



REHAB IMPACT 2020

# **TOP 20** **DISRUPTORS**



**UNIVERSITY OF ALBERTA**  
FACULTY OF REHABILITATION MEDICINE

Rehab Impact is published annually by the Faculty of Rehabilitation Medicine at the University of Alberta. It is distributed worldwide to more than 8,000 alumni, universities, government bodies, organizations and friends of the faculty. The University of Alberta and the Faculty of Rehabilitation Medicine acknowledge that we are located on Treaty 6 and Treaty 7 territory, and respect the histories, languages and cultures of First Nations, Métis, Inuit and all First Peoples of Canada, whose presence continues to enrich our vibrant community.

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PHOTOGRAPHY: University of Alberta,  
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## Disruptors are innovators


They're the change agents who think of the impossible and make it possible. They're the people that create, challenge and pave the way for something new. It's not easy being a disruptor. Stepping up and introducing change is hard. But the world needs more disruptors. In an unprecedented time such as this with COVID-19, we need people to be innovators, to change the way we do things—to think outside the box.

And I can't think of another place that welcomes them more than the Faculty of Rehabilitation Medicine at the University of Alberta. As the only free-standing rehabilitation faculty in North America, we have challenged the status quo and continue to encourage people to think beyond the traditional way of doing things to enhance the quality of life and care for those we serve.

Kaitlin O'Toole, an occupational therapist and recent alumna, studied mobile resilience apps that can be useful for frontline health-care workers and anyone



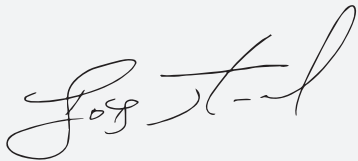
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practicing distancing in response to the COVID-19 pandemic. Our one-of-a-kind satellite sites in Calgary and Camrose changed the way we educate occupational therapists and physical therapists. Real-time distance learning technology allows us to train more health-care professionals to serve the needs of Alberta and beyond. The first Global Open Data Commons for preclinical Spinal Cord Injury research (ODC-SCI) will be a database of all SCI research data, not just published results. As my colleague Dr. Ana Lucas-Osma, who suffered a T7 spinal cord injury in Spain when she was 18, has said of the Open Data Commons, “This is a game changer.”

Other “game-changers” at the Faculty of Rehabilitation Medicine include: True Angle Medical Technologies Inc., our student-led Calm Room, the Cancer Rehabilitation Clinic...the list goes on. We want to celebrate our faculty of “disruptors” and bring you this special edition of Top 20 Disruptors.

Let’s continue to think outside the box and push beyond our boundaries—and working together we can make the impossible possible, as we strive to enhance lives through rehabilitation.



**R.G. (Bob) Haennel, PhD, FACSM**  
*Professor & Dean, Faculty of Rehabilitation Medicine*



## Kaitlin O’Toole

### WHY SHE’S A DISRUPTOR

Amid COVID-19, she’s researching reliable mobile health apps that can help individuals access much-needed mental health supports when in-person treatment is not easily accessible or an option

Now, more than ever, we need online tools to build resilience and wellness.

Kaitlin O’Toole, a recent graduate from the MSc Occupational Therapy program, conducted a study with the Department of Occupational Therapy’s Cary Brown that shows mobile health apps can be a vital tool for military members and public safety personnel who may not have access to in-person mental health support.

She also says that these apps can be useful for anyone currently experiencing mental health challenges, especially those practicing self-isolation or helping out on the front lines of health care during the COVID-19 pandemic.

“These apps should not be seen as a way to replace clinician-based mental health interventions, but they can be a great starting

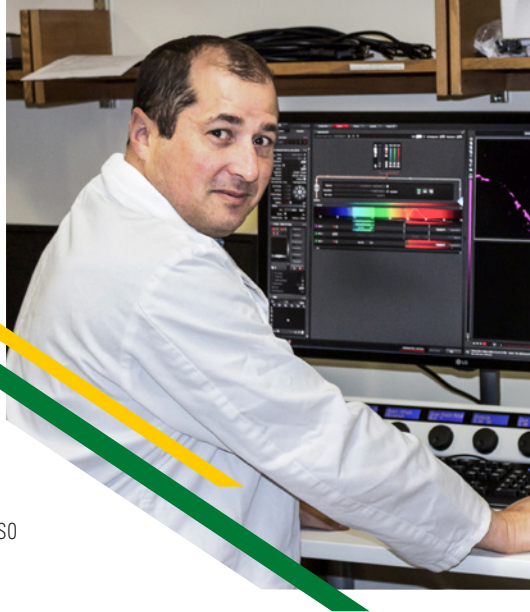
point for those who aren’t comfortable seeking in-person support, or maybe can’t access face-to-face therapy due to physical distancing, right away.”

The mobile health apps, which O’Toole, now an occupational therapist, also refers to as resilience apps, give users a sense of what mental health interventions look like, and may even help reduce the stigma related to mental illness.

