

Faculty of Health Impact Report

2021-22

Special Issue: Research & Teaching

health





The Faculty of Health is committed to creating positive change for our students, our communities, and the world around us through teaching, research excellence, and partnerships.

KINESIOLOGY & HEALTH SCIENCE

HEALTH STUDIES

NURSING

GLOBAL HEALTH

PSYCHOLOGY

NEUROSCIENCE

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The Faculty of Health welcomes its new Dean, Dr. David Peters, who began his tenure on January 1, 2023.

MESSAGE FROM THE DEAN

I AM DELIGHTED TO INTRODUCE the Faculty of Health’s Impact Report for 2021-22, my first as Dean of the Faculty. The report highlights what an inspired and socially engaged Faculty we have – one that is innovating in research and education, and making positive impacts on students’ lives and in communities here and around the world. Having just arrived at York University, I am keen to learn what our faculty, staff, and students are doing. This report provides a great way to see some recent highlights at a glance, and hopefully pique your curiosity to learn more. It also shows that we have a strong foundation to plan what we hope to do together over the years to come.

In this report you will learn about some of our many promising developments in research and teaching. From research into potential new therapies to treat a variety of disorders from Alzheimer’s to Duchenne muscular dystrophy, to neuroscience discoveries with significant implications for how environments and technology should be designed, and to research into broader policy questions on a range of issues from the social determinants of health to the effects of medical cannabis use on youth, our researchers are striving to expand our knowledge to improve health and well being. Our faculty teachers are engaged in creative new initiatives to improve the student experience from the use of “toolkits” for faculty colleagues across York to integrate the UN Sustainable Development Goals (SDGs) into their teaching, to the PATHS (Pedagogy to Aid Transition for Higher-ed Students) project to help students develop the “soft” skills such as teamwork, self-reflection, and self-regulation to help them transition to the career stage. We are also looking beyond the campus to incorporate real world and workplace experience for our students with such innovate programs as the Work Integrated Learning for Black Students in Psychology, as well as classes at York’s Las Nubes EcoCampus in Costa Rica where students learn how the people and environment of Costa Rica can influence our behaviours and policies as part of a series of community-based field courses.

I hope you enjoy this report and I look forward to our ongoing work creating positive change for our communities, local to global, as we advance our mission to keep more people healthier, longer.

David H. Peters, MD, MPH, DrPH
Dean, Faculty of Health

Amazing things happen when diverse communities work together to tackle world issues. When York University students apply their knowledge, they have the power to make things right.

Join us in creating positive change. yorku.ca/rightthefuture

**RIGHT
THE
FUTURE™**

FACULTY OF HEALTH RESEARCH

Faculty of Health research at a glance

From world class vision research, to physical and mental health, to policy change local to global, our researchers are at the forefront of bold discoveries that advance health and health science.

\$21.5+
MILLION
RESEARCH INCOME
GENERATED BY
FACULTY OF HEALTH
RESEARCHERS ANNUALLY



7 RESEARCH CENTRES & INSTITUTES

- Centre for Artificial Intelligence and Society
- Centre for Integrative and Applied Neuroscience
- Centre for Vision Research
- Dahdaleh Institute for Global Health Research
- LaMarsh Centre for Child and Youth Research
- Muscle Health Research Centre
- York Centre for Aging Research and Education

York University ranked **#2**
in the world among
academic institutions for **Heart
Rehabilitation, Secondary Prevention
& Metabolic Equivalent**, with the No. 1
researcher in the world: Kinesiology &
Health Science Professor **Sherry Grace**.
(SciVal, 2021)

191 RESEARCHERS

320 ACTIVE RESEARCH
GRANTS

90+ DOMESTIC AND
INTERNATIONAL
RESEARCH FUNDERS

24 RESEARCH CHAIRS:

- 15** YORK RESEARCH CHAIRS
- 6** CANADA RESEARCH CHAIRS
- 2** ENDOWED CHAIRS
The Helen Carswell Research Chair in Dementia Care
The Dahdaleh Distinguished Chair in Global
Governance & Legal Epidemiology
- 1** ONTARIO WOMEN'S HEALTH
COUNCIL (OWHC) CHAIR
in Women's Mental Health Research

Shifting the Focus of Neuromuscular Disease Treatment

CHRISTOPHER PERRY
KINESIOLOGY & HEALTH SCIENCE



ALTHOUGH KINESIOLOGY IS USUALLY associated with promoting the benefits of exercise, associate professor Chris Perry focuses his research on diseases that prevent people from exercising. "I wanted to bring my expertise in muscle physiology to genetic diseases like Duchenne muscular dystrophy that currently have limited therapies for treating movement disorders," he explains.

With funding from Muscular Dystrophy Canada (MDC), Perry and his team are investigating the use of new drugs that target specific cellular problems within the muscle itself.

"These novel drugs represent a totally new way of thinking," says Perry. "Rather than suppressing the immune system, they boost a muscle's metabolism, enabling it to extract more energy from food, which can then be used to power muscle contraction. Our aim is to improve the ability of people with Duchenne – a debilitating disease that causes severe weakness in the limbs, diaphragm and heart – to have better movement, breathing ability and heart function."

One exciting pre-clinical finding to date is that the therapy prevents about 30 per cent of weakness in the diaphragm,

Perry reports. "This is significant, since 40 per cent of deaths from Duchenne are due to diaphragm failure," he says. "Extending a person's life span would be a huge benefit."

Work by graduate students Meghan Hughes, Sofhia Ramos and Catherine Bellissimo helped to secure the MDC grant.

Thanks to additional internship funding from federal agency Mitacs Accelerate, students from Perry's lab will work directly with MDC's head office, creating communications to raise awareness about the disease: both the basic science underlying causes of muscular dystrophy and the latest therapeutic discoveries. Perry told his students that he hopes this will help them see more clearly the importance of the research they're doing, and perhaps also stimulate ideas from the "lived experience" of patients for new avenues to explore.

"This program will get students away from the 'bench' for awhile, and provide training in communicating complex information to a targeted audience," says Perry. "It will also put them in front of people with the disease, who are going to benefit directly from their work. We're really excited to be participants!"



Delving into the health benefits of dairy consumption and exercise

ANDREA JOSSE
KINESIOLOGY & HEALTH SCIENCE

YOU DON'T NEED TO BE A HEALTH EXPERT to have heard of the benefits of milk and other dairy products. Now the Canada Foundation for Innovation (CFI) has awarded \$125,000 to Andrea Josse, a professor in the School of Kinesiology and Health Science, to explore how wholefood dairy products

provide important nutrients to our diets and may help mitigate disease and improve overall health.

