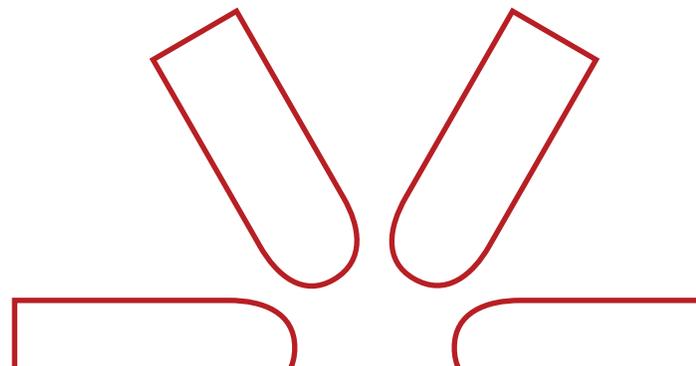
Amir Asif
Vice-President Research & Innovation
York University



Rhonda L. Lenton
President & Vice-Chancellor
York University



Amir Asif
Vice-President Research & Innovation
York University



The background is a solid red color. It features several white-outlined geometric shapes, including rounded rectangles and elongated ovals, arranged in a pattern that suggests a stylized '5' or a cluster of five elements. The text is centered in the upper half of the page.

**FIVE
RESEARCH
OPPORTUNITIES**
to Further Accelerate
Research Growth and Success



Digital Cultures



**Healthy Individuals, Healthy
Communities and Global Health**



**Integration of Artificial Intelligence (AI)
into Society**



Indigenous Futurities



**Public Engagement for a
Just and Sustainable World**



**York University
RESEARCH AWARDS
WINNERS 2020**



Research Award Winners 2020



ALI ABDUL-SATER, Faculty of Health, was awarded the **York Research Chair** in the Regulatory Mechanisms of Inflammation. He is interested in identifying novel regulators of inflammation and understanding how these regulators control immunity and the inflammatory response. He is pursuing several avenues of research: the roles of the protein TRAF1 in controlling inflammatory and autoimmune diseases; the role of Type I interferons (proteins made in response to the presence of viruses) in bacterial and viral responses; and how exercise regulates the immune response.



HARRIS ALI, Faculty of Liberal Arts & Professional Studies, is acknowledged for winning a grant from the Canadian Institutes of Health Research (CIHR), as part of **CIHR's Rapid Research Funding Opportunity**. This was for his project: "COVID-19's Informational Virus: Analyzing the Vital Character and Effects of Social Media Misinformation." His areas of research interest include disaster research, environmental sociology, environmental health, and the social and political dimensions of infectious disease outbreaks. He is currently conducting research on Ebola in sub-Saharan Africa.



BENJAMIN L. BERGER, Osgoode Hall Law School, was elected as a Member to the **Royal Society of Canada** (College of New Scholars, Artists and Scientists). His research focuses on law and religion, and constitutional and criminal law and theory. York Research Chair in Pluralism and Public Law, Berger is internationally recognized for his scholarship exposing the complex nature of secularism, the limits of state law and the implications of both for religious pluralism, equality and constitutionalism. His work has shaped debates on the role of public law in diverse societies.



SHEILA COLLA, Faculty of Environmental and Urban Change, was bestowed the **York Research Chair** in Interdisciplinary Conservation Science. She is an ecologist using scientific principles to address real-world conservation issues. Her research focuses on the conservation of lesser understood native species such as bees, butterflies and flowering plants. She works closely with environmental NGOs, landowners, academic partners and government agencies to implement conservation management based on the best available science. She wants her research to inform relevant environmental and agricultural policy.



ALEKSANDER CZEKANSKI, Lassonde School of Engineering, was awarded funding from the Natural Sciences and Engineering Research Council of Canada (NSERC) via the **CREATE Program**. His project, AM-EDGE, will establish a strong training and research network in advanced manufacturing in collaboration with industry, government, academic institutions and outreach programs. It will benefit industry, academia and, more broadly, Canadian society. Czekanski holds the Canada NSERC/Quanser Chair in Design Engineering for Innovation. He was also the founding director of the York Centre for Automotive Research.



MICHAEL DALY, Lassonde School of Engineering, was bestowed the **York Research Chair** in Planetary Science in recognition of his outstanding contribution to space-flight instrumentation research at York. He has spent his career working on various types of instrumentation. He has worked in the areas of magnetics, ultrasonics and laser optics prior to finding his way into space instrumentation and planetary science. Daly is also acknowledged for his role in **NASA's OSIRIS-Rex mission** to the near-Earth asteroid Bennu that will return Canada's first sample of material from another solar system body.

Research Award Winners 2020



SIGNA DAUM SHANKS, Osgoode Hall Law School, received the Women’s Law Association of Ontario **2020 President’s Award** for her leadership; for demonstrating a commitment to the promotion of women in the law; and for being engaged, aware and connected to issues facing women in the legal profession. Daum Shanks joined Osgoode’s full-time faculty in 2014. She teaches torts, law and economics, game theory and the law, Indigenous peoples and Canadian law, and Comparative Indigenous Legal Traditions. She is Osgoode’s inaugural Director of Indigenous Outreach.



JAMES ELDER, Lassonde School of Engineering and Faculty of Health, is acknowledged for securing a major grant from the **Canada Foundation for Innovation** for his project, “Agile AI-Powered Autonomous Robotics for COVID-19 Disinfection.” Here, fully autonomous, robotic solutions driven by Artificial Intelligence use recent advances in Ultraviolet-C (UV-C) technology. This kind of light is known to be effective for surface disinfection against pathogens such as COVID-19. Elder holds the York Research Chair in Human and Computer Vision. He is a core member of Vision: Science to Applications (VISTA).



ILIJAS FARAH, Faculty of Science, was bestowed a **York Research Chair** in Foundations of Operator Algebras. Farah singlehandedly developed the field of the applications of logic to operator algebras, revealing deep and unexpected connections between the foundations of mathematics and some of the most concrete and ubiquitous mathematical objects. A top researcher in both of these hitherto unrelated subjects, he was invited to speak at the International Congress of Mathematicians in 2014 – a York first. His monograph “Combinatorial set theory of C^* -algebras” was published in 2019 in the *Springer Monographs in Mathematics* series.