Resilience apps that met the study’s inclusion criteria are: AIMS for Anger Management, Breathe2Relax, Concussion Coach, DoD Safe Helpline, HighRes, LifeArmor, Mindfulness Coach, Mood Coach, Moving Forward, PTSD Coach, PTSD Family Coach and Tactical Breather.



**\$4,748,285**  
total research revenue in the last year for the Faculty of Rehabilitation Medicine



# Global Open Data Commons for preclinical Spinal Cord Injury research

## WHY IT'S A DISRUPTOR

The Open Data Commons has the potential to improve treatment for up to half a million people suffering from spinal cord injuries worldwide, and also influence research in other areas of health, science and rehabilitation

The University of Alberta and the University of California, San Francisco (UCSF) are teaming up to launch the world's first Open Data Commons for preclinical Spinal Cord Injury research (ODC-SCI). A consortium of international organizations will be providing \$3.3 million CAD to help fund the initiative. The ODC-SCI will improve spinal cord injury research and treatment worldwide by reducing data bias and equipping scientists by making data more accessible, enhancing research and translational efforts.

"Thank you to the Craig H. Neilsen Foundation, Wings for Life Spinal Cord Research Foundation and International Spinal Research Trust for funding this important scientific endeavour and recognizing its importance for the field," said Randy Goebel, associate vice-president (research), University of Alberta.

Karim Fouad, professor and researcher in the Department of Physical Therapy, Faculty of Rehabilitation Medicine, has teamed up with Adam Ferguson at UCSF and Maryann Martone and Jeff Grethe at the University of California, San Diego to launch the much needed platform over the next five years. The ODC-SCI will be a database of all SCI research data, not just published results. Research data shared in publications and used by scientists, health-care professionals and even patients, represent only a fraction of research data actually produced. **Studies with so called 'negative' outcomes are generally not published in a journal—'dark' data that is estimated to make up 85 per cent of all data collected, representing millions in research dollars.**

"For example, when a researcher finds that drug X doesn't work, that data doesn't get published, but the data can still be very helpful to further research," Fouad, Canada Research Chair in Spinal Cord Injury, explains. "An SCI researcher in another country would find it useful to know that drug X didn't work (at least in the way it was delivered), so that they won't repeat the study. Or they may see other effects of drug X that could help develop a new study for another therapy to treat SCIs."

The first steps in the project, officially titled "Facilitating SCI Research, Translation and Transparency: Going Public with the Open Data Commons", will be an outreach to the research community and curation. Then the team will continue to collaborate with Neuroscience Information Framework (NIF, a repository for neuroscience web resources, initiated by the National Institute of Health Blueprint Neuroscience Research) to establish the ODC-SCI operation and integration of meta-analysis tools.

Teren Clarke, CEO, Spinal Cord Injury Alberta, is excited for this global database. "Congratulations to Karim Fouad and his team on this important initiative. We look forward to seeing SCI research transformed and quality of life impacted."



### Did you know?

The Faculty of Rehabilitation Medicine is a research leader in early years, living well and brain and mind.





# True Angle Medical Technologies, Inc.

## WHY IT'S A DISRUPTOR

This new company, co-founded by three UAlberta alumni—two of them from Rehabilitation Medicine—is enabling people with swallowing disorders to enjoy meals they couldn't have before

This past Thanksgiving, Leslie O'Connor-Parsons enjoyed a full meal with turkey and stuffing for the first time in five years. Diagnosed with head and neck cancer in 2014, O'Connor-Parsons had been on a liquid food diet consisting of runny blended soups, shakes or smoothies until recently because she had difficulty swallowing.

"When I first left the hospital after my surgery, I was supposed to practice swallowing. I wanted to swallow something—coffee, water. But I developed a fear of food. I live alone and was terrified of choking or aspiration pneumonia," she said. "I was proud when I was able to switch from a feeding tube in my stomach to liquid nutrition by mouth, but I was so committed to never eating a regular meal again that when I moved, I got rid of my kitchen table and chairs."

Thanks to Mobili-T, the first mobile home-based swallowing therapy device, O'Connor can slowly enjoy meals now, including Thanksgiving dinner and one of her favourites: a burger with cheese and mustard.



Mobili-T is a wireless piece of hardware that senses muscle activity when it is placed under the chin. It gives patients direct feedback about swallowing muscle activation. An app that provides real-time biofeedback on a mobile device leads patients through swallowing therapy. The app also provides a direct connection to a prescribing clinician, who can for the first time ever, reliably track patient progress and adherence.

Current biofeedback systems rely on very large pieces of equipment that are clinic-based, meaning patients have to regularly visit a clinic for intensive therapy sessions. This inconvenience means many patients simply don't get the therapy that they need. The feasibility trial for Mobili-T showed that patients will soon have a better, more flexible and mobile alternative.