“My main research program puts exercise and nutrition together to improve musculoskeletal and cardiometabolic health,” says Josse. With a particular

interest in helping young people achieve peak bone mass before they start to lose it as they age, studies will focus primarily on adolescents and young adults. Experiments will include both longer term-interventions with specific dietary and exercise programs, as well as acute studies where she brings subjects into her lab to perform a specific exercise bout and then consume a food (say yoghurt, milk or cheese) followed by blood samples. “My goal is to find evidence in the acute studies for the mechanisms (primarily relating to nutrient handling, bone metabolism, and inflammatory and hormonal responses) that may govern the longer-term adaptations seen in my interventions,” says Josse.

As for milk, Josse’s notes that as the 2019 modification to Canada’s Food Guide eliminated the meat and dairy categories in favour of one protein group, milk may need an advocate. “Milk contains high-quality protein, calcium, vitamin D, phosphorus, potassium, magnesium, all together in one package,” she says. “Not that you can’t get these nutrients from other foods, but dairy foods definitely are unique in that they provide a wide range of important nutrients in higher densities.” She adds that dairy foods are also readily available and relatively inexpensive. “It’s important to create new evidence that will not only inform the use of affordable and accessible dairy products, but also to be able to develop evidence-based messaging that effectively informs our Country’s dietary guidelines.”

Josse is excited about the CFI support because it will enable her to grow her human research program and help her collaborate, not only among York colleagues but from other institutions including the University of Toronto and Brock University and build up the Faculty’s infrastructure by establishing an exercise training and testing centre, and acquiring machinery to assess body composition, and test biomarkers.



Andrea Josse



Exploring the realities of reducing unconscious racial bias

KERRY KAWAKAMI
PSYCHOLOGY

NOBODY LIKES TO THINK OF THEMSELVES as racist. That's why psychology professor Kerry Kawakami tries to design experiments that work around social norms in order to go deeper into our innate social categorization processes, which cause us to see the world in entrenched stereotypes even when we would like to think we don't. "Implicit biases are the focus of my research, associations that you have with certain categories that you're not aware of or you can't control," says Kawakami. Over many years, her lab has tested how White people categorize Black people, and more recently how Black people categorize White people, with plans to explore biases in other racial groups such as East and South Asians. Her research uses a variety of methods including eye trackers and mouse tracking to monitor visual attention and responses to facial expressions of people from different races.

At times, these studies involve distracting participants with content unrelated to race. For example, Kawakami shows participants in one experiment a photograph of a Black and White man bumping into each other and asks them to describe the two targets and what's going on. Another group sees a similar image with two White men. And while only 20 percent describe the person's race, participants describing the image with different races see the situation as much more conflictual. Says Kawakami: "Even though they think they're being unprejudiced by not acknowledging race, their associations with these categories are influencing perceptions."

Such influences often happen in the courts, an area where Kawakami's research is becoming more relevant. She has recently testified in cases ranging from unjust terminations to the well-publicized case of a Black child shackled by police for misbehaving in school, providing an expert opinion about implicit biases that may have been at play. She has consulted on panels aiming to reduce bias among court judges, offering advice on how to look for similarities between themselves and people who appear in their courtrooms and how to be wary of ambiguous information and behaviors. "It's useful to try to look at the person behind the category membership and to try to interact with people in contexts other than court, going to multicultural festivals for example. So, court encounters are not the only time you're interacting with people from different races and backgrounds," says Kawakami.



Pioneering new work to influence health policy

DENNIS RAPHAEL
HEALTH POLICY & MANAGEMENT

HEALTH POLICY AND MANAGEMENT professor Dennis Raphael's academic work at York over a period of 22 years has developed new ways of thinking about poverty and inequality that could improve people's living and working conditions. Unfortunately, to date, governments and policy makers haven't responded.

"From the start, we believed that when we produced our research, people in authority would make responsible decisions based on this evidence," says the author of more than 250 scientific publications on the health effects of income inequality and poverty, the quality of life of communities and individuals, and the impact of government decisions on Canadians' health. "Boy, were we wrong!"

In an invited commentary to the International Journal of Health Services last June, Professor Raphael and Ontario Tech University Associate Professor Toba Bryant identified barriers that have prevented not only the government, but also a wide range of disease associations, food bank charities and other "apparently well-meaning individuals" from acting in the best interests of promoting public health. Their article is entitled: "Emerging Themes in Social Determinants of Health Theory and Research." The underlying problem, he believes, lies within our economic system, which is focused on continuously increasing the profits of corporations and the wealth of those who control them rather than providing for the needs of Canadians.

"We have tons of evidence from StatsCan and other reliable sources of how conditions are worsening in Canada – increasing precarious work and food insecurity, a housing crisis and growing inequality in income and wealth," he says. "But to date, we've had no traction on our findings."

Raphael says his energy is increasingly directed towards supporting his "amazing" graduate students who continue



to produce novel, pioneering work. "We're kind of pushing the envelope and trying to almost shame policy makers into taking action on the evidence they're being given," he says.

Our unwillingness to manage the operations of our unfettered economic system – what academics and advocates call neo-liberal capitalism -- makes it almost impossible to solve these problems. "There are ways of responding" says Raphael, citing Berlin's recent referendum enabling the municipal government to take control of apartments from the city's biggest landlords and convert them into affordable housing. "The bottom line is that we need to take control of our economic system and if that is not possible, then we need to replace it", he says.



Virtual reality tools show promise for health fields from dementia to visual impairment

LORA APPEL
HEALTH POLICY & MANAGEMENT

MOST PEOPLE THINK OF VIRTUAL REALITY

(VR) as a new toy for gamers or the latest distraction for children. But what if VR could help dementia patients relax while they receive necessary treatment from health professionals? For Lora Appel, professor in the School of Health Policy & Management, the possibilities for her research in this area have exploded even beyond that original population to include people with epilepsy, amputees with phantom limb pain, and patients with low vision including those with childhood brain tumours. “I’ve been so fortunate because as soon as someone hears about this, they envision how it could be used in their population,” says Appel.

Appel completed her first clinical trial with Baycrest’s Centre for Aging and Brain Health Innovation back in 2017. That trial expanded from one site to four, exploring what VR could do for 66 participants with varying degrees of physical and cognitive impairment. “The idea was first to cast a broad net, and see if people can accept and tolerate it, and then start to really refine the therapy,” says Appel. Since then, she has tested the technology at her PrescribingVR lab at the University Health Network. She has helped seniors with mobility issues enjoy natural environments during a Canadian winter, and residents at the Veterans Health Care Centre in Ottawa experience a calming distraction from challenging moments such as wound dressing changes.

