

# Discourse

UNIVERSITY OF REGINA RESEARCH MAGAZINE SPRING / SUMMER 2021

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**Fractured  
on the farm:  
Addressing the  
mental well-being  
of farmers**



University  
of Regina





**Florence Duesterbeck, "Litter 2020" (detail), 2020. Archival digital photograph.**

Duesterbeck says, "When working on this project, single-use plastics, COVID-19, the spread of disease, and people's attitudes were at the top of my mind."

A U of R graduate who holds a Bachelor of Fine Arts, Duesterbeck is currently taking the Faculty of Media, Art, and Performance Post-Baccalaureate in Visual Arts Certificate.

## Discourse

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(On the cover) Psychology master's student  
Cynthia Beck is addressing the mental well-  
being of farmers for her research project.

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Through diversity and inclusion, our research is becoming stronger, more comprehensive, and is having more profound and lasting impacts on our people and our environment.

Research makes a difference. It drives growth and has profound benefits on society, the economy, and industry. Academic scholarship changes lives and the way we live them. And the stakes are high. Look no further than the global COVID-19 pandemic, the dire predictions around catastrophic climate change, the threat to the world's freshwater supply, and the growing mental health and addictions crises that are claiming more lives everyday.

Throughout this issue of *Discourse*, you will read about the diversity of scholarship at the University of Regina – critical research that helps to define our thriving research enterprise. Through their important work, University researchers are addressing critical problems facing Saskatchewan and beyond.

In our research, as well as everywhere else in the University of Regina, we value and encourage diversity. Through diversity and inclusion, our research is becoming stronger, more comprehensive, and is having more profound and lasting impacts on our people and our environment.

Through our signature research areas—Digital Futures, Climate and Environment, Living Heritage, and Health and Wellness—we are growing our research enterprise to meet the needs of our people, our province, and our world.

In the last five years, our research funding has grown by more than \$12 million. We are proud that this support is derived from various sources, including from all levels of government, industry, and not-for-profit contracts. Funding helps to ensure that we have the right people and the right infrastructure required to achieve research excellence, producing the kind of results that benefit our many stakeholders. The monetary support also allows us to conduct multi-stage research and development programs, providing our undergraduate and graduate students with both the theoretical and hands-on skills they need to meet the demands of new and

emerging fields. The types of research projects our students are a part of—and lead—are preparing them for whatever the future of work looks like in the coming years and decades.

University of Regina research operates as a core engine to local, regional, and provincial growth and serves to protect Saskatchewan's long-term sustainability goals. The work we do supports governments, communities, industries, and people – and while the COVID-19 pandemic has changed how we conduct some of our research, we continue to work alongside all of our partners to grow the provincial economy, attract highly qualified personnel to Saskatchewan, and tackle some of the most significant challenges of our time.

Through *Discourse*, we are proud to highlight how our myriad projects reflect the power that curiosity, research, and teamwork have on discovery. Our collaborations, partnerships, and innovations make a difference in the lives of people across Saskatchewan. Whether by helping to protect public health, foster growth in the agricultural sector, improve the quality of our infrastructure so that it can withstand the harsh and unpredictable climate now and in the future, our work is making a difference.

Through informing public policy, water management, and agriculture, our research is building a more resilient province and country.

Our work elevates the research and development of alternate and clean energy sources by working with our partners to make the best use of Canada's natural resources, sustain and enhance energy systems and processes, and explore a forward-thinking transition to a low-carbon energy future.

Our scholars are fueled by the power of discovery. They continuously strive to make an impact through their crucial research that is advancing a transition to a better future where we all can thrive. [D](#)

**DR. KATHLEEN MCNUTT**  
Vice-President (Research)

## Clarifying the Candida-cancer connection

BY GREG BASKY



Research associate Dr. Taranum Sultana and Easter Ndlovu, a doctoral candidate in chemistry and biochemistry, working in a U of R lab.

Because cancer patients' immune systems are weakened by chemotherapy, they are more susceptible to bacterial and yeast infections. Studies have found that up to 80 per cent of cancer patients who pick up a microbial infection while in the hospital receiving treatment die not from the cancer their body is battling, but from the microbial infection.

Easter Ndlovu, a doctoral candidate in the University of Regina's Department of Chemistry and Biochemistry, is exploring the connection between cancer and one of the most common forms of yeast infection. Her work could eventually pave the way for treatments that prevent the fungus from killing immunocompromised patients.

### THE CANDIDA BIND

For the past two years, Ndlovu has been studying how strongly Candida binds to human cells and how much force is needed to separate the two. The young researcher, who was born and raised in Zimbabwe, has shown that the

yeast Candida, which causes candidiasis (also known as thrush), adheres to different types of human cells with differing amounts of force.

"For example, it binds more to vaginal cells as compared to skin cells," says Ndlovu. "And it actually binds more to cancerous cells than to normal human cells."

Last year, while preparing for a research visit to Toulouse, France, Ndlovu stumbled upon the idea that Candida not only takes advantage of cancer patients' weakened defenses, but might actually contribute to cancer development in the first place. She worked with her co-supervisor, Etienne Dague, at the *Centre National de la Recherche Scientifique* (CNRS), using an atomic force microscope (AFM) with a special module that allowed her to quickly measure – at the nanoscale – how strongly Candida attaches to healthy and cancerous cells. Their finding – that Candida binds more forcefully to cancer cells – suggests it's not just cancer patients' compromised immune

systems that make them more susceptible to the fungal infection.

Her trip abroad was made possible through a Mitacs graduate research award.

Biochemist Dr. Tanya Dahms, Ndlovu's PhD supervisor at the U of R, feels strongly that established researchers must support up-and-coming scientists, to help equip them to find solutions to the big, complex problems facing our world today—challenges like climate change and pandemics. "They are our hope," says Dahms, who holds a Collaborative Innovation Development grant from the Saskatchewan Health Research Foundation (SHRF). "We are helping build skills for the next generation, so that they can tackle these huge problems."

### CANCER CONUNDRUM

Understanding how and why Candida attaches to cancer cells is a critical first step in finding ways to defend against the fungus, as this connection serves as the beachhead from which it mounts its attack, colonizing and infecting cells. It also may provide insight into how Candida might help transform normal cells into cancerous ones.

Ndlovu believes Candida latches on to cancer cells because they're "stickier" than normal healthy cells. "When cells become cancerous, they undergo a rearrangement of their cytoskeleton—the network of protein filaments that exist within all cells," she says. "Because the cytoskeleton provides support to the cell, when it's disrupted the cell changes shape, its surface area grows, and it becomes softer, which makes it easier for Candida to adhere to the proteins and molecules than when the cytoskeleton is rigid." Her focus now is on figuring out what macromolecules are responsible for making Candida stick more strongly to cancer cells.

"One can never know everything in the world of science. As genes mutate and new diseases emerge, there is always something to research." Cancer research has been underway for decades, but scientists are still searching for answers, says Ndlovu. "It would be very satisfying to contribute something positive to finding a cure. [D](#)



Psychology master's student Cynthia Beck is addressing the mental well-being of farmers.

## Fractured: The gap between mental well-being and farming

BY KRISTA BALIKO

"When I had my daughter 15 years ago, I experienced postpartum depression and realized I was all alone," says Cynthia Beck, speaking from her farm south of Regina. "Mental-health services in rural Saskatchewan are not that accessible, and doctors don't stay long before they move on. Plus, this was before the advent of social media, with very few resources and online connections."

Even though Beck felt alone, she knew that many others were in the same situation.

As both a farmer and a graduate psychology student at the University of Regina, she intimately understands how devastating and deadly it can be for farmers who go through difficult and desperate times.