LISA FARLEY, Faculty of Education, earned the **2020 Outstanding Book Award** from the American Educational Research Association (Division B, Curriculum Studies) for her book, *Childhood Beyond Pathology: A Psychoanalytic Study of Development and Diagnosis* (State University of New York Press, 2018). In the book she draws on psychoanalytic concepts to critique linear constructions of development and to highlight the elusive qualities of inner life. Farley's research considers the uses of psychoanalysis in conceptualizing dilemmas of representing history, pedagogy and childhood.



SARAH FLICKER, Faculty of Environmental and Urban Change, was bestowed the **York Research Chair** in Community-Based Participatory Research. She is an expert in community development, health promotion and adolescent well-being. Flicker's innovative program of research focuses on the engagement of youth and other allied actors in environmental, sexual and reproductive justice. She is active on a variety of research teams that focus on adolescent sexual and reproductive health, and responding to gender-based violence in Canada and South Africa. She works across methodologies using participatory approaches for social change.



STEPHEN GAETZ, Faculty of Education, was awarded the **York Research Chair** in Homelessness and Research Impact. He is the director of the Canadian Observatory on Homelessness, the Homeless Hub and Making the Shift – Youth Homelessness Social Innovation Lab. Gaetz has a long-standing interest in understanding homelessness – its causes, how it is experienced and potential solutions. His work is defined by his desire to 'make research matter' through operating in collaboration with partners to conduct and mobilize research to have an impact on policy and practice.





One of York University's opportunities to further accelerate research growth and success:

Digital Cultures

Today's digital revolution is driven by a set of rapid and distinctive technological, economic and socio-cultural developments that will continue in the early 21st century. York, a recognized leader in this area, will build on our influence in technological and cultural developments. Researchers will continue to promote critical discourse in digital media art, while through the BRAIN (Big Data Research, Analytics and Information Network) Alliance, they will create new access to the analysis and visualization of big data. Working with key partners, we will strengthen the industry-academic partnerships in the cultural and entertainment sectors. There is both tremendous need and opportunity for research in the digital world at the intersection of the arts, sciences, law and engineering. This vital work will push technological boundaries while critically investigating the digital revolution's social, cultural and legal impacts and the ways in which this is shaping and changing human activity and interaction.

Research Award Winners 2020



HENRIETTE GEZUNDHAJT,

Glendon, received the Minister of Colleges and Universities' **Award of Excellence** for her contributions during the pandemic and, more specifically, her support to Glendon students and colleagues with the transition to distance learning. Not only did Gezundhajt create more than 35 video tutorials to assist in this transition, but she also translated York's Going Remote website. Gezundhajt, a course director and lecturer in the Department of French Studies, demonstrates an exemplary concern for professional life in French within Ontario.



JOEL GOLDBERG, Faculty of Health, was named a Fellow of the **Canadian Psychological Association.**

He has had a long and distinguished career of service to the profession of psychology and to the public, and he continues to make visible the important role of psychology and psychologists in the community at large. His clinical and research interests surround stigma and mental illness, psychological assessment, cognitive therapy for psychosis, and rehabilitation and cognition in schizophrenia. He served on the Canadian Psychiatric Association working group that developed the Canadian Clinical Practice Guidelines for Schizophrenia.



DASANTILA GOLEMI-KOTRA,

Faculty of Science, received the Minister of Colleges and Universities' **Award of Excellence** for her contribution, as a microbiologist and "germ expert," to the pandemic. She is a leading researcher on viral and bacterial infections. Since the outbreak of COVID-19, Golemi-Kotra has expertly guided Canadians looking to get through the pandemic safely, offering advice on how to effectively clean and sanitize homes and workplaces, correctly use personal protective equipment and take necessary safety precautions when out in the community.



JOHN GREYSON, School of the Arts, Media, Performance & Design, was elected as a Fellow to the **Royal Society of Canada** (Academy of the Arts & Humanities, Division of Arts). He is a video/film artist and a pioneer of the new Queer cinema. Since 1984, his features, shorts and installations have explored such queer activist issues as police violence, prison, AIDS and apartheid. Titles such as *International Dawn Chorus Day* (2021), *Fig Trees* (2009), *Lilies* (1996) and *Zero Patience* (1993) have received over 60 awards, including three Berlinale Teddies and five Canadian Screen Awards.

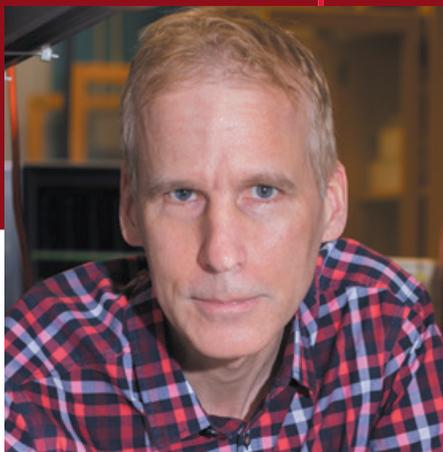


EVE HAQUE, Faculty of Liberal Arts & Professional Studies, was awarded the **York Research Chair** in Linguistic Diversity and Community Vitality. Her research and teaching interests include multiculturalism, white settler colonialism and language policy, with a focus on the regulation and representation of racialized groups in white settler societies. Her current research focuses on the recognition and language rights of non-official language communities in Canada. She is also the author of *Multiculturalism Within a Bilingual Framework: Language, Race and Belonging in Canada* (University of Toronto Press, 2012).



JANE HEFFERNAN, Faculty of Science, is acknowledged for winning a grant from the **National Research Council** for her project “Mathematical Modeling of Sars-Cov-2 Life Cycle and Covid-19 Vaccine.” Heffernan leads the Modelling Infection and Immunity Lab at York. Her research centers on understanding the spread and persistence of infectious diseases in hosts (immunology) and in populations (epidemiology). Her expertise includes mathematical models of disease and forecasting healthcare demand. She works closely with modelling groups in Health Canada, the Public Health Agency of Canada and the Fields Institute’s COVID Modelling Task Force.

Research Award Winners 2020



ERIC HESSELS, Faculty of Science, was bestowed the Canadian Association of Physicists' **Medal for Lifetime Achievement in Physics** – a York first. Hesseles is a York University Distinguished Research Professor and a York Research Chair in Atomic Physics. The medal recognizes his distinguished service to physics over an extended time as well as recent outstanding achievements: Hesseles was currently awarded a major Innovation Fund grant for the Tabletop Probe of PeV-scale new physics, and grants from the **Gordon and Betty Moore Foundation** and the **Alfred P. Sloan Foundation**.



