

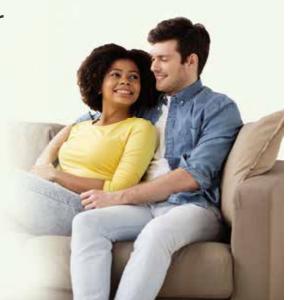
FALL | WINTER 2019 Calgary



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FALL | WINTER 2019

We are facing a multifaceted economic, social and health-care crisis as our elder population grows. What are our priorities and what is UCalgary doing about the splintered system that exists today?



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FOLLOW THE FLAG

Take a tour of vour ever-

changing alma mater with

who doubles as your guide

alumni.ucalgarv.ca/tour

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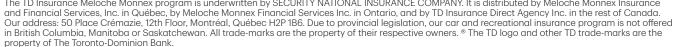
2019 Arch Award Recipients

Meet six outstanding alumni — innovators, global entrepreneurs, business leaders and scientists. Discover why their inspiring stories are changing our planet.



A Campus and City in Focus

Who better to take you on a tour of the university than Dr. Ed McCauley? From classrooms to research labs — you'll find yourself in places most of us never get to explore.





UCalgary

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The Power of the Collective Calgary's Reconciliation Bridge kicked off Alumni Weekend by donning UCalgary's colours

f you're one of 5.9 million Canadians who are caring for an elder, try to remember the last time a physician asked how you were doing.

Actually, when was the last time you saw a physician for yourself? Or ate a proper meal? Or slept enough? Or didn't make lists in the middle of the night?

And when was the last time you had any fun?

The subject of caregiver burnout and how many of those millions are "invisible patients" is an area we all need to be concerned about, Given that Canada's seniors' McCauley (pg. 32). population is expected to grow by 68 per cent over the next 20 years, we need to fix any DNA, it's the power of the collective. the long-term care system we have now. "Byzantine," "splintered," "confusing" and

"broken" are how many family caregivers are describing today's system — and they are worried. By 2030, seniors will make up 23 per cent of all Canadians.

Time for an intervention?

We think so and trust you'll see why in our eye-opening feature titled "Who Will Help Mom?" (pg.37). As you flip the pages of this issue, you'll find other features including profiles of our six inspiring 2019 Arch Awards recipients (pg. 25) and an insightful tour of your alma mater with new President and Vice-Chancellor Ed

I suppose that, if these features share In identifying our personal strengths, this issue is anchored in the knowledge that

we are even stronger together. This spirit of inclusivity is showcased in Chris Carlson's column in POV (pg. 18); in Barbara Balfour's crackling piece about photographer Leya Russell, an alumna who almost died in a plane crash while travelling in Southeast Asia (Mind & Body, pg. 15); and in Helen Sunderland's first column as the new president of UCalgary's Alumni Association (pg. 24).

And to you, the reader, I hope you see yourself in this issue because you, too, are part of this collective.

Do you have a story of your own to share? Email me at **d.cummings@ucal**gary.ca. And be sure to follow us @ucalgaryalumni on Facebook, Instagram and Twitter. — Deb Cummings, MEd'17, Editor ⋃

Notebook Notebook

Connect with Alumni This Fall and Winter

Programming, events and services from UCalgary Alumni are ready for Wherever Life Takes You. Stay in the loop with the latest by following @UCalgaryAlumni on social media, and watch your inbox for Alumni News and Alumni Connection.



CALGARY

alumni.ucalgarv.ca/dig-in

Rise, shine and dig in to an expert-led discussion on the Future of Food (Dec. 5) and the Netflix Economy (Feb. 6). Breakfast included; downtown Calgary.

December 5, 2019; February 6, 2020



IN AND AROUND CALGARY

alumni.ucalgary.ca

Consider it a backstage pass: Our next Alumni Exclusive Field Trip will lift the curtain and take you behind Theatre Calgary's stage for a guided tour.

May 23, 2020



A HOLIDAY TRADITION

alumni.ucalgary.ca

Grab your skates and hit the ice with Santa and Rex at the Olympic Oval to kick off your holiday fun. Snacks, activities and festive fun included — bring your whole family!

November 23, 2019



CAREER COACHING

alumni.ucalgary.ca/grow-your-career

Career coaches are available in-person at our Downtown Campus and online to discuss your work journey. Each conversation is tailored to your unique needs and questions.

WEBINARS

alumni.ucalgary.ca/grow-your-career

Grow your career skills from wherever you are with the Career Success Webinar Series, presented by career-development experts from the UCalgary and alumni community. Join live or access the recordings anytime.

CONFERENCE

alumni.ucalgary.ca/grow-your-career

This annual day-long conference in Calgary will connect you with career development experts and the latest trends, topics and tools to help grow your career.

February 1, 2020



alumni.ucalgary.ca/mentorship

The new UCalgary Mentor Link program has a simple mission: to connect our alumni and students from across the world for mentorship, networking and professional-development opportunities. Whether you are looking to get advice, give advice or are open to both, UCalgary Mentor Link will get you started.



CALGARY & NORTH AMERICA

alumni.ucalgary.ca/idea-exchange

Join us in Calgary and across North America and discover how UCalgary researchers' groundbreaking ideas are transforming how we live, work and play.

UPCOMING CALGARY EVENTS:

November 20, 2019 March 31, 2020

UPCOMING NORTH AMERICA EVENTS:

New York City — March 18, 2020 Washington, D.C. — March 19, 2020 Toronto — April 20, 2020

Ottawa — April 21, 2020



CURRENT EVENTS

alumni.ucalgary.ca

Current events and perfect pairings join us for an evening out and a culinary experience that is sure to delight.

February 27, 2020

ALUMNI PARTNERSHIPS

UCalgary Alumni supports some of the best programming and events on campus and in the community. Join us . . .

 Indigenous Knowledge Public **Lecture Series**

Presented by ii' taa'poh'to'p, UCalgary's Indigenous Strategy. September 2019 - March 2020

Current Affairs: Event Series

A luncheon series of policy discussions from The School of Public Policy. September 2019 - May 2020

Positive Disruption Series

Hosted by the Faculty of Social Work, this lively series dives into pressing topics and presents knowledge in alternative formats.

September 2019 – April 2020

Design Matters

Hosted by the School of Architecture, Planning and Landscape at the City Building Design Lab.

November 6, 2019; January 15, 2020

Sustainability Speaker Series

Thought-provoking presentations focus on building a more sustainable future. October 2019 - March 2020



ATYPICAL MIXER FOR RECENT GRADUATES

alumni.ucalgary.ca/links-drinks

If you've graduated in the past 10 years, this one is for you! Join us in downtown Calgary to mix, mingle and learn career and life hacks.

November 6, 2019



STRONG CONNECTIONS

alumni.ucalgary.ca/communities

Affinity Communities are volunteer-led groups that provide unique opportunities to build relationships and new traditions with fellow alumni around a common interest or experience. To date, we have nine recognized Affinity Communities:

- · Dinos Women's Hockey Alumni Group
- Medicine Alumni Advisory Council
- · Faculty of Arts Alumni Advisory Council
- · Arts & Culture Alumni Council · UCalgary Alumni Association,
- Hong Kong
- · UCalgary Senate Alumni Network
- Dinos Women's Wrestling Alumni Group
- UCalgary Education Alumni Network -Bevond the Classroom
- · Scholars Academy UCalgary Alumni Network

For more information, email: alumnivolunteers@ucalgarv.ca

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Here's the backstory to the stunning photo that is now hanging in UCalgary's Reeve Theatre Lobby:

At Alumni Weekend 2018, alumni came together with faculty, staff and students from the School of Creative and Performing Arts to create this piece of work known as *The Rococo Punk Project*. This massive undertaking included numerous individual and small-group shots that have been artfully arranged into a large-scale photograph that evokes the grandeur of a Renaissance painting.

From the top of the staircase to the violinist (L-R): Allison Lynch, BMus'll; Marisa Roggeveen, BComm'l9, BFA'19; Tim Nguyen, BFA'06; Natasha Strickey, BA'16; Connor Pritchard, BFA'17; Sadaf Ganji; Cayley Wreggit, BFA'18; Brittany Bryan; Jason Mehmel, BFA'04; Mark Bellamy, BFA'86; Emily Losier; Dr. Pil Hansen, PhD; Michèle Moss, BEd'84, MA'07; Donovan Seidle, BMus'99.



Looking at High School Sports from the Sidelines

Could this be the next big outta-nowhere hit to be released by year's end?

by Deb Cummings

torytelling is a word that gets a lot of play these days — whether it's in print, at an indie folk festival — or at a Calgary high school.

This past summer, in the gym at Queen Elizabeth High School (a.k.a. Queen E), we found a posse of UCalgary alumni doing just that — telling stories — in the soon-to-be-released film that bears one of the longest, most literal titles ever penned: Events Transpiring Before, During and After a High School Basketball Game.

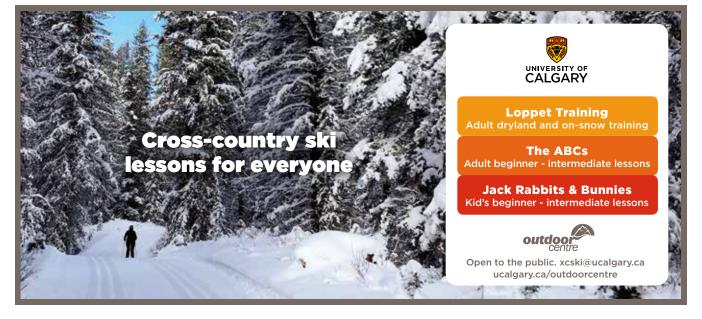
On a bench, under a banner that transforms Queen E into fictional Middleview High School, sits superstar Andrew Phung, BA'06, of Loose Moose fame and most recently the award-winning CBC series, *Kim's Convenience*, looking glum

as he watches a ragtag team of local high school kids try to play basketball. Directing Phung and the players is another alumnus, Ted Stenson, BA'09, MFA'14, who also wrote the 100-page script based on his time at this school. Alumni Nicola Waugh, BA'06, and Kevin Dong, BA'16, are the film's producers.