"I've done suicide intervention response for rural areas for many years. I am also part of a multi-generational farm. I understand the stressors farmers face from all angles, and it's no surprise to me that agricultural producers and

farmers are at a high risk of suicide – and that it's now the number one occupation associated with suicide," says Beck, who has spent many hours talking with farmers experiencing extreme mental duress and feelings of hopelessness.

Beck says that the farmers she spoke to through her suicide intervention role opened up to her because they understood that she knew where they were coming from.

"People working in the agricultural sector have unique stressors that most people simply don't face," explains Beck. "There's a lot of uncertainty in farming. Someone's income can vanish because of one hail storm or drought. An early snowstorm in 2018 wiped out an entire year's work right before there was supposed to be a paycheck."

She's seen farmers work hard for a year preparing the land, going into significant debt buying fertilizer, fixing and buying machinery. Then, the day before harvest, it's gone.



“There’s never any guarantees in agriculture, and insurance does not cover one’s working hours,” says Beck.

Another factor that can lead to stress is larger inter-generational farms.

“You work and live with most of the same people day in and day out. The pandemic has now introduced other sectors to the idea of living and working in the same space, but it’s still different. There is no separation on the farm. No separation from family and work colleagues. And the weight of that on people’s mental health can take a toll. You work together, you go to bed together. Who do you vent to?”

That’s why Beck now wants to go beyond her work in suicide intervention to address mental well-being for farmers more broadly – a more holistic approach that she feels is lacking for this community.

“My research is tailoring an internet-delivered cognitive behaviour course to address the particular needs of farmers and those working in agricultural environments,” she says.

Her master’s project will become part of the University of Regina’s already-successful Online Therapy Unit, founded by U of R psychology professor Dr. Heather Hadjistavropoulos in 2010. While there are many courses offered through the unit, Beck’s course will modify an eight-week online course called the Wellbeing Course for Mental Health that’s designed for individuals experiencing mental-health difficulties, primarily depression and anxiety.


“By identifying key stressors, I’m looking at how to best serve the farming community.”

“People working in the agricultural sector have unique stressors that most people simply don’t face”

Within the Online Therapy Unit, therapists and graduate students like Beck are trained in internet-delivered cognitive behavioural therapy (ICBT), which helps users understand their behaviours and motivations so they can change maladaptive thinking to better cope with difficult situations.

“The fact that these mental-health resources are online increases their accessibility,” says Beck. “Farmers work irregular hours – usually very early in the morning until there’s no light left to work – and many are worried about the stigma that’s still associated with mental-health issues, so online is the perfect way to access these free, safe, and private life-saving services.”

Beck says her course will be available to farmers and agricultural producers in Saskatchewan in June.

“This course will help to fill a gap in our agricultural sector and will hopefully save lives – providing the light at the end of what can be a rather dark and lonely tunnel.” 

**Beck on her farm south of Regina.**









# A microbiologist's lifelong fascination with the living world

BY GREG BASKY

Dr. Andrew Cameron can precisely trace the roots of his current work—using genomics to understand the novel coronavirus, COVID-19—to the opportunity he had as an undergrad to travel to Belize with the Canadian International Development Agency (now a wing of Global Affairs Canada) to study water quality.

Having the opportunity to live and work in Central America was a “wild experience” for a budding young scientist, recalls Cameron. Paddling down the Belize River, he saw raw sewage being pumped directly into the same water that a kilometre further downstream kids were playing in and mothers were drawing for cooking, drinking, and washing.

“Studying that relationship between infectious microbes and people using the river, that’s really how I got started,” says Cameron, an associate professor of biology at the University of Regina and co-director of the Institute for Microbial Systems and Society (IMSS). “That’s essentially how I got into working on infectious diseases.”

## CONNECTING CORONAVIRUS IN BATS AND THE COV3R PROJECT

Fast forward to 2021, and Cameron and his research team are part of the \$430,000 COVID-19 Rapid Regional Response (COV3R) project funded by Genome Prairie and the Saskatchewan Health Research Foundation (SHRF). Working with the provincial labs in Saskatchewan, Manitoba, and BC, Cameron and his colleagues are using genomic techniques to spot and study variations in the coronavirus and to identify co-infections in western Canadians who test positive for COVID.

For several years prior to the COVID-19 pandemic, Cameron had been gearing up to study viral diversity in animals, trying to understand which viruses had the potential to jump from animals to humans. When “virus hunter” colleagues found several coronaviruses in bats from the Democratic Republic of Congo (DRC) that didn’t match previously identified coronaviruses, Cameron quickly requested that samples be sent to the U of R lab. In 2019, the scientific

**Dr. Andrew Cameron, associate professor of biology at the University of Regina and co-director of the Institute for Microbial Systems and Society, at Neck Point Park in Nanaimo, BC.**

**Microbiologist  
Dr. Andrew Cameron's  
fascination with the  
living world began at  
an early age.**



**“Microbes are fantastic because they represent most of the biological diversity on earth. Most of the evolutionary history of biology is captured in microbes.”**

world didn't know much about coronavirus diversity. “It's a big group of viruses, but very little research had been done on it outside of SARS and MERS,” says Cameron.

He and his team were eager to use a technique called probe capture to isolate and map the virus's genetic material. The team wanted to find out more about coronaviruses in bats and how their genes compared to other known coronaviruses. After most of 2019 was spent sorting out paperwork and shipping arrangements, the samples from the DRC bats arrived at Cameron's lab in December 2019, only a month before news of the troubling new virus began to dominate headlines and newscasts.

When the federal government made funding available for researchers to pursue a variety of different approaches to understanding the emerging pandemic, Cameron and his team were well positioned to move quickly. “We'd already been thinking about coronaviruses and diversity and different ways to isolate their genetic material to sequence their genomes.”

### THE EDUCATION OF A BIOLOGIST

Cameron's fascination with the living world began at an early age. Growing up on Vancouver Island, he could walk out the back door of his Nanaimo home and instantly be surrounded by nature. “As a kid, I spent a lot of time hiking through the forest behind the house and just exploring.” Cameron gravitated toward the sciences in high school. “I enjoyed the quality of science, the ability to understand the natural world in a really rigorous way, to make predictive models and assumptions about the world and be able to test them,” says Cameron. “I always liked that about science—that there was that very effective, structured way to understand the natural world and why things do the things they do.”

After high school, Cameron did an honours degree equivalent in biology at what was then Malaspina University College in Nanaimo (now Vancouver Island University). “That's really where I got my first love for and ability to explore biology.” As part of the program, he had the opportunity to work in a lab. He credits that experience—and the faculty and professors who guided his work there—with planting the seed for going on to grad school, to do research full time.

Across the Strait of Georgia at UBC, Cameron combined his fascination for bacteria with the study of evolution for his PhD, working under zoologist Dr. Rosemary Redfield. “I knew I wanted to work in something evolutionary,” says Cameron. “Microbes are fantastic because they represent most of the biological diversity on earth. Most of the evolutionary history of biology is captured in microbes.”

When he completed his doctorate in 2007, Cameron was curious about the scientific culture in Europe; he wanted to see what was going on in his field on the other side of the Atlantic. At Trinity College in Dublin, under Dr. Charles Dorman, Cameron studied *Salmonella*—specifically how the bacteria “reads” its host environment, then does a complex cost-benefit analysis to determine whether it's worth the risk to go on the attack.

### SCIENTIFIC WINS

Cameron counts among his career successes the detective work he and long-time collaborator Dr. David Alexander did in 2014 to sleuth out the source of *Salmonella* infections in Saskatchewan. Using DNA sequencing, the partnership between the Saskatchewan Disease Control Laboratory and the Cameron lab was able to determine with 100 per cent certainty that two cases had in fact originated in laboratories, including one in the very facility responsible for identifying the bacteria when it shows up in the community.