**Along with two other Faculty of Rehabilitation Medicine spin-off companies, 3 Ft. Reach Inc. and Click&Push Accessibility Inc., True Angle Medical Technologies Inc. received a Spin-Off Company award at the TEC Edmonton Innovation Awards in 2019.**

# Heroes in Mind, Advocacy and Research Consortium (HiMARC)

## WHY IT'S A DISRUPTOR

Serving those who serve us, HiMARC is advancing innovative health and wellness research, education and services for military, veterans, public safety personnel and their families

This past year, the University of Alberta announced the creation of the Heroes in Mind, Advocacy & Research Consortium (HiMARC), a group of individuals and organizations that include the Faculty of Rehabilitation Medicine, Alberta Health Services' Glenrose Rehabilitation Hospital, the Royal Canadian Legion, AB-NWT Command, NAIT, Canadian Armed Forces, Department of National Defence, Veteran Affairs Canada and Covenant Health.

Together, they have established several partnerships, initiatives and research projects, including 3MDR, using virtual reality to treat post-traumatic stress disorder (PTSD).

"We are so grateful for the support of our partners—the Royal Canadian Legion AB-NWT Command, Canadian Armed Forces and the Glenrose Rehabilitation Hospital Foundation; I look forward to continuing to grow this collaboration together," said Suzette Brémault-Phillips, director of HiMARC. "There are more HiMARC research initiatives this year and we want to continue to bring research to life."

To broaden a more intentional collaboration, HiMARC has been established with the aim of leveraging interest across multiple sectors, institutions, and researchers initially in Alberta and subsequently Western Canada. HiMARC will allow for a coordinated approach to research funding through both grants and donors to advance research, education and service. Canadian military, veterans, first responders, and their families' health and well-being will benefit from HiMARC research, education and knowledge translation activities.

"We are proud to play an integral role in HiMARC as they work to address



some of the mental and emotional challenges that come from experiencing traumatic events—challenges that can hinder a successful civilian life for many veterans," said Tammy Wheeler, executive director, The Royal Canadian Legion, AB-NWT Command. "Every day we work to change the lives of veterans for the better. All too often, veterans leave the Canadian Armed Forces and face daily challenges directly related to their service. These challenges can be employment, housing, income insecurity and social integration due to physical and mental health."

For the first time, the University of Alberta raised the official Poppy Flag on November 1, 2019, to recognize The Royal Canadian Legion and its members—veterans and military who risked their lives for our country and continue to serve us today.

"The Royal Canadian Legion is Canada's foremost advocacy and assistance organization for veterans," said David Turpin, president, University of Alberta. "They have also been a partner of the university for the past 70 years. We, as a community, proudly raise this flag as a symbol of support for Canada's veterans."

"The flag raising means a lot to me as a U of A student and a member of the Canadian Armed Forces," said Hope Winfield, MSc in Rehabilitation Science student and military padre. Winfield is also a member of HiMARC, completing her master's research under the supervision of Brémault-Phillips. **As a founding partner of HiMARC, the Legion has allowed us to further our research programs, such as 3MDR, virtual reality to treat PTSD. HiMARC continues to expand this research to serve military, veterans, public safety personnel and their families.**



4  
 student clinics at the Faculty of Rehabilitation Medicine: Corbett Hall Early Education Program, Corbett Hall Student Physical Therapy Clinic, Corbett Hall Speech-Language Pathology Clinic and Cancer Rehabilitation Clinic.

155  
 articles and papers published by the Faculty of Rehabilitation Medicine



# Cancer Rehabilitation Clinic

## WHY IT'S A DISRUPTOR

The clinic is having a positive impact on quality of life for cancer patients and survivors at every stage of treatment and recovery

James Leskiw and his dad Terry, who is a cancer survivor himself, have been participating in the Alberta Cancer Exercise (ACE) program at the University of Alberta's Faculty of Rehabilitation Medicine. James was diagnosed with a brain tumor last year, has finished radiation plus chemotherapy and is finishing up another round of chemotherapy treatments.

"James is the love of my life, we're hunters, fishermen, we do a lot together," said Terry, 73. "At first I was just driving James and waiting for him, but when Margie McNeely found out I'd had prostate cancer, I got into the program as well. When you have something like this happen, you realize the little things in life are important, and the little things that we do as a family together."

"I think it's really cool to do this with my dad," said James, 42.

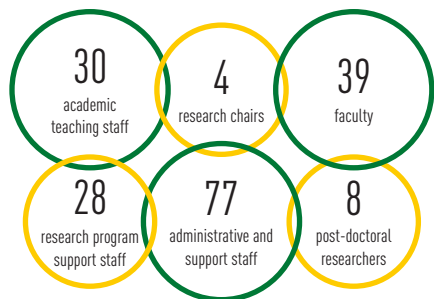
ACE is a study that is examining how best to offer exercise programming for individuals undergoing or recovering from cancer treatment. Since starting

in January 2017, over 1,500 Albertans with cancer have taken part in the ACE program across the province. The program is now offered at 18 sites in seven cities: Edmonton, Calgary, Red Deer, Medicine Hat, Lethbridge, Fort McMurray and Grande Prairie. The study is supported by Alberta Innovates and the Alberta Cancer Foundation.