SEAN HILLIER, Faculty of Health, with others, was awarded funding from the **Canadian Institutes of Health Research** to support the development of the “One Health Network for the Global Governance of Infectious Diseases and Antimicrobial Resistance.” This is a major network to establish Canada as a leader in global governance of infectious disease and antimicrobial resistance. The project, a joint venture with York, is led by the University of Ottawa. (At York, Hillier co-leads with York’s Mary Wiktorowicz.) He is a Mi’kmaq scholar and a special adviser to the Dean on Indigenous Resurgence.



STEVEN J. HOFFMAN, Faculty of Health and Osgoode Hall Law School, is acknowledged for his leadership towards the development of the United Nations Research Roadmap for the COVID-19 Recovery. This was recognized with an Ontario Minister of Colleges and Universities' **Award of Excellence**. Hoffman holds the Dahdaleh Distinguished Chair in Global Governance & Legal Epidemiology. He is the director of the Global Strategy Lab and the scientific director of the Canadian Institutes of Health Research's Institute of Population & Public Health. He is also acknowledged for establishing the **WHO Collaborating Centre on Global Governance of Antimicrobial Resistance** at York, where he serves as director.



CAROLINE SHENAZ HOSSEIN, Faculty of Liberal Arts & Professional Studies, was awarded the 2020 African Diaspora Comparative International Education Society **Emerging Scholars Award** where she was one of four scholars recognized across the network of 3,000 members from 110 countries. She also received the **2020 Rodney Higgins Award** from the National Conference of Black Political Scientists. She earned these two external awards for her contributions across the African diaspora, which offer a valuable perspective that demonstrates innovative thinking in cooperative economics.



MICHAELA HYNIE, Faculty of Health, is acknowledged for securing funding from the **Canadian Institutes of Health Research**, for her project “Promising practices in accessing virtual mental health: Supporting refugees during COVID-19.” This national project is a collaboration between researchers, healthcare providers and community agencies, designed to enhance mental healthcare access for newcomers, and is part of her ongoing community-based research to support social inclusion in situations of forced migration.



CARL E. JAMES, Faculty of Education, has earned the **Outstanding Contribution Award** from the Canadian Sociological Association. This honour acknowledges exceptional scholarly merit that is widely recognized within the Canadian sociological community. James, who holds the Jean Augustine Chair in Education, Community & Diaspora, reaches communities and publics beyond the University through his national media appearances, which totaled 24 in 2020. He is also Senior Advisor on Equity and Representation in the Office of the Vice President of Equity, People and Culture.





One of York University's opportunities to further accelerate research growth and success:

Healthy Individuals, Healthy Communities and Global Health

Today's digital revolution is driven by a set of rapid and distinctive technological, economic and socio-cultural developments that will continue in the early 21st century. York, a recognized leader in this area, will build on our influence in technological and cultural developments. Researchers will continue to promote critical discourse in digital media art, while through the BRAIN (Big Data Research, Analytics and Information Network) Alliance, they will create new access to the analysis and visualization of big data. Working with key partners, we will strengthen the industry-academic partnerships in the cultural and entertainment sectors. There is both tremendous need and opportunity for research in the digital world at the intersection of the arts, sciences, law and engineering. This vital work will push technological boundaries while critically investigating the digital revolution's social, cultural and legal impacts and the ways in which this is shaping and changing human activity and interaction.

Research Award Winners 2020



JOEL KATZ, Faculty of Health, was awarded the **Traumatic Stress Section Award for Excellence in Psychology** by the Canadian Psychological Association. Katz is a Canada Research Chair in Health Psychology. His research focuses on psychological, emotional and biomedical factors involved in acute and chronic pain. He is a Fellow in the Canadian Psychological Association and the American Psychological Association. Katz is the recipient of the York University Faculty of Graduate Studies' Teaching Award, the Canadian Pain Society Distinguished Career Award and the Canadian Pain Society Outstanding Pain Mentorship Award.



ERIC KENNEDY, Faculty of Liberal Arts & Professional Studies, is heading an investigation funded by the **Social Sciences and Humanities Research Council of Canada** for his project, "Understanding Social Perceptions of Risk, Information Sources, Trust and Public Engagement Related to the COVID-19 Outbreak." From 2020 to 2022, Kennedy and his team will survey and interview Canadians to document their experiences with the outbreak. The research will help better understand the social dimensions of the pandemic and inform response efforts.



JUDE KONG, Faculty of Science, is leading a major initiative with funding from the **International Development and Research Centre** for his project "Predictive modeling and forecasting of the transmission of COVID-19 in Africa using Artificial Intelligence." It is one of nine projects selected for funding through the Global South AI4COVID Response Program, focused on low- and middle-income countries. Kong, a member of the National COVID-19 Modelling Rapid Response Task Force at York, will lead an interdisciplinary team of more than 50 researchers from key academic and government institutions in nine African countries and Canada.



MURAT KRISTAL, Schulich School of Business, received the Minister of Colleges and Universities' **Award of Excellence** for his work towards developing an analytics dashboard that can provide daily insights into the spread of the COVID-19. Using publicly available data from the Johns Hopkins Center for Systems Science and Engineering GIS platform and GitHub, Schulich's COVID-19 Dynamics dashboard can predict the number of new cases over the next five days in each country around the world. These numbers support policy-makers, healthcare administrators and public health officials as they make informed, evidence-based decisions.



SERGEY KRYLOV, Faculty of Science, was named a **Distinguished Research Professor**. This honour highlights his international leadership in analytical chemistry. Krylov is also acknowledged for securing a major grant from the **Canada Foundation for Innovation Fund**, together with Derek Wilson, for the project "Technology-Enhanced Drug Development and Manufacturing (TEnDev): MirrorLab." Krylov is also recognized for receiving an **NSERC Alliance grant** with SCIEX from the Natural Sciences and Engineering Research Council of Canada for the project "Development of Rapid and Accessible Diagnostics of COVID-19 via Aptamer-Based Detection of SARSCOV- 2 Virions."



MOLLY LADD-TAYLOR, Faculty of Liberal Arts & Professional Studies, was elected as a Fellow to the **Royal Society of Canada** (Academy of the Arts & Humanities, Division of Humanities). The author of *Fixing the Poor* (Johns Hopkins University Press, 2017), she is a prominent historian of gender and social policy. Her groundbreaking research places impoverished mothers, dependent children and institutionalized people at the centre of analysis, joining their most private experiences with the public worlds of politics and policy. Her scholarship has reshaped historical understanding of welfare, eugenics and the state.