That project laid the foundation for all of the subsequent genome sequencing he's done to better understand infectious diseases from a public health perspective, such as transmission routes, sources of infection, the location of potential outbreaks, and how infections evolve. “We now know that genetic analysis from sequencing all the DNA or RNA in a bacterium or a virus is the most powerful way to understand an outbreak.”



“Andrew has a knack for communicating about science in a way that inspires people to want to get involved in research.”

Another big win, says Cameron, was working with Alexander to help solve the mystery of how a nasty bacterial lung infection that appeared in the United States quickly mutated to become resistant to a brand-new antibiotic called Bedaquiline. Scientists and clinicians spent many years trying to find an antibiotic that nature had never seen before, and Bedaquiline was the result. Yet, within two months of its introduction, the infections returned in seven of the 13 hospitalized patients who had been treated with it. And in each of those seven cases, the bacteria independently evolved their own resistance mutations.

“By using DNA sequencing, we could zero right in and see, how did that happen so fast?” recalls Cameron. “How did the bacterium evolve to resist our most powerful tool, which took years to develop, and, just like that, they solve the problem for themselves?” Today, thanks in part to that work, instead of waiting months for bacteria to grow in the lab to determine which antibiotics *may* be useful, labs can now run genetic diagnostics on patient samples and know the next day which

combinations of drugs will be most effective. “That’s why we’re so excited about bringing gene sequencing to public health as fast as possible, because it can help with these multiple types of problems around infectious diseases.”

#### MENTORSHIP MATTERS

In his lab and in the classes he teaches, Cameron tries to nurture the same passion for discovery that was kindled in him as a young researcher, and to provide the next generation of scientists with the same opportunities he had to pursue their interests and research questions.

Master’s student Danae Suchan took her first upper-level biology course from Cameron back in 2015. Based on that experience, she knew she wanted him to supervise her master’s degree. “That’s what got me hooked in the first place,” says Suchan, who is a key member of Cameron’s COV3R team and whose graduate research looks at the gut microbiomes of bats in South Africa and mongooses in Botswana. “Andrew has a knack for communicating about science in a way that inspires people to want to get involved in research.”

She’s appreciated having Cameron as a mentor. “He’s an excellent facilitator of science because he is constantly securing funding and making connections with collaborators internationally. He’s always finding this diverse array of projects for me and other people in his lab to work on. He’s looking out for me and supporting my goals, not just his lab’s goal.”



**Danae Suchan, Dr. Andrew Cameron's master's student, working in the lab with Faculty of Science research associate Dr. Kara Loose. Suchan and Loose are key members of the COV3R team.**

Kevin Kuchinski is a PhD candidate in UBC's Department of Pathology and Laboratory Medicine who trained Cameron's team to use his novel probe capture technique to isolate genetic material from unidentified viruses and virus variants.

“We don’t always know what the applications are going to be later on down the road, but we know that they're going to be useful,” says Cameron. “That's why we do discovery of the natural world.”

People who work with him say Cameron's passion for discovery research, with its unpredictable zigs and zags, is, well, infectious. Dr. Kara Loos, research associate and lab manager for the Faculty of Science at the University, first met Cameron when he came to U of R in 2012. She was doing her PhD at the time and Cameron ended up joining her thesis committee. Loos was later recruited by Cameron and Dr. Christopher Yost, co-director of the IMSS, to manage the Institute's lab.

“I've heard before that science has a 90 per cent failure rate,” says Loos. “That can be hard to stomach when you're with all of these overachievers in grad school and you want to do the best you can. But what happens when you get failure after failure after failure? Andrew has this unique ability to see the positive in everything. A lot of supervisors would say, ‘Hey, you've poured all this money into this experiment and it didn't work.’ Some people might get quite grumpy about that. But Andrew understands that it's all just part of the scientific method.”

### TEAM BUILDING

As part of the COV3R project, Cameron invited Kevin Kuchinski, a PhD candidate in UBC's Department of Pathology and Laboratory Medicine, to spend time with his team in summer 2020, training them to use his novel probe capture technique to isolate genetic material from unidentified viruses and virus variants.

“While my team could do probe capture with components bought from different suppliers, using the techniques Kevin developed through his PhD made our work significantly more effective,” says Cameron.

Kuchinski, who conducts his research at the BC Centre for Disease Control, enjoyed his time at the U of R. He appreciated Cameron involving him in lab meetings and presentations by students and others in the department, and says it was a nice change of pace to work with Cameron's team and be in an academic laboratory environment again.

What Kuchinski likes best about collaborating with Cameron is that he's surrounded himself with such a strong team. “I've found that the good labs aren't always the ones with




the superstar PIs [principal investigators]—they're the ones with good teams,” says Kuchinski. “So maybe part of what makes a superstar PI is being able to foster and cultivate a good team. Andrew has really done that with his lab.”

### IMMEASURABLE VALUE OF DISCOVERY RESEARCH

Cameron is a tireless champion of fundamental research—or what he prefers to call discovery research. He says that despite the appearance at times that we're losing the fight to COVID-19, discovery research is what has enabled the scientific community to respond as quickly as it has.

“Everything we do in the lab is based on fundamentals that scientists have had to figure out over the years,” says Cameron. “None of this would be possible if it wasn't for countless big and small steps, including solving the structure of DNA or going all the way back to Darwin, who figured out the idea of descent from common ancestors.”

He points out that every instrument used in today's laboratories is based on principles that were developed by scientists who, at the time they developed them, had no idea they would be applied to things like pandemics.

“We don’t always know what the applications are going to be later on down the road, but we know that they're going to be useful,” says Cameron. “That's why we do discovery of the natural world.” 



# Accolades



## Accolades recognizes a few of the honours U of R researchers have received in recent months.

**1.** The World Health Organization declared 2020 the International Year of the Nurse and Midwife. To celebrate, Women in Global Health, in partnership with the World Health Organization, the International Council of Nurses, the International Confederation of Midwives, the United Nations Population Fund, and Nursing Now have recognized 100 outstanding women nurse and midwife leaders from around the world. **Dr. Shela Hirani**, associate professor of nursing, was one of those recognized – and was one of only five women from Canada included in this prestigious group. Hirani is a lactation consultant, registered nurse, and researcher. With funding from the Saskatchewan Health Research Foundation (SHRF) and the Faculty of Nursing at the U of R, Hirani developed a knowledge mobilization tool to promote, protect, and support breastfeeding during the global pandemic. The result is a five-minute video entitled *Breastfeeding during COVID-19: An Information Guide*. Throughout her career, Hirani has been actively involved in health equity work, paying special attention to policies that often negatively

affect the health and well-being of marginalized and vulnerable groups of women and young children in Canada and Pakistan. “My professional goal is to make a difference in the lives of underprivileged children and marginalized women through my research, leadership, and community service.”

**2.** An international leader in the area of pain assessment in dementia, **Dr. Thomas Hadjistavropoulos** is the 2021 recipient of the Canadian Pain Society’s Pain Awareness Award. The Canadian Pain Society presents the award to those with the Best Pain Awareness Project. The goals of the award are to raise awareness of the problem of undermanaged pain in Canada, to highlight efforts toward finding solutions to the problem, and to reach a national audience. Hadjistavropoulos, psychology professor and Research Chair in Aging and Health, received the award for leading the #SeePainMoreClearly campaign – an effort to raise awareness about the problem of undertreated pain in people affected by dementia, the dire consequences of not

treating the pain, and the cutting-edge, evidence-based solutions to the problem that are now available to health professionals and policy makers. Four months post-launch, the #SeePainMoreClearly hashtag had received more than five million impressions on Twitter. Hadjistavropoulos launched the campaign in partnership with the Saskatchewan Centre for Patient Oriented Research, the Saskatchewan Health Research Foundation, AGE-WELL Network of Centres of Excellence, the Canadian Association of Gerontology, the Alzheimer Society of Saskatchewan, healthcare personnel, patients and family members, researchers, and policymakers. His team includes Louise Castillo, Dr. Lilian Thorpe, Dr. Kelly Chessie, Dr. Jaime Williams, Mary Brachaniec, Andre LeRuyet, Charmayne LeRuyet, Dr. Alec Couros and Dr. Christine Chambers.