"I played a lot of sports in this very gym," explains Stenson, who graduated from Queen E in 2002. "Sure, we won one city championship in volleyball, but what I most remember isn't the winning shot or the action of the game. It's the stuff on the sidelines, in the bleachers . . . and, oddly, what the drama students were doing at the time. The absence of actual basketball action in this film was very intentional."

What Stenson strove to avoid while penning this script were the classic tropes behind so many sports movies, such as the underdog who comes out of nowhere to win the final match, or the star player who gets corrupted by outside authority figures. No ham-fisted, heartstring-tugging sappy stereotypes here, says Stenson.

Phung, who just wrapped his fourth season as Kimchee on *Kim's Convenience*, says, "it was the uniquely Calgary voice of the film" that brought him back to his hometown. "Not a cowboy voice, but a Calgary voice . . . one that sounds like every-day, grounded people. Plus, I was a teenager myself in the late '90s, so I felt like I was reading myself when I first saw the script." **U**



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Labels — we humans use them to make things easier, but how much muscle do they really have?

by Deb Cummings

hen James Demers was growing up in Lethbridge, he didn't think there were any gay people in Alberta.

"Just in San Francisco, New York and Pittsburgh," says the executive director of Calgary Queer Arts Society, the non-profit behind taboo-busting events such as Calgary's Fairy Tales Queer Film Festival and numerous diversity and inclusion workshops — such as one he recently delivered at UCalgary.

And so, in 2008, when he began his transition, Demers wasn't surprised that only four letters were being used to identify sexual and gender groups: L, G, B and T.

Times, attitudes and letters have since changed. After adding Q (for queer), 2S (for two-spirit people, a pre-colonial identity that is being reclaimed by young Indigenous people) and a + sign, which is no longer just a mathematical symbol, but meant to cover anyone who's not included on the gender and sexuality spectrum. And that's just a start — on Facebook, Canadians now have 58 gender options to pick from.

Language is important — developing a common language allowed LGBTQ2S+ people to begin to agitate for equal protection and consideration. In Canada, federal employment protection for gay, lesbian and bisexual people was granted in April 1998 through Delwin Vriend's Supreme Court challenge. This wrote sexual orientation into Canada's Charter of Rights and Freedoms, though it left out trans people; they would not go on to receive federal employment protection in Canada until June 2017. Without a label or classification, it seems, you have few legal rights or muscle as a citizen.

Besides job protection, there are numerous other reasons why language and labels are vital. They hold our health and safety in their hands — from custody issues and property rights to health care and data, such as what is counted on our census. Labels, like language, are critical.

Which brings us to pronouns.

"Pronouns are a relevant part of people's identity," explains Demers. "The solution of taking gender out of pronouns is not what we're asking for. I use 'he' and 'him,' and I'm fairly particular because I went through a lot to get here. I think numerous pronouns can exist in our culture with respect to each of those places on the spectrum. Pronouns are relevant talismans to most people."

Tripping over labels and pronouns can be avoided, suggests Demers, by introducing yourself and your own pronouns in initial conversations. For Demers, his favourite queer expression is not, "What's the T?" (i.e. "What's the story?") or "kiki" (a gathering of friends), or anything else from *RuPaul's Drag Race*, but something so safe, something that so many of us just assume . . . "Chosen family."

Demers defines it as the "sweet spot between community and isolation where you collect people around you who have had similar experiences and those you can call on. Chosen family is the foundation of community development."

In fact, Demers had put out a plea that very morning to help him assemble some Ikea furniture. As I look around his cozy office in the Beltline, I count six people in tool belts, hammering and slotting together chairs and desks.

Family, indeed. U

Lesbian A woman who is primarily attracted to women.

Gay A man who is primarily attracted to men; sometimes a broad term for individuals primarily attracted to the same sex.

Bisexual An individual attracted to people of their own and opposite gender.

Transgender A person whose gender identity differs from their assigned sex at birth.

Transexual An outdated term that originated in the medical and psychological communities for people who have permanently changed their gender identity through surgery and hormones.

Queer An umbrella term to be more inclusive of the many identities and variations that make up the LGBTQ2S+ community.

Questioning The process of exploring and discovering one's own sexual orientation, gender identity and/or gender expression.

Intersex An individual whose sexual anatomy or chromosomes do not fit with the traditional markers of "female" and "male."

Ally Typically a non-queer person who supports and advocates for the queer community; an individual within the LGBTQ2S+community can be an ally for another member that identifies differently than them.

Asexual An individual who generally does not feel sexual desire or attraction to any group of people. It is not the same as celibacy and has many subgroups.

Pansexual A person who experiences sexual, romantic, physical and/or spiritual attraction to members of all gender identities/expressions, not just people who fit into the standard gender binary.

The Path to the Pulitze

espite the fear that nobody reads newspapers anymore, a sold-out audience attended a September luncheon at Alumni Weekend. The headliner was Susanne Craig, BA'91, Hon. LLD'19, the Pulitzer-prize winning investigative journalist at the *New York Times* who cut her chops at the *Gauntlet*, before muscling her way on to the mastheads of some of this continent's top newspapers.

In a candid conversation — from Craig's first writing gigs to the 18-month investigation into President Trump's financial dealings — we learned never to underestimate the power of a face-to-face gathering that tackles big, burning questions that are relevant, intellectual and provocative.

Listen to Susanne Craig and Chancellor Deborah Yedlin at alumni.ucalgary.ca/ pulitzer U



Susanne Craig poses with communications and journalism students from UCalgary, Mount Royal University and SAIT at Alumni Weekend.



Solar Car Team Snags First Place

he winning car, dubbed Schulich Elysia, was designed and built by 60 undergraduates from the faculties of engineering, arts and the Haskayne School of Business.

Rather than pure performance, the team wanted to make a statement about renewable energy, and the possibilities of solar-powered transportation.

"This car took over four years to design and build due to several setbacks that delayed our completion, and, as a result, the team had not raced in over six years," said an ecstatic Sarah Lam, business manager and co-chair for the team, from the podium at this year's Formula Sun Grand Prix in Austin, Texas. U



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ere's the good news: we're getting older. The bad news is this has created a *wicked* problem for Canada's health-care system.

A few years ago, Canada reached a rather sobering milestone: seniors now outnumber children under 14 years old. By 2031, one in four of us will be older than 65.

Here's the kicker: per-person spending on health care is more than four times higher for seniors than for those aged 15-64. In Alberta alone, we already spend somewhere in the neighbourhood of \$22 billion annually (\$60 million daily) on health care, out of a \$56-billion annual budget. Pair this with revenues from fossil fuels losing their public shimmer and becoming ever more finite, together with Albertans' acid-reflux response at the notion of a sales tax, and we find ourselves in a perplexing conundrum. Do we tarnish the shining symbol of our national identity by making universal health care less universal and less caring; do we keep feeding the health-care "Leviathan's" insatiable appetite for more public funds; or do we methodically save our risk-, innovation- and change-averse health-care system?

So let's talk about this "Leviathan"
— better known as Medicare: Canada's
national health insurance program, which
is supported by every provincial and
territorial health act. It ensures distribution of federal funding to provinces that
provide access to medically necessary
health services delivered in hospitals
or by physicians — but many provinces
expand it to encompass home care and
long-term care, funded through direct
charges to patients.

Here's the challenge. In a country with declining health-care budgets, we've got a fragmented patchwork of 14 different legislated health acts (13 provincial/territorial, one federal) that fund treatment and some health-care providers at the expense of prevention and other types of health-care providers. The result is a national, politicized and disjointed approach to population health and wellness management, plagued by redundant spending, Machiavellian power struggles,

and squandered opportunities for collaborative and scalable innovation.

In other words, our system was not built to last.

Strategy experts would call our health-care challenge a *wicked* problem, described by strategic management scholar Dr. John Camillus, PhD, as an unprecedented challenge of unknowable root causes involving myriad stakeholders, values and priorities, and a problem that continuously morphs with each attempt to address it. All of a sudden, "Leviathan" becomes "Hydra."

Yet, this epic challenge is a defining opportunity for UCalgary and our alumni. Innovative solutions to *wicked* problems are best solved through collaborative research paired with entrepreneuship-driven hypotheses and experimentation. UCalgary, a research and entrepreneurial-driven university, is uniquely suited for this work. It is teeming with experts in public policy, law, business and organizational strategy, health and wellness, information technology, and more; and it has a mandate that embraces both analytical

research and entrepreneurial action.

We could start to address this challenge by establishing a coalition of collaborative, action-oriented, cross-sector stakeholders that value solutions that strengthen sustainable universal care. Stakeholders such as public organizations like Alberta Health Services (AHS) and our Primary Care Networks (PCN); large private health information technology vendors like TELUS Health, Epic and DynaLIFEDx; new-entrant social entrepreneurs, supported through organizations such as the Hunter Centre for Entrepreneurship and Innovation at the Haskayne School of Business, Platform Calgary and more; and patient-advocacy groups like Greg's Wings and Imagine Citizens.