While she tries out the VR system with various populations, Appel is also working to improve the technology, both by building a VR-experience library suited to the various



Photo courtesy of YFile

demographics (calm farm and beach settings are popular, as are films that allow seniors to travel, especially back to home countries) and also refine the VR headsets so they are easier to use, for example incorporating tactile buttons. Appel has even designed an app so that the VR system can be controlled by the more familiar tablet. “We’re slowly refining this tool so that eventually it could go to market as a very useful product that both improves quality of life for the person with dementia and provides important respite to caregivers,” she says. “If this tool could keep people out of institutions, that would also be great in terms of cost savings for our health system.”



Tracking youth who “self-medicate” with cannabis

JEFFREY WARDELL
PSYCHOLOGY

CANADIAN YOUTH ARE USING CANNABIS at a higher rate than ever before – and what particularly concerns psychology professor Jeffrey Wardell is their motivation for doing so.

Drawing data from The Canadian Tobacco, Alcohol and Drug Survey, conducted every two years by Statistics Canada, Wardell warns that “self-medication” with cannabis, to manage a wide range of physical and mental health symptoms, is strikingly common. Indeed, 1 in 5 cannabis users aged 15 to 24 reported medicinal motivations for use.

“There’s been a shifting landscape around the perceived harmfulness and potential benefits of using cannabis,” he says, which coincides with the legalization of cannabis across Canada.

“Young people don’t perceive cannabis to be as risky as they did before,” he notes. “They’re also more likely to believe it can be beneficial or therapeutic.” However, it’s unclear how youth who use cannabis for self-medication differ from their peers who use cannabis for recreational reasons.

To help address this question, Wardell divided cannabis-using youth aged 15 to 24 into four groups: 1) those who used

cannabis only for recreational reasons; 2) those who used it primarily for physical health reasons (mainly pain); 3) those who used it primarily for mental health reasons, including depression or anxiety; and 4) those who used it primarily for insomnia and sleep problems.

A key finding was that youth who reported using cannabis for self-described medical reasons, as opposed to recreational reasons, were much more likely to be daily users and also to have elevated risk of cannabis dependence, especially if they used cannabis to manage physical or mental health symptoms. That the majority of youth do not have medical authorization for cannabis through a healthcare provider raises additional concerns around overconsumption, use of high-risk products, and potential interactive effects with other drugs and medications, Wardell notes.

“We need to raise awareness that this is happening at a high rate, that it’s likely happening outside a healthcare context, and that there are potential risks involved,” says Wardell. “I’m not suggesting that cannabis has no potential medicinal benefits,” he adds. But, he says, we likely need to provide more medical oversight and support for young people who are using cannabis for self-medication in order to minimize potential harms.

Studying the brain’s visual interactions in the interest of aging, design, and cannabis use

DENISE HENRIQUES
KINESIOLOGY & HEALTH SCIENCE

WE REACH FOR A PEN off our desk or an apple from the kitchen counter dozens of times per day and never think much about the coordination that it takes to spot the object, reach out to locate and grasp it. Fortunately, this and other more complex coordinations are something that Neuroscience and Kinesiology professor (and current Neuroscience program coordinator) Denise Henriques spends a lot of her time thinking about, with a mind to benefitting everything from spatial design to technology to aging. “As humans we are versatile movers; we can do a variety of complex movements and we learn them quite fast. I want to understand how the brain uses visual information and responds to movement,” says Henriques.

In her experiments, Henriques has subjects use a computer mouse to move a cursor towards a target on screen (or more recently, gamifying the experiments using virtual reality gear), and then disturbs different elements of the scene such as the visual distance, to see how people adjust. While these adaptations are largely unconscious, studying how they happen can help to understand how the brain uses the visuals, which can be helpful for understanding and helping those with motor control issues from brain damage or diseases like Parkinson’s make adjustments or design environments or tools that make movements easier.



A more recent exploration for Henriques has been to examine the effects of cannabis on the motor performance by frequent and occasional users. For this experiment, Henriques relied on subjects who were high-functioning daily users, mostly students, and collected data online during the pandemic lockdown. “We developed a bunch of tasks that are very common in the field, looking at attention, special memory, and executive function,” she explains. The results showed no evidence that this group was slower than the average on completing the tasks. Now she is following up with a new exploration that will have subjects repeat the actions while they are under the influence. While Henriques is not a user herself or an advocate, she does believe cannabis has been “demonized” and argues that it’s helpful to collect real data to improve our understanding of the substance’s effect on the body.

Bridging the gap between the lab and the real world

LAURIE WILCOX
PSYCHOLOGY



WHEN PSYCHOLOGY AND NEUROSCIENCE professor Laurie Wilcox was elected president of the internationally renowned Vision Sciences Society (VSS) in 2020, the appointment underscored her many innovative contributions to the multidisciplinary field, which also encompasses biology, kinesiology, digital media, computer science and electrical engineering.

As a member of York University's Centre for Vision Research for more than 25 years, Wilcox has conducted basic research to determine and measure how the brain uses binocular cues (from both eyes) to achieve three-dimensional depth perception. Or, as she puts it: "to quantitatively assess how people perceive 3D space"

At the same time – and equally important, in her estimation – the York Research Chair in 3D Vision recognizes and supports her current strong connections with industry partners such as Defence Research and Development Canada (DRDC), the Video Electronics Standards Association (VESA), and Qualcomm. She is currently working closely with Meta (formerly Facebook) where she is the inaugural visiting researcher while on sabbatical in 2022-2023.

Much of her applied work involves issues surrounding how 3D images are displayed. For instance, in an earlier collaboration with IMAX, she assessed the impact of vertical misalignments in the two eyes' images on viewer comfort. "This is an abstract quality, but it can be measured using



the right methods." In another joint initiative, called 3D FLIC, a consortium of York researchers, film makers and industry partners collaborated to improve the 3D film experience.

A current key research focus in her 3D

Perception & Psychophysics Laboratory, is using virtual reality (an immersive experience) and augmented reality (where users maintain partial contact with the real world) to study projects ranging from perceiving depth in real-world environments (funded by NSERC) to training programs for would-be pilots (funded by VISTA). A collaborative project with colleague Robert Allison (EECS) evaluates interactions between people sharing the same virtual space (funded by an NSERC Alliance grant and Qualcomm).

Wilcox says she thoroughly enjoys the challenges of adapting rigorous methods developed in the lab – where everything can be controlled – for use in more complex real-life scenarios. "Industry partners appreciate our understanding of behaviour testing methods and the human brain," she adds. "It's an important bridge between the two worlds!"

