

YORK UNIVERSITY
RESEARCH
LEADERS

2020



KANEFF TOWER



A MESSAGE FROM PRESIDENT & VICE-CHANCELLOR **RHONDA L. LENTON** AND INTERIM VICE-PRESIDENT RESEARCH & INNOVATION **RUI WANG**

It is with great pleasure that we celebrate the remarkable achievements of our 2019 York University Research Leaders.

At York University, research excellence and innovation are flourishing. We have grown to become the third-largest university in the country, known internationally as a progressive and comprehensive research institution of higher learning with outstanding programs and cutting edge scholarship dedicated to the public good.

Four pillars define York's vision: access, excellence, connectedness, and impact. Today's celebration is, above all, a demonstration of York's commitment to supporting extraordinary scholarship, research and related creative activities that have a positive impact in the communities we serve here at home and around the world.

York's research is collaborative, multifaceted and diverse, with historic strengths across six intersecting themes: (1) advancing fundamental inquiry and critical knowledge; (2) analyzing cultures and mobilizing creativity; (3) building healthy lives, communities and environments; (4) exploring and interrogating the frontiers of science and technology; (5) forging a just and equitable world; and (6) integrating entrepreneurial innovation and the public good.

We also see five areas of opportunities to further accelerate 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.

We also recognize the importance of collaborating with partners and colleagues, across sectors and around the world. Our researchers partner with industry, government, community groups, healthcare organizations and not-for-profits to create new knowledge and discoveries that push the frontiers of scientific knowledge and address the world's most pressing challenges, such as the climate crisis. These partnerships also provide experiential learning opportunities to our students to help prepare them to thrive in a competitive global knowledge economy.

The York community is deeply committed to supporting our researchers and scholars, including celebrating their accomplishments. Once again, we extend our warmest congratulations and best wishes to all our research leaders this year for continued success.

Sincerely,

Rhonda L. Lenton
President & Vice-Chancellor
York University

Rui Wang
Interim Vice-President Research & Innovation
York University



Rhonda L. Lenton
President & Vice-Chancellor
York University



Rui Wang
Interim Vice-President
Research & Innovation



Amir Asif
Incoming Vice-President
Research & Innovation
York University (May 1, 2020)

Welcome Professor Amir Asif, Incoming Vice-President Research & Innovation

We are pleased to welcome the incoming Vice-President Research & Innovation, Professor Amir Asif, appointed for a five-year term beginning on May 1, 2020. Professor Asif has served as the Dean of the Gina Cody School of Engineering and Computer Science at Concordia University since 2014. He is well known to members of the York community, having served as the founding Chair of the Department of Electrical Engineering and Computer Science from 2006 to 2014. He is also currently serving as the Chair of the Research Committee of the Engineering Deans Canada, the national council of Deans of Engineering and Applied Science in Canada. Professor Asif has more than 15 years of experience serving in senior university leadership positions.



**FIVE
RESEARCH
OPPORTUNITIES**

**TO FURTHER ACCELERATE
RESEARCH GROWTH AND SUCCESS**



Digital Cultures



Healthy Individuals, Healthy
Communities and Global Health



Indigenous Futurities



Integration of Artificial Intelligence (AI)
into Society



Public Engagement for
a Just and Sustainable World



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PATRICK ALCEDO, School of the Arts, Media, Performance & Design, is a filmmaker who is getting noticed on the world stage. His documentary, *Dancing Manilenyos* (2019), was an official selection at the **Diversity in Cannes Short Film Showcase**. This film, which addresses the potential of dance to fight poverty and to choreograph against elitism, also earned an Award of Recognition from the Hollywood International Independent Documentary Awards. Alcedo's work speaks to issues of race, ethnicity and class background. His films showcase Filipino culture, empower the underprivileged and, in his own words, "grip the heart."



UZO ANUCHA, Faculty of Liberal Arts & Professional Studies, was appointed the **York Research Chair** in Youth and Contexts of Inequity. Anucha conceptualizes her research as a community dialogue centred on equitable collaborations with community stakeholders. She is the Provincial Academic Director of the Youth Research and Evaluation eXchange (YouthREX), a large investment by the Ontario government. YouthREX makes research evidence and evaluation practices accessible to Ontario's grassroots youth sector through capacity building, knowledge exchange and evaluation leadership.



ALI ASGARY, Faculty of Liberal Arts & Professional Studies, was a member of the research team that was bestowed the **Bronze Innovative Management Award** at the 2019 Institute of Public Administration of Canada's 71st annual conference, alongside York Professor Adriano Solis. This award was related to their work at ADERSIM (Advanced Disaster, Emergency & Rapid Response Simulation). They built partnerships for the "Igniting Insight" project that had a lasting impact on the City of Vaughan's Fire & Rescue Service.



PREET AULAKH, Schulich School of Business, was awarded a **Gold Medal for Scholarship** from the Academy of International Business for his substantive scholarly contribution to the *Journal of International Business Studies*. This award recognizes those who have made significant contributions over the last 50 years. Only 16 scholars around the world were given this award. Aulakh's research has focused on the interactions of governance structures and relational dynamics, international technology licensing and factors influencing international growth of firms from India, China and Latin America.



STEPHANIE BEN-ISHAI, Osgoode Hall Law School, was bestowed a **Distinguished Research Professorship**. She is an accomplished scholar of contracts, bankruptcy and financial distress, the regulation of financial products and its intersection with consumer protection and access to justice. Her primary focus is on financial distress combined with legal and policy issues. Ben-Ishai's most significant contribution is her demonstration of the importance of good social and economic policy for dealing with consumer, corporate and sovereign debt. She has led research on bankruptcy for the poor in the Canadian context.



BENJAMIN L. BERGER, Osgoode Hall Law School, was appointed the **York Research Chair** in Pluralism and Public Law. Berger is internationally recognized as one of Canada's foremost experts in law and religion, and constitutional and criminal law and theory. He is an award-winning scholar and teacher, deeply engaged in public and professional education and advocacy. Interdisciplinary and comparative in its approach, Berger's research is dedicated to advancing knowledge about the unique challenges and complex role of public law in deeply diverse societies.

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SATINDER KAUR BRAR, Lassonde School of Engineering, won the **International Achiever Award** from Save the Environment (India) in recognition of her distinguished accomplishments in the fields of environmental sustainability and green chemistry. She was also awarded the Eddy Wastewater Principles/Processes Medal from the Water Environment Federation. Brar's work focuses on the intersecting areas of environmental engineering and its impact on the overall wellbeing of the global community. Her accomplishments have broken boundaries, initiating many practical projects around the world, making great improvements to global environmental safety.