Then, we could continue this work by creating room for real-world, hypothesis-driven health-care solution experimentation with real people and, over time, replacing the culture of institutionalized risk-avoidance. These efforts, however, are for naught if we neglect the need to commercialize and scale solutions beyond Alberta. A recent University

"Strategy experts would call our health-care challenge a wicked problem."



of Toronto paper describes Canada as the land of stranded health-care pilot projects, because our system is largely incapable of bringing any innovative solutions to our largest procurer — the public health-care system. Allocation of even a small percentage of our annual \$22-billion health-care budget, supported by better innovation-procurement processes, will significantly impact health-care service productivity and patient outcomes. We need to make this happen.

Wicked problems shape-shift and are rarely solved indefinitely because each new solution changes the relationship of constraints, resources and stakeholders. A continuous system of self-rejuvenation

is consequently essential for sustainable universal health care. Wrestling the "Leviathan" into a sustainable state requires Herculean stamina. Nonetheless, the importance, urgency and consequent benefits of success are compelling: an inspirational mission that unifies UCalgary's 185,000-strong alumni while attracting the globe's best researchers and research funding; an economy diversified by a health-care business ecosystem that attracts the best social entrepreneurs and investment capital; and the opportunity to significantly reduce health-care spending and heal our universal health-care system while taming an otherwise-overwhelming demographic tsunami. U

UCALGARY ALUMNI MAGAZINE FALL | WINTER 2019

In the Field In the Field

I was born in Manresa, Spain, the geographic centre of Catalonia. Our family was poor. I lived with my parents and grandparents in a small farmhouse, collecting butterflies in the summers.



SICKNESS

I got sick at age 14 and was hospitalized myasthenia gravis, an

The Lifelong Journey

How an autoimmune disease in youth led one CSM

by Mike Fisher

The journey toward a remarkable scientific discovery is often long and winding. It can be a hard road, without a compass, that's sure to reveal character. Discovery doesn't arise magically. Clues are unearthed gradually for the explorer who is clear-sighted and determined to see them, having the experience to recognize where they lead. Dr. Pere Santamaria, MD, PhD, knows the journey well. His discovery of a potential treatment for autoimmune diseases took a giant step forward in May 2019. Parvus Therapeutics, which he founded, announced a worldwide collaboration and licence agreement

to Medical Discovery

researcher on a years-long pursuit to help others

with California-based Genentech (Roche Group) to develop and commercialize his investigational treatment, Navacims, for three different autoimmune disease indications.

The pathway to the recent \$1-billion deal with Genentech began in Santamaria's childhood, requiring him to overcome formidable challenges along the way, long before his research into autoimmune disease gained traction and he attracted investor attention. Santamaria describes his journey. U



We moved to a town outside Barcelona when I was five years old where my parents worked in a factory. I became an athlete, a good water polo player.

> for months. It was autoimmune disease. 1974

> > 1978



SETBACKS

By age 15, I began to develop the secondary effects of highdose costicosteroid therapy, which gave me a swollen face (and other problems). I felt ugly and became shy and introverted. But it taught me a lot about how to deal with setbacks.



PUBLISHED IN TOP JOURNAL

2000

I was published in the science journal Nature in 2000 (one of the top iournals in the world for a researcher). I was examining how white blood cells of the novel mouse strain I had generated fought to get into the pancreas to accomplish their goal of killing the cells that make insulin. These diabetes-causing white blood cells were an attractive target for therapeutic intervention in Type 1 diabetes. In fact, this work played a key role in the discovery of Navacims (a precision nanomedi-

cine) that would come later



MEDICAL SCHOOL

I entered medical school in 1978 and became a doctor, completing a residency in immunology and my PhD in Barcelona. My interest in immunology was partly because of my old disease. I was drawn to the complexity of immunology.



1992

ARRIVES IN CALGARY

I was recruited to UCalgary in 1992. At first, it was difficult. Everything was new and my wife and I were raising our baby son, Marc. There were challenges getting funding for my lab work. However, I developed a mouse with a simplified genetic immune system to study diabetes and I earned a Canadian Diabetes Association scholarship, which led to more opportunities to do the research I wanted to pursue.



POISED AT EDGE OF DISCOVERY

In 2002, I started to look at the possibility of using specific compounds to manipulate the immune response. We engaged in collaborative experiments with outside investigators to do image inflammation of the pancreas in diabetic mice using MRI. To be able to do these experiments, we had to generate the nanoparticle-based compounds that we later found to have therapeutic activity.



Dr. Pere Santamaria, MD, PhD, is a professor in the Cumming School of Medicine's (CSM) Department of Microbiology, Immunology and Infectious Diseases. Within CSM, he is a member of the Snyder Institute for Chronic Diseases and associate member of the Hotchkiss Brain Institute.

NAVACIMS AND PARVUS THERAPEUTICS

Toward the end of 2004, while at UCalgary, we discovered the technology that became Navacims. I began working with UCalgary Technology Transfer Office to launch the company and Parvus Therapeutics was officially incorporated in 2009 Parvus is a biopharmaceutical company developing disease-modifying nanomedicines to halt or reverse autoimmune disease without causing general immune suppression.



Parvus reached a partnership agreement with the pharmaceutical company Novartis in 2017 to develop Navacims for Type 1 diabetes. This meant that there was now a viable path to ultimately bring Navacims to patients.



UNOVARTIS

AWAKENING INTEREST When we published more of our

research again in Nature, in 2016, we started to awaken more interest. The study showed something previously unknown — that nanoparticles (thousands of times smaller than typical cells) carrying targets that act as bait for the white blood cells that cause disease, can be used to reprogram cells. The white blood cells can be used to suppress the disease they intended to cause.

2009

PARVUS

2016

2017

2019

licensing agreement with California-based Genentech [which has offices in Calgary and San Francisco] to develop, manufacture and commercialize the class of drugs known as Navacims to potentially treat celiac, autoimmune liver and inflammatory bowel diseases. The deal to develop the drugs for these specific autoimmune diseases is valued at more than \$1 billion.

PARTNER DEAL WITH GENENTECH

In May 2019, Parvus announced a working and



MAKING PROGRESS

Pre-clinical disease models with Navacims have shown disease reversal across autoimmune disorders including diabetes, multiple sclerosis and autoimmune liver diseases, without impairing the immune system



2018

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That bothered me much, much more."

The now-35-year-old UCalgary grad whose degrees are in religious studies and fine arts, has since become an award-winning visual artist who has travelled the world, having had her photos published in *National Geographic*.

It was while taking a break after a three-week assignment in Bangladesh for Photographers Without Borders this past May that Russell had her second brush with death, surviving a plane crash that left her with a broken back and a concussion so severe, she had to learn how to walk, dress and feed herself all over again.

In Bangladesh, Russell had been documenting the stories of individuals who had received support from the Centre for Disability in Development. What was supposed to be a three-day vacation in Myanmar afterwards, before heading home to Calgary, turned into one of the most terrifying experiences of her life.

Her flight from Dhaka to Yangon on Biman Bangladesh Airlines was supposed to be only one hour long, but it turned into three as the plane repeatedly tried to land before finally missing the runway and crashing in a nearby field.

Russell was knocked unconscious, only coming to because of the cries of her 35 fellow passengers who were covered in blood, including a flight attendant whose spinal cord had been severed.

With two fractured vertebrae and a serious concussion, she had to walk one kilometre across a field in lashing rain to get to a bus that brought the injured passengers to the arrivals gate. There they lay on the airport floor, waiting for help for 40 minutes.

"They put me on a stretcher in a caravan with no seatbelts. It hurt so much to be sliding around on this stretcher, whipped around in a vehicle going as fast as it can. I yelled at the paramedic to hold my hips, but she didn't speak English," Russell recalls. >>









Top left: Emergency air medical evacuation of Russell from Yangon to Bangkok for medical treatment. Top Right: Fellow injured passenger, Wang Lei, lies on the floor of Yangon International Airport, waiting for treatment. Above: Russell receives treatment and takes her first steps in Semitivej Sukumvit Hospital, Bangkok. Below: Russell reunites with fellow victim, Gerry Fox, one week after the crash. The pair received similar spinal fractures and matching braces. Page 18 (L-R): Russell, on assignment in Bangladesh and sharing a laugh with Rifat Hassan after a cricket match.









She was sent to three different hospitals, where the staff weren't equipped to deal with her injuries and the language barrier only made things worse.

After two weeks in a Bangkok hospital, five days of which were spent in the ICU, Russell struggled with the after-effects of her injuries back home in Calgary, relying on her 16-year-old daughter, in a complete role-reversal, to shower, dress and feed her.

While she did not need surgery — despite losing a full inch in height and developing scoliosis - Russell was fit with a restrictive upper-body brace she had to wear for four months, which she could not put on by herself.

There were also pragmatic concerns weighing on her mind: her injuries prevented her from being able to photograph the summer weddings that supply the bulk of her income as a single mother.

And yet, Russell says, she cannot wait to get back behind a lens in far-away places. This November, she plans to head to Varanasi, India, with the ultimate goal of going back to Bangladesh and photographing the Rohingya people, whose flight from violence in Myanmar has been described as the world's fastest-growing

"I don't have a normal sense of fear. I'm so curious; I get restless," says Russell with a laugh, sitting in her artist's studio in the backyard of her Sunnyside home.

"Once I'm able to work again, I will be on the road. We're all going to die, but I won't let that stop me from living my life. I don't want my daughter to see me not follow my dreams because

Russell has been dreaming — and beating the odds — for a long time. She grew up poring over the pages of National Geo-

to die, but I won't let that stop me from living my life. I don't want my daughter to see

me not follow my

dreams because

of fear."

"We're all going

graphic while whiling away the time in remedial classes alongside children with autism and Down syndrome; her own dyslexia and ADHD were not accurately diagnosed until she was 30.

"I always felt like an outcast, being segregated from the other kids, and it made me want to find a sense of belonging," she says.