**"Research shows that exercise has many benefits for cancer patients and survivors, at any stage of their treatment and recovery. The goal of the ACE program is to support cancer patients and survivors to take part in exercise in a setting that feels comfortable and welcoming,"** said Margie McNeely, ACE study lead and director of the Cancer Rehabilitation Clinic.

The ACE study is not a funded program, so their next step is to determine how best to implement the program as part of care, and ensure that all Albertans with cancer, regardless of location of residence, have access to, and can benefit from, supported exercise.





Mary Forhan



Andrea MacLeod



Marguerite Wieler

## Our department chairs

### WHY THEY'RE DISRUPTORS

Not only are they central figures in the education and development of the next generation of health-care professionals, these three scientists are national and international leaders in their fields

The University of Alberta's Faculty of Rehabilitation Medicine welcomed three new chairs between July 2018 and July 2019: Mary Forhan, chair of the Department of Occupational Therapy; Andrea MacLeod, chair of the Department of Communication Sciences and Disorders; and Marguerite Wieler, chair of the Department of Physical Therapy.

**Mary Forhan**, who joined the Department of Occupational Therapy as an assistant professor in 2013, is currently leading a program of research focused on improving the care and rehabilitation outcomes of patients with obesity. She completed her occupational therapy degree at the University of Toronto and her MSc and PhD at McMaster University. In addition to her academic background, Forhan has a strong record of clinical experience both as an occupational therapist and as a case manager. She has also served as chief of Occupational Therapy and Allied Health Services at the Centre for Addictions and Mental Health in Toronto.

**Andrea MacLeod** obtained her speech-language pathology training from the University of Vermont, her doctorate from the University of Washington and completed her post-doctoral fellowship at McGill University. As a

researcher, MacLeod held a Canada Research Chair in Bilingual Acquisition and Communication Disorders and has received major grants as a principal investigator from organizations such as CIHR, SSHRC and the US National Science Foundation to study speech and language development in bilingual children. Her work with bilingual children led her to co-found a non-profit organization to support bilingual language development in young refugee children.

**Marguerite Wieler's** administrative and academic leadership was instrumental in developing an internationally recognized Centre of Excellence in Movement Disorders in the Division of Neurology at the University of Alberta, building an interdisciplinary team of clinicians and researchers. Her academic credentials include a Bachelor of Arts from the University of Winnipeg, and a Bachelor of Science in Physical Therapy, a Master of Science in Experimental Medicine and a PhD in Experimental Medicine from the University of Alberta. A leader in her field, Wieler continues her clinical and research efforts, focused mainly on movement disorders, as well as the expanding role of rehabilitation in oncology.





# One-of-a-kind satellite teaching sites

## WHY THEY'RE DISRUPTORS

These teaching sites deliver rehabilitation education across Alberta—and they're shaking up the way distance learning is delivered, by way of cutting-edge technology

Did you know you can get a UAlberta MSc Occupational Therapy or MSc Physical Therapy degree in Calgary? The Faculty of Rehabilitation Medicine has called Edmonton home for 56 years, but we're proud to be right at home at satellites outside of Edmonton, too. These aren't spin-off or secondary programs: students at our satellite teaching sites take the same courses, from the same professors, as their Edmonton colleagues, thanks to some fascinating technology.

Large plasma screens allow lectures to be broadcast to our occupational therapy and physical therapy students in Calgary and Camrose. Students at any site can interact with each other and with their instructors in real time, and professors teach from each of the sites during the year. Telepresence robots give instructors the ability to move around the classroom and provide individual instruction, even from 300 kilometres away. In-person faculty are also present at every campus during all lectures, seminars and labs.

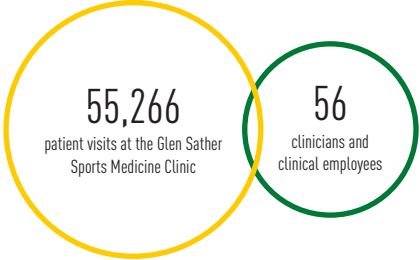
"The post-secondary landscape is evolving, and technology plays an increasingly important role. Accessibility is critical, and thanks to the robot and streaming technologies, our rehabilitation medicine students are now



studying and working across Alberta," says David Turpin, president and vice-chancellor, University of Alberta. "Satellite programs like this one are about ensuring that students can receive high-quality education no matter where they are in their home province."

Expanding outside of Edmonton enhances accessibility for students and patients. The satellite programs also allow the faculty to engage health centres across the province and create more clinical placements for students—an integral part of training future physical therapists and occupational therapists.

"Our students are completing more clinical placements and we are exploring more opportunities for placements around Alberta to serve the rehabilitation needs of the communities here," says Bob Haennel, dean of the Faculty of Rehabilitation Medicine. "With Alberta's aging population, we need to train more rehab professionals to meet the rehabilitation needs of patients across the province."