CAROL BUCKING, Faculty of Science, received the **2019 Robert G. Boutilier New Investigator Award** from the Canadian Society of Zoologists. Recipients of this award have made significant contributions to zoology and are considered "rising stars" in their field. As a comparative physiologist, Bucking looks at different fish species, both marine and freshwater. Her research adds mechanistic and functional understanding of how animals cope with challenges associated with, and during, feeding and starvation to ultimately answer the question: Why do animals have the digestive physiology they do?



MARY BUNCH, School of the Arts, Media, Performance & Design, was appointed the **Canada Research Chair** in Vision, Disability and the Arts. Her research interests include interdisciplinary and collaborative critical disability, feminist and queer studies, as well as critical theory and arts-based methodologies. Bunch asks how critical disability frameworks, peripheral perspectives and digital media arts can be employed to understand vision differently to challenge the cultural frameworks. A core member of Vision: Science to Applications (VISTA), she explores the relationship between vision, the creative imagination and political praxis.



CHRISTOPHER CAPUTO, Faculty of Science, won the **2018 John Charles Polanyi Prize**, a prestigious award to honour outstanding researchers in the early stages of their careers. Caputo is the Canada Research Chair in Metal-Free Materials for Catalysis. His research program focuses on developing greener and more sustainable chemistry. His primary research focus is to develop new, low-cost catalytic materials derived from readily available elements. Caputo has an outstanding academic and research record, which includes many high-profile publications with more than 1,000 citations.



JAMES CARLEY, Faculty of Liberal Arts & Professional Studies, received the **Gold Medal** from the Bibliographical Society of London. A Distinguished Research Professor Emeritus, Carley is known for his expertise in medieval manuscripts and early printed books, and for his studies of royal, episcopal and aristocratic libraries in early modern Britain. He is the author of more than 75 published articles and books, including *John Leland: De uiris illustribus: On Famous Men* (Pontifical Institute of Mediaeval Studies, 2010). He is the first Canadian to be awarded this medal.



PATRICK CAVANAGH, Glendon, was elected as a Fellow to the **Royal Society of Canada** in 2019. A leading scholar in vision research and a core member Vision: Science to Applications (VISTA), he has pioneered new directions in the perception of motion, colour and shadow, and the spatial and temporal resolution of visual attention. His work on the distortion of visual position caused by movement led to a new theory of position perception based in the cortical and subcortical areas of attention and eye movement control. His groundbreaking discoveries have been supported by numerous grants from research councils in Europe, the United States and Canada.





**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 LEADERS 2019



JOEY CHENG, Faculty of Health, received the **SAGE Young Scholar Award** presented by SAGE Publications and the Foundation for Personality & Social Psychology. Cheng was one of eight recipients of this award that recognizes outstanding young researchers in personality and social psychology. Her research focuses on the dynamics of competition and co-operation, particularly the psychological and biological mechanisms that operate when we compete with one another, and how we manage to successfully co-ordinate and orchestrate collective actions. She explores questions such as: What are the social costs and benefits to being competitive?



SHEILA COLLA, Faculty of Environmental Studies, was the recipient of an **Exploration Grant** from the New Frontiers in Research Fund in 2019. Colla, along with Co-PI York Professor Lisa Myers, received this funding for the project, "A biocultural and interdisciplinary approach to pollinator conservation through ecology, art and pedagogy." The project involves a collaboration between academics, artists and cultural centres. Colla, Myers and a research team will replant gardens created by the late Mi'kmaq artist Mike MacDonald and create new Indigenous gardens at various locations across Canada.



ALEKSANDER CZEKANSKI, Lassonde School of Engineering, won an **Exploration Grant** from the New Frontiers in Research Fund in 2019, alongside Co-Applicants York Professors Kristin Andrews, Tara Haas and Roxanne Mykitiuk. Czekanski's project, "Zero-Gravity 3D Bioprinting of Super-Soft Materials," will seek solutions to major challenges that must be overcome to achieve success in the 3D bioprinting of soft tissue, which supports and surrounds other structures in organs and is clearly distinguishable from hard tissue such as bone. He also won the C.N. Downing Award from the Canadian Society for Mechanical Engineering.



JONATHAN EDMONDSON, Faculty of Liberal Arts & Professional Studies, was inducted as a Fellow of the **Royal Society of Canada**. He also became a Corresponding Member of the Deutsches Archäologisches Institut in 2019. Edmondson is a Distinguished Research Professor of History and Classical Studies and an expert in Roman history, in particular in the society, economy and culture of Roman Spain. He is currently working on cultural interaction and cultural change in the western Roman Empire and the inscriptions and social history of the Roman colony of Augusta Emerita (Mérida, Spain).



CARL S. EHRlich, Faculty of Liberal Arts & Professional Studies, won a **Canadian Jewish Literary Award** (holocaust category) for his editing of a book by his late parents, Leonard H. and Edith Ehrlich: *Choices Under Duress of the Holocaust: Benjamin Murelstein and the Fate of Viennese Jewry Volume I: Vienna* (Texas Tech University Press, 2018). A culmination of decades of research, the book chronicles the harrowing decisions Jewish communal leaders in Austria were forced to make while under Nazi occupation. Ehrlich is also director of the Koschitzky Centre for Jewish Studies at York.



HANY FARAG, Lassonde School of Engineering, was awarded the **York Research Chair** in Integrated Smart Energy Grids. Farag's research interests include the integration of renewable generation, energy storage and electric vehicles, renewable hydrogen and natural gas, and smart grids. Since joining York, Farag has secured funding from the Natural Sciences and Engineering Research Council of Canada and power utilities. He led the development of teaching and research laboratories in the new Electrical Engineering program. He received an Early Researcher Award from the Ministry of Research, Innovation and Science in 2018.

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LISA FARLEY, Faculty of Education, won a **Critics' Choice Book Award** from the American Educational Studies Association for *Childhood beyond Pathology: A Psychoanalytic Study of Development and Diagnosis* (State University of New York, 2019). This award recognizes recent scholarship deemed to be outstanding in its field. *Childhood beyond Pathology* offers an account of the ways that psychoanalytic concepts can inform ongoing challenges of representing development, belonging and relationality, with a focus on debates over how children should be treated, what they might know and who they should become.