As a teen, Russell was so rebellious she dropped out of high school, ultimately becoming a single mother at 18. For a while, she was homeless, living at a youth shelter while working full-time throughout her pregnancy as a prep cook at the Good Earth Café, stopping only two days before her daughter was born.

The following September, Russell went back to school, upgrading her high school credits

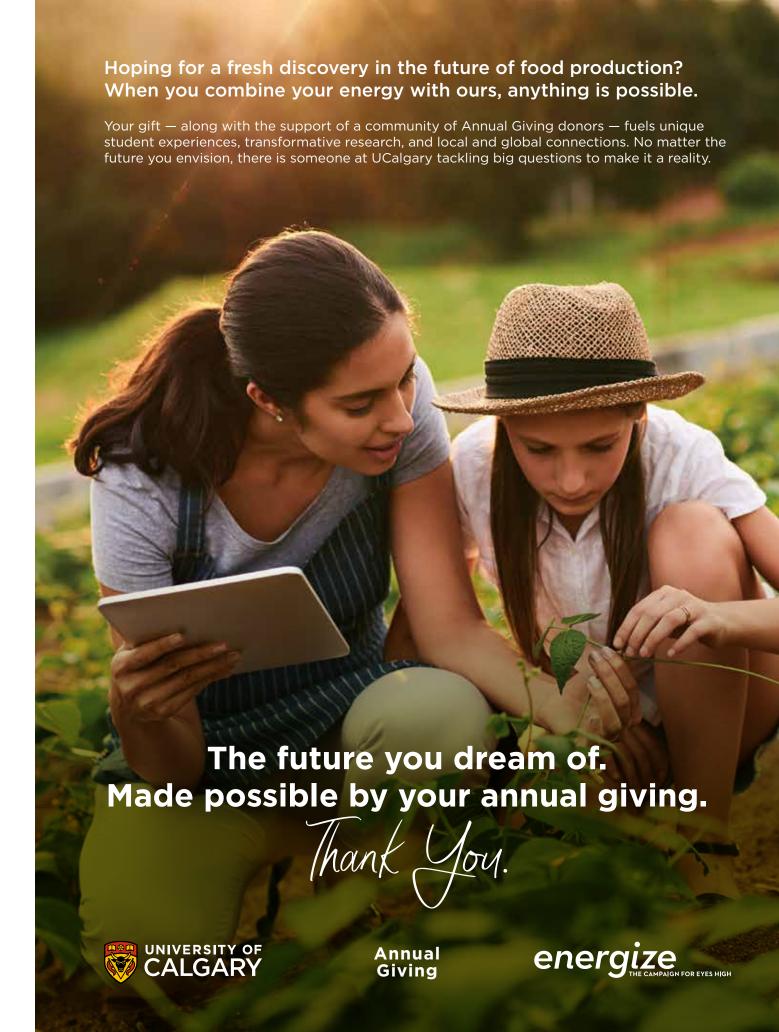
and eventually earning a Bachelor of Arts in 2008, majoring in Eastern religions, and a Bachelor of Fine Arts in 2011, during which she began nurturing her future career in photography.

"The U of C really pushed me to be curious. I felt so supported by all the faculty during my BFA degree, and even my Hinduism professor encouraged me to go to India when I was doing my BA," she says.

"People were seeing me for the first time and pushing me to grow. I learned to take criticism and keep on trying. Not every institution will support fearless curiosity or encourage you to connect to something bigger than yourself."

Those lessons on resilience have helped Russell enormously since the accident. Not only physically, but also spiritually.

"You only get one life," Russell says. "All of us are dying, and all of us have a short time here on earth. We all have to help each other. It's just an accident of birth that I was not born a Rohingya or anywhere else in the world. I'm so lucky to have had all these privileges and advantages in my life." U





Ever wonder who's the voice behind Victoria's Secret or Samsung or, for that matter, Amazon's Alexa (the recent upgrade)? It's likely a UCalgary drama grad who's one of Canada's top voice talents and whose friendly, almost sultry, tones you've likely heard say, "Please enter your PIN number, followed by the pound key," and, "I'm sorry, I didn't quite get that."

ow did you swing from acting to running a voice-over **company?** After graduating, I did land a couple of roles with Alberta Theatre Projects and Lunchbox Theatre, but I realized I didn't like the lifestyle . . . working late, going out for a meal and drinks late, sleeping in late. I am an early bird. What was your first big break? After trading my voice [to record ads] for concert tickets, T-shirts and albums at CJAY 92, I landed a gig with Safeway where I voiced ads for them that ran across the country. That income allowed me to buy my first condo. Do you use your acting training in your current work? All the time. I have 30 seconds to create a scene, establish a character and get a message across in a conversational way. What is one of your most satisfying spots you've created? It was a spot for a women's shelter where I had to sound absolutely downtrodden and dejected and then find the strength to grab the phone and ask for help. Do you have any career advice? Be flexible in your 20s. Don't be so firm that you miss the signs that may suggest you need to pivot. **How many** clients would you work with in a year? Hundreds. I could have 50 jobs in a week and do 50 recordings in a day. Where do you work? I have a home studio. When you speak at conferences, what messages do you stress? How to improve telephone systems by making them more intuitive and less frustrating. Rarely should

you give someone more than four options. What are the niches **in voice-over work?** There can be award shows — think of Randy Thomas, who has read the copy for the Academy Awards for years. Telephone systems are my niche, but I have colleagues who do nothing but learning modules or Internet videos for oil and gas companies. Live events is another, as is animation. Who are your heroes in the world of voice? Zooey Deschanel. I find her low, gravelly voice really intriguing and I admit to having a news-girl crush on Lisa LaFlamme [anchor with CTV News]. She has a low register that is very smooth. What voices annoy you? "Vocal fry" and "upspeak." I am thinking of Lindsay Lohan and Britney Spears right now. What is our favourite movie? The Wizard of Oz. Every time I see the moment when the house lands and the Technicolor starts. I get chills. When you are not in your studio, what do you do? I go to yoga three times a week, zumba twice a week, and I love to cook, garden and walk my dog. Oh, yes, and I knit 15 pairs of socks last Christmas. What's your guilty pleasure? Although I listen to NPR and read the New Yorker, my cotton candy is The Real Housewives of New York City. I am honestly fascinated by affluent women who behave deplorably. What is your motto? "Talk low. Talk slow. Don't say too much." OK, OK, I may have borrowed that from John Wayne. — Deb Cummings **U**



In the micro-universe occupied by the world's elite athletes, this former national team speedskater is a legend. Not for his moves on the ice — but, rather, for his hands. The strength and conditioning coach and massage therapist has worked with some of the top athletes in the NHL, NFL and WTA with A-listers such as Maria Sharapova, Sidney Crosby and alumna Hayley Wickenheiser. Best-in-class? We think so.

n all-star athlete in your own right, why did you leave the track? Unfortunately, sport doesn't last forever. As tough as it was, I thought it was time to move on and help in new ways while still staying connected to sports. It was a busy time for two years - I was working as a strength and conditioning coach by day and finishing up the two-year, 2,200-hour massage therapy program at Mount Royal in the evenings. What were the top three lessons you learned at UCalgary? I'd say: (1) The importance of objectively quantifying and tracking your work; (2) Having a strong scientific foundation allows for more creativity, which, in turn, helps generate potential solutions for complex problems; (3) Finding inspiration in subjects/departments in seemingly unrelated fields of interest. What are the common denominators that many of your clients share? In no particular order: driven, hard-working, resilient, focused. What have been two of your top career highlights? To me, "highlights" are results, which are achieved by the athletes I work with. My line of work is behind-the-scenes, so to speak. Every person and/or athlete is an individual and presents with various challenges unique to them. Instead of "highlights," two career experiences I am truly grateful for were the 2014 and 2018 Olympic Winter Games, where I worked with the Canadian speedskating and bobsled teams, respectively. How often do you travel in a year?

In 2018, I was home for less than two months. Any travel tips? Yes. Stay hydrated, use blue blocking glasses, practice grounding, buy a pair of great earplugs. What sports do you still play? I enjoy riding my road bike and, I suppose, of all games, I like golf the most. I enjoy watching anyone who is the best in their sport. If that person is Canadian and successful, it's that much better — Steve Nash, Jeremy Wotherspoon, Donovan Bailey and Mike Weir come to mind. What's your workout and how often? Depending on location and facilities, I love to bike (outside, preferably), lift weights, run, hike, yoga, skate, etc. I don't have a set routine, but I do something every day. What does a perfect day look like? Start with two espressos with my wife, read for a couple hours, ride my bike for a couple hours while listening to a podcast, spend a couple hours in the anatomy lab, work on a few clients, walk our dog, make dinner for a bunch of friends and family, watch a documentary, sauna, meditate, go to bed. What are your three favourite books? Unbroken by Laura Hillenbrand. Emperor of All Maladies by Siddhartha Mukherjee. A.T. Still: From the Dry Bone to the Living Man by John Lewis. What movie title or song best describes your life? Meru [a 2015 documentary that chronicles the first ascent of the "Shark's Fin" route on Meru Peak in the Himalayas]. Do you have a motto you live by? Well done is better than well said. — Deb Cummings **U**

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The Power of our Alumni Network

A message from the new UCAA leader

Helen Sunderland, BMus'87, MBA'92, President and Chair **UCalgary Alumni Association**

rowing up on a farm in Balzac, Alta., just a couple of kilometres northeast of today's CrossIron Mills shopping mall, I always knew that attending university was in my future. My parents were clear that post-secondary education was not optional: it was mandatory.