Research Award Winners 2020



EMILY LAXER, Glendon, won the esteemed **John Porter Award**, bestowed by the Canadian Sociological Association, for her book *Unveiling the Nation: The Politics of Secularism in France and Quebec* (McGill-Queen's University Press, 2019). The Association praised the book for its "topical content, in-depth analysis, and quality research," and asserted that the book will make "important sociological and political contributions [...] to both academics and to lay Canadian audiences." Laxer's areas of expertise are political sociology; immigration, race and ethnicity; citizenship and nationalism; and gender.



REGINA LEE, Lassonde School of Engineering, has won the Korean Federation of Science and Technology Societies (KOFST) **Engineer of the Year Award** from the Association of Korean-Canadian Scientists & Engineers. This acknowledges members who have made outstanding academic or technical contributions. Lee develops efficient systems and infrastructure for space flight and directs the Communications and Operations Laboratory. Her research interests centre on nanosatellite technology. Nanosatellites, with a mass less than 10 kilograms, have been increasingly recognized as valuable tools for demonstrating new technologies and an effective means to educate space engineering professionals.



MATTHEW LEISINGER, Faculty of Liberal Arts & Professional Studies, was awarded the **2020 Sanders Prize in the History of Early Modern Philosophy** from the Marc Sanders Foundation for his essay "Cudworthian Consciousness," which discusses the theory of consciousness developed by Ralph Cudworth in *The True Intellectual System of the Universe* (1678). The prize is a biennial essay competition open to scholars who are within 15 years of earning a PhD. This prestigious award comes with a cash prize and the publication of the winning article in *Oxford Studies in Early Modern Philosophy*.



LAURA LEVIN, School of the Arts, Media, Performance & Design (AMPD), was awarded a Social Sciences and Humanities Research Council of Canada **Partnership Grant** for her project, “Hemispheric Encounters: Developing Transborder Research-Creation Practices.” This project seeks to develop a network of universities, community organizations, artists and activists working in and with “hemispheric performance” as a tool for social change. Levin is associate dean, Research in AMPD; director of the Canadian Consortium on Performance and Politics in the Americas; and former director of Sensorium: Centre for Digital Arts & Technology.



PETER LIAN, Lassonde School of Engineering, was named a Fellow of the **Canadian Academy of Engineering**. This is one of the highest professional honours accorded an engineer. Lian is an internationally recognized pioneer in the field of biomedical circuits and systems. His research has received many awards and distinctions. He has provided an exemplary leadership and service as the IEEE Circuits and Systems Society president, and editor-in-chief of the *IEEE Transactions on Circuits and Systems II*. He is a Fellow of the Academy of Engineering Singapore and Fellow of IEEE.



MARIN LITOIU, Lassonde School of Engineering and Faculty of Liberal Arts & Professional Studies, was named **Faculty Fellow of the Year** by the IBM Center for Advanced Studies. His decades-long involvement and advocacy has helped to shape this IBM Center, and has powered an incredible number of successful projects. His past role as a CAS Research Staff Member is a testament to his outstanding scientific and technical ability. Litoiu is also acknowledged for winning a Natural Sciences and Engineering Research Council of Canada **Collaborative Research and Development Grant** with IBM Canada.





One of York University's opportunities to further accelerate research growth and success:

Integration of Artificial Intelligence (AI) into Society

From smartphones that order our morning coffee to the remote calibration of computers in the outer reaches of our galaxy, AI pervades almost every aspect of our life. York will continue to soar to the forefront in visual perception technologies, space exploration, robotics and manufacturing technologies, remote sensing, intelligent information systems and cognitive analytics over the next five years. Building on our unique niche, we will do so alongside global intellectual leaders in the humanities, social sciences, health and law, who are laying new ground expounding the moral, ethical and legal implications of AI adoption.

Research Award Winners 2020



AAIDA MAMUJI, Faculty of Liberal Arts & Professional Studies, is leading a major grant from the Canadian Institutes of Health Research for her **COVID-19 Rapid Research Funding Project**: “Destigmatizing Chinese Communities in the face of 2019-nCoV: Emergency Management Actions to Address Social Vulnerability.” In this project, she is leading a team studying the social impacts of discrimination on Chinese diaspora communities in Toronto and Nairobi during the pandemic. By engaging with public health authorities and emergency managers, she hopes to make countering stigma a key priority in emergency response.



DEBORAH MCGREGOR, Osgoode Hall Law School and the Faculty of Environmental and Urban Change, received a renewal of her **Canada Research Chair** in Indigenous Environmental Justice. McGregor’s work poses several vital questions: What does it mean to live well with the Earth in the face of climate/ecological crisis? What does a self-determined climate future look like for Indigenous communities and peoples? McGregor’s research recognizes Indigenous-derived solutions must be generated based on knowledge and legal systems that have fostered Indigenous survival despite centuries of environmental upheaval affected by colonization



SEYED MOGHADAS, Faculty of Science, is acknowledged for receiving funding from the Canadian Institutes of Health Research, as part of **CIHR’s Rapid Research Funding Opportunity**, for his project “Evaluation of Intervention Strategies in Response to the COVID-19 Outbreaks.” His research includes mathematical and computational modelling in epidemiology and immunology. He seeks to develop innovative knowledge translation methods through which existing gaps between theory, policy and practice are bridged; and modeling outcomes are translated to inform health policy and support decision-making. He also leads several national and international COVID-19 related projects.



JEAN MICHEL MONTSION,

Glendon, was awarded a **Distinguished Fellowship** from the Asia-Pacific Foundation (APF) of Canada. This is Canada's leading organization for research, analysis and consultation on Canada-Asia relations. Fellows are experts on Canada-Asia relations and provide APF Canada with valuable insight and guidance, informing research projects and responding to media requests. Montsion is associate director of the York Centre for Asian Research and coordinator of the Graduate Diploma in Asian Studies. His research focuses the implications of community-based politics in the development of gateway strategies between Asia and Canada.



OBIORA OKAFOR,

Osgoode Hall Law School, was named the **York Research Chair** in International and Transnational Legal Studies, for a second term. The award supports Okafor's research (with a large international team) on Canadian/African human rights engagements, including in the sub-areas of economic and social rights, women's rights, judicial strengthening, institution building, democratization and poverty alleviation. This research program builds on his previous and ongoing research, including on the development of the African Union's African Human Rights Action Plan.