SARAH FLICKER, Faculty of Environmental Studies, was awarded a major grant from **Public Health Agency Canada** for her collaborative work on preventing teen dating violence. Gender-based violence - including violence against people based on their gender expression, gender identity or perceived gender - is a significant cause of harm and a preventable barrier to gender equality. This project will design, implement and evaluate classroom-based workshops for students in Grades 8 and 9 to reduce teen dating violence among youth. She seeks to partner with youth, students and allied practitioners on action research agendas.



STEPHEN GAETZ, Faculty of Education, is acknowledged for his initiative, **Making the Shift – Youth Homelessness Social Innovation Lab**, spearheaded by the Canadian Observatory on Homelessness at York University in partnership with A Way Home Canada. The project, which aims to address youth homelessness by emphasizing prevention, was awarded millions by the Government of Canada through the Networks of Centres of Excellence program. This project is critically important because it starts to understand current failings in addressing youth homelessness by listening to those who have been failed.



LEEAT GRANEK, Faculty of Health, won the **Distinguished Early Career Contributions in Qualitative Inquiry Award** from the American Psychological Association. The award recognizes an early career individual who has made outstanding contributions to qualitative research methods. Graneck's research is focused on grief and loss, psycho-oncology (the study of the psychological and emotional components associated with cancer and its treatment), palliative care and qualitative methods. She has examined how healthcare workers cope when their patients die and how they identify and respond to distress and suicide risk in their patients.



MICHAEL HELM, Faculty of Liberal Arts & Professional Studies, received a **Guggenheim Fellowship** from the John Simon Guggenheim Memorial Foundation in the category of Fiction. He's the author of four novels, all national or international award finalists. His most recent novel, *After James* (McClelland & Stewart, 2017), has been cited as "a warning, a lament, a virtuoso engagement with our times." He has also published personal essays and writings on fiction, poetry and visual arts. He serves as an editor at *Brick* magazine.



ERIC HESSELS, Faculty of Science, led a study published in the esteemed journal **Science**, which found a new measurement for the size of proton at 0.833 femtometres (just under one trillionth of a millimetre). The study confirmed the 2010 finding that the proton is smaller than previously believed. Hessels, York Research Chair in Atomic Physics and a York University Distinguished Research Professor, is leading a collaboration whose goal it is to use ultraprecise measurements of the electron to study one of the fundamental unresolved questions of physics.





**ONE OF YORK UNIVERSITY'S
OPPORTUNITIES TO FURTHER
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HEALTHY INDIVIDUALS, HEALTHY COMMUNITIES AND GLOBAL HEALTH

Understanding health in the future requires approaches that transcend archaic boundaries of just the physical body and understands health as a consequence of biology interacting with cultural, social, legal, environmental, technological and economic contexts. Over the next five years, York sets out to develop new questions that need to be asked and answer current questions within the field of health transdisciplinary approaches. From biomolecular engineering to the health of populations, and from healthy aging to global child health, researchers will fully realize the potential of, and accelerate the success of, recently launched initiatives such as the Dahdaleh Institute for Global Health Research and Vision: Science to Applications (VISTA). Over the longer term, York maintains its aspiration for a new kind of medical school to focus on integrated interdisciplinary care.



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RYAN HILI, Faculty of Science, was appointed the **York Research Chair** in Molecular Evolution. His research interests focus on using DNA to program and encode the synthesis of molecular libraries ranging from small molecules to synthetic biopolymers. By using the principles of Darwinian evolution, his lab can evolve these molecular libraries for desired function, yielding small molecule drugs to treat human disease or antibody mimetics for use in medical diagnostics. Hili received an Early Researcher Award from the Ministry of Research, Innovation and Science to build a research team in 2018.



CAROLINE SHENAZ HOSSEIN, Faculty of Liberal Arts & Professional Studies, is Founder of the Diverse Solidarity Economies (DiSE) Collective, a group of 25+ racialized feminist scholars and activists rethinking solidarity economics. She is acknowledged for her book *Politicized Microfinance: Money, Power and Violence in the Black Americas* (University of Toronto Press, 2016), which won the International Association for Feminist Economics' **Suraj Mal & Shyama Devi Agarwal Book Prize** in 2019. This stimulating book raises important issues for development finance, not only in the Caribbean but also globally.



ANNA HUDSON, School of the Arts, Media, Performance & Design, was elected as a Fellow in the **Royal Society of Canada**. She is an art historian/curator specializing in Canadian art, curatorial and Indigenous studies. As the York Research Chair in Inuit Cultural Mobilization and principal investigator of the Social Sciences and Humanities Research Council of Canada project "Mobilizing Inuit Cultural Heritage," Hudson amplifies the practice of cultural values by Indigenous artists. Drawing from her dissertation, *Art and Social Progress*, Hudson continues historical research on humanist aesthetics and cultural activism.



ALLAN HUTCHINSON, Osgoode Hall Law School, won the **CALE/ACEJ Lifetime Achievement Award** in 2019. The Canadian Association for Legal Ethics/ Association canadienne pour l'éthique juridique (CALE/ACEJ) bestows this award on an individual in the legal profession who has demonstrated sustained accomplishments in the field of legal ethics and professionalism. Hutchinson is a legal theorist with an international reputation for his original and provocative writings. He was elected to the Royal Society of Canada in 2004 and named a Distinguished Research Professor by York University in 2006.



CARL JAMES, Faculty of Education, was bestowed the **Lifetime Achievement Award of Excellence** from the Ontario Alliance of Black School Educators in April 2019. James holds the Jean Augustine Chair in Education, Community and Diaspora, and is also the Affirmative Action, Equity and Inclusivity Officer. He is widely recognized for his work with marginalized communities and for his role, nationally and internationally, in research around equity and identity as related to race, class, gender, racialization, immigration and citizenship. James holds a PhD in Sociology. He is a Fellow of the Royal Society of Canada.



MICHAEL JENKIN, Lassonde School of Engineering, was awarded major funding for his project "SENTRYNET: Developing trust between soldiers, civilians and robots" from the Department of National Defence's **Innovation for Defence Excellence and Security (IDEaS) program** under Innovation Networks in October 2019. York Professors James Elder and Debra Pepler are co-investigators. The objective is to explore the development of methodologies and technologies that will enable autonomous robots to interact with the public. Jenkin is a core member of Vision: Science to Applications (VISTA), the Centre for Innovation in Computing at Lassonde and the Centre for Vision Research.