Thus began my relationship with the University of Calgary. Two degrees later, followed by a somewhat unusual career trajectory, I find myself returning to serve you as the new president of the University of Calgary Alumni Association (UCAA) and chair of its board of directors.

I don't take this role lightly: with more than 185.000 alumni worldwide, it is no small task to represent the varied interests of our alumni. Add stepping into the shoes of Vern Kimball, our outgoing president, who did a remarkable job of creating a bedrock foundation for the UCAA, makes it an even greater honour. And an even bigger challenge — one that I am thrilled to accept.

Why should we, as alumni, care about the UCAA? I hear that question frequently from friends and colleagues. And, frankly, I've asked myself that very same question. In all honesty, when I convocated, I never gave a thought to coming back and serving the alumni community. But things change.

For me, being an active alumna stems from a need to have roots back in my hometown. I was afforded the opportunity to live and work in Silicon Valley for seven years and, in that time, I looked for connections to home. While I was very actively



engaged in the Canadian expat community in "the Valley," I found myself recruited to serve on the board of the American Friends of the University of Calgary. And, from there, my interest in my alma mater grew. Through my incidental connections back to UCalgary, I learned that I had ideas to offer that could help make the alumni connection to the university stronger — even a long way from home.

While I never strayed further than the United States (and I know many of you live abroad), I gained a clear perspective: I have nothing but gratitude for what I achieved so far in life, and my education at UCalgary played no small part in reaching those achievements. This continues to give me the inspiration to give back to the UCAA.

I believe that, as alumni, we can be the voice to promote our world-class school; after all, we did earn our bragging rights! And I believe in the importance of community. How UCalgary can continue to positively impact our city, province, country and planet remains yet to be seen. With one strong alumni voice, I am optimistic that we can continue to support the building of this vibrant, ever-changing institution and promote our alma mater in our many communities.

I am looking forward to serving as your president.

Editor's Note: If, like Helen, you're feeling the tug to get involved with the University of Calgary Alumni Association (UCAA), learn how you can do just that at alumni.ucalgary.ca. U

by Deb Cummings photography by Adrian Shellard, BA'99

Although this year's outstanding recipients walked the red carpet in September at the 2019 Arch Awards. their stories bear a replay.

Meet six remarkable alumni who are blazing trails across our skies, creating spaces for us to marvel at, championing legal rights for Indigenous people, leading colossal coalitions of people, innovating new tech platforms and helping build bridges across global organizations.

Not only is the 2019 cohort of Arch Award recipients a hopeful beacon of what UCalgary has become since its Alumni Association first began honouring extraordinary graduates back in 1985, but may it also serve as a bellwether to where our university and alumni are taking us.

This year's recipients exhibit unbridled talent, enthusiasm, spirit and drive enough to make us all proud. Throughout their careers, these graduates have contributed significantly to their industries and communities while upholding the highest standards and values in everything they do.

As such, they represent the best of our alumni body. Exemplary role models, they inspire all those who aspire to have an impact on business, society and our planet.



AWARD CATEGORIES

ALUMNI AWARD FOR LIFETIME

leadership, shared knowledge, creativity and innovation.

INTERNATIONAL CAREER ACHIEVEMENT

AWARD: Acknowledges those whose international career accomplishments have brought distinction to themselves, their alma mater and their communities

COMMUNITY **ACHIEVEMENT** AWARD:

their community

AWARD: Celebrates a

Salutes a graduate graduate whose who has made philanthropy and/or outstanding generous volunteer improved the lives of alumni

ALUMNI SERVICE EARLY CAREER AWARD:

Recognizes professional accomplishments or creative leadership in any field by a recent graduate who is 30 years of age or younger

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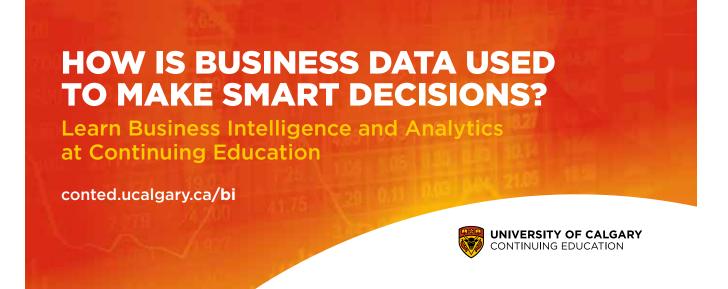
ACHIEVEMENT: Recognizing a graduate who, having reached the pinnacle of professional and personal success. enriches the lives of others through their

AWARD: Honours those whose careers have made a positive and significant contribution to

CAREER

and powerful contributions to their community through professional or volunteer service

Please meet this year's six Arch Award recipients »



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Once upon a time, the pinnacle of a career in space was essentially becoming an astronaut with the Canadian Space Agency (CSA) or NASA. But that tug to actual spaceflight was never what propelled Dr. David Kendall to stare into the inky void and wonder, really wonder, what was out there. Instead, what fascinated him was the Earth's upper and middle atmosphere and whether it could be studied using a variety of sophisticated instruments and techniques (a.k.a. atmospheric spectroscopy) precisely the area of research that has sustained Kendall in his stellar career.

"Early on. I saw the significant drawback of being an astronaut which is that one often sacrificed their career for a few days in space (today, the missions are a lot longer) and I was enjoying my career path at the time too much to do that," he writes in an email from Italy where he is holidaying with his wife. Toni.

It's a career that, some would say, has indeed spanned the heavens. For close to four decades, Kendall served with Canadian and international space programs, mostly with the CSA where he was instrumental in shaping our country's national policy in space science and exploration. Then, in 2016, Kendall was appointed to a two-year term as chair of the United Nations Committee on the Peaceful Uses of Outer Space (UN COPUOS) — a position based in Vienna, Austria, that monitors international co-operation in space exploration and promotes space technologies that meet global-development needs.

Yet, somehow, this atmospheric physicist was able to juggle the rigours of being an international executive with his other love — that of teaching. For years, he worked closely with the CSA's space education program and then later at the International

Although he may have retired from the CSA and UN COPUOS, Kendall today remains active in several space-related programs, as well as

His loyalty to his alma mater has never wavered, for UCalgary was where Kendall says he learned "and never forgot" about "teamwork,

"For me, these are the hallmarks of a leader." explains Kendall, who cites Elon Musk, Barack Obama and teenaged climate activist Greta Thunberg as people he admires.

transparency, responsibility and consensus.

He harks back to his student days, "where the university was developing new programs, often in 'risky' areas — one of them being space research. Couple the fact that Canada had only recently become a space-faring nation with the excitement and energy directed towards developing a space program that was unique in the world within UCalgary's Physics Department well, it was extremely invigorating."

Besides timing and the critical role that remarkable mentors have played in Kendall's extraordinary career, the two people who have influenced him most have been his wives — Toni and Betty.

"These two exceptionally talented people are who gave me my grounding, tolerated

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INTERNATIONAL CAREER ACHIEVEMENT

DR. SCOTT MEIKLE BSc'84, PhD

It's become a classic what-if? moment. If Dr. Scott Meikle hadn't spotted a "Study in Japan" poster tacked to a McMaster University bulletin board, he may never have taken his PhD in engineering physics at Shizuoka University. If he hadn't chosen Japan, Meikle may not have fallen in love with the language, certainly not enough to write his thesis in Japanese. And, if he hadn't mastered the language — which required a couple of hours of every day for five years — Meikle certainly couldn't have led teams of workers in Japan and Taiwan while

overseeing a business that spanned Asia.

Today, with a home in Boise, Idaho, and an office in California, Meikle continues to hopscotch the globe, bringing his expertise in the memory devices sector of the semi-conductor industry to the world. Both Lam Research, where he works now, and his previous employer, Inotera Memories Inc., represent two sides of a sprawling high-tech ecosystem, one that produces computer chips for phones, computers, cars and so forth. Some 90 per cent of Lam's customer base is Asian.

"Which is why speaking a foreign language is seminal, if you are going to work internationally," says Meikle. "Mores, customs and nuance change in foreign lands, but the fundamentals of leadership are always the same. Leadership is entirely about gaining the trust of your team through courage in the way you show yourself. People will follow you or stand beside you through anything if they see you are standing with them, accepting the same challenges and same risks. But you need to speak their

Citing Abraham Lincoln and explorer David Thompson as his childhood heroes who exhibited foresight, chutzpah and intelligent leadership, Meikle credits his undergrad

> Senior vice-president of Global **Customer Operations at Lam Research** in Fremont, Calif.; former president of Inotera Memories Inc. in Taiwan.



degree at UCalgary for teaching him: (1) the foundations of Western science; (2) his limitations — "In my third year, I struggled to balance swimming for the Dinos with studying," he says (he gave up swimming in his fourth year); and (3) self-confidence - "I studied with people much smarter than me and swam with Olympic athletes. I didn't measure up the same way, but I saw that I could keep up."

In fact, it was the gruelling balancing act between athletics and academic work that Meikle maintains gave him his intense work ethic — one that often keeps him

"Sleep has never been my forte," admits Meikle, adding his thoughts in the middle of the night can be a complex mix that stray from eclectic leadership styles to global positions of power.

"In my industry, I've watched a ceding of industrial leadership to our friends in the East and I wonder if we in the West assume too much," he says. "Our approach to industrial policy looks too clever by half. Furthermore, we look at our strength in science as an unimpeachable bastion, and that, too, is risky. At the most fundamental level, the strength rising in the East is based on a broad consensus on how to govern themselves. And so I worry that the sapping of our strength is because we have lost

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2019 Arch Awards 2019 Arch Awards

I CAREER ACHIEVEMENT

GRACE AUGER

Rare is the person whose career is described

as "sacred" or "deeply personal" or "a calling," but Grace Auger, like her profession, is anything but typical.