**3.** All it takes is a “hey, Siri” or “Alexa” to see how artificial intelligence, or AI, is becoming more integral to our everyday lives. That’s why the federal government recently provided a boost to Canadian AI researchers to rapidly

increase their contributions to the field. **Dr. Sandra Zilles**, Canada Research Chair in Computational Learning Theory, is one of the researchers who received an AI Chair and federal funding through the Canadian Institute for Advanced Research (CIFAR) AI Chairs Program. CIFAR is a Canadian-based global research organization. “This appointment will allow me to bolster current partnerships and create new ones as we work together, exchange research ideas, and develop new and important connections between our work,” says Zilles, who will work closely with the Alberta Machine Intelligence Institute (Amii) in Edmonton, one of Canada’s three national AI Institutes alongside Mila in Montreal and the Vector Institute in Toronto. Zilles adds that another exciting aspect to being a Chair and working with Amii will be that she and her colleagues there will also be able to co-supervise students, introducing the next generation of AI researchers at the U of R to bigger ideas than would be possible without these collaborations. The research that Zilles is conducting with her current students and collaborators includes both applied and theoretical work. [D](#)





# Shining a light on the lived experience of addiction in Saskatchewan

BY LYNETTE PIPER

The person who reaches out for that jolt of morning caffeine or likes to unwind after work with a glass of wine may seem worlds away from the desperate soul who breaks into homes and steals to feed their voracious addiction. But Dr. Kara Fletcher thinks we'd do well to look at both a little differently.

Fletcher, a social work assistant professor at the University of Regina's Saskatoon campus, is on a mission to humanize the lived experience of those living with substance use disorders – a term she says is much kinder than “addict,” “junkie,” or “abuser” – in order to convey the understanding that we all experience challenges in life, and that we all rely on some form of coping method to deal with the stress.

Fletcher, who is also the director of the Social Policy Research Centre, a registered social worker, and an accredited couples and family therapist, was recently encouraged to see how perceptions are changing when Joe Biden's son, Hunter, was questioned by an ABC news anchor for “being in and out of rehab seven or eight times.”

“I was so impressed with the way he took the anchor to task and told her to ‘Say it nicer’ – not in a combative way, but to educate her that he sought treatment for a health issue, like most people, and now was doing well.”

Fletcher believes strongly that words matter.

“I recently completed a study with 10 individuals attending outpatient treatment for substance use and 10 clinicians providing counselling. I heard multiple stories of how disempowering the language around substance use can be.

If you're not ‘clean,’ then you're somehow dirty and morally reprehensible. In Hunter Biden's case, it was almost like multiple episodes of treatment indicated a personal failure, when, in reality, relapse is simply a part of the journey.”

## SASKATCHEWAN'S METH CRISIS

Fletcher sees a social hierarchy with substance use, and is working to change that. “In our society, alcohol is accepted, and so is cannabis, more or less, because they're legal. Yet, if you're using meth, you're seen as dirty, horrible, and disgusting,” she says. “We tend to divide society into an us-versus-them mentality, and the only way we find ourselves caring about substance use disorders is if we've been personally touched by them. Yet we *need* to care. If we don't understand why so many people are turning to crystal meth or dying of fentanyl overdoses, then how can we empathize with the person in the street having a psychotic episode?”

Saskatchewan is currently in the throes of an addiction crisis. According to a recent study published in the Canadian Journal of Psychiatry, about 14 per cent of Saskatchewan residents have an addiction to drugs or alcohol – the highest per-capita rate of drug and alcohol addiction in the country.

According to police in both Regina and Saskatoon, there is evidence that crystal meth use is exploding. The blue-tinged crystal rock is used as a stimulant that is either smoked, or crushed and injected. While much attention has been paid to the nation's opioid crisis (nearly 400 people died of an opioid overdose in Saskatchewan in 2020, double the

Dr. Kara Fletcher is a U of R social work assistant professor on a mission to humanize the lived experience of those living with substance use disorders.



fatalities since 2018), police say meth use has flown under the radar. Meth is an “upper,” whereas fentanyl is an opiate or “downer” similar to morphine, but 50-100 times more potent. Some users rely on meth and fentanyl in a vicious cycle of getting high on the “upper” and then using fentanyl to come back down.

Constable Matt Ingrouille of the Saskatoon Police Guns and Gangs Unit says he’s seeing more meth, and it’s affecting kids as young as 10. “Everyone can afford to be a dealer these days, with massively cheap product coming in,” Ingrouille explains. “While people think of *Breaking Bad*, with meth being cooked in rundown trailers using locally sourced chemicals and supplies, the bulk of the meth hitting Saskatchewan actually comes from highly sophisticated labs in China and Mexico, with drug cartels moving it into Vancouver, up to Edmonton, and down into Saskatoon. Kids are getting addicted because it’s so cheap. One-tenth of a gram of meth used to cost \$20. Now you can get high for \$5.”

### THE ROOT OF THE PROBLEM

Solving the drug problem, according to Sergeant Robin Wintermute of the Saskatoon Police Drug Unit, isn’t going to happen overnight. “Police aren’t going to arrest our way out of this,” he says bluntly. “We have 12 investigators and there’s no shortage of work. We need to continue building community partnerships and get at the root cause of the problem,” he says, citing poverty, racism, and unresolved trauma that need to be addressed.

Constable Ingrouille agrees.

As a self-professed harm-reductionist and founder of Say Know (a play on the abstinence-only ‘say no’ approach that points instead to knowledge and understanding as the answer), Ingrouille believes people will eventually become non-users if more focus is placed on meeting the needs of the person first.

That’s where Kara Fletcher comes in. “We have to dig deep and understand the whys of drug use and really be willing to listen, because it’s affecting all of us,” she says, especially since the pandemic has compounded mental health issues.

“In the first phase of a study I’m working on, funded by a Saskatchewan Health Research Foundation (SHRF) Establishment Grant, we found that in Saskatoon fewer youth aged 18 to 24 are attending mental health and substance abuse services compared to older cohorts,” Fletcher notes with concern.

Through more interviews, the second phase of this study will help her to better understand their reasons for not attending these specialized programs.

Fletcher’s compassion and unwavering drive to understand addiction have made her a sought-after therapist and researcher working with individuals and families living with substance use disorders. Her research is centred on the fact that past trauma plays a huge role in addiction. “Renowned Canadian physician Dr. Gabor Maté says that developing an addiction is not a choice or a failure of will, but a response to human suffering and childhood trauma,” she says. “When you



“People have to set aside what they think addiction looks like and who it affects, because our human experience unites us all.”

think about it, a person is self-medicating to deal with their pain and make it through another day, which is *almost* an act of strength to survive – and yet the addiction blows up in their face. “We need to shift our line of questioning from ‘Why the addiction?’ to ‘Why the pain?’”

#### TOUCHED BY ADDICTION

Fletcher has always had an ability to connect with those who are suffering. She remembers when, growing up in rural Ontario, a fellow Grade 4 classmate was killed in a car accident. “I was the one taking these kids back and forth to the school counsellor to help process their pain,” she says. “I always knew from a young age that I wanted to help others.”

After obtaining her Master’s of Social Work at Montreal’s McGill University, Fletcher worked with families and groups focusing on mental-health issues related to substance use. “That’s when I thought, ‘There’s very little research out there on substance use and relationships,’” she recalls. “It’s what prompted me to return to McGill and pursue my doctorate.”