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MARK JURDJEVIC, Glendon, received a **Guggenheim Fellowship** from the John Simon Guggenheim Memorial Foundation. He is writing a book about Niccolò Machiavelli, the genre of Renaissance letter-writing and the realist turn in the political and historical writing of the late Renaissance. At the centre of his study lies the friendship between Machiavelli and Francesco Guicciardini – a political philosopher, historian and important politician – and their literary circle. The book traces the origins of major developments in Renaissance intellectual history from the period to the dialog and debates in their personal correspondence.



MICHAEL H. KATER, Faculty of Liberal Arts & Professional Studies and Distinguished Research Professor Emeritus of History, won a **Canadian Jewish Literary Award** (scholarship category) for his book: *Culture in Nazi Germany* (Yale University Press, 2019). Modernism in music, Expressionism in film and the Bauhaus in design and architecture were manifestations of the arts and culture of Germany's Weimar Republic before the Nazis came to power. They were symbols of freedom. But under Hitler, these were overturned, and culture was weaponized in propaganda to intimidate the people and to persecute the Jews.



JOEL KATZ, Faculty of Health, was recognized with a prestigious honour by the American Psychological Association (APA) for his contributions to pain research. Katz, a Distinguished Research Professor of Psychology and Canada Research Chair in Health Psychology, was endorsed to become a **Fellow of Division 53**, the Society of Clinical Child and Adolescent Psychology of the APA. His research focuses on risk and protective factors for chronic pain in children and adults. He has contributed to more than 300 peer-reviewed journal articles and book chapters.



Photo: Arlene Moscovitch

ALI KAZIMI, School of the Arts, Media, Performance & Design, received the **Governor General's Award in Visual and Media Arts** from the Canada Council for the Arts. His body of work, which tackles complex issues of race, social justice, migration, history and memory, spans a broad spectrum of genres and media, and includes three feature documentaries, several short and mid-length documentaries, experimental films and 3D media art installations. In 2019, he received a Doctor of Letters (*honoris causa*) from the University of British Columbia.



MAGDALENA KROL, Lassonde School of Engineering, was bestowed the **2019 Early Career Hydrogeologist Award** from the International Association of Hydrogeologists. Krol earned the accolade by demonstrating an enthusiasm for leading and engaging with the hydrogeological community and making professional contributions to the field of hydrogeology. Hydrogeology is the area of geology that deals with the distribution and movement of groundwater in the soil and rocks of the Earth's crust. Krol studies hydrogeology as it pertains to environmental remediation and contaminant transport.



MARIN LITOIU, Faculty of Liberal Arts & Professional Studies and Lassonde School of Engineering, received the **Most Influential Paper award** from CASCON for research on cloud computing that was published ten years ago. Litoiu's paper, "Resource Provisioning for Cloud Computing," explored the then newly created field of cloud computing and how computing resources can be allocated. The award recognizes the lasting impact the paper has had on the industrial practice and academic research. Litoiu is the Scientific Director of Dependable Internet of Things Applications (DITA).

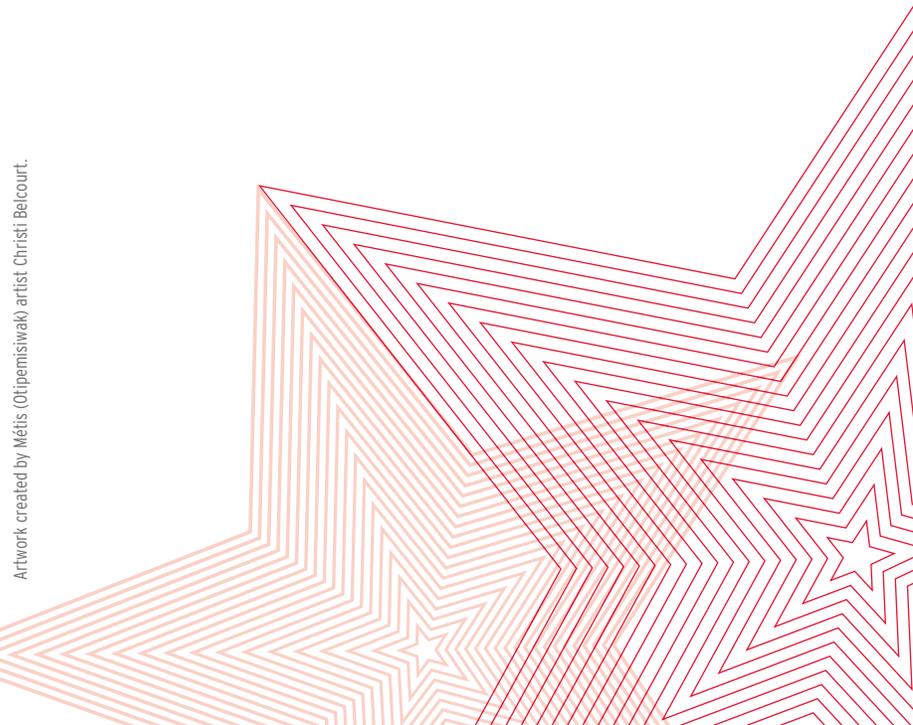


**ONE OF YORK UNIVERSITY'S
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GROWTH AND SUCCESS:**

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.

Artwork created by Métis (Ojipemisiwak) artist Christi Belcourt.



RESEARCH LEADERS 2019



BRENT LYONS, Schulich School of Business, was appointed the **York Research Chair** in Stigmatization and Social Identity. Lyons studies stigma in organizations and how individuals with stigmatized social identities, such as disability, navigate their work and interpersonal relationships to reduce consequences of stigmatization. He has published his work in numerous journals, such as the *Academy of Management Review*, the *Journal of Applied Psychology* and the *Journal of Management*. He serves on various editorial boards, including that of the journal *Organizational Behavior and Human Decision Processes*.



ANOOP MADHOK, Schulich School of Business, was awarded the **Global Strategy Journal Best Paper Prize** from the Strategic Management Society. This honours substantial work, which has been measured in terms of its impact over time, published in the *Global Strategy Journal*. Madhok is one of the top contributors worldwide in international strategic management research. His work is focused on understanding the dynamics underlying strategic alliances between firms. This area of research is particularly relevant to firms today as they increasingly rely on alliances to remain competitive.