Sugar High

A York study examines the tax on soft drinks



TARRA PENNEY
GLOBAL HEALTH

DON'T PULL THAT POP CAN TAB JUST YET, cautions Tarra Penney, an assistant professor in the School of Global Health at York University who has been studying the soft drink industry since 2017.

Sugar-loaded drinks and excess sugar consumption – including 100 per cent fruit juices and caffeine-laden so-called energy drinks – are associated with chronic disease, including obesity, heart disease and stroke, diabetes, tooth decay and some cancers.

In April 2022, Newfoundland and Labrador implemented a soda pop tax of 20 cents on every litre of sugar-sweetened beverages to disincentivize the drinking and manufacture of high-caloric soft drinks. That's more than the provincial 14.5 cents a litre slapped on gasoline. Dubbed the "Pepsi tax," it's the first sugar pop tariff to burst the bubble in Canada. The Canadian Paediatric Society now wants a 20 per cent excise tax imposed on all sugary drinks across the country, saying that such a policy could prevent 12,000 cases of cancer, more than 30,000 cases of ischemic heart disease, almost 5,000 strokes and close to 1.4 million cases of type 2 diabetes over the 25-year period ending in 2041. So more taxes may follow.

But do they work? It's complicated, says Penney, who has contributed to a series of studies looking at the wide-ranging impacts of the Soft Drinks Industry Levy as it has existed in Britain since 2018. A chronic disease prevention specialist, she learned that the tax incentivized pop drink companies to lower sugar levels in sweetened beverages but also goaded them to ramp up their marketing campaigns to ensure profits. Consumers continue to buy pop regardless of a tax and warnings that sugary drinks are harmful.

"As a population health researcher, I am more focused than ever on the complex impacts of policy on health," says Penney, who has published several academic papers on the health impacts of fiscal policies. "I used to think we were in control of our behaviour, but through my research, I've realized that many things influence us to do things that don't match up with our plans and goals."

Edited for length, this story originally appeared in the Summer 2022 issue of The York University Magazine. Story by Deirdre Kelly



MATHIEU POIRIER
GLOBAL HEALTH



STEVEN J. HOFFMAN
HEALTH POLICY & MANAGEMENT
OSGOODE HALL LAW SCHOOL

Providing a crucial tool for international treaty negotiators

A NEW STUDY BY YORK'S GLOBAL STRATEGY LAB (GSL)

concludes that international treaties – other than those governing trade and finance – are likely to fail without an effective enforcement mechanism. Moreover, they can have unintended and harmful impacts on areas such as child labour, torture, and human rights.

“This study is core to our mandate,” says GSL director Steven Hoffman, Dahdeleh Distinguished Chair in Global Governance & Legal Epidemiology. “It brings together the entire global evidence base for what makes treaties effective in order to guide future international law-making.”

A key finding is that countries will often ignore their treaty commitments, or reverse course after international attention has faded, when there are no consequences for these actions. “Unfortunately, this happens in the vast majority of human rights treaties, humanitarian treaties, and in fact most treaties that don't involve trade and finance,” notes GSL co-director Mathieu Poirier, assistant professor of Global Health and York Research Chair in Global Health Equity.

Extreme examples of negative outcomes include increased torture practices and use of child labour, he adds. While such devastating impacts had long been suspected, the GSL study

is the first to put them into quantifiable evidence. The report recommends inclusion of enforcement mechanisms as the most important modifiable design feature for all future treaty negotiations. These mechanisms can range from imposing trade sanctions to expulsion from treaty bodies. Hoffman and Poirier also discovered that public focus on the treaty negotiation and signing process itself can serve to mobilize global action.

Traditionally, diplomats have relied more on their personal experiences and anecdotes than evidence-based data to inform international negotiations, says Hoffman. Publication of this report in Proceedings of the National Academy of Sciences provides that missing, but necessary, tool. “The next time countries are negotiating a new treaty – on anything from pandemics to plastics – they will have a simple, scientific reference for what works and what doesn't,” Hoffman concludes.

Noting the project's large scale and ambition – a decade-long effort involving dozens of researchers reviewing thousands of records – Poirier adds, “I'm proud that this unique, world-leading piece of research has been done here at York in the Global Strategy Lab!”

Improving Wellbeing and Quality of Life of Iranian Seniors Living in Canada



FAY DASTJERDI NURSING

WHAT CONSTITUTES A GOOD QUALITY OF LIFE

for an older adult? Beyond food, shelter and health, access to health care and transportation, feeling a sense of belonging can lead to the difference between just getting by and true happiness. As an Iranian dealing with the Iranian community, Nursing professor Fay Dastjerdi decided to measure the quality of life of Iranian seniors and see how they age successfully in the diaspora.

In a pan-Canadian study, she surveyed 118 Iranian immigrant seniors in major Canadian cities. She found that although their quality of life generally rated ‘good’ with no major concerns, the sense of belonging rated low, especially for people who immigrated to Canada under a sponsorship program. To understand the issue fully, she decided to go deeper and conduct a pilot qualitative study to explore the reasons why. She uncovered a more nuanced report in the qualitative narrative study through face-to-face and focus group interviews. The interviews revealed concerns about financial independence, family dynamic and freedom of choice. “The qualitative part of the study was amazing because they felt safe and opened themselves and talked

about their everyday life issues. I found that they really wanted to talk about their lives and needs and to have a voice,” says Dastjerdi. She discovered they felt grateful but also stuck. They were happy to have access to the healthcare services but frustrated when the only way to navigate it was with their adult children as decision-makers and translators. They were overjoyed to form meaningful relationships with their grandchildren, yet at the same time, recognized that living with their sons and daughters meant less privacy than they had had when they lived in their own houses. The seniors craved more financial freedom or to be involved in rather than just informed about family decisions.

While these frustrations may span several issues, Dastjerdi believes they have a common core and may be highly solvable, which motivates her to continue past the pilot to investigate further and fully address the problem. “I firmly believe we have loads of resources, as policymakers and community leaders, and family members, what all of us can do together is not something impossible. As a result, this group of people will be enjoying their life and age successfully.”

FACULTY OF HEALTH

AWARDS & RECOGNITION

Faculty of Health
awards and recognition

Our faculty are recognized locally and globally for their expertise, excellence, and impact in research, teaching, and community engagement.

2022 PRESIDENT'S
RESEARCH AWARDS

Psychology Professor **Amy Muise** was recognized with the President's Emerging Research Leadership Award (PERLA) Cluster 2 for demonstrating research excellence and innovation.