As a staff lawyer for Legal Aid Alberta on the Siksika Nation, Auger knows all too well what it's like to be the "other." Not only was Auger the only Indigenous law student in her cohort at UCalgary and the only student raising three kids under the age of eight, but she was also the only one with a childhood marred by extreme poverty and substance abuse.

The load was colossal but, frankly, nothing new for Auger, whose life has been spent breaking barriers and fighting extraordinary obstacles. One of her earliest memories, in fact, was that of being a six-year-old fleeing Saskatchewan with her mother and brother. bound for Edmonton where they could escape her alcoholic father. "We were so poor," Auger recalls, and her voice catches. "Our first rental place had a shared bathroom down the hall and I remember seeing my mother wrap all our food — salt, sugar, flour, anything with a hole in it — in Saran Wrap to keep the cockroaches out."

After her father sobered up, her family moved to another place in the capital where Auger found solace in school. "It was my safe place," Auger recalls. In fact, it was the pursuit of education that kept Auger motivated to create a better life for her children.

Marriage to artist Dale Auger, a baby and the loss of a second child prompted a move to Calgary where they wanted a fresh start — a start that involved Auger beginning post-secondary studies. That's when she majored in women's studies that, in a circuitous fashion, led her to UCalgary Law.

Calling her current work "enhanced duty counsel," Auger, a Cree woman who has lived most of her life throughout Treaty 6, 7 and 8 lands, has a unique perspective on Canada's criminal justice system and the overrepresentation of Indigenous offenders in custody. Depending on the case, she may recommend a client seek Aiskapimohkiiks — a Siksika cultural



traditional mediation program that may involve a team of addiction counsellors, elders, psychologists and anger-management experts. The program is designed to help heal the person so they don't repeat the offence and, instead, may grow from it. After her clients successfully finish the program, they report back to court, where their original charges are reassessed.

"My role is to give people some consistency, trust and respect," Auger says. "Having a full-time lawyer placed at Siksika helps build that trust so that clients won't have to repeat their stories to somebody new who may come along.

"That is really why I went into law — to give Indigenous people a voice."

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∬ COMMUNITY COMMITMENT AWARD

DR. MARY **ANNE MOSER**

BSc'88. MA'92. PhD'05

It could have ended very badly. As a precocious seven-year-old, Mary Anne Moser and her older sister were waiting to ride a rollercoaster dubbed The Flyer when she jumped on the train before it had stopped. She fell on to the tracks, wedged between two cars.

"A kind stranger yanked me out," recalls the recipient of the Community Commitment Award. "But, besides being worried about the grease on my white pants and what my dad would say — that was the precise moment when I learned to check my impulses; to analyze and assess the situation before leaping."

Call it a life lesson or a motto to live by, but couple that sobering moment with Moser's lust for adventure and relentless curiosity and you've got all the ingredients behind Beakerhead — Calgary's five-day "smash-up of art, science and engineering," and Moser's brainchild. Conceived in her garden in Bragg Creek back in 2008, the event was almost named Robertson (a nod to Peter, the Canadian inventor of the square-drive screw), but her partner, Jay Ingram (of TV's Daily Planet fame) said, "Hands down — Beakerhead is much better."

Like so many inventions, ideas can take years to germinate and, in Beakerhead's case, it took five. Moser was, at various points between 2008 and 2013, running the Banff Centre's Science Communication program, working as communications director at UCalgary's Schulich School of Engineering, raising triplets - plus, there were book-editing jobs, partnerships that had to be established, fundraising and so forth.

"It took years to get going," recalls the current CEO of TELUS Spark, "but, during that time, the idea for Beakerhead got sharper, more focused . . .

"We wanted to bring worlds together, we wanted to rip down silos between science and art and, in the process, all these beautiful things

> Current president and CEO of TELUS Spark; co-founder of Beakerhead; award-winning designer and communications director

happened. Artists found doorways into the world of science and scientists appreciated how much skill goes into creativity work. And the entrepreneurial community got excited about where these things would smash up . . ."

When asked about Beakerhead highlights, Moser defaults to that life lesson on the roller coaster platform: "As the motor behind Beakerhead, I didn't really take any of it in . . . I was constantly assessing risk, analyzing what we needed to do better, being on full alert." Trying not to jump.

But there was one moment — during a show called called *The Tremendous and* Curious World of Beakerhead — that still, years later, embodies the magic behind science. Meant to "act as a gateway drug for people who didn't know how to ingest this thing that was happening across the city," Moser lured Col. Chris Hadfield, who had just come off the *International Space Station*, to sing *Space Oddity* at the Jack Singer Concert Hall.

"The whole place just rose to their feet in a standing ovation," recalls Moser, breathlessly. "We had robotic things whizzing through the air and giant white continued on page 47 »





people to rally around a cause and effectively

communicate, whatever the story was, to the

management faculty and academics," says the

affable Allen, who, decades later, continues to

it was then that I realized my skills were about

In so many ways, that seminal experience

spanned top-level work in cities from New York

to Zurich, where he led coalitions of hundreds

of people. But it wasn't until Allen returned to

CEO of Aligned Outcomes; former member

of the UCalgary Alumni Association; has sat

on dozens of UCalgary advisory councils,

committees and mentorship programs.

storytelling, something I have always loved."

laid the foundation for what Allen went on to do in his 30-year career at IBM — a career that

hide his talents behind a wall of humility. "I think

Calgary from Zurich in 2009 that he decided he wanted to give back in the form of

shaping a person's trajectory," he explains. "I've been lucky enough to have many mentors, but Mike Maher was the one who nudged me on to a path that was straight and had purpose. Actually, Mike was one of the reasons I decided to invest my time in the university, because, just like before, when I came back to Calgary I was volunteering with too many organizations and I wanted to consolidate my volunteering in one place.

women. "You're always engaging with people who are thought leaders, who like to debate things and explore new ideas.

"As for mentoring students, it's odd, but I often mentor people in other areas than

Allen also suggests that people don't map out their careers in a linear track and

It was another hero that taught him those crucial lessons — the consummate continued on page 47 »

mentoring others.

"I had seen, first-hand, the impact that a guiet, guiding hand can have in actually

"Volunteering at the university is always exciting," adds the father of three young

my own ['sales' is what Allen refers to as his lifework], so all I can do is offer perspectives on how to get their career going, or I try to share my network with them."

pay attention to the way trends and markets shift, enabling them to react with speed and agility, ensuring quick pivots.

EARLY CAREER ACHIEVEMENT

EMILY HICKS BHSc'13

Running a biotechnology startup is tough.

Even for a space panda.

Those who remember this 29-year-old — before she and her team managed to win dozens of awards, speak at numerous international conferences, and generate more than \$2 million of investment and grant funding — might remember her role in Storybook Theatre's The Revenge of the Space Pandas, seeing her on stage as a competitive Highland dancer, or watching her play the oboe or trumpet in various symphonic bands.

Emily Hicks may self-identify as a "bit of an introvert," but give her a stage and this young alumna will crush whatever role she takes on. In fact, it was her theatre background that landed her a spot on UCalgary's iGEM team back in 2009, and it was this experience that convinced her that she didn't want to be a physician but, rather, to pursue biomedical sciences and anything to do with iGEM, which stands for the International Genetically Engineered Machine competition.

"I used to say that iGEM is what I remember about my undergrad degree — and school was the thing that I did in the middle," Hicks confesses, grinning.

When Hicks first saw a poster for iGEM, a global synthetic biology competition aimed at undergrads, she thought it sounded "more fun than entering data in a spreadsheet, which is what a lot of summer research jobs entail."

Without the typical prerequisites on her CV, such as a first-year chemistry course, Hicks didn't think she stood a chance. Parlaying her theatre background, however, she convinced the selection committee that she could do the "outreach stuff."

What the committee didn't know was just how passionate Hicks was about science and what a firecracker she is on stage. And it is this killer combination — this bridge between "doing" science and "presenting" science that makes Hicks so extraordinary. Hooked on iGEM (Hicks competed five times with a team that nabbed more awards than any other in the competition's history), it was her final project



that she, Dr. Robert Mayall, BHSc'13, PhD'19; Lisa Oberding BSc'12, MSc'16; and David Lloyd, MSc'13, had honed across three iGEM competitions that finally evolved into FREDsense.

Meet FRED — the Field Ready Electrochemical Detector, FRED combines biology and engineering to detect chemicals in water. Housed in a 6,500-sq.-ft. lab in northeast Calgary, FREDsense involves a team of 14 who test, design, build and assemble portable field kits full of easy-to-use sensors that can detect chemicals such as arsenic, lead, manganese or acidity in water by using genetically modified bacteria.

What differentiates FREDsense from similar technology is its speed, ease and mobility, explains Hicks. "There are other systems out there, but you can wait two or three weeks for the data. With FRED, you can have the data in a little over an hour, and training someone isn't complicated.

"Let's say you're looking at an oil spill, or a city that wants to measure its arsenic level. You want to know now, not in two weeks. That's the 'why' in our pitch; that's what makes FRED different."