RAYMOND MAR, Faculty of Health, was bestowed the **Friedrich Wilhelm Bessel Research Award** from Germany's Alexander von Humboldt Foundation. This award acknowledges those who are internationally renowned in their field, who completed their doctorates less than 18 years ago and who are expected to continue producing cutting-edge achievements that will have a seminal influence on their discipline. The research from Mar's lab centres on how imagined experiences during engagement with stories, such as watching Netflix or reading a novel, might affect how we think and behave in the real world.



JANINE MARCHESSAULT, School of Arts, Media, Performance & Design, was awarded the **York Research Chair** in Media Arts and Community Engagement. Marchessault was the co-founder of Future Cinema Lab and the inaugural Director of Sensorium: Centre for Digital Arts and Technology Research at York University. In 2018, she won a high-profile Partnership grant from the Social Sciences and Humanities Research Council of Canada for “Archive/Counter-Archive: Activating Canada’s Moving Image Heritage,” which involves 43 co-applicants and has collaborators from Canada and across the globe. She is an associate member of Vision: Science to Applications (VISTA).



J. J. McMURTRY, Faculty of Liberal Arts & Professional Studies, received the **Merit Award of the Canadian Association for Studies in Co-operation**. The award is presented to individuals who have demonstrated significant contributions to teaching and research on co-operatives, both in Canada and internationally. McMURTRY has taught and done research on co-operatives and the broader social economy since his appointment in 2004, publishing a number of books and articles on the subject. He was the Principle Investigator for the Partnership Development Grant People, Power, Planet which looked at alternative energy businesses.



JOHN MOORES, Lassonde School of Engineering, was awarded the **York Research Chair** in Space Exploration. Moores is an internationally recognized planetary scientist and space engineer whose research explores the atmospheres and surfaces of other worlds. His research group has been a member of the science and operations teams of five ESA and NASA space missions to Mars and Titan, and has been bestowed the NASA group achievement award on 16 occasions. Moores has published 73 papers garnering 5,809 citations.

RESEARCH LEADERS 2019



Photo: Mary Anderson.

AMY MUISE, Faculty of Health, was appointed as the **York Research Chair** in Relationships and Sexuality. She also received the SAGE Young Scholar Award, presented by SAGE Publications and the Foundation for Personality & Social Psychology. Muise studies the maintenance of sexual desire and relationship satisfaction in romantic relationships. This is important given that long-lasting, happy relationships are key contributors to overall health and well-being, and that lowering the divorce rate helps to reduce financial instability and negative health and psychological consequences.

LISA MYERS, Faculty of Environmental Studies, won the **Thematic Exhibit of the Year Award** from the Ontario Association of Art Galleries in 2019 for her exhibit "Post Script," which took place at the Kitchener-Waterloo Art Gallery in 2018. Myers is an internationally recognized artist and curator with a research focus on contemporary Indigenous art and curatorial practice with a keen interest in interdisciplinary collaboration. "Post Script" featured artworks by Rebecca Belmore, Susan Blight, Melissa General and Luke Parnell, whose work accesses site and land through sound, language and materials.

THEODORE NOSEWORTHY, Schulich School of Business, was renewed as the **Canada Research Chair** in Entrepreneurial Innovation and the Public Good. His research interests focus on new product design and innovation, as well as product categorization, category ambiguity and visual processing. He predominantly explores how people make sense of new innovative products and how marketers can better facilitate adoption. In 2012, he was appointed Scientific Director of the NOESIS: Innovation, Design, and Consumption Laboratory, a scientific lab specifically developed to explore the psychological and behavioural consequences of innovative goods and services.



LAURENCE PACKER, Faculty of Science, was bestowed the **2019 Nature Inspiration Award** by the Canadian Museum of Nature. This award recognizes individuals whose projects encourage Canadians to take an interest in natural history, create links with nature and contribute to its preservation. A Distinguished Research Professor and expert in wild bees, Packer oversees one of the most diverse bee collections in the world, housing specimens from over 100 countries. He and his students have built York's bee collection into the largest in Canada.



YIGANG PAN, Schulich School of Business, was awarded a **Gold Medal for Scholarship** from the Academy of International Business for his substantive scholarly contribution to the *Journal of International Business Studies*. These medals are for those individuals who have made the most significant contributions to the journal, in terms of the frequency and intensity of their efforts. Only 16 scholars around the world were given this award. Pan's research is on branding strategies in cross-cultural settings and market-entry strategies of multinational corporations.



STAVROULA PANTAZOPOULOU, Lassonde School of Engineering, was elected to **Fellowship in the Engineering Institute of Canada**. Her area of expertise is structural mechanics and earthquake engineering, with an emphasis on performance-based engineering. To improve the understanding of the relationship between mechanical properties and performance, she uses advanced numerical simulations at different scales of material response ranging from the microstructure to macroscopically observed behaviour of structural components.





**ONE OF YORK UNIVERSITY'S
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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 LEADERS 2019



GILLIAN PAREKH, Faculty of Education, is acknowledged for her appointment as the **Canada Research Chair** in Inclusion, Disability and Education. Parekh explores institutional and structural barriers related to equitable access to education, particularly for students with disabilities. She conducts quantitative and qualitative research investigating demographic, programmatic and experiential trends across public and post-secondary education. With a focus on special education and academic streaming, her work explores how schools construct and respond to disability. Her research addresses current issues in education and will make a difference in the lives of young people.



PETER PARK, Lassonde School of Engineering, led a partnership with a signal, image and data processing company, AUG Signals Inc. Lassonde Professor Ali Asgary was a co-applicant. They secured funding from the Defence Research and Development Canada for their **Canadian Safety and Security Program** in 2019. Park will lead a cutting-edge traffic safety project that uses an advanced radar system to detect moving objects on the road in real-time. The project will develop an Internet-of-Things device that will reduce collisions. It involves first responders on duty on public roadways.



DEBRA PEPLER, Faculty of Health, was named an Officer of the **Order of Canada** by the Governor General of Canada. Through her research, Pepler has profoundly changed the way we perceive bullying. A Distinguished Research Professor at York, she has developed innovative methodologies that shed new light on children's relationships and interactions, providing novel insights into the processes of aggression and victimization. She has revealed the pressing need to support the relationships and mental health of young Canadians through school-based programs, social service agencies, public policies and legislation.