FREYA BJORG OLAFSON,

School of the Arts, Media, Performance & Design, was awarded the **2020 Sobey Art Award** from the National Gallery of Canada. This is the nation's pre-eminent prize for Canadian artists 40 and under. Olafson is an intermedia artist who works with performance, video, audio, XR and painting. Their work has been presented internationally at venues such as the Bauhaus Archiv (Germany), SECCA – Southeastern Center for Contemporary Art (United States), Ochoymedio (Ecuador) and the Onassis Cultural Center (Greece).

Research Award Winners 2020



LINDA PEAKE, Faculty of Environmental and Urban Change, is the **2020 winner of the Canadian Association of Geographers Award for Scholarly Distinction**. Peake, director of the City Institute, has been at the forefront of research in feminist urban geography for decades. She has published extensively on women, work and family relations in the Anglo-Caribbean, and has maintained long-term collaborative relationships for research, training and advocacy. This work has also informed her current Social Sciences and Humanities Research Council of Canada Partnership Grant for the project “Urbanization, gender and the global south.”



TARRA PENNEY, Faculty of Health, was awarded a **COVID-19 Rapid Response Operating Grant** from the Canadian Institutes of Health Research. Together with Mary Wiktorowicz, also in the Faculty of Health, Penney is evaluating the governance of wildlife markets in countries where zoonotic epidemics and pandemics emerged, including China and the Democratic Republic of the Congo. She is a population health scientist focused on disease prevention, an investigator with the Global Strategy Lab and a member of the Dahdaleh Institute for Global Health Research.



CHRISTINA PETROWSKA QUILICO, School of the Arts, Media, Performance and Design, was appointed to the **Order of Canada** for her celebrated career as a classical and contemporary pianist, and for championing Canadian music. In output, few artists can match Petrowska Quilico, particularly in contemporary music. Among her 50 plus CDs are five albums comprising eight Canadian piano concertos, and solo and chamber works by contemporary Canadian and international composers. Four of her CDs have earned JUNO Awards nominations, three of them for concerto CDs and one for *Glass Houses Revisited* (2011).



CELIA POPOVIC, Faculty of Education, received the **2019 Educational Developer Distinguished Career Award** bestowed by the Educational Developers Caucus in February 2020. This recognized her contribution to the field of Educational Development in Canada and internationally in leadership, scholarship and community contributions. Popovic introduced an accreditation system for educational development programs and led multiple initiatives designed to support developers' own development. She has been influential in discussions of accreditation, professionalization and the promotion of teaching and learning in higher education in Canada and around the world.



JENNIFER PYBUS, Faculty of Liberal Arts & Professional Studies, joined York in January 2021. She has been awarded the **Canada Research Chair** in Data, Democracy and Artificial Intelligence (AI). Her research intersects digital and algorithmic cultures, and explores the capture and processing of personal data. It contributes to an emerging field, mapping out datafication, a process that is rendering our social, cultural and political lives into productive data for machine learning and algorithmic decision-making. Pybus seeks to increase critical data literacy and add to democratic debate about AI.



SHAYNA ROSENBAUM, Faculty of Health, is acknowledged for winning a **CIHR Covid-19 Rapid Response Operating Grant** from the Canadian Institutes of Health Research (CIHR) to study biases in decision-making and ways to change decisions in order to protect ourselves, and others, from COVID-19 as the economy reopens. York Research Chair in the Cognitive Neuroscience of Memory, she is also a core member of Vision: Science to Applications (VISTA) and an elected member of the Royal Society of Canada (College of New Scholars, Artists and Scientists)





One of York University's opportunities to further accelerate research growth and success:

Indigenous Futurities

Indigenous futurities acknowledges the power of research that embraces future potential and past reality as integral to sound, contemporary work. In the next five years, Indigenous leadership in York's collaborative, socially engaged research will create a unique space to support contributions to Indigenous knowledges within and beyond the academy. At this time, truth, reconciliation and justice are focusing the attention of York's Indigenous and non-Indigenous scholars working in these areas. In articulating this research opportunity, York affirms a commitment to respectful, relevant, Indigenous-formed and -led research, scholarship and related creative activity. This Indigenous-focused research promises positive and critically needed change to policy, practice, community and cultural life and ultimately, relationships among us all.

Research Award Winners 2020



MICHAEL ROTONDI, Faculty of Health, is acknowledged for winning a **CIHR Covid-19 Rapid Response Operating Grant** from the Canadian Institutes of Health Research (CIHR). He will co-lead the research team along with Janet Smylie, a Métis physician, professor and research chair at St. Michael's Hospital and the University of Toronto; and Cherylee Bourgeois, a Cree/Métis midwife at Seventh Generation Midwives Toronto. The goal is to estimate the rate of COVID-19 transmission for Indigenous Peoples in cities by linking the Our Health Counts studies to the provincial database at the Institute for Clinical Evaluative Sciences.



ALI SADEGHI-NAINI, Lassonde School of Engineering, was awarded the **York Research Chair** in Quantitative Imaging and Smart Biomarkers. He is an emerging world leader in research at the intersection of AI, biomedical engineering, biophysics and oncology; and an associate member of VISTA (Vision: Science to Applications). His groundbreaking studies have demonstrated, for the first time, that ultrasound biomarkers at low frequencies can detect cell death induced by anti-cancer therapies. His laboratory at York (QUANTIMB Lab) develops quantitative imaging and biomarker technologies integrated with innovative machine learning and computational modeling techniques for precision medicine.



VALÉRIE A. M. SCHOOF, Glendon, was bestowed the **York Research Chair** in Primate Behavioural Endocrinology. She is a primatologist whose research program, funded by the Natural Sciences and Engineering Research Council of Canada and New Frontiers in Research Fund, focuses on the ecology, sociality, physiology and life history of wild primates in East Africa, and the biological, geographical and cultural factors influencing human-wildlife interactions. She is also the director of the Primate Behavioural Endocrinology Lab, recently funded by the Canada Foundation for Innovation and the Ontario Research Fund.



MARLIS SCHWEITZER, School of the Arts, Media, Performance & Design, was bestowed the **York Research Chair** in Theatre and Performance History. She is a theatre and performance historian with a specialization in 19th and early 20th Century Anglo-American performance. Schweitzer plans to use her Chair to explore urgent questions about the relationship between historical casting practices; theatre's role in the circulation and perpetuation of racist stereotypes; and the onstage representation of Black, Indigenous and People of Colour individuals in historical and contemporary contexts.