# Glen Sather Clinic provides vital “face-to-face” care for patients amid COVID-19

## WHY THEY'RE DISRUPTORS

The therapists and physicians at the Glen Sather Sports Medicine Clinic have stepped up to provide an exemplary level of care to all patients—even in a time when physical distancing has become necessary—by using remote technology to conduct virtual rehabilitation appointments

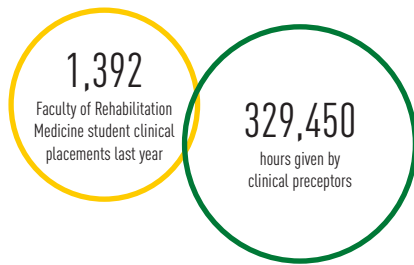
At a time when physical distancing has become mandatory across Canada, the University of Alberta’s Glen Sather Sports Medicine Clinic has turned to remote technology to help patients access vital rehabilitation services.

For the athlete recovering from an ACL injury, or the senior who had a new hip replacement, physical therapy is still very important to keep up so clients can avoid further problems later. A newly implemented option for virtual appointments provides patients with “face-to-face” therapy even with the shutdown of all non-essential physiotherapy services in Alberta.

While therapists and physicians are hard at work creating treatment programs for their current patients, new patients—especially those who might be experiencing issues related to working from home—will be able to seek assistance from the clinic as well.

“We pride ourselves in providing quality, evidence-based rehabilitation and taking our time with clients to give them the necessary care that they need. This same approach will carry forward into our telerehabilitation services and we look forward to implementing this new tool,” said Elizabeth Clark, physiotherapist.

The Glen Sather Clinic is also accepting urgent musculoskeletal referrals from emergency and primary care clinics in order to help decrease the number of patients accessing these services, freeing up front-line physicians assisting with COVID-19.



# Occupational Therapy Indigenous Focus

## WHY IT'S A DISRUPTOR

This opportunity builds awareness and capacity in future health-care providers in order to intentionally honour and explore the vast and unique perspectives, assets and preferences of Indigenous peoples in Canada

Students in the occupational therapy program now have the opportunity to incorporate an Indigenous focus into their programs through specific modules and assignments, as well as opportunities to partner with knowledge keepers and people with lived experience. The department is also creating fieldwork opportunities focused on Indigenous people and communities.

One such fieldwork placement recently took place in the four First Nations communities of Maskwacis, Alberta, where the nearest hospital is 20 km away.

With no hospital in the community itself, residents have to travel to Wetaskiwin or Ponoka for many services—emergency room care, dialysis, medical imaging. The lack of a nearby hospital also creates a substantial need in domains such as home care, pain management, mental health care, and education and support around medical equipment.

“These are all areas that can be addressed through occupational therapy (OT), but in First Nations communities, it’s rare to find an occupational therapist as part of the health-care team,” says Randy Littlechild, executive director of Maskwacis Health Services.



UAlberta occupational therapy alumna Chelsea Krupa, '06 BPE, '09 MScOT, provides home care three days a week in the rural Alberta community an hour south of Edmonton. Krupa has been working with UAlberta students, making fieldwork placements possible, which help to expand the role of occupational therapists in health care in Maskwacis.

“Prior to starting the placement, I had some awareness of Indigenous peoples and cultures through the Truth and Reconciliation Commission, but being here, it really hits home,” says graduand Adam McKenzie, who undertook a placement in Maskwacis towards the end of his program. “It’s been really impactful for me in terms of gaining an understanding of their community and how you have to approach your work from a trauma-informed view.” The placement has been very beneficial to the community. “We’ve just begun to see how OT could become more involved in Maskwacis,” adds McKenzie. “Hopefully it can continue to grow; we offer a certain lens that is missing when there isn’t an OT.”

*Photo: Occupational therapy students Elise Belanger and Miranda Lisowski received dream catchers as gifts from residents at Ambrose Place, where they completed their clinical placement as part of the new Indigenous focus. Ambrose Place provides safe, affordable and supportive housing for Indigenous people within a culturally sensitive environment.*





### Did You Know?

According to Stats Canada, women represent 94% of speech-language pathologists, 92% of occupational therapists and 78% of physical therapists currently working in Canada.

## Jaynie Yang, Professor, Department of Physical Therapy

### WHY SHE'S A DISRUPTOR

She's showing her students that it's possible for a woman to be highly successful in a traditionally male-dominated field

Jaynie Yang has led a successful career as a scientist despite the many barriers that women face in the sciences. Yang participated in Brandy Yanchyk's recent documentary Ms. Scientist and spoke about the challenges that she's overcome over the course of her career. Yang, a mother of two, balanced career and family, and tells her female grad students that finding that balance is completely possible. She makes an enormous impact on people's lives through her research into early motor training in children with perinatal brain injury, learning new walking patterns in young children, and neural mechanisms underlying the

retraining of walking in adults with spinal cord injury.

Eighteen women broke new ground in 1954 as the very first class in the newly-established training program for physical therapists at the University of Alberta—the beginnings of our faculty. They were the first women to be allowed to take anatomy courses at the university, and went on to lead distinguished careers in their field. Since then, many women have become alumnae of our faculty and have shaped rehabilitation medicine throughout Alberta and around the world.