REBECCA PILLAI RIDDELL, Faculty of Health and associate vice-president research, was elected to the **Royal Society of Canada's** College of New Scholars, Artists and Scientists in 2019. She has established the first norms for the development of acute pain behaviours in healthy infants, within the context of primary caregivers, through her Opportunities to Understand Childhood Hurt (O.U.C.H.) Lab at York University. In 2019, she also received funding for a very large Collaborative Health Research Project, funded by all three Canadian research councils, setting out to discover an artificial intelligence solution for assessing infant pain.



POUYA REZAI, Lassonde School of Engineering, received an **Early Researcher Award (ERA)** from the Ontario Ministry of Economic Development, Job Creation and Trade. The ERA program helps new researchers build their research teams. This funding will go toward research on platforms for neurodegenerative diseases. Broadly speaking, Rezaei's research explores the development of microfluidics, mechanical systems for applications in medicine and point-of-care diagnostics, biology, environmental sciences and extreme environments. He is also the creator of the Advanced Center for μ fluidics Technology and Engineering.



MANUS (JOHNNY) RUNGTUSANATHAM, Schulich School of Business, was appointed the **Canada Research Chair** in Supply Chain Management in 2019. He researches supply chain breaches – for example, the removal of goods flowing to or from a manufacturer (e.g., cargo theft), the introduction of a substitute good (counterfeit) and/or contamination of the good that is physically flowing (tampered goods). This research program advances a theory of supply chain securitization involving people, processes and technology, informed through the lenses of immunology, military strategies and criminology.

RESEARCH LEADERS 2019



VALERIE SCHOOF, Glendon, was the recipient of an **Exploration Grant** from the New Frontiers in Research Fund. Her project, "People and primates: a bio-geo-cultural approach to understanding human-wildlife interactions," will examine the nature of human-wildlife interaction using a bio-geo-cultural approach to understand the causes and consequences of perceived differences in the benefits and costs of human-wildlife interactions. This work focuses on the people and primates in and around the Lewa Conservancy, in Kenya, and two villages in Uganda. Schoof also won the John R. Evans Leaders Fund grant from the Canada Foundation for Innovation.



MARLIS SCHWEITZER, School of the Arts, Media, Performance & Design, was elected to the **Royal Society of Canada's** College of New Scholars, Artists and Scientists. She has written many books including *Transatlantic Broadway: The Infrastructural Politics of Global Performance* (Palgrave Macmillan, 2015) and *When Broadway was the Runway: Theater, Fashion, and American Culture* (University of Pennsylvania Press, 2011). She is currently completing a monograph on 19th-century child actresses. Schweitzer is past president of the Canadian Association for Theatre Research and current editor of *Theatre Survey*.



JINJUN SHAN, Lassonde School of Engineering, was awarded major funding for his project, "Effective human-machine cooperation with intelligent adaptive autonomous systems," from the Department of National Defence's **Innovation for Defence Excellence and Security (IDEaS) program** under Innovation Networks in October 2019. The objective of the project is to advance key technologies in the area of autonomous systems including intelligent adaptive systems, automated task execution, high-precision navigation, control of autonomous systems and effective human-machine interactions. One of the outcomes will be the creation of a dataset for validating human-automation trust models.



GUNHO SOHN, Lassonde School of Engineering, is acknowledged for receiving a large **Collaborative Research and Development Grant** from the Natural Sciences and Engineering Research Council of Canada. His project uses artificial intelligence to update Canada's infrastructure. Although Canada is the world's 10th largest economy, one-third of its infrastructure needs a significant update. Sohn was also awarded a major grant from the Ontario Centres of Excellence for his project known as the Ontario Train Autonomy Collaboration (OnTRAC). He is an associate member of Vision: Science to Applications (VISTA).



ADRIANO O. SOLIS, Faculty of Liberal Arts & Professional Studies, was the recipient of the **Bronze Innovative Management Award** at the 2019 Institute of Public Administration of Canada's 71st annual conference, alongside York Professor Ali Asgary. This was related to their work at ADERSIM (Advanced Disaster, Emergency & Rapid Response Simulation). They built partnerships for the "Igniting Insight: Using GIS and Analytics in the Fire Service" project that had a lasting impact on the City of Vaughan's Fire & Rescue Service and future city planning.



GARY SWEENEY, Faculty of Science, was appointed the **York Research Chair** in Mechanisms of Cardiometabolic Diseases. He is an expert on diabetes and cardiovascular disease. His work focuses on understanding the mechanisms of cardiometabolic diseases. It is designed to advance knowledge that will facilitate our fundamental understanding of the causes of these diseases. His research promises to inform decision-making, which could lead to improved healthcare. His research is supported by the Canadian Institutes of Health Research, the Natural Sciences and Engineering Research Council of Canada and the Heart and Stroke Foundation.