Turns out that not only has amateur theatre helped Hicks get to where she is today but so has all the original research and grant proposals that she did during her Bachelor of Health Sciences. Until a few months ago, FREDsense relied exclusively

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Dropping In Abridged stories from UToday **Illustration by Christina Milloy** n any given day, members of the University of Calgary community can be found far beyond campus. Our students are in every corner of the province, in classrooms and emergency rooms, law offices and businesses, on performance stages, and in the natural environment. Their professors can be found there, too — gathering research, conducting educational outreach and sharing their expertise on a vast range of subjects. "Our main campuses may be physically located in Calgary and the surrounding area, but the impact of our work is so much broader than that," explains UCalgary President Ed McCauley. "We apply our research expertise and share knowledge with communities all over Alberta. Whether it's through formal programs CALGARY or informal learning agreements, student practicum placements or research projects, our relationships with community partners are strong. These Alberta connections help us to identify opportunities for initiatives and programs that allow our province

1) House Call

Last spring, people in Three Hills discussed mental-health issues and cannabis policies with UCalgary researchers and physicians. Dubbed House Call, this outreach program is aimed at smaller Alberta communities where students and doctors-in-training from the Cumming School of Medicine learn their skills. These events feature experts who raise awareness of the connection between research and advances in medicine and health care that's available to rural Albertans.

2) Famonton Valley Zov When was the last time you were

able to interact — read "play" — with animals at a zoo? Redefining the term "immersive environment," architect and UCalgary professor Marc Boutin, MA'01, and his firm recently redesigned the Children's Precinct at the Edmonton Valley Zoo. Visitors can now interact, move and play in this boundary-less urban farm that was inspired by Maurice Sendak's delightful book. Where the Wild Things Are.

3) Future Engineers

After three years of study, UCalgary engineering students can pursue a paid 12- to 16-month work experience. Of the 750 students who found internships last summer, many worked in rural communities such as Clearwater County, where Devin Drozdz found a job with a public works team. Keagan Graham was another engineering student who found employment at the CertainTeed insulation plant in Redcliff.

4) VCalgary Southern alberta Region Campus

From the 1,000-mile death march from their home in South Sudan to Ethiopia, two "Lost Boys" escaped Africa and eventually made their way to Brooks, where they found work in a meat-packing plant. If that extraordinarily epic journey as 10-year-old boys wasn't grim enough, their steely determination just got them through another journey John Manyok and Samuel Mathon graduated this past spring with degrees in social work through UCalgary's Lethbridge campus.

5) Archaeology Programs

UCalgary has run an archaeological field school at Cluny Fortified Village for the past 13 years. Since its inception, other programs have launched such as the Program for Public Archaeology in 2014, and the Aboriginal Youth Engagement Program that included seven schools this year. UCalgary's Indigenous Strategy reflects the belief that including traditional Indigenous knowledge and content into UCalgary's programs will only add to the protection of these sacred sites.

6) a Future in Beef Cattle Medicine

Why launch a veterinary career in the town of Peace River? "Family, mentorship, and the incredible beauty of Peace Country." is what convinced recent grad, Dr. Erik Burow, DVM'19. For his final practicum, Burow spent a month with "the cow vet of the north," a.k.a. Dr. Kevin Breker, DVM, who showed him the ropes, having practised in Peace River for nearly 40 years.

7) Massive Open Orline Course (MOOC)

Bringing education to everyone, everywhere, is the basic goal behind a MOOC. What Dr. Kathryn Schneider, BKin'96, PhD'13, an assistant professor and physiotherapist, didn't anticipate was how popular a MOOC on sports-related concussions would be. Some 8,500 people registered for the course, including Jeanne Lawrence from the Peace Country. "Most people in Edmonton and Calgary don't understand what it means to live in northern Alberta. Providing reputable distance education in a flexible manner is very important to those who live remotely," says Lawrence. U

In this issue's Dropping In, we highlight a few of the important connections that UCalgary has forged across Alberta.

To learn more, visit alumni.calgary.ca/alberta

to flourish."

f you're ever riding around in a black Volvo with Dr. Ed McCauley, PhD, and he asks you what Santa Barbara, Germany and the Loire Valley have in common, don't say it's because UCalgary's new president and vice-chancellor has worked in those places (although he has). The right answer, he quips, is wine.

Like McCauley, the tour we're taking of various UCalgary campuses and associated facilities is multifaceted and informative. He provides unexpected insights into his life as he illuminates the path he's carefully setting for the university.

McCauley delightfully connects dots, jumping from his insights into how universities operate in different jurisdictions and the vital role a university can play within a city, to the pleasures of wines that disclose as much about a region as they do of the person experiencing them. Like wine and the importance of the region's terroir, universities are rooted in specific environments. But they are comprised of people — each of whom has a particular perspective and contribution.

"We, as a young university, are so fortunate," says McCauley. "We have extraordinary community support from people who want to make a difference, many of whom are global players who operate businesses around the world . . . who already know what a great research university can do."

It's exactly this — deepening the university's ties with Calgary, Canada and the world — that energizes McCauley. In Calgary, the main campus hosts 34,000plus students, 5,000 faculty and staff. Since the late 1960s, our home on University Drive has grown to include three other campuses in the city: Foothills, Spy Hill and Downtown. And then there's our campus half a world away in Qatar, "where we are transforming the profession of nursing in the Middle East," he says.

How will McCauley, who has had a 30-year career at the university, serve these different jurisdictions? How will he elevate UCalgary on the global stage as it grows next to those established European institutions that he has seen operate? How will he juggle the needs of undergraduate and graduate education, Canadian-born and international students, and research and industry goals? How will he continue to grow UCalgary as a wellspring of intellect and innovation for our 185,000-plus alumni while positioning our current students for post-convocation success?

As McCauley took us on a tour of some strategic spots at UCalgary, we got a peek into our future, glimpsed the university's strategic priorities and saw the complex course McCauley is embarking on.

Get ready for an exciting ride.



In the Classroom

At 8 a.m., Ed McCauley is in a familiar place. Not at his orderly desk in UCalgary's Administration Building, but in Theatre 162 in the Earth Sciences Building. After all, it's here — in these modest theatres and classrooms on the main campus — that the university's new president has spent a huge chunk of his 30-year career here.

Teaching.

Back in 1985, a new program led by the Natural Sciences and Engineering Research Council (NSERC) was launched. essentially to staunch the brain drain of scientists who were fleeing Canada for better job opportunities. At the time, Mc-Cauley held a position at the University of California in Santa Barbara, but he saw his future and pounced.

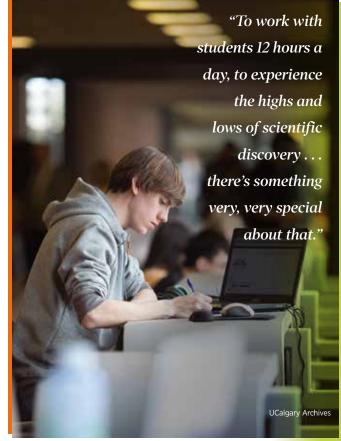
"I saw this as a tremendous opportunity to come to a young, bold and dynamic university where I could help build a very creative program in theoretical ecology," recalls McCauley, using the same adjectives to describe all five of UCalgary's campuses today. "At the time, UCalgary was sort of front-and-centre because they had started to develop some very good quantitative biology programs, which I wanted to be part of."

McCauley's move grew into a tenure-track position which then led to a Tier 1 Canada Research Chair and then progressed to his role as vice-president (research) — a position he held for eight years until becoming UCalgary's ninth president and vice-chancellor last January.

It was here, in these very lecture halls, that Prof. McCauley taught thousands of students about the "dynamics of biological populations . . . how populations wax and wane and what the mechanisms that trigger these fluctuations are . . . and the importance of quantitative reasoning," and why, always why, we should care.

And yes, the biological sciences professor misses this space.

"First of all," he says, "I miss working with students who make the transition from simply acquiring knowledge to realizing they are part of the knowl-



34,000-plus undergraduate students are currently enrolled at UCalgary.

edge-creation process. To work with students 12 hours a day, to experience the highs and lows of scientific discovery . . . there's something very, very special about that."

The other piece McCauley misses is his "lab family . . . a wonderful global network of collaborators."

But what about the friction, the naturally competing aspects of teaching versus research?

"I never saw those as a dichotomy, but as incredibly complementary," replies McCauley. "By designing a cutting-edge curriculum that reflected the global state of the world in ecology where I could use my research expertise seemed natural. Having students grow from simply consuming knowledge to actively participating in its creation is exciting to witness."

McCauley might well be the university's No. 1 community-builder; certainly he's its top ambassador and diplomat — and one who is outward-looking. Eager to see UCalgary help diversify the city's struggling economy, McCauley has his sights set on the global stage.

"The community support has been enormous," he says. "To see our dreams being fulfilled with the \$1.3-billion Energize campaign is extraordinary. And to accomplish that when the economic pressures on Calgary have been so strong is simply remarkable.

"The funds are certainly incredible," he adds. "But the precious resources that alumni, faculty, researchers, students and the community give us is also very valuable — they enable us to position the University of Calgary as a bold, dynamic intellectual hub that is tackling some very critical, global problems."

Perhaps you know Ed McCauley as a professor, researcher, board member or university president, but what does he do when he's not on campus, say - on a weekend? We asked him what a perfect Saturday looks like:

- Wake up at 7 a.m., listen to classical music before heading to UCalgary's Fitness Centre for a quick workout at 8 a.m. - on the bike and light weights.
- Return home, listen to pop or rock, and head out on Calgary's trails, either biking or walking.
- Spend late afternoon reading a good mystery that takes me to another place — anything by Jo Nesbo, Ian Rankin, Fred Vargas.
- · Relax and listen to some iazz before heading out with friends.





Above: The central atrium of the two-storey Taylor Institute allows you to see into multipurpose, flexible classrooms.

Right: The elegant exterior of the Taylor Institute, one of UCalgary's LEED buildings on campus.

Taylor Institute for Teaching and Learning

President Ed McCauley has worked at universities in eight countries: France, Ger many, the UK, the Netherlands, Sweden, Norway, the U.S. and Canada. A dedicated population ecologist and Tier 1 Canada Research Chair, McCauley has spent much of his career probing the dynamics behind population fluctuations which can provide insight into a whole series of phenomena around the world — so, when he speaks about student experiences that may lead to solving global problems, people listen.