2022 PRESIDENT'S
UNIVERSITY-WIDE
TEACHING AWARDS

Kinesiology & Health Science Professor **Michael Connor** was recognized for excellence towards student learning, in supporting teaching development, and in his dedication to program and curricular development as undergraduate program director (UPD) in the School of Kinesiology and Health Science.

2022 DEAN'S
AWARDS

Rachel Da Silveira Gorman
(Health Policy & Management)
Dean's Award for Excellence in Educational Leadership, Pedagogical and/or Curricular Innovation

Mary Desrocher
(Psychology)
Dean's Award for Excellence in Teaching

Mazen Hamadeh
(Kinesiology & Health Science)
Dean's Award for Excellence in Service & Engagement Impact Award

Joseph Baker
(Kinesiology & Health Science)
Dean's Award for Excellence in Research

TIER I
YORK RESEARCH CHAIRS**Doug Crawford (Psychology)**

York Research Chair in Visuomotor Neuroscience

Crawford's research focuses on the control of visual gaze in 3D space, eye-hand coordination and spatial memory during eye movements.

Kerry Kawakami (Psychology)

York Research Chair in Equity and Diversity

Kawakami is Principal Investigator of the Social Cognition Lab, which investigates a variety of social categorization processes using diverse methodologies. Her pioneering work on implicit biases provides insight into how we perceive people from different social groups, how we react to intergroup bias, and strategies to reduce prejudice, stereotyping and discrimination.

Jennifer Steeves (Psychology)

York Research Chair in Non-Invasive Visual Brain Stimulation

Steeves undertakes research that examines how the brain adapts to changes in sensory input with the loss of one eye or to direct brain damage. She uses functional magnetic resonance imaging (fMRI) and transcranial magnetic stimulation (TMS) to reverse engineer the brain. This is a VISTA York Research Chair, as Steeves is a core member of the Vision: Science to Applications (VISTA) program.

TIER II
YORK RESEARCH CHAIRS**Lyndsay Hayhurst (Kinesiology & Health Science)**

York Research Chair in Sport, Gender and Development and Digital Participatory Research

Hayhurst researches sport, gender and development (SGD) – or the use of sport to support gender-related development goals, policies and practice. Her current SSHRC- and CFI-funded research explores how key stakeholders experience SGD initiatives focused on girls and women in Canada, Uganda and Nicaragua using digital participatory research strategies. Her goal is to re-envision new, community-oriented and socially just approaches to SGD initiatives.

Sean Hillier (Health Policy & Management)

York Research Chair in Indigenous Health Policy and One Health

Hillier is a Mi'kmaw scholar and Associate Director of York's Centre for Indigenous Knowledges & Languages. His collaborative research program spans the topics of aging, living with HIV and other infectious diseases, and antimicrobial resistance, all with a concerted focus on policy affecting health care access for Indigenous Peoples in Canada. Hillier has been successful in receiving funding from each of the three federal granting agencies, with more than 10 external grants.

Shayna Rosenbaum (Psychology)

York Research Chair in Cognitive Neuroscience of Memory

Rosenbaum, a core member of the Vision: Science to Applications (VISTA) program, had her York Research Chair in the Cognitive Neuroscience of Memory renewed. An elected member of the College of the Royal Society of Canada, she has shown how different forms of memory are represented in the brain. She seeks to develop strategies to help healthy older adults and patients overcome memory loss.

Joey Cheng (Psychology)

York Research Chair in Leadership, Collaboration and Teams

Cheng examines the psychological underpinnings of power, status and social hierarchy. During her YRC term, she will conduct empirical investigations into gender disparities in power and leadership, thereby addressing ways to overcome barriers to women's position in work teams, organizations, and society.

Adrian Viens (Global Health)

York Research Chair in Population Health Ethics and Law

Viens is building an innovative research program that will support investigations into how we can extend and refine the law's capacity to promote health and well-being and reduce health inequities at the population level. This research program will deepen knowledge and generate policy-relevant findings to address some of the world's most pressing challenges, which came to the fore during the COVID-19 pandemic.

PRESTIGIOUS DISCIPLINE-SPECIFIC FELLOWSHIPS & AWARDS**Steven Hoffman (Health Policy & Management and Osgoode Hall Law School)**

Dahdaleh Distinguished Chair in Global Governance & Legal Epidemiology
Director, Global Strategy Lab & vice-president corporate data and surveillance at the Public Health Agency of Canada.

Hoffman was elected as a Fellow to the Canadian Academy of Health Sciences and as a Fellow of the Royal Society of Canada for his leadership in global health law and global health governance.

Rebecca Pillai Riddell (Psychology)

Director, Opportunities to Understand Childhood Hurt Laboratory (OUCH Lab)

Pillai Riddell was elected as a Fellow to the Canadian Academy of Health Sciences in recognition of her research contributions in the pediatric behavioural and biobehavioural sciences. She has built the first and largest cohort in the world studying young children through painful vaccinations over the first years of life.

Joel Katz (Psychology)

Tier 1 Canada Research Chair in Health Psychology

Katz received the Senior Investigator Award for Health Psychology/Behavioural Medicine from the Canadian Psychological Association for his contributions to psychological science.

Psychology Professor **Thomas Teo** has won the 2022 Joseph B. Gittler Award for scholarly contributions to the philosophical foundations of psychological knowledge from the American Psychological Foundation.

A paper published in the Journal of #LGBTQ Issues in Counseling co-authored by Psychology Professor **Robert T. Muller**, Dr. Leah Keating (York PhD '17), & PhD student Cassy Wyers, has won the 2021 Quantitative Article of the Year award from the American Counseling Association.

Psychology Professor **Alexandra Rutherford** received the Career Achievement Award from the American Psychological Assn for her contributions to the histories of feminist activism, women's history, & critical gender studies.

MAJOR GRANTS**Amrita Daftary (Global Health)**

Daftary received funding from the U.S. National Institutes of Health for her research in collaboration with the Desmond Tutu HIV Foundation to examine stigma and social determinant effects on tuberculosis case detection, care and outcomes.

Psychology Professor **Rebecca Pillai Riddell** received \$2.55 million from the Canadian Institutes of Health Research (CIHR) to lead the Digital, Inclusive, Virtual, and Equitable Research Training in Mental Health Platform (DIVERT Mental Health Platform) that will support a more diverse, inclusive, accessible and transdisciplinary approach to mental health research and training.

Psychology Professor **Nicole Muir** was awarded York's Indigenous Research Seed Fund grant for her work to address colonialism and advance excellence in Indigenous scholarship.