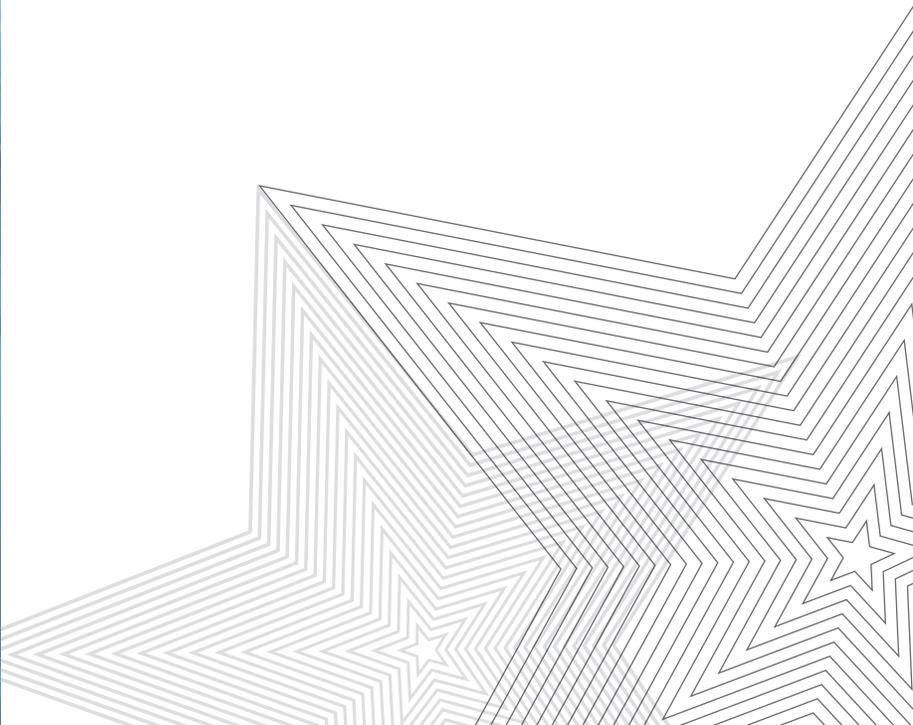




**ONE OF YORK UNIVERSITY'S
OPPORTUNITIES TO FURTHER
ACCELERATE RESEARCH
GROWTH AND SUCCESS:**

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 LEADERS 2019



THOMAS TEO, Faculty of Health, received the **Theodore Sarbin Award** from the American Psychological Association, which recognizes a body of work by a psychologist that demonstrates achievements in one of the areas that Theodore Sarbin contributed to, including innovative theoretical work that is “critical” in the broadest sense of the term. Teo was recognized as an international scholar who is remapping the boundaries of psychology and raising new fundamental questions about dominant ways of theorizing about identity and subjectivity in psychology.



JESSE THISTLE, Faculty of Liberal Arts & Professional Studies, is acknowledged for his best-selling memoir **From the Ashes: My Story of Being Métis, Homeless, and Finding My Way** (Simon & Schuster, 2019). Recognitions include *The Walrus*’ Ten Canadian Authors on the Best Books of 2019 and *Toronto Life*’s Most Influential List. The book ranked No. 3 on Indigo’s list of Best Books of 2019 and earned a starred review in *Quill and Quire*. Thistle also delivered the Kitty Lundy Memorial Lecture, undertaken by those whose scholarship and creativity demonstrate engaged learning, equity and social justice.



NIKOLAUS TROJE, Faculty of Science, was awarded the **Canada Research Chair** in Reality Research. He is a core member of the Vision: Science to Applications (VISTA) team and York’s Centre for Vision Research. In his BioMotionLab, he uses motion capture and 3D scanning technology to generate avatars used in mixed realities. Using virtual reality, he studies how we perceive objects and communicate with other people, how we experience and take ownership of our own body, and how we situate ourselves in space.



DOUGLAS VAN NORT, School of the Arts, Media, Performance & Design, received an **Early Researcher Award** from the Ministry of Economic Development, Job Creation and Trade in 2019. He is the Canada Research Chair in Digital Performance. Van Nort's work is concerned with issues of performance and sensorial immersion in technologically mediated environments. His research-creation work integrates improvisation and collective performance with machine agents, interactive systems and experiences of telepresence. He is the founding director the Distributed Performance and Sensorial Immersion Lab at York and an associate member of Vision: Science to Applications (VISTA).



ESTAIR VAN WAGNER, Osgoode Hall Law School, was the recipient of an **Exploration Grant** from the New Frontiers in Research Fund. Her project will investigate the entanglement of private, state and Indigenous interests in British Columbia's private forest lands. Crown grants of these unceded Indigenous lands to the Esquimalt and Nanaimo Railway in the 19th century transformed a huge area of collectively held Indigenous territory into one of the largest stretches of private land in British Columbia. Much of this land is now owned by public sector pension plans as private forest lands.



ELA VERESIU, Schulich School of Business, won the **Sidney J. Levy Award**. This award is given to the author of the best article based on a consumer culture theory-oriented dissertation thesis that is published in an English-language marketing and/or consumer journal. She won the award for her article "Beyond Acculturation: Multiculturalism and the Institutional Shaping of an Ethnic Consumer Subject," in the *Journal of Consumer Research* (2018). Veresiu also received the Ferber Award honourable mention, which acknowledges the best article in the most recent volume of the *Journal of Consumer Research*.

RESEARCH LEADERS 2019



LEAH F. VOSKO, Faculty of Liberal Arts & Professional Studies, was recognized for excellence in research by the Social Sciences and Humanities Research Council of Canada (SSHRC). She was the recipient of SSHRC's prestigious **Impact Award (Insight Category)**, a first for York University. Vosko, Canada Research Chair in Political Economy of Gender & Work, is Canada's foremost expert on the complex national and global problem of precarious employment. Her contributions to scholarly knowledge, networks and learning tools have made lasting impacts within academia and on public policy.



DEREK WILSON, Faculty of Science and York Research Chair in Molecular Mechanisms of Disease, won a major **Collaborative Research and Development Grant** from the Natural Sciences and Engineering Research Council of Canada for his project, "Technology-Enhanced Biopharmaceuticals Development and Manufacturing Initiative." This grant is to create collaborations that result in economic, social or environmental benefits for Canada. Wilson's project is aimed at the implementation of new bioanalytical technologies to accelerate pre-clinical development and enable precision manufacturing of protein therapeutics. This work has huge implications for vaccines.



JIANHONG WU, Faculty of Science, received the esteemed **2019 CAIMS-Fields Industrial Mathematics Prize**. The Canadian Applied and Industrial Mathematics Society (CAIMS) and the Fields Institute give the prize annually to those who have conducted exceptional research in industrial mathematics. Wu, a Distinguished Researcher who is also the NSERC/Sanofi Industrial Research Chair in Vaccine Mathematics, Modelling and Manufacturing, was bestowed this honour for his many contributions to dynamical systems in mathematical epidemiology. Wu is the Canada Research Chair in Industrial and Applied Mathematics and core member of Vision: Science to Application (VISTA).



AMRO ZAYED, Faculty of Science, was acknowledged for leading the successful application to **Genome Canada's Large-Scale Applied Research Competition**. Zayed is the York Research Chair in Genomics. He is interested in studying the genetics and evolution of social insects, and in applying genomic tools to improve the health of managed honeybees, which will increase the sustainability and security of Canada's food supply. His group sequences the genomes of thousands of bees to identify mutations that influence their economically and ecologically relevant traits.



ZHENG HONG (GEORGE) ZHU, Lassonde School of Engineering, was elected to the **Royal Society of Canada's** College of New Scholars, Artists and Scientists. He was also awarded the 2019 Engineering Medal in Research and Development from Professional Engineers Ontario, the licensing and regulating body for professional engineering in the province. York Research Chair in Space Technology and the Inaugural Academic Director of Research Commons, Zhu is currently leading the DESCENT (DEorbiting SpaceCraft using ElectrodyNamic Tethers) Cubesat mission – Canada's first space debris removal technology demonstration mission.