While Fletcher was working at an inpatient clinic for substance misuse, she recalls a fellow clinician telling her

not to talk about past trauma. “I was horrified!” she recalls. “How on earth can we ignore trauma when that’s the crux of the issue?” So she developed her PhD thesis on *Emotionally Focused Therapy (EFT)*, working with couples where one partner presented with a substance addiction.

“Usually, one partner is the helper-fixer who wants to go in and save the other,” she says. “I found that the current treatment structure over-focuses on substance use, where we really need to focus on the social context of the unresolved trauma. Then, rather than saying ‘I need you to stop using,’ we can get to the root of the issue, focus on the unmet needs, and say, ‘I trust you to be there for me,’ and allow the couple to focus on how that can be achieved.”

When Fletcher teaches her master’s-level course on addiction, she acknowledges that some of her students may struggle with their own past experiences with addiction.

“The stats say that in our lifetimes, one in four people will be touched by someone with an addiction. That’s a parent, sibling, or best friend. No one is immune.”

#### THE HUMAN EXPERIENCE

One of Fletcher’s students is Heather Kernohan, a Saskatoon social worker who has been on the frontlines for 15 years. “What I appreciate about Kara is she’s presenting master’s-level material in a way that really resonates.

We’re not just reading academic papers, but listening to podcasts, sharing stories, and reaching out to those with lived experience with crystal meth. Because every batch of meth is slightly different, and because everyone responds to the drug differently, people can have erratic behaviour, or



📷 Matt Smith

**Constable Matt Ingrouille of the Saskatoon Police Guns and Gangs Unit says he’s seeing more meth, and it’s affecting kids as young as 10.**

Heather Kernohan is a graduate student and a Saskatoon social worker who has been working on the frontlines for 15 years.



📷 Matt Smith

paranoia, or super-human strength, so there's lots of fear. My job has always been to make sure the person is safe and can get the help they need."

Kernohan, who is currently on mat leave while completing her grad studies, says she doesn't understand the approach of people who act as if addiction only happens to someone else. "This whole 'not in my family so it doesn't concern me' attitude has to change," she says. "We're all trying to cope with things that are painful to us. There's really not that big of a divide between numbing your mind with video games or VLTs and taking that *next* step and using. We all need to escape reality from time to time because we all live with pain. People have to set aside what they think addiction looks like and who it affects, because our human experience unites us all."

While Kernohan has worked with substance users from "every cultural and racial background," she says systemic levels of oppression and racism are particularly impacting those from marginalized groups, particularly Indigenous people. "When you see people struggling to meet their basic needs such as food and shelter, there's a lot of pain associated with that, on top of past trauma."

### TALK IT OUT

With meth use at epidemic levels, Kara Fletcher is trying to reach Saskatoon's most vulnerable youth population, and she's doing it by meeting these kids on their level, without judgment.

With funding from a Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant, Kara and her team are establishing a podcast for youth to talk

"We need a world where people who use drugs have the ability to inform drug policy, and have access to safe supply, support, and resources to live the lives that they want to live."

about their lived experiences. "Young people need to know that they're not alone, and that their lives matter," she says. "Through community partnerships, we hope to support youth as paid researchers so they can share the stories that are important to them. While the podcast is all about what's happening with the meth epidemic from a youth perspective, it's also a chance to provide the public with an inside look at what's happening on the streets, and to better empathize with the world these kids inhabit."

Fletcher's project is inspired by *The Crackdown*, a popular podcast featuring the lived experience of those in Vancouver's downtown east side. She wants Saskatoon youth to have that same opportunity to shine a light on their experience. "We've come so far, but really, we're just getting started," she says, envisioning a day when shame and stigma are replaced with compassion and understanding. "We need a world where people who use drugs have the ability to inform drug policy, and have access to safe supply, support, and resources to live the lives that they want to live." [D](#)



### Talking continuity and change with **Dr. Jeff Keshen**, the U of R's new president and vice-chancellor.

The University of Regina is excited to announce Dr. Jeff Keshen as the institution's eighth president and vice-chancellor.

Currently Grenfell Campus vice-president at Memorial University, Keshen is excited to start his new position on July 1.

*Discourse* caught up with him over Zoom to learn more about him, his research, and the impact he hopes to have in Saskatchewan.

#### **Can you share a bit about who you are and an overview of your research?**

I am a Canadian historian, and the area that I've always studied is twofold. My first piece of work focused on propaganda and censorship during the First World War. It looked at areas like civil liberties and internment, and the different understandings of war between those who went overseas and those who stayed home. Secondly, there hadn't been a general overview of the home front in the Second World War, so I became interested in sharing Canadian stories from that period as well.

#### **What is your current research project?**

Well, that's an interesting story. While working at Grenfell, I started to think about what I could do in Atlantic Canada. One day we decided to go underneath one of the more obscure rooms on campus. And I'm glad we did. We discovered 75 boxes of primary material that dealt with this campus's history. Those boxes had been collected for over 30 years, and no one had looked at them. I mean, when we opened them up, I was worried about what would crawl out. It was perfect because the campus celebrates an anniversary soon, and I'm using these archives to write their history.

#### **That's a fantastic find for a Canadian historian. So, how will your move to the University of Regina impact your research?**

I imagine it's now going to take me a few years to finish. As any researcher and historian will tell you, there is no way that I'm going to throw away that work, even though I'll be in Saskatchewan. But when I arrive to Saskatchewan, I'm looking forward to finding a compelling story to tell. The province has its own unique experiences. I might look at something other than the impacts of war, such as specific rural communities that have changed over time. But I'll also need a set of records that I can get my hands on quickly.

#### **What got you interested in this area of research?**

My family's stories about what it was like to live during wartime really fuelled my interest from an early age. My dad told me stories about when he was overseas in England. I have his uniform, five feet away. He was a bombardier stationed in Lancaster during the Second World War. And my mom was a teenager at the end of the war. My grandparents also shared memories of the employment opportunities created in factories and the rationing for beef, gasoline, alcohol, and tobacco.

#### **What would you say to young researchers starting their careers?**

The most important thing I can say is, it's hard, but stick with it. I mean, I'd say this to faculty too. When I sent my first book in for review, I had to revise it extensively because one reviewer tore it apart. But it made the book better. I have no problem sharing that story because it's been my experience over 25 years that every grant, publication, or research idea will end up getting revised or rejected. It's all part of the process. It's all learning. You just need to stick with it.

#### **Based on your research, what can history teach us about this pandemic and the changes that will come from COVID-19?**

Although no two circumstances are identical, I believe we can learn a lot from history. What we've seen with this pandemic is the acceleration of trends that have been evident for some time. The question for us is, how permanent and profound will those be? By that I mean, we're in a situation where people are looking to the online world for different ways into the classroom. Online learning isn't a new concept, but it's accelerated under this particular situation. So I think things will change somewhat, but not entirely, because history, even during periods of profound upheaval, is always as much about continuity as change. [D](#)



# Funding



Biochemist Dr. Mohan Babu in his University of Regina lab.

## 1. Canadian Foundation for Innovation (CFI)

From better understanding mitochondria – those tiny powerhouses providing energy to our cells – to further exploring neutrinos (subatomic particles that, while abundant, are difficult to detect), two University of Regina researchers were awarded \$2.8 million to delve into these areas of untold possibilities.

**Dr. Mohan Babu**, associate professor of biochemistry, received a \$1.4 million CFI Innovation Fund grant to discover novel ways to lower the impact of chronic diseases while addressing the rising cost of treatment.