Here in the heart of the \$40-million Taylor Institute for Teaching and Learning, McCauley has challenging questions: How will we some day feed 9 billion people?; How will we provide safe, secure water supplies for citizens around the world?; Or, how, exactly, will we reduce the impact of pollution on individuals around the globe?

Some of the answers to these colossal is-

sues may be unlocked in the College of Discovery, Creativity and Innovation that operates out of this three-year-old, 40,000-sq.-ft. technological wonder, predicts McCauley, who echoes the university's aim which is to see more undergraduates experience this multidisciplinary approach to teaching and learning.

One of the key objectives behind the work and research that's being done at the Taylor Institute is to improve the way in which UCalgary "delivers courses, as well as provide opportunities for students to actually learn how to discover, create and innovate," explains McCauley. The spaces — from the ability to rearrange physical classrooms to how students and professors interact (think: flipped classrooms) — have been strategically engineered to promote integrated learning and to examine the effectiveness of different teaching approaches.

"What we try to do here at the Taylor Institute is bring together students from a variety of backgrounds and pose a challenge to them," explains McCauley, stressing that this transformative space is more than just a striking piece of architecture (replete with skyfold walls, video cameras, massive TVlike touch screens, dozens of mobile carts, hanging study pods, etc.). "We then provide the students with tools to synthesize and analyze the information in order to come up with a conclusion.

"The Taylor Institute is another ambitious example of how the University of Calgary is creating new ecosystems," says McCauley, "and it's ecosystems like the ones being developed and nurtured in this space that will underpin all advanced knowledge economies and give students the skills they need to succeed."

"If alumni could come back as students today, they would experience a much more researchintensive education that involves experiential learning to set students up for success in the long term."

> Above: MacKimmie Tower — UCalgary's first net-zero carbon building opened its doors in Sept. 2019. Above Right: Ed McCauley in

one of hundreds of labs at the Cumming School of Medicine.

Leaning over the railing, surveying his favourite place to have coffee at the Foot hills Campus, Ed McCauley pauses.

He's grateful.

For the \$100-million gift that Geoff Cumming, BA74, Hon. LLD'16, gave to the Faculty of Medicine — a transformative gift to the Energize campaign that created the Cumming School of Medicine and now allows us to lead in many areas of research. It also provides students access to some of the world's top researchers and professors.

"We want to ensure that the new knowledge that is created here benefits society and that we translate those advances as quickly as possible so that society gains from those discoveries," says McCauley, thoughtfully, scanning the space where white lab coats are the dress code of many.

One example McCauley cites involved the Calgary Stroke Program and a randomized trial called ESCAPE (Endovascular treatment for Small Core and Anterior circulation Proximal occlusion with Emphasis on minimizing CT to recanalization times). By combining endovascular therapy (a clot-retrieval procedure) with speed (with stroke, every minute counts), the ESCAPE trial reduced stroke-related disabilities by 23.7 per cent and death by 8.6 per cent.

In fact, the clinical trial was so successful, says McCauley, "[it] was actually stopped by independent evaluators because the benefits had been demonstrated and

we wanted to make sure the protocols were then rapidly disseminated throughout the world in terms of treatments for patients. That's an example of a success story coming out of fundamental research at UCalgary, along with interaction with clinical scientists and Alberta Health Services, as well as participation from around the world.

"That's where work at a great research university can have immediate impact on the quality of health outcomes," he says.

Another example is the International Microbiome Centre that grew out of the work being done at the Snyder Institute for Chronic Diseases.

"This unique, germ-free facility with extraordinary imaging capabilities will allow us to unlock some major black boxes in which we'll be able to see into the causes of many different diseases," says McCauley. "Those philanthropic gifts and government funding allowed us to build this centre and then, under the leadership of Dr. Paul Kubes, we were able to attract some of the world's boldest scholars to come here and take microbiome research to a new level.

"Leadership, combined with support from the community, will make UCalgary a destination of choice for many health researchers, students, clinician scientists, grad students, postdocs . . . we want to continue to help create new knowledge and translate that into benefits for society and, by doing that, we will attract the world's best."

Want to know more about Ed McCauley? Here's his take on . . .

Radio stations:

I primarily listen to CBC, but I really admire the BBC - they have some of the best science environment reporting in the world.

Travel tips:

When I get on a plane, the first thing I do is put on my noise-cancelling headphones and listen to choral music.

Annoyances:

I really prize punctuality, so I struggle with those who are late. I think it's just a sign of respect.

Personal challenges:

I need to be more patient with myself. If I am not moving forward and getting things done, and quickly, I can get cranky.

Consuming news?

Primarily electronically, but, whenever I can get a hold of a physical copy of the New York Times, I grab it. Or the Financial Times.



University Research Park

Just a short jog west of UCalgary's main campus lies a cluster of buildings known as the University Research Park. Vecova, the LRT lot, ENMAX Park — they are all part of this collaborative space in which UCalgary is in the process of transferring seven of the park's 12 buildings. The new Life Sciences Innovation Hub, alone, offers 30,000 sq. ft. of labs, including wet lab spaces that facilitate experiments and trials, as well as provide shared office space for research, high-potential student projects and makerspaces. Close to 40 companies will soon occupy this business incubator, a retrofitted building where hundreds of people are conducting research into novel medical diagnostic tests, animal medicine and agricultural research, medical software, etc.

"The Life Sciences Innovation Hub is a great example of an innovative, collaborative approach to community-building, job-creation and economic diversification for the city of Calgary and beyond," explains McCauley. "Converting beautiful industrial-strength energy labs [left behind when the Shell Technology Innovation Centre moved out] into life-sciences labs was not only efficient, but it gave our scientists access to safe working environments and a space where they could improve their proof-of-concept and their proof-of-principle around their ideas.

"Beyond labs, the building also gives us space to bring in experts on commercialization. To help scholars, students, faculty, alumni and staff who are building these companies get the best possible



advice on this journey for commercialization is integral.'

McCauley says that, for the research park, the new hub "completes an ecosystem where early stage companies with great ideas can grow, where jobs can be created [3,100 new jobs are expected to be created in the next 20 years] and then move market-ready products and services around the world."

UCalgary's goal is to position the University Research Park as a destination of choice for innovators and entrepreneurs. "If you've got a great idea in life sciences or other areas in which UCalgary is leading — bring that idea here, evaluate it and grow your company. This is actually the place where you can do just that," says McCauley. U

Take the tour with us at alumni.ucalgary.ca/tour

help mom? Who will help mon Who will help mom? Who will hel We are facing a multifaceted economic, social and health-care crisis as our elder population grows. Where are our priorities? by Mike Fisher | illustrations by Yasmine Gateau

"She needs to feel loved and special. She isolates herself socially at the retirement home."

- Vivian Coles

Vivian Coles, 56, gives herself a pep talk as she manoeuvres through traffic in Calgary. The dental hygienist juggles her job with looking after kids at home and attending to her mom, Esla, 76, who has Alzheimer's and lives in a retirement residence. Today, she's on the way to take her mom shopping at lunchtime.

"How can I make it a nice day for her?" thinks Coles. "How can I help her focus on things that make her feel positive and grateful?"

Coles started her day at 6 a.m., kicked it off with a coffee, called her mom, rushed to the nearby Fitness Plus for a workout, got home, made sure others in her family had something to eat, grabbed a shower, called her mom again to remind her she'd be there at noon (her mom had already forgotten), got dressed, called her mom again (for whom voicemail is overwhelming) and then jumped in the car.

Her mother was raised by deaf and mute parents in Chile. She was a strong and independent woman, but has had mental-illness challenges throughout her life. More recently, there have been outbursts at her retirement home. Coles is worried that, in time, her mom may have to move to a less-familiar, more expensive facility.

"She needs to feel loved and special," says Coles. "She isolates herself socially at the retirement home. My kids are seeing that, even when she's with us and asks the same questions over and over; she's trying to be part of the family, her little community."

After shopping, Coles takes her mom back to her room and tells her she'll be coming back. To end the visit on a nice, positive note, she asks her mom to think of something she's grateful for.

Her mom pauses, looks up and says: "You."

Preparing for a rising tide of seniors

The daily, overwhelming problems that Coles and others like her face are multiplied by millions across the country and swell into every corner of society. We can't foretell the future, but if we view certain trouble spots through the lens of the work done by University of Calgary researchers, we can gain a better understanding of how to move forward.

The brunt of caregiving for aging and ailing parents usually falls to women. Like Coles, they're often members of the so-called "sandwich generation," hard-pressed between parents and children. Unlike Coles. some look after parents who can stay in their own current home, but need help: others combine their households with their parents.

Mike Lang, MSc'15, who is now working on his PhD at UCalgary, launched the web series, Being There: Helping Caregivers See Their Place in the Story, in 2018 with the support of the TELUS Fund. There are more than 8 million active caregivers in Canada, most of whom are unrecognized and unpaid, and this number is expected to double within 20 years, he says.

This legion of unpaid caregivers is growing across Canada as the country braces for a tsunami of aging citizens. The population of seniors — those age 65 and over — is set to surge, boosted by aging baby boomers and increased life expectancy. And many caregivers will soon enough be seniors themselves — if they aren't already.

In 2016, for the first time, the percentage of seniors in Canada (16.9 per cent) exceeded the percentage of children (16.6 per cent). There were 5.9 million people aged 65 and older in Canada, slightly more than the country's 5.8 million children under 14.

The statistics are daunting. Over the next 20 years, Canada's seniors' population is expected to grow by 68 per cent. The 75-plus age group