Health Policy & Management Professor and Director of York's Global Strategy Lab, **Steven Hoffman**, received a \$2.5M SSHRC Partnership Grant for research into a global framework for sustainable antimicrobial drug use & preventing the proliferation of drug-resistant bacteria.

FACULTY OF HEALTH TEACHING & STUDENT SUCCESS

Faculty of Health teaching and student success at a glance

Our faculty teachers are passionate about the subjects they teach and as active researchers in their fields, they bring new insights into the classroom that inspire excellence in their students.



228
full-time
faculty



**Largest and most
diverse
course selection**
in Psychology and
Kinesiology & Health
Science of any
university in Canada

6 UNDERGRADUATE PROGRAMS

- Global Health
- Health Studies
(Policy, Management, Digital Health)
- Kinesiology & Health Science
- Neuroscience
- Nursing
- Psychology

KINESIOLOGY & HEALTH SCIENCE

Consistently ranked among the **top 3** Kinesiology programs in Canada.
(Shanghai Rankings and Times Higher Education)

GLOBAL HEALTH

One of York's "Standout Programs"
(Maclean's Magazine)

PSYCHOLOGY

Among the **top 10** Psychology programs in Canada.
(Ranked 4th in Canada by QS World University Rankings and 6th by Maclean's Program Rankings)

CRITICAL DISABILITY STUDIES (MA, PhD)

The only graduate program of its kind in Canada and the only PhD in Critical Disability Studies.

A Passion for Evidence-based Health-related Physical Fitness

VERONICA JAMNIK
KINESIOLOGY & HEALTH SCIENCE

KINESIOLOGY & HEALTH SCIENCE professor Veronica (Roni) Jamnik not only wants her students to discover their passion for health-related physical fitness, but to also engage their families and friends. In one instance, she directed them to make an exercise video with their parents, featuring some exercises they know they will enjoy together. "I'm trying to get them to connect in real life, to ask what would motivate individuals of their parents' age who are working all day and managing other life challenges, to create a habit of taking time to be physically active." "It's a real-world application for students who will be pursuing careers where they help to plan evidence-based exercise prescriptions for everyday people, not just bodybuilders and elite athletes." "Working as an exercise professional involves a lot about empowering people to enjoy being physically active," says Dr. Jamnik.

Another impactful practice that Dr. Jamnik fosters is having senior students mentor junior students, from showing them

how to use specialized equipment to designing individualized exercise prescriptions. Again, it's a practise with benefits beyond knowledge transfer. "Once the student is put into a position of leadership, they must take ownership of the material. I have found that type of exchange to be great for their confidence."

Dr. Jamnik's research and teaching contributions in the Undergraduate and Graduate Fitness Specialization Programs challenge her to create knowledge translation to practise strategies that underscore the significance of habitual physical activity participation on health- and performance-related physical fitness, which students can then implement, are strong motivators. "The self-management of one's health-related physical fitness is critical to staving off chronic conditions like hypertension, cardiovascular disease and others."



Photo L-R: Anda Petro, Karen Fergus, Monique Herbert, Jean-Marc Moke, and Amanda Nkeramihigo

Experiential learning project matches fourth-year psychology students with workplace partners

KAREN FERGUS & MONIQUE HERBERT PSYCHOLOGY

INCREASING REPRESENTATION of Black professionals in workplaces of the future was part of the motivation behind the Work Integrated Learning for Black Students in Psychology, a successful program that helped connect 12 fourth-year students with applied projects in diverse health services organizations (e.g., TAIBU Community Health Centre, Sunnybrook Health Sciences, Generation Chosen, Baycrest Health Sciences, & MAP Centre for Urban Health Solutions). Over eight weeks, students contributed to projects ranging from literature reviews to survey development to mentoring children and youth.

Funded by Co-operative Education and Work Integrated Learning Canada, the project was spearheaded by Anda Petro, the Faculty of Health's experiential education (EE) coordinator in collaboration with the Department of Psychology, Black Students in Psychology Association (BSIP) and the Black Student Mentorship Program (BSMP). The project was driven by the student groups' vision to address the gap in representation of Black professionals in Psychology and related fields by providing students with professional experience, networking and mentorship. "This program would not have been as viable without the ground-breaking work of BSIP and BSMP," says Karen Fergus, the former psychology undergraduate program director and one of ten faculty advisors.

Each participating student was supported by a team including faculty advisors, student mentors and EE staff that helped prepare students and tie their onsite experiences to the discipline of psychology through an initial preparatory workshop, one-on-one meetings with faculty advisors and drop-in sessions for students and the support team. Each student was also mentored by a supervisor at the partner organization. Monique Herbert,

a psychology teaching-stream professor and advisor for the project, says "Some students were surprised going into the opportunity, not knowing if they could do it or if it was the right fit. As they got into it and felt supported by organization, they got courageous to ask questions, and even surprised themselves in terms of what they already know from class."

Fergus adds that the project also provided an opportunity for partner organizations eager to show their support. Herbert agrees that the partners' embrace made a real difference. "They went beyond just offering a position but integrated students into their organizations, and showed they believed in the BSIP's and BSMP's vision for black students," she says.





Everything is Connected

How the notion of ‘One Health’ inspired a community approach to integrating the UN SDGs into teaching at York

CHERYL VAN DAALEN-SMITH
NURSING

YORK IS WELL ON ITS WAY to integrating the United Nations (UN) Sustainable Development Goals (SDGs) into its classrooms and courses, thanks to a community effort coordinated by provostial fellow and nursing professor Cheryl van Daalen-Smith. For her, a public health nurse, everything is connected – a fact illuminated daily when she supports her farm rescue animals. The notion of “One Health” and the indivisibility of how we treat animals, nature, water, earth, and humans inspired her project ‘More than Bees and Trees: Seeing the SDGs in our Curriculum’. “How I view the world comes from making connections between human suffering and the previous lives of our rescues. It comes from time in relationship with my rural surroundings, and of course my decades bearing witness to the life circumstances of my patients and communities. THIS is why we worked to help all disciplines at York ‘see’ the relevance of the sustainable development goals – as everything is connected. How we view and subsequently treat the earth, or animals, is related to how

we view and treat humans. An implicit hierarchy of certain humans above all else, is what is behind the wicked problems the SDGs are trying to address.”