“Mitochondria exist in our cells, helping to turn the energy we get

from food into energy that the cell can use,” says Babu. “When mitochondria aren’t functioning correctly, they wreak havoc on our bodies. Mitochondrial dysfunction is in the spotlight for being a key factor in a range of chronic diseases, including psychiatric disorders like bipolar disorder, neurological disorders like multiple sclerosis, and metabolic disorders like obesity-linked non-alcoholic fatty liver disease, which together cost the health-care system billions of dollars each year. Current therapies relieve some disease symptoms, but their underlying molecular attributes remain unclear.”

Additionally, Babu says, researchers commonly observe that when pregnant women are exposed to environmental

pollutants, their mitochondrial function is altered, leading to chronic disorders that can cause poor birth outcomes and chronic issues.

“This CFI funding will help us find answers by supporting the creation of the Mitochondrial Systems (mitoSYSTEMS) Research Centre at the U of R,” says Babu. “This unique facility on the Prairies will house 10 prominent researchers and clinicians tasked with uncovering the role of mitochondria in chronic diseases. We will then use this data to collaborate with pharmaceutical companies to create drugs and clinical trials for those with chronic diseases in Canada.”

Babu says his research project will complement current efforts at developing new technologies, and,

with CFI’s contribution, will relieve some of the pressure on Canada’s health-care system.

While Babu is focused on human health and medical advancement, **Dr. Mauricio Barbi** is concentrating on the building blocks of galaxies, stars, planets, and even humans in the universe.

“This CFI funding will allow an international team of researchers to continue working on detecting elementary particles through the Hyper-Kamiokande project,” says Barbi, who is part of the effort that consists of 84 institutes in 17 countries.

The Hyper-Kamiokande detector – called the Hyper-K – acts like both a microscope and telescope and, using neutrinos, is used to observe elementary particles, the sun, and supernovas.



Neutrinos are used to better understand supernova explosions, the mechanisms acting in our sun, and the existence of all the structures observed in the universe.



Physicist Dr. Mauricio Barbi in his U of R research and development lab where he and his team are developing components for the Hyper-K project.

Barbi, a U of R physicist who is a member of the International Board of the Hyper-K collaboration, is part of a team of researchers that has received significant funding through CFI's Innovation Fund. In total, the University of Victoria received \$5.4 million to lead the Hyper-K project, \$1.4 million of which has gone to Barbi and his team at the U of R.

Neutrinos, which are both fundamental and abundant in the universe, are also incredibly difficult to detect, and, thus, are not well understood.

"Our international team wants to understand how the asymmetry between the production of matter and anti-matter allowed for the existence of galaxies, stars, planets, and even ourselves in the

universe," says Barbi. "Hyper-K will use state-of-the-art, highly advanced technology to collect data from the interaction of neutrino particles and the detector."

Among other components, Canada's scientists are responsible for the photosensor system in the Intermediate Water Cherenkov Detector (IWCD) of the Hyper-K experiment.

"The IWCD is a water tank that's eight metres tall with a 10-metre diameter and instrumented with a suite of electronics components to measure the neutrinos," says Barbi. "These neutrinos can, when interacting with the oxygen in the water, produce other sub-atomic particles that can travel faster than the speed of light and create cones of light in the Water Cherenkov Detector."

The light produced in these cones is then collected with the photosensor system.

"Because each particle produces a cone of light that has specific characteristics, once reconstructed, we can identify the exact particles and the type of neutrino that interacted with the oxygen. From there, we can begin to extract the exact properties of the neutrinos – which literally opens up the universe to us."

Barbi says the neutrinos are used to better understand supernova explosions, the mechanisms acting in our sun, and the existence of all the structures observed in the universe.

Under his leadership, Barbi's team is responsible for ensuring that some of the complex

components developed in Canada for the Water Cherenkov Detector meet the specifications required to ensure the detector will operate optimally.

"We are also responsible for developing a component known as the scintillator detector, which helps to verify that what we detect are actually neutrinos and not some other type of particle."

The CFI's Innovation Fund invests in research infrastructure and technology development at every stage.

## 2. Agricultural Development Fund (ADF)

Three University of Regina researchers were awarded close to \$600,000 from Saskatchewan's ADF for their livestock and forage-related research projects.



Biologist Dr. Kerri Finlay with students Corey McCowan and Jessica Bos testing water in a dugout in Saskatchewan.

**Dr. Kerri Finlay**, associate professor in biology, received \$279,125 for her project *Sulfate Removal from Agricultural Ponds for Improved Cattle Health: Evaluating Regional and Local Controls*.

Sulfate concentrations in agricultural dugouts and ponds are currently one of the largest threats to water quality for cattle health on the Prairies. The result of several interacting regional and local factors, sulfur is found in soil, rocks, and groundwater across landscapes, meaning it can easily find its way into water systems.

While examining 100 dugouts across Saskatchewan over three years, Finlay found high sulfate concentrations causing poor water quality on 25 per cent of the sites surveyed, with nearly 10 per cent of the dugouts she studied unsuitable for use by livestock.

Finlay's research will address the water-quality issues by identifying the sulfate concentration levels in water sources that cattle access on farmland and then find ways to improve the water quality.

"As climate changes and human activities alter the movement of water across the Prairie landscape, it is imperative that we predict, prevent, and mitigate negative impacts on water quality," says Finlay. "We hope that this research will provide tangible solutions to an increasingly problematic water-quality issue for cattle farmers."

**Dr. Wu Peng**, assistant professor in the Faculty of Engineering and Applied Science, received \$149,000 for his project *The Application of Artificial Intelligence in Agricultural Land Flooding Prediction in Southern Saskatchewan*. Wu's research will address the current need to

better understand the interaction among agricultural activities, climate change, and flooding in the Prairies.

The main reason for land depletion in the Prairies, and the associated soil fertility loss, is that surface sediments are eroding due to flooding. Agriculture areas located in flood plains could face greater exposure to flooding in the future due to climate change. Through this research project, Wu aims to address the urgent need to understand the implications of changes in flood risk for agricultural land so as to better support sustainable flood-risk management.

**Dr. Denise Stilling**, associate professor in the Faculty of Engineering and Applied Science, received \$150,000 for her project *Discoveries in Extrusion Pulping Agricultural Crop Residue into Compostable Products*. Stilling's

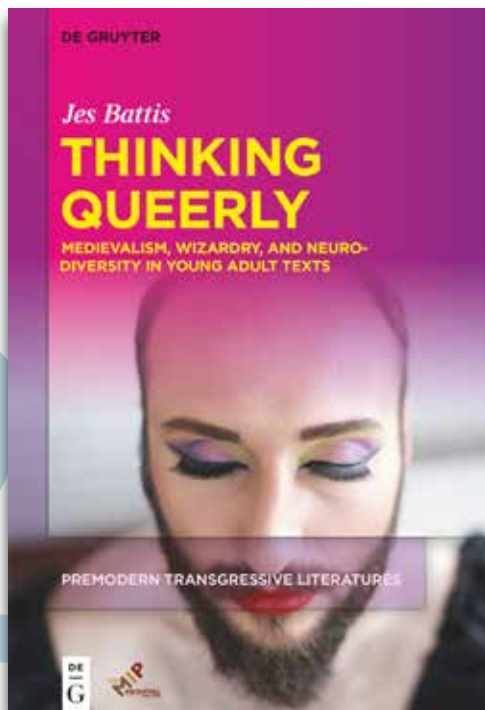
research will help to address the negative environmental impact of single-use plastics.

Each year, approximately 91 per cent of Saskatchewan farmland produces crops and, correspondingly, crop residue. Typically, this residue is regarded as waste. However, the straw is an annual, renewable, and relatively compostable fibre source. Crop residue from cereal and flax straw has proven to be ideal for single-use packaging products, and can also be used to produce compostable dinnerware. Stilling's research will look at using the crop residue to potentially manufacture decomposable drinking straws, stir sticks, container sleeves, and medical devices like temporary drainage stents.