SAPNA SHARMA, Faculty of Science, is acknowledged for **knowledge mobilization** related to her research on lake ice, warming temperatures and winter drownings. This was published in *PLOS ONE* (2020), the article titled "Increased winter drownings in ice-covered regions with warmer winters."

The article put York research in an international spotlight, with coverage in the *New York Times*, *Washington Post*, *Scientific American*, BBC, Reuters, Forbes and many other outlets across the United States and Canada. The story generated millions of impressions, with the Faculty of Science mentioned prominently in many outlets.



RACHEL SILVER, Faculty of Education, won the **2019-20 Gail P. Kelly Award for Outstanding Doctoral Dissertation** from the Comparative and International Education Society for her paper "Sex, Schooling, and Moral Triage in Malawi." The award is conferred on an outstanding PhD or EdD dissertation that manifests academic excellence, originality, and methodological, theoretical and empirical rigor; and that deals with issues of social justice and equity in international settings. Silver's research connects insights from comparative and international education, and the anthropologies of gender, development and policy.

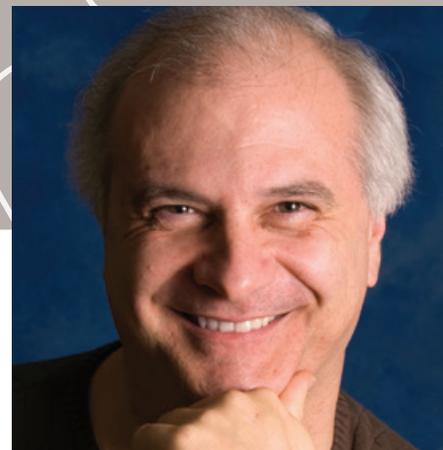
Research Award Winners 2020



PIRATHAYINI SRIKANTHA, Lassonde School of Engineering, has been awarded a **Canada Research Chair** in Reliable and Secure Power Grid Systems for research that has important national security implications for Canada's critical power grid infrastructure. Srikantha's research will address two key challenges: (1) giving devices, controlled by the electric power utility, the ability to automatically infer, predict and respond to power disturbances; and (2) designing trustworthy energy markets that incentivize power producers and consumers to provide grid support during congestion or fault conditions.



ANNA ST. ONGE, Libraries, has been bestowed the **James J. Talman Award** from the Archives Association of Ontario. This Award is given to individuals who have demonstrated an outstanding level of imagination and innovation in contributing to the profession, their institution or the archival community; or who have challenged conventional thinking about archival work. She won the Award for her "innovative work in bringing archival theories and methodologies to digital scholarship and for her continuing efforts to put challenging ideas and beliefs into action."



MARK TERRY, Faculty of Environmental and Urban Change, was elected as a Fellow to the **Royal Society of Canada** (Academy of the Arts & Humanities, Division of Arts). Terry is an internationally recognized digital media innovator. He is one of the project leads for the Planetary Health Film Lab with the Dahdaleh Institute for Global Health Research. The lab will train and support Indigenous youth from the Circumpolar Arctic in making short documentary films for this year's United Nations climate summit, COP26.



JESSE THISTLE, Faculty of Liberal Arts & Professional Studies, won the **2020 Rakuten Kobo Emerging Writer Prize for Nonfiction** for his groundbreaking book *From the Ashes: My Story of Being Métis, Homeless, and Finding My Way* (Simon & Schuster, 2019). Thistle was a P.E. Trudeau and Vanier doctoral scholar. He is a Governor General Silver Medalist. His research has been published in academic journals and books, and featured on CBC Ideas, CBC Campus and Unreserved. Thistle sits on the executive board of Raising the Roof homeless foundation and the Canadian Alliance to End Homelessness.



FUMINORI TOYASAKI, Faculty of Liberal Arts & Professional Studies, is acknowledged for receiving funding from the Canadian Institutes of Health Research (CIHR) as part of **CIHR's Rapid Research Funding Opportunity** for his project, "Countermeasures to the supply chain disruptions in medical and pharmaceutical industries," with Adriano Solis, Ali Asgary and Tina Wakolbinger. This project will focus on the supply chain disruptions that medical and pharmaceutical industries are currently facing due to the COVID-19 pandemic. Toyasaki has been conducting research in the area of supply chain designs involving disaster and environmental issues.



ROOPA DESAI TRILOKEKAR, Faculty of Education, was bestowed a **Fulbright Canada Research Chair** in Public Diplomacy at the University of Southern California for her project "International Education as Soft Power: Its Relevance in a World of Changing U.S.-Canada Relations and New Geopolitics." She is also acknowledged for winning the **2020 Catalyst Award** from the Canadian Bureau of International Education. In 2020, she was invited to serve on the Royal Society of Canada's COVID-19 Working Group on the Future of Higher Education.



AMADU DIALLO, 1995
KIMANI GRAY, 2013
KENDREK MILDADE, 2012
SHEREESE FRANKUS, 2012
TIMOTHY RUSSELL
ERVIN JEFFERSON, 2000
PATRICK DORISMOND, 2000
OUSMANE ZONGO, 2003
SEAN, 2004



One of York University's opportunities to further accelerate research growth and success:

Public Engagement for a Just and Sustainable World

As growth in human activity continues, there are ever-greater pressures on our environment and societies from climate change and the proliferation of disease, both of which are contributing to increasing inequalities among peoples. Across York's disciplines, our scholars will be recognized as world leaders in research on the origins, nature and consequences of inequality and oppression, as well as key environmental and societal challenges. Researchers are coming together in interdisciplinary teams and working to tackle an expanding range of issues, including migration, strategies for youth homelessness and engineering solutions for water and energy security; and responding to natural and human-made disasters with an internationally leading simulation centre for emergency management.

Research Award Winners 2020



JOHN TSOTSOS, Lassonde School of Engineering, received the **2020 CS-Can | Info-Can Lifetime Achievement Award in Computer Science**. Distinguished Research Professor of Vision Science, Canada Research Chair in Computational Vision, Fellow of the Royal Society of Canada and of the IEEE, and core member of VISTA (Vision: Science to Applications), Tsotsos earned this award for his outstanding contribution to Canadian computing research, leadership and mentoring over 40 years. He is best known for his contributions to computational and human visual attention, and to active robot perception.