JOEL ZYLBERBERG, Faculty of Science, was appointed an **Associate Fellow at the Canadian Institute for Advanced Research**. He was also appointed the Canada Research Chair in Computational Neuroscience. A core member of Vision: Science to Application (VISTA), he studies the way the brain represents information about the outside world. His goal is to build on his expertise in machine learning and sensory neuroscience to create a camera-to-brain translator that could restore sight to the blind. His work may have strong implications for the development of next-generation retinal prosthetics.

CONGRATULATIONS ARE ALSO EXTENDED TO

Banting Post-Doctoral Fellowships

Sylvie Bodineau
Melchisedek Chetima

Vanier Canada Graduate Scholars

Heather Bergen
Shraddha Chatterjee
Okechukwu Efoduh
Nadha Hassen
Inbar Peled

YORK UNIVERSITY PRESIDENT'S RESEARCH AWARDS





PRESIDENT'S EMERGING RESEARCH LEADERSHIP (PERLA) AWARD 2020



Christopher Perry

School of Kinesiology and Health Science
Faculty of Health

Christopher Perry, School of Kinesiology and Health Science, Faculty of Health, was selected for this award (Engineering, Science, Technology, Health and Biomedicine Cluster), as a reflection of his outstanding leadership in and contribution to the fields of exercise physiology, metabolism and skeletal muscle health.

Since 2012, when he came to York, Perry has contributed significantly to the success of the University, both internally and externally. He established the only human muscle biopsy lab at York, where he investigates the basic cellular mechanisms of muscle fitness and applies these discoveries toward developing novel therapies to treat muscle weakness disorders.

In 2016, he was elected to serve as a Director Academic for the Canadian Society for Exercise Physiology, Canada's major authority in exercise science and prescription. This society focuses on integrating state-of-the-art research into best practice. It is comprised of professionals interested and involved in the scientific study of exercise physiology, exercise biochemistry, fitness and health.

Perry was the recipient of the 2017 Faculty of Health Research Award (early career). He has also received multiple internal and external awards, including funding from the Canada Foundation for Innovation, the Ontario Research Fund, the Natural Sciences and Engineering Research Council of Canada, the James H. Cummings Foundation, the Rare Disease Foundation and industry funding.

PRESIDENT'S EMERGING RESEARCH LEADERSHIP (PERLA) AWARD 2020



Theodore Noseworthy

Schulich School of Business

Theodore Noseworthy, Schulich School of Business, was chosen for this award (Social Science, Art & Design, Humanities, Business, Law and Education Cluster), for his extraordinary leadership and contribution to the fields of marketing and consumer studies.

As the Canada Research Chair in Entrepreneurial Innovation and the Public Good, he develops insights that inform business and policy-makers about the benefits of properly communicated innovation and the potential costs to susceptible consumers and society. He examines how marketers can better communicate product and service innovations to maximize adoption and awareness. This work focuses on new product design and innovation, as well as product categorization, category ambiguity and visual processing.

In 2012, Noseworthy was appointed Scientific Director of the NOESIS: Innovation, Design, and Consumption Laboratory, a world-class behavioural lab at Schulich to extend his primary research programs. The NOESIS lab is intended to foster innovative research into consumption, consumer behaviour and design. Noseworthy has developed this lab with the specific goal of conducting high-quality research, training skilled personnel and facilitating knowledge mobilization.

Broadly speaking, Noseworthy's research program is designed to help combat Canada's innovation deficit by helping the private sector transfer knowledge into commercialized products and services to grow the economy.

PRESIDENT'S RESEARCH IMPACT (PRIA) AWARD 2020



Debra Pepler

Department of Psychology
Faculty of Health

Debra Pepler, Department of Psychology, Faculty of Health, was selected for this award for her innovative contributions to psychology and mental health in the areas of bullying, aggression and violence, especially among marginalized children, youth and families. In recognition of these contributions, Pepler was named an Officer of the Order of Canada by the Governor General. She is the only psychologist recognized by the Canadian Psychological Association for Distinguished Contributions to both Psychology as a Science and Public or Community Service.

Pepler received a Network of Centres of Excellence grant to establish PREVNet - Promoting Relationships and Eliminating Violence Network, funded from 2006-2019. She built this interdisciplinary network with her former PhD student Wendy Craig (Queen's University), with over 120 researchers, 150 graduate students and 62 national organizations. PREVNet's researchers and partners co-created over 150 resources for bullying prevention and healthy relationships. PREVNet was the culmination of Pepler's decades of research linking science with practice and public policy for children's healthy development and healthy relationships.

Pepler's research embedded in clinical and community settings has real impact on the lives of children, youth, and families. She has a strong publication record, having written or co-edited ten books, and more than 200 journal articles, chapters, and reports. In 2007, Pepler was recognized as a Distinguished Research Professor by York for her ground-breaking research.

PRESIDENT'S RESEARCH EXCELLENCE (PREA) AWARD 2020



Eric Hessels

Department of Physics and Astronomy
Faculty of Science

Eric Hessels, Department of Physics and Astronomy, Faculty of Science, was chosen for his award (Engineering, Science, Technology, Health and Biomedicine Cluster), for his exceptional contribution to atomic, molecular and optical physics.

Hessels, York Research Chair in Atomic Physics and a York University Distinguished Research Professor, has led numerous research projects that have far-reaching consequences for the understanding of the laws of physics. He is leading a collaboration whose goal it is to use ultraprecise measurements of the electron to study one of the fundamental unresolved questions of physics.

In 2019, Hessels led a study published in the esteemed journal *Science*, which found a new measurement for the size of proton at just under one trillionth of a millimetre. The study confirmed the 2010 finding that the proton is smaller than previously believed.

The year before, Hessels led a team that achieved the most precise measurement of the fine structure of helium ever recorded. His researchers had been working on this for eight years. Hessels is now leading a collaboration (EDM_{cubed}) that is attempting to measure the shape of the electron – or, more specifically, whether its charge is evenly distributed. This measurement will try to shed light on one of the fundamental mysteries of physics: why the universe is made entirely of matter (electrons, protons, etc.) and, unexpectedly, has no antimatter (anti-electrons, antiprotons, etc.).

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www.research.info.yorku.ca/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 new **Strategic Research Plan**, existing research strengths and additional areas of research opportunity. Also available on our YouTube playlist:

www.bit.ly/2mPtT8Z