28.8%

of the world's researchers are women

65%

of our current Rehabilitation Science cohort are women

# Stephanie Chipeur Accessibility Research Fund

### WHY IT'S A DISRUPTOR

UAlberta researchers are breaking down barriers for people with disabilities thanks to the research supported by this fund

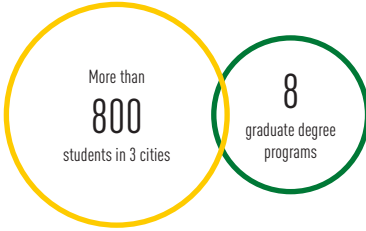
After a devastating car accident while on holiday in 2014, Stephanie Chipeur could have been forgiven for spending all her time focusing on her rehabilitation from her C5/C7 spinal cord injury. Instead, Chipeur used her experiences during rehabilitation to motivate researchers at the Faculty of Rehabilitation Medicine to focus on areas impacting the lives of people with disabilities, including social justice as it relates to accessibility, visitability and universal design.

The Stephanie Chipeur Accessibility Research Fund provides a one-time research grant to a faculty member to develop a research project in these areas. "I think the focus on social justice at the University of Alberta will help researchers advocate to improve the health and well-being of people with spinal cord injury—but also improve the

social inclusion of people with disabilities overall," said Chipeur during the fund's announcement.

The recipient for 2019/2020 is Martin Ferguson-Pell, professor in the Faculty of Rehabilitation Medicine and co-founder of the Rehabilitation Robotics Lab (RRL), for his team's creation of a laboratory environment which uses virtual reality to test wheelchair maneuverability in complex real-world settings where navigation is challenging. RRL is an inter-disciplinary research lab focused on improving quality of life through robotics and technology. Their research focuses on wheelchair biomechanics, new technologies to assess spinal structure and function, assistive robotics, and virtual reality in rehabilitation medicine.





# Calm Room

## WHY IT'S A DISRUPTOR

This student-led space is changing the way we think about student wellness and giving students the tools they need to lead healthier and more balanced lives

When you first enter the Calm Room, you see LEGO, adult colouring books, snacks and a virtual reality station. For some, this space may not mean much, but for many University of Alberta students, this is space that is meaningful—and just what they need during exams to help with stress and anxiety management.

The student-led space in the Faculty of Rehabilitation Medicine supports mental health through activity or “doing.”

“The vibe of the Calm Room is different from other areas on campus. It’s quieter, dimmer and inviting,” says Ciara McDaniel, MSc Occupational Therapy student who is part of the Calm Room team. “VR is one feature that sets it apart. It is very cool to have free access to this technology.”

Located in Corbett Hall, the Calm Room is very much activity-based. Providing activities for students to do helps them regulate their stress and be present in the moment and also promotes overall mental wellness.



Shaniff Esmail, associate chair, Department of Occupational Therapy, says research in mental health and occupational therapy shows calm, non-academic physical spaces help students freely engage in mindful activities to de-stress at any time. **“In occupational therapy, we believe in the therapeutic value of doing. A Calm Room helps create an environment that supports self-care.”**

“The Calm Room is a place where I don’t have to be ‘the productive, high-achieving student running on three cups of coffee, who has no time.’ In the Calm Room, I can simply just be me,” says Miranda Lisowski, MSc Occupational Therapy student on the Calm Room team. “The existence of the Calm Room communicates to students that it’s OK to take a break. It’s OK to be human and not a machine. It’s OK to have needs and to take some time to care for yourself. It normalizes mental health self-care, and it does it in a unique and accessible way right on campus.”



8,514

total alumni

FRM alumni live all over Canada and around the world - we have alumni from coast to coast, from USA to UK, Australia, China and more.

# Faculty of Rehabilitation Medicine Alumni

## WHY THEY ARE DISRUPTORS

Our alumni are making a difference everywhere they go: in their professions, in their communities, on campus and around the world

In 2019 we saw record attendance at our Alumni Weekend events, and the physical therapy classes of 1979 and 1989 made class gifts that will have a direct and positive impact on the lives of students for years to come. Our alumni community stepped up to the plate as volunteers; our preceptors logged over 320,000 hours mentoring the next generation of rehabilitation medicine students. [That's the equivalent of 37 years, 24/7/365, all in 2019!]

Our researchers and alumni together have developed new technologies, from designing more accessible light switches to creating apps that help wheelchair users navigate cities more easily or that provide biofeedback to people recovering from swallowing disorders. It's impossible to count how many lives have been changed by individual alumni doing great things in their own communities. The Faculty of Rehabilitation Medicine makes a difference outside of the walls of Corbett Hall, and so much of it is because of our extraordinary global community of alumni, who are enhancing the lives of individuals each and every day.



# ALUMNI WEEKEND

Sept. 24-27, 2020

Keep in touch with us for changes amid COVID-19, but the Faculty of Rehabilitation Medicine hosts the Dean's Alumni Luncheon for milestone anniversary classes, the Alumni-Student BBQ, and a number of lectures and tours. For class reunions held in conjunction with Alumni Weekend, we offer a Class Organizer program that can assist you in planning your reunion.