DOUGLAS VAN NORT, School of the Arts, Media, Performance & Design, was renewed as **Canada Research Chair** in Digital Performance. He is an associate member of VISTA (Vision: Science to Applications). Van Nort and his team examined new forms of performance that integrate improvisation, artificial intelligence (AI) and networked environments, and created projects focused on collective co-creation in digitally mediated performance contexts. Next, he will engage with methods from AI, virtual acoustics and biophysical sensing to introduce new modes of sociality, improvised play and distributed creativity in performance.



BRANDON VICKERD, School of the Arts, Media, Performance and Design, was commissioned by the **Centre for Addiction and Mental Health (CAMH)** to create a sculpture: “Monument to the White Squirrel.” This was awarded through CAMH’s Therapeutic Art Installation project for the third phase of the Queen Street Redevelopment Project. There were 300 applications, and only three artists were selected to create pieces. Vickard is a sculptor whose site-specific interventions, public performances and object-based sculptures act as a catalyst for critical thought and engagement with the physical world.



GRAHAM WAKEFIELD, School of the Arts, Media, Performance & Design, was renewed as **Canada Research Chair** in Computational Worldmaking. Wakefield's program of interdisciplinary research-creation is committed to the open-endedness of computation toward technologies of artificial intelligence within immersive mixed reality. The program will result in new software for artists to co-create immersive worlds as art installations. As collaborative improvisations enacted with the whole body, this will radically change how we sculpt complex forms and behaviours. Wakefield is a core member of VISTA (Vision: Science to Applications).



JANET WALKER, Osgoode Hall Law School, was named a **Distinguished Research Professor**. This honour highlights her international leadership in the fields of private international law, procedural law, comparative law and international commercial arbitration. Her commitment to excellence is evidenced by her strong publication record, particularly her authorship of *Canadian Conflict Laws* – the most-cited private law work in Canadian courts. As an academic and an eminent practitioner, Walker has had a significant and positive impact on the University community as well as the legal profession.



RUI WANG, Faculty of Science, was elected as a Fellow to the **Royal Society of Canada** (Academy of Science, Life Sciences Division). Dean of the Faculty of Science, Wang is a pioneer in the field of H₂S biology and medicine. He discovered the endogenous production of H₂S in the cardiovascular system and its widespread functions; he identified H₂S as a factor that dilates resistance arteries and controls blood pressure. He has established the key roles that H₂S plays in the pathogenesis of hypertension, diabetes and asthma.

Research Award Winners 2020



WILLIAM WICKEN, Faculty of Liberal Arts & Professional Studies, was elected as a Fellow to the **Royal Society of Canada** (Academy of the Arts & Humanities, Division of Humanities). His prize-winning scholarship, alongside his substantial contributions as an expert witness, have affected how scholars, government policy-makers and Canada's legal community understand and interpret the history and legal position of Indigenous peoples in Canada. His studies of the Mi'kmaw's multi-generational interpretation of its 18th Century treaty with the British Crown have been transformative.



MARY WIKTOROWICZ, Faculty of Health, is co-principal investigator for the **Canadian Institutes of Health Research** funded Global One Health Network that advances Canadian leadership in the global governance of infectious disease and antimicrobial resistance. The project, a joint venture with York, is led by the University of Ottawa. (At York, Wiktorowicz co-leads with York's Sean Hillier.) Her expertise in global health governance addresses the transnational governance of antimicrobial stewardship, prevention of emergent zoonoses including SARS-Cov-2 and global networks that foster accountability for women's, children's and youth health in low-income countries.



LAURIE M. WILCOX, Faculty of Health, was bestowed the **York Research Chair** in 3D Vision. She is president of the Vision Sciences Society, Training Lead for VISTA (Vision: Science to Applications) and a member of the Centre for Vision Research. Her research focuses on the neural mechanisms underlying depth perception and how depth information is processed under complex real-world conditions. She has a long history of collaboration with industry partners, for instance in 3D film (IMAX, Christie) and more recently in virtual and augmented reality (Qualcomm) and image quality (VESA).



DEREK WILSON, Faculty of Science, is acknowledged for securing a major grant from the **Canada Foundation for Innovation Fund**, together with Sergey Krylov, for the project “Technology-Enhanced Drug Development and Manufacturing (TEndev): MirrorLab.” York Research Chair in Molecular Mechanisms of Disease, Wilson is also vice president of the Canadian Society for Mass Spectrometry. He specializes in developing novel mass-spectrometry methods to investigate biomedical problems at a molecular level. His program at the Wilson Lab is highly collaborative with industry for the accelerated development of anti-neurodegenerative drugs.



CARY WU, Faculty of Liberal Arts & Professional Studies, is acknowledged for receiving funding from the Canadian Institutes of Health Research (CIHR), as part of **CIHR’s Rapid Research Funding Opportunity**, for his project, “The dynamics of trust during COVID-19.” This project will bring researchers from China together with experts in trust and public health in Canada and Sweden to explore people’s trust in government, health agencies and in other people during the pandemic. He will look at how levels of trust shape public responses to COVID-19 and how the pandemic, in turn, affects people’s trust.



JIANHONG WU, Faculty of Science, received the Minister of Colleges and Universities’ **Award of Excellence** for contributions to the province during the pandemic and significant **knowledge mobilization** efforts related to the pandemic. A Distinguished Research Professor, he has provided expert advice to public health officials to mobilize mathematical technologies to assess the transmission risk of COVID-19 and project possible future outbreak trajectories. Wu holds the Canada Research Chair in Industrial and Applied Mathematics and the NSERC/Sanofi Industrial Research Chair in Vaccine Mathematics. He is a core member of VISTA (Vision: Science to Applications).

Research Award Winners 2020



ZHENG HONG (GEORGE) ZHU, Lassonde School of Engineering, secured a major **Innovation Fund grant** for Intelligent Additive Manufacturing Technology for Space Exploration from Canadian Foundation of Innovation, and launched the first York satellite into space in November 2020 to demonstrate the deorbit of space debris by electrodynamic tether technology. York Research Chair in Space Technology, he was also named a Fellow of the **Canadian Academy of Engineering** and elected a Member of the **International Academy of Astronautics**. Zhu is the Principal Investigator of two York CubeSatellite missions.