The Agriculture Development Fund was created to fund research that supports the success of farmers and ranchers. [D](#)

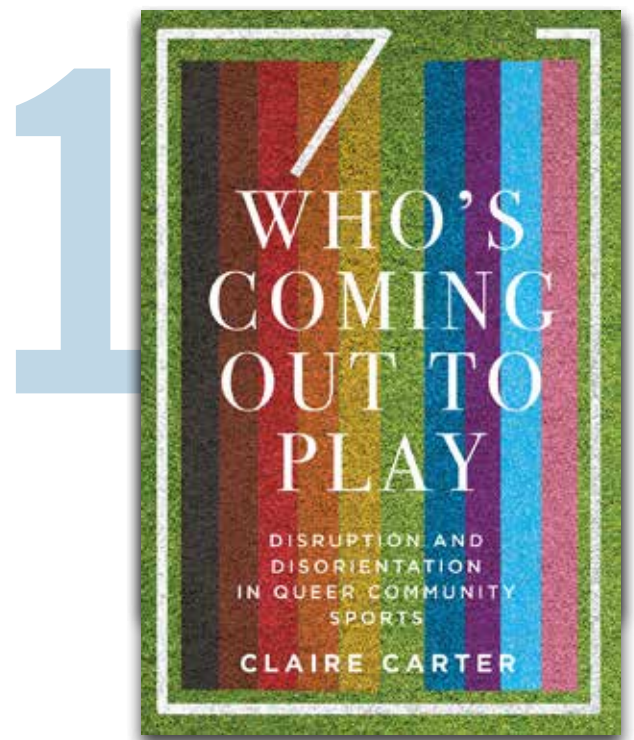


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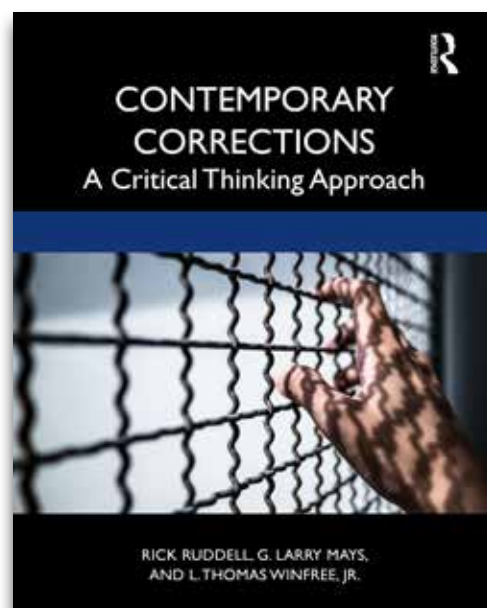


2. Why do we love wizards? Where do these magical figures come from? In *Thinking Queerly: Medievalism, Wizardry, and Neurodiversity in Young-Adult Texts* (Western Michigan University Medieval Institute Publications and De Gruyter, 2021), English associate professor **Dr. Jes Battis** traces the wizard from medieval Arthurian literature to contemporary young adult adaptations. By exploring the link between Merlin and Harry Potter, or the Arthurian enchantress Morgan le Fay and Sabrina (the Teenage Witch), Battis shows how the wizard character offers spaces of hope and transformation for young readers. In particular, *Thinking Queerly* examines how wizards think differently, and how this difference can resonate with both LGBTQI2SA+ and neurodivergent readers who've been told they don't fit in.

3. **Dr. Rick Ruddell**, justice studies professor and Law Foundation of Saskatchewan Chair in Police Studies, co-authors *Contemporary Corrections: A Critical Thinking Approach* (Routledge, 2021), an exploration of the essential elements of the United States' corrections system. This book illuminates the role corrections plays in American society, and covers the history of corrections, alternatives to incarceration, probation/parole, race/ethnicity/gender issues in corrections, re-entry into the community, and more. Ruddell's practical approach, which was informed by his experiences as director of operational research for the Correctional Service of Canada, is reinforced by including contemporary examples, a chapter on correctional personnel, and international comparative data to show how prison officials in other nations have developed different types of responses to problems that challenge correctional administrators. [D](#)



1. In *Who's Coming Out to Play: Disruption and Disorientation in Queer Community Sports* (McGill-Queen's University Press, 2021), associate professor **Dr. Claire Carter** explores various queer community sports teams and leagues in Canada to look at their potential to disrupt notions about gender and community norms. She also highlights factors that limit this potential. Focusing on spaces that were previously identified as women's or lesbian leagues that are now becoming trans and genderqueer inclusive, Carter investigates how their commitment to prioritizing community building, fun, socializing, and inclusivity over competition or winning allows their membership to reflect new or different ways of being in their bodies and being with different kinds of bodies, of embodying gender, and of engaging in different rules of play within sporting arenas.





“Our public health messaging needs to be delivered in a way that gets the resisters on board.”

## Writing the book on COVID-19 responses

BY GREG BASKY

**Psychology professor Dr. Gordon Asmundson estimates since February 2020 he's published close to 30 papers related to COVID-19.**

When Dr. Gordon Asmundson wrote an endorsement for *The Psychology of Pandemics*, a new book by his long-time colleague Dr. Steven Taylor in 2019, he described it as “a must-read for researchers, scholars, health-care professionals, and policy makers who may be involved in managing the public in the face of a pandemic threat.” Little did he know just how prophetic those words would turn out to be. Or that in a few short months, a virus that we now know as COVID-19 would become the singular focus of his work.

That book, and Asmundson and Taylor's shared, deep knowledge about health anxieties built over 20 years of collaboration, meant that the two collaborators were able to pull together a grant application in less than a week that garnered \$400,000 in Rapid Research Funding from the Canadian Institutes of Health Research (CIHR). “We had

some good ideas stemming from our previous work, and from some of the things Steve predicted in his book,” says Asmundson, a psychology professor at the University of Regina. “Between the two of us, we were well positioned to hit the ground running.”

### NEW KNOWLEDGE IN REAL TIME

Since February 2020, Asmundson, Taylor, and their team have been running the academic equivalent of an ultramarathon. Asmundson estimates that he's published close to 30 papers, when the average in academia and clinical psychology, he says, is closer to two or three a year. Those publications are based on rigorous science and draw upon the wealth of data they've generated through four waves of surveys involving 7,000 Canadians and Americans.



“There’s going to be another pandemic, and it’s probably not going to be far away,” says Asmundson. “If there’s a silver lining, it’s that the information and knowledge we’re contributing now can help us be better prepared.”

“Because the science about the virus is changing so rapidly, the pandemic and our emotional responses to it are also dynamic,” says Asmundson. “So we have to stay on top of that and put out the research. We don’t have the luxury of waiting three or four months to write it up.”

Of the wealth of new information he and Taylor are generating and sharing via their [coronaphobia.org](https://coronaphobia.org) website (developed with support from the U of R and the Saskatchewan Health Research Foundation), Asmundson is particularly gratified by the COVID Stress Scales they developed as a tool for researchers and clinicians to use with patients. The five interrelated scales correspond with the complex constellation of five emotional responses and behaviours the pair has labelled COVID Stress Syndrome—a condition that up to 16 per cent of the North American population may be experiencing to such a degree that it impairs their ability to function normally. Their finding paints a far more nuanced picture of people’s distress around viruses.

“I’ve never seen anything like this before, where you develop a scale and within months it’s being used so widely,” says Asmundson. “There are already a number of publications coming out from other researchers who are using it. It’s gratifying that work that we hoped would have an impact has taken off and has the potential to inform our understanding on a global scale.”