The 17 UN SDGs provide opportunities for a collective global focus, including no poverty, gender equality, decent work and economic growth and climate action, among others. To inspire the infusion of the SDGs into all aspects of teaching at York, van Daalen-Smith’s team reached out, consulted and collaborated widely at York. “We took a public health nursing approach known as community development, which involves immersion in a community, with the goal of bringing as many people, voices, and skills to the table as possible. It’s not about the nurse, or in this case the provostial fellow, but rather about the community’s strengths and wisdom,” says van Daalen-Smith. From that collective effort came a teach-in, a community of practice, and an SDGS-in-the-Classroom interdisciplinary Toolkit. “It’s been a real privilege.”



Breaking the barriers to successful student transition

LYNDA VAN DREUMEL
HEALTH POLICY & MANAGEMENT

WHILE TEACHING in the School of Health Policy & Management, assistant professor Lynda van Dreumel observed that her students experienced barriers to student success that were unrelated to course content. Specifically, many first and second year students lacked important learning behaviours – such as teamwork, self-reflection, self-regulation, and making connections to real-world experiences.

“I saw how needed these skills are for students transitioning to university,” says van Dreumel. “The challenge was how to incorporate these ‘extra’ but essential resources into courses.”

With a group of like-minded instructors, van Dreumel began to work on a solution, aptly named PATHS (Pedagogy to Aid Transition for Higher-ed Students). In fall 2021, the first

PATHS-embedded courses were offered, followed by the release of a multi-platform “instructor toolbox” this past spring. The latter helps guide instructors on how to teach the skills and embed these learning opportunities into their courses.

“We didn’t set out to create new courses, but instead looked at embedding PATHS skill sets into existing foundational courses,” explains van Dreumel.

Instructors report that this tool is addressing a real gap for their students – for example, how to function effectively on a team during group projects. “With PATHS, those supportive ‘soft’ skills necessary for teamwork can be explicitly taught within the course alongside an existing activity,” says van Dreumel.



Global Health Professor Amrita Daftary talking with Gabriel Maroto Morales (Yoyo), an Indigenous healer and cultural interpreter with the Boruca People

“Life-changing” learning at York’s Costa Rica EcoCampus

AFTER TAKING AN IMMERSIVE, community-based field course at York’s Las Nubes EcoCampus in Costa Rica, associate professor of Psychology and environmentalist Adrienne Perry knew she wanted to become more involved. When the Faculty of Health invited course proposals for a new Study Abroad program there, she jumped at the opportunity.

“I immediately started researching how to adapt our existing undergraduate course on Environmental Psychology for Las Nubes,” says Perry. Her resulting Study Abroad course examines human impact on the biologically diverse Costa Rican environment, and the gap separating our knowledge, attitudes, and feelings from actual behaviour. “How can we use this knowledge

to help ourselves and others behave differently?” Perry asks her students.

The course is one of four Faculty of Health offerings at the EcoCampus, each uniquely designed for the intensive, 10-day summer program. Participants report a “life-changing, empowering” experience that “opened their eyes” in ways not possible in the traditional classroom. Living with families in a remote rural community – without hot water, on a diet heavy on rice and beans – makes the learning even more vivid.

Another course offered last summer was Social Determinants of Health in Costa Rica, taught by Global Health assistant professor Mathieu Poirier. “Much of our time was spent speaking to people from very

different backgrounds including farmers, teachers, nurses, and Indigenous communities in different parts of the country, and hearing directly from them how determinants of health impact their lives,” says Poirier, York Research Chair in Global Health Equity.

Mutual respect and bi-directional learning were key, Poirier continues. “Not only were we discovering challenges faced by people there, but also learning from Costa Rican systems that could benefit Canadians – like universal access to nutrition, and dental care for children and integrated community care that is NOT present here!”

Next summer, the Faculty of Health will host two new courses at the EcoCampus: Community Psychology and Promoting Global Health.

For Community Psychology, professor Michael Pettit says students will learn the theory of critical psychology through classroom instruction, and then “see some of these ideas in practice, through their lived experience.” Examples include talking to staff about health-care issues at a community medical centre and connecting with members of Indigenous groups about their struggles with land rights and health.

Global Health associate professor Amrita Daftary’s course on Promoting Global Health will be rooted in principles of decolonization, equity, inclusion, and self-



Global Health Professor Mathieu Poirier with his class

determination. Being immersed in this unique global health environment will enable students to see the issues and the landscape differently, she suggests. “We come from a space of some privilege, so I hope there will be a new awareness and reflection on those differences,” Daftary says. “My wish is that students can embrace and celebrate the resilience of people who are already promoting health in that environment, with the processes they’ve begun.”

Psychology Professor Adrienne Perry



Psychology Professor Michael Pettit



A new “take” on teaching clinical nursing skills

BRENDA ORAZIETTI
NURSING



Brenda Orazietti and colleagues. Photo courtesy of YFile.

WITH HER SABBATICAL YEAR APPROACHING

in July 2021, assistant professor of nursing Brenda Orazietti wanted to “create something that would have a meaningful impact on teaching and learning,” she recalls. And with student placements in the community cancelled due to pandemic restrictions, “nursing faculty around the world were experimenting with alternative methods of teaching.”

Orazietti submitted a successful proposal to York’s Academic Innovation Fund (AIF) to create educational video simulation games (VSGs) in curriculum areas where critical gaps existed. She received an additional Virtu-WIL grant from Colleges & Institutes Canada. “That reinforced the need for these new learning tools,” she says.

Using realistic home-made props, her own basement as a film studio (since COVID had closed the university’s Nursing Simulation Centre) and a virtual system devised by CAN-Sim (the Canadian Alliance of Nurse Educators using Simulation), Orazietti and five teams of writers and content experts – backed up by a multi-tasking volunteer “film crew” – created instructional videos covering five complex and

sensitive clinical areas that no one had tackled before:

- post-partum assessment of a new mother;
- addressing end-stage liver failure;
- dealing with liver transplant donors;
- working with a newly diagnosed patient with prostate cancer; and
- addressing the dangers of marijuana edibles

“We had a lot of fun making them, but the nature of these specific scenarios was both sensitive and complex,” says the novice film producer. “It was definitely a challenge!”

Student feedback for the VSGs has been “fantastic” Orazietti reports. Although partially inspired by necessity during the pandemic shutdown, virtual simulation has become an invaluable tool for clinical teaching, she notes. “Especially in areas involving complicated assessments and treatment, it’s great to have a single VSG that brings these aspects together in a relatable way – with much less strain on overtaxed resources!”

The national database now contains more than 160 games – all created within the past three years.