For more information, please contact Rob Curtis  
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# Our 50-year-old Speech-Language Pathology program

## WHY IT'S A DISRUPTOR

This year marks the 50th anniversary of the establishment of the speech-language pathology (SLP) program at the U of A. The only program in Alberta, it has trained more than 1,300 SLPs to serve the communication needs of individuals of all ages in Canada and beyond.

The Department of Communication Sciences and Disorders' MSc SLP program is now one of the largest in Canada, and is housed within the only free-standing Faculty of Rehabilitation Medicine in North America.

The Bachelor of Science in Speech Pathology and Audiology (BSc SPA) program launched in 1969. Since then, the program has grown and changed. The official Department of Speech Pathology and Audiology was established at the Faculty of Rehabilitation Medicine in 1976, and was renamed the Department of Communication Sciences and Disorders in 2013.

In 1986, the department initiated the Master of Science in Speech-Language Pathology program (thesis-based), with the first MSc SLP graduates completing in 1988. The BSc SPA program transitioned to a Master of Speech-Language Pathology in 1992, and then to a Master of Science in Speech-Language Pathology (course-based, as the thesis-based program was discontinued) in 2005. The SLP program has achieved a form of accreditation four times, first in 1998 and most recently in 2017.



# CELEBRATING

## SPEECH-LANGUAGE PATHOLOGY

50 YEARS OF GREEN AND GOLD

The program has a quota of 56 students admitted per year, and has a strong in-house clinic serving both adult and child clients.

Lu-Anne McFarlane, associate chair, Department of Communication Sciences and Disorders, is a graduate of the program who found herself returning to it as an academic staff member.

**“There is no way to overestimate the contributions our program, staff and students have made in the lives of children, adults and their families and their communities. Communication is central to human connection and our program emphasizes research and scholarship without ever losing sight of supporting quality of life for our clients,”** said McFarlane (BSc SPA '84, MSc SLP '92).



# Torrey Loucks, Research Chair

*INSTITUTE FOR STUTTERING TREATMENT AND RESEARCH (ISTAR) AND ASSOCIATE PROFESSOR, DEPARTMENT OF COMMUNICATION SCIENCES & DISORDERS*

## WHY HE'S A DISRUPTOR

He's changing the way we help people who stutter by using virtual reality technology

Research has shown that the communication anxiety that people who stutter face is very similar to what would be defined as social anxiety disorder. In fact, for almost 50 per cent of people who stutter, their fears around public speaking and social situations are severe enough to pass a screening test for social anxiety disorder.

However, while people who stutter may not experience the full spectrum of social anxiety disorder characteristics, they often share some of the diagnostic features.

"We can have people who are largely fluent—they've made excellent gains in treatment, they maintain those gains—but communicating in public can still give them tremendous anxiety," explains Torrey Loucks, research chair in stuttering, ISTAR, and associate professor, Department of Communication Sciences and Disorders, Faculty of Rehabilitation Medicine. "The social anxiety is definitely secondary to the stuttering, though—if the person didn't stutter they probably wouldn't have a fear of public speaking or being in social situations."

Those who showcase social anxiety disorder characteristics along with stuttering may require more in-depth therapy when it comes to being comfortable during social interactions.



This is where virtual reality comes in.

"These kinds of virtual reality tools provide social situations in which people can go through some type of communicative exercise, whether it be a speech, socializing or just being with people," says Loucks.

"Right now, we're using our VR technology to allow clients to practice for their final speeches—a written piece that intensive stuttering clinic participants present at the end of their treatment," explains Loucks. "Clients conduct their speeches in a virtual world that mimics an actual public speaking situation—on a stage, at the front of a room, at a boardroom table. What we want is to provide challenging communication situations so that people who stutter can practice their skills they use in therapy and also reduce the anxiety they feel going into a social situation."

While the virtual world does not replace actual environments to perform in, the augmented practice allows therapists and their clients to use those real-life scenarios more strategically and make the experience more valuable.





# Sharon Britnell Lectureship Award in Advancing Occupational Therapy

## WHY IT'S A DISRUPTOR

It's the first public lectureship award at the University of Alberta highlighting what occupational therapy is and how it changes lives

Named after the "mother of occupational therapy," the Faculty of Rehabilitation Medicine created this endowment fund to recognize individuals whose work has shaped the field of OT internationally.

Throughout her career, Brintnell has focused her research on supporting and understanding the occupational (life tasks) performance of individuals with persistent mental illnesses, prenatal exposure to alcohol, those within the prison system, veterans and First Nation communities.

During her time with the University of Alberta's Faculty of Rehabilitation Medicine, Brintnell has been vital to the

advancement of the occupational therapy program. In the 1980s, she helped guide the program's accreditation, developing a curriculum based on theoretical models. She designed and led the introduction of an accelerated program, which addressed a critical provincial human-resource shortage by turning out an additional 120 occupational therapists in just four years. She was instrumental in promoting occupational therapy education in Saskatchewan and negotiating a contract with the Government of Saskatchewan to send students to the University of Alberta where seats were reserved for them in the MSc OT program, an agreement which continues to this day.