CONGRATULATIONS ARE ALSO EXTENDED TO

Banting Post-Doctoral Fellowships

Salman Hussain

Vanier Canada Graduate Scholars

Cameron Butler

Laura Keane

Rajat Nayyar

Balikisu Osman

York University **PRESIDENT'S RESEARCH AWARDS**



PRESIDENT'S EMERGING RESEARCH LEADERSHIP (PERLA) AWARD 2021



Pouya Rezai
Department of Mechanical Engineering
Lassonde School of Engineering

POUYA REZAI, Lassonde School of Engineering, was selected as the recipient of the PERLA Cluster 1: Engineering, Science, Technology, Health and Biomedicine. This demonstrates the complexity and relevance of his research in utilizing science and engineering concepts built on the fundamentals of fluid mechanics, material engineering, electronics and microbiology to tackle pressing global challenges in both the health and safety sector, and in the field of bioengineering.

Rezai's impact on his discipline is demonstrated by his receipt of funding as a principal investigator that spans Tri-Council, industry and provincial sources. His research has resulted in 47 journal papers, seven book chapters, two issued and two submitted United States patents and 50 conference papers. His achievements were recognized by the prestigious Early Researcher Award (ERA) from the Ministry of Economic Development, Job Creation and Trade in 2019 as well as the I. W. Smith Award from the CSME in 2021.

Rezai joined York University in 2013 and initiated a graduate program in Mechanical Engineering at Lassonde in 2015 while serving as the Graduate Program Director since 2015. His work has earned four competitive best paper conference awards, the NSERC Visiting Fellowship in 2012, and multiple awards obtained by his students in the past five years. His work has also been recognized in 2017 and 2018 by the Early Researcher Lassonde Innovation Award and the Early Researcher Lassonde Innovation fund.

Rezai provides leadership in his innovative research program and his mentorship and supervision. He has built international linkages. His engagement has raised York's research profile.

PRESIDENT'S EMERGING RESEARCH LEADERSHIP (PERLA) AWARD 2021



Rebecca Bassett-Gunter
School of Kinesiology and Health Science
Faculty of Health

REBECCA BASSETT-GUNTER, Faculty of Health, was confirmed as the recipient of the PERLA Cluster 2: Social Sciences, Art & Design, Humanities, Business, Law and Education. This illustrates her leadership in the field of research on the promotion of physical activity among children with disabilities.

Bassett-Gunter has developed an interdisciplinary program of research that has made contributions to the fields of behaviour change psychology, physical activity promotion, health communication and knowledge translation. Since joining York in 2013, she has published 42 papers in leading journals and she has shared her research at numerous conferences throughout Canada and internationally. In 2018, she earned the prestigious Early Researcher Award from the Ontario Ministry of Research and Innovation.

Bassett-Gunter has secured significant external research funding in competitive, peer-reviewed grants as both a principal investigator and co-investigator from major granting agencies including SSHRC and CIHR. Her mentorship impact is evidenced by the success of her students, many of whom have had their research published in leading journals and have secured Tri-Council and other funding.

Bassett-Gunter provides leadership in her innovative research programs and in her mentorship and supervision. She has built international linkages and her engagement has raised the research profile of the University.

PRESIDENT'S RESEARCH IMPACT (PRIA) AWARD 2021



Carl E. James

Jean Augustine Chair in Education, Community and Diaspora
Faculty of Education

CARL E. JAMES, Faculty of Education, was selected as the recipient of the PRIA. He holds the Jean Augustine Chair in Education, Community and Diaspora, and is the Senior Advisor on Equity and Representation in the Office of the Vice President of Equity, People and Culture. He is a leading Canadian scholar and researcher in the areas of equity and inclusivity in education, community development, immigration policies and settlement, and critical ethnography. In relentlessly documenting and addressing inequities related to Black and other marginalized groups, James has become internationally renowned for tackling and naming issues of racial inequity, and forging evidence-based policies and actions through innovative participatory research.

His track record clearly speaks to his strong success in designing and carrying out funded programs of research, including Ministry, Tri-Council, corporate, school board, foundation and community-based grants and contracts. He successfully engages his graduate students, involving them in writing and presentations, as co-authors of scholarly work, and as active partners in knowledge mobilization activities. In 2008, he founded the York Centre for Education and Communities, which he directed until 2018.

James' impressive scholarly output includes over 20 authored and co-authored, edited and co-edited books; over 130 book chapters and articles in refereed journals; reports, reviews, and educational resources; and hundreds of presentations and workshops. With research that reaches a wide range of audiences, from scholars to policy-makers to the general public, and that has undoubtedly enhanced York's research reputation, James is most deserving of the 2021 PRIA.

PRESIDENT'S RESEARCH EXCELLENCE (PREA) AWARD 2021



Jennifer Hyndman
Faculty of Environmental and Urban Change

JENNIFER HYNDMAN, Faculty of Environmental and Urban Change, was selected as the recipient of the PREA. This is in recognition of her outstanding accomplishments and leadership as an internationally recognized scholar of human displacement, humanitarian response, feminist geopolitics and refugee subjectivity.

In January 2021, she was appointed Associate Vice-President Research in the Office of the Vice-President Research & Innovation.

Hyndman has been an exceptional leader in building research programs at York and in training the next generation of scholars. From 2013 to 2019, she served as Director of York's Centre for Refugee Studies, expanding its mandate and strongly supporting faculty to compete successfully for funds to facilitate innovative research, and publish in top peer-reviewed journals and books.

Hyndman is a prolific scholar whose list of publications – in peer-reviewed journals and with esteemed book publishers – is extensive. Most recently, she co-authored with Wenona Giles *Refugees in Extended Exile: Living on the Edge* (Routledge, 2017); she has two monographs, *Managing Displacement: Refugees and the Politics of Humanitarianism* (Minnesota University Press, 2000) and *Dual Disasters: Humanitarian Aid after the 2004 Tsunami* (Kumarian Press, 2011), plus a co-edited volume with Giles, *Sites of Violence: Gender and Conflict Zones* (University of California Press, 2004).

She has conducted community-based research, applied work for the United Nations and governments, and is one of York's most highly cited scholars in the social sciences and humanities.

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To learn more, visit the VPRI website at www.yorku.ca/research

Read *Brainstorm*, a special edition of *YFile*, for compelling stories about the world-leading, policy-relevant work of York's academics and researchers across all disciplines.

www.yorku.ca/research/brainstorm

Watch the "2 Minutes, 3 Questions" video series where York researchers and academics discuss the impact of their work. Available on our YouTube playlist:

www.bit.ly/2mPtT8Z

Don't miss the latest graphic animated whiteboard about our **Strategic Research Plan**, existing research strengths and additional areas of research opportunity. Also available on our YouTube playlist:

www.bit.ly/2mPtT8Z