FACULTY OF HEALTH
LOOKING FORWARD

EXTENSION OF SHERMAN HEALTH SCIENCE RESEARCH CENTRE UNDERWAY



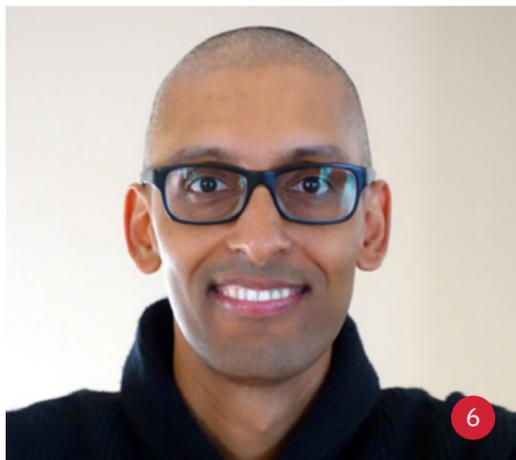
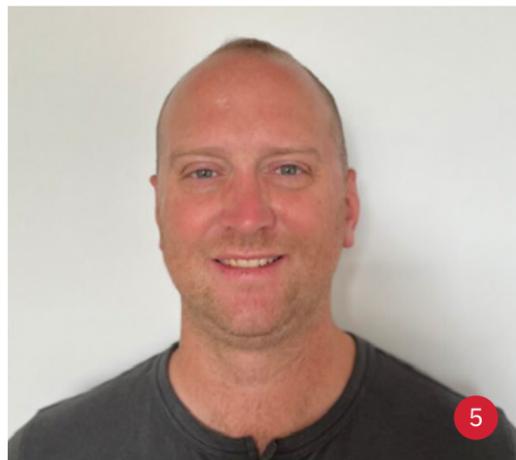
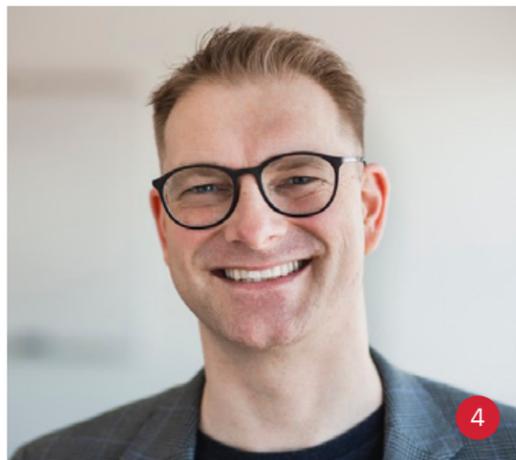
A ground-breaking ceremony for the new, two-storey, state-of-the-art Neuroscience Laboratory and Research Building took place on July 27, 2022. Among the dignitaries were Interim Faculty of Health Dean Susan Murtha (third from left) and Lisa Philipps, York University’s provost and vice-president academic (centre). Photo courtesy of YFile.

CONSTRUCTION IS UNDERWAY for a new, two-storey, state-of-the-art Neuroscience Laboratory and Research Building at York University that will advance research and innovation while providing students with experiential education opportunities.

The 52,000-square-foot building is an extension of the Sherman Health Sciences Research Centre, which

opened in 2010 due to the generosity and shared vision of philanthropists Honey and Barry Sherman.

“The Sherman Health Sciences Research Centre has since become a world-class centre for interdisciplinary research programs in biomedicine, brain function, vision, robotics and virtual reality. The construction of a new, innovative Neuroscience Laboratory and



Research Building will help us to create the next scientific breakthroughs and the next generation of leading health scholars and researchers, said Lisa Philipps, York University’s provost and vice-president academic.”

Since opening, the Sherman Health Sciences Research Centre has brought together researchers and students from York’s Centre for Vision Research (CVR) with those in kinesiology and psychology to advance knowledge of the brain and neuroscience.

The Centre is also part of York’s sustainability commitment for the Vision: Science to Applications (VISTA) program, a \$120-million program supported in part by a \$33-million grant from the Canada First Research Excellence Fund (CFREF). VISTA, led by York Research Chair in Visuomotor Neuroscience, Doug Crawford, advances visual science through collaborative research that spans computational and biological perspectives to develop real-world applications.

The new building, funded in part by a Canada Foundation for Innovation (CFI) grant, is designed to be a source of cutting-edge research that will benefit diverse communities, ranging from adults and children with traumatic brain injuries (TMI) and athletes with sport concussions, to precariously housed and homeless individuals with clinical conditions.

Edited for length, this story originally appeared in the August 7, 2022 issue of YFile.

WELCOME TO OUR NEW FACULTY MEMBERS

THE FACULTY OF HEALTH is very pleased to welcome our newest faculty members. Our new colleagues will build on the Faculty’s reputation for excellence and impact in research, teaching and community partnerships.

1 **Godfred Boateng**
Global Health

2 **Donald V. Brown, Jr.**
Psychology

3 **Karen Campbell**
Nursing

4 **Matthias Hoben**
Health Policy & Management

5 **Devin Phillips**
Kinesiology & Health Science

6 **Sachil Singh**
Kinesiology & Health Science



WELCOME TO OUR NEW STAFF MEMBERS

A WARM WELCOME to our newest staff members in the Faculty of Health. Our staff provide crucial support for our students and faculty that is instrumental to their success.

- 1 **Jessica (Schroeder) Abrams**
Director, York University Psychology Clinic
- 2 **Natalia Artukovic**
Program Assistant, School of Kinesiology & Health Science
- 3 **Finnick Byrdine**
Academic Advisor, Office of Student & Academic Services (OSAS)
- 4 **Stephanie Cheung**
Manager, Student Success and Stakeholder Engagement, Student Success Program Office
- 5 **Ashifa Damji**
Undergraduate Program Secretary
Department of Psychology

- 6 **Amanda Di Palma**
Undergraduate Program Assistant
School of Kinesiology & Health Science
- 7 **Amanda Furlano**
Program Assistant/Secretary
School of Health Policy & Management
- Karen Huang**
Client Services Representative
York University Psychology Clinic
- 8 **Jessica Iaboni**
Clinic Manager, York University
Psychology Clinic
- 9 **Kshipra Kulkarni**
Program Secretary, School of Global Health

- 10 **Yuting (Alice) Liu**
Graduate Program Support/ Reception
Department of Psychology
- 11 **Cheryl McMahon**
Manager, NPCO, School of Nursing
- 12 **Shabnam Nikfar**
Research Officer, Research Support
Office, Dean's Office
- 13 **Manoj Singh**
FMRI Technologist and Health & Safety
Officer, Dean's Office
- 14 **Andre Williams**
Manager, Programs & Development,
Health Leadership and Learning Network
(HLLN)



FACULTY OF HEALTH

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Social Media: [@yorkuhealth](https://twitter.com/yorkuhealth)

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