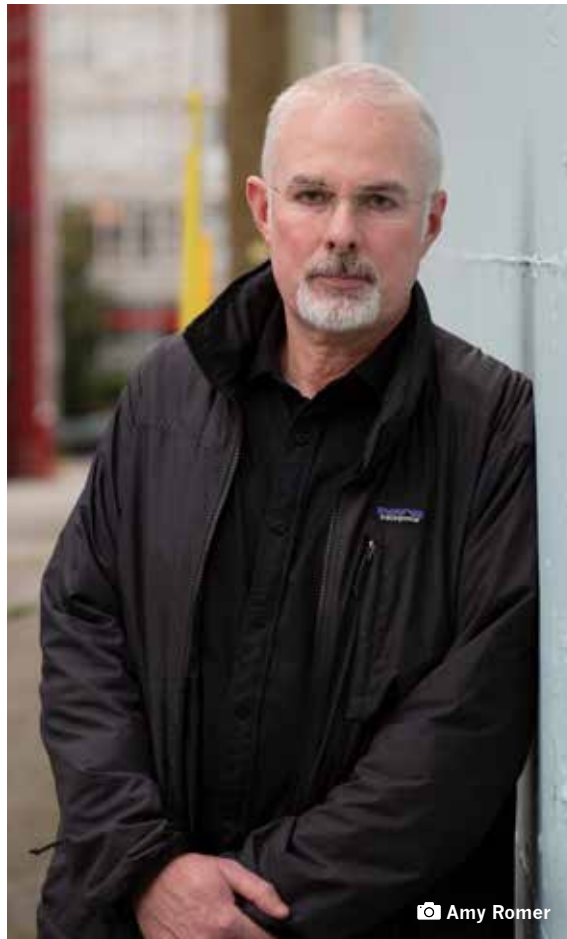
Asmundson’s colleague, Taylor—a professor of psychiatry at the University of British Columbia—describes their working relationship as an easy collaboration. “It’s effortless. Gord has a well-earned reputation as a prominent researcher who works well in collaborative settings, which is a talent that not all researchers have.” That includes not sweating the small stuff, says Taylor, who coined the term COVID Stress Syndrome. “I’ve worked with other colleagues where we could have spent weeks fussing around over the title. With Gord, it was, ‘I like it. Let’s use it.’”

#### TAILORING THE MESSAGE

The most recent paper by Asmundson and Taylor explores what makes the small but vocal minority of anti-maskers and anti-vaxxers tick. The finding that their “you’re not the boss of me” behaviour is driven by a trait called psychological reactance is borne out in other research.

“Our public health messaging needs to be delivered in a way that gets the resisters on board,” says Asmundson. Their paper suggests communications strategies could be built around the non-threatening “nudge” borrowed from behavioural economics, or by emphasizing that wearing a mask is a personal choice.

Asmundson is concerned that there aren’t more psychologists—experts in understanding people’s emotions and behaviours—at the table nationally and provincially



**Dr. Steven Taylor is a professor of psychiatry at the University of British Columbia and closely collaborates with Gord Asmundson.**

in pandemic management. “Wash your hands, keep your distance, stay home, wear a mask, those are all behavioural actions, right? So controlling the pandemic is largely based on modifying attitudes and behaviours.”

#### WHAT WE’LL LEARN FROM THE COVID-19 PANDEMIC

“The fact that we’re wrestling with so many of the same issues that arose during the 1918 pandemic—anti-mask attitudes, anti-vaccination attitudes, panic buying, conspiracy theories—suggests we didn’t learn all the lessons we could have about the psychology of pandemics.”

Still, Asmundson is hopeful that we can do better when we face the next pandemic. It’s easier to share information more widely today, plus the work he and Taylor have done provides a more nuanced understanding of the psychology behind people’s attitudes and behaviours.

“There’s going to be another pandemic, and it’s probably not going to be far away,” says Asmundson. “If there’s a silver lining, it’s that the information and knowledge we’re contributing now can help us be better prepared.” **D**

**Sociologist Dr. Amber Fletcher says offering a phone-based class is particularly suited to older adults who may be less comfortable with online technology.**

## A studio without walls

BY KATHRYN THOMPSON

To say this past year has tested the limits of human resiliency would be an understatement. The global pandemic has exposed our vulnerabilities around social isolation, and our need for community and connection has been brought to the forefront.

While some have been able to safely visit with loved ones, that's not been the case for everyone—especially Saskatchewan's older adults, who tend to be far more isolated than others because of their elevated risk from COVID-19.

To help foster meaningful connections, University of Regina researchers launched Studio Without Walls, an art-based project delivered to older adults over the phone.

"We initially planned to engage with older adults in person, but the pandemic changed everything," says Dr. Amber Fletcher, associate professor of sociology. "It was Barbara who suggested that we try to offer this programming over the phone instead."

Dr. Barbara Menely is a postdoctoral researcher working with Fletcher.

As soon as that light bulb went off, the two pulled their team together and went to work. They discovered several organizations already using the phone model—including the Seniors' Centre Without Walls Saskatchewan, which has now partnered with them on this project. They also connected with an organization in British Columbia that offers phone programs for seniors.

Giving older adults a creative outlet from their homes is something Fletcher believes is even more relevant now.

"Almost everyone has a phone," says Fletcher. "And something phone-based is particularly suited to older adults who may not be familiar with social media or online technology."

Plus, she adds, internet access isn't guaranteed, especially in Saskatchewan's rural areas.

"In some cases, the social isolation for older adults living outside urban centres is even greater, so we wanted to ensure they were a big part of our program," says Fletcher.

Six artists are each teaching a different workshop through painting, writing, and other visual arts. Over 60 people are participating in the various workshops right now.

"The age of participants and artistic skill level varies," says Shon Profit, the Saskatchewan-based visual artist who led the first workshop. "It's interesting because what typically



prevents people from doing art is their belief that they aren't creative, so group environments can deter them from doing it."

The telephone workshops remove the fear some participants experience in a group setting—that they won't be as good as those around them. However, that's forced Profit to adjust how she delivers her workshops.

"I had to rethink how I would explain and deliver everything," says Profit. "It took me so long to think through how to say what I needed to say using photographs and minimal words."

For each workshop, the supplies are delivered directly to each participant's door with a one-page explanation of the art project, making it easy for participants to take part.

Studio Without Walls is part of a larger research project that's been in the works for a few years now.

"We've been working in partnership with the Saskatchewan Arts Alliance for two or three years," says Meneley. "And the bigger research question is about learning the value that the arts hold in people's lives and communities."



A participant in the project says Studio Without Walls has been like walking through the threshold of a door into an entirely new experience.



Visual artist Shon Profit at the Eastend long-term care centre teaching expressive art to 93-year-old Dorothy Armstrong. This photo was taken pre-COVID.

📷 Kathy Berquist

The team effort has been extraordinary. The Saskatchewan Seniors Association contributed funding and distributed flyers in communities. The group also received funding from Mitacs and the Social Sciences and Humanities Research Council.

"The support from our partners allows us to do this research," says Meneley. "It helps us connect with communities and fund our fieldwork activities, including costs associated with providing the artists and materials."

With the workshops slated to wrap up in June, Fletcher and Meneley hope this concept will extend beyond that time frame. The project is already creating buzz far and wide, with people reaching out to them from across North America wanting to do something similar.

While the workshops are still underway, Fletcher says the feedback coming in from the participants so far has been overwhelmingly positive.

"I find that for myself, I get immersed in the experience, and the hour is gone in a snap of the finger," says one participant.

Another says that Studio Without Walls "has been like walking through the threshold of a door into an entirely new experience."

During such a difficult time as the COVID-19 pandemic, when new experiences can be few and far between, Studio Without Walls is improving community connections and helping to alleviate social isolation for older adults when they need it most. [D](#)



📷 Dr. Risa Horowitz

In response to the pandemic, postdoctoral researcher Dr. Barbara Meneley suggested offering art-based classes over the phone.

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