## Allyson Jones, Professor, Department of Physical Therapy

### WHY SHE'S A DISRUPTOR

She's helping immigrant seniors overcome barriers to exercise

Allyson Jones, along with nursing assistant professor Jordana Salma, introduced a walking program to help immigrant populations become more physically active outdoors.

Working with the Muslim Association of Canada-Rahma Mosque, colleagues in the U of A's School of Public Health and Campus and Community Recreation, they provided a workshop on the basics of being physically active and preventing falls, talked about proper footwear and hydration, and assessed their health, balance and walking ability to prepare them for group walking once a week.

The results of the project point to a need for "safe spaces" for visible minorities to help them boost their physical activity.

*An older adult may feel vulnerable in an exercise class because they don't know what to expect in a room full of strangers. They'd like to know the people and the program so that if they get tired and need to rest, it's all right to do that.*

"It takes a lot of guts to leave the house, take a bus, join a program, especially if there are additional barriers like language or chronic pain," Salma said. "If you're going to join a program at a fitness centre and you're alone, you stand out. You dress differently, you look different, you didn't grow up taking part in organized physical activity. It wasn't part of your cultural daily behaviour."







## Teresa Hardy, Alumna

PHD REHABILITATION SCIENCE, CLASS OF 2019

### WHY SHE'S A DISRUPTOR

She's helping transgender individuals find their voices

As a speech-language pathologist clinician working with the transgender/gender-diverse community, Hardy had many questions about how to make SLP services better and was particularly interested in finding out what aspects of communication serve as the strongest cues in conveying our gender to other people. Her research and work have led to serving the trans community in their transition and using technology to analyze gestures

*My hope is to continue to build on what I've started over the course of my program in rehab science. I would like to create a centre of excellence to support research and service provision in the area of voice and communication modification training for gender-diverse people.*

and voice. She uses her expertise in communication sciences to help transgender individuals find voices that match how they want to be perceived.

## Youran Lin, Student

COMBINED MSc SPEECH-LANGUAGE PATHOLOGY/PHD REHABILITATION SCIENCE PROGRAM

83  
current students in MSc and PhD Rehabilitation Science

### WHY SHE'S A DISRUPTOR

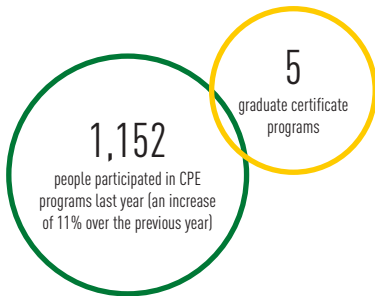
She's introducing speech-language pathology to help non-English communities in their language and culture

*Simply put, I am studying the speech development of children enrolled in the Chinese-English bilingual program in Alberta and its implications on learning a second language.*

A graduate of Peking University in Beijing, China, Lin came to the University of Alberta with nothing but two suitcases, \$1,000 and an adventurous spirit to study speech development in bilingual children and the Chinese language, and speech in multilingual and multicultural contexts. Now, as the Faculty of Rehabilitation Medicine's first Vanier scholar, Lin translates the knowledge

and practice of speech-language pathology in a linguistically and culturally appropriate manner for Chinese-speaking communities across Canada and all over the world.





# Joel Kailia

GRADUATE OF FRM'S CERTIFICATE IN PAIN MANAGEMENT, 2016

## WHY HE'S A DISRUPTOR

He's changing the way we treat patients with opioid addictions

As a family physician in Nelson, BC, Dr. Joel Kailia found himself treating a number of patients who had an opioid addiction as a result of taking prescribed pain medication. "I felt that if all I did was to treat their addiction and didn't treat their pain," he recalls, "I would have been doing them a disservice." And so Kailia undertook extra training, including the Faculty of Rehabilitation Medicine's Graduate Certificate in Pain Management, and opened a pain clinic, RISE BC, as a response to the needs created by the opioid crisis in his community.

The clinic brings together a multi-disciplinary team of professionals in the fields of acupuncture, kinesiology and counselling to take a holistic approach to pain management. Kailia says that his experience in the Pain Management Certificate helped to shape the collaborative nature of his clinic: "It gave me a great introduction to working with a variety of health-care professionals:

how to collaborate on patient care, how to think outside the standard medical model." The technology used to deliver the online content has also inspired Kailia to create a virtual pain clinic, improving access to treatment for many of his patients.

**The Faculty of Rehabilitation Medicine's continuing professional education students include alumni and non-alumni, rehabilitation professionals, physicians, nurses, pharmacists, psychologists, social workers and professionals from many other disciplines.** Thanks to these distance learning opportunities, the expertise of our world-class professors and researchers is making a difference around the world, in communities just like Nelson, where new approaches to pain and addiction treatment are making a big impact.



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FACULTY OF REHABILITATION MEDICINE



Publication Mail Agreement No. 40064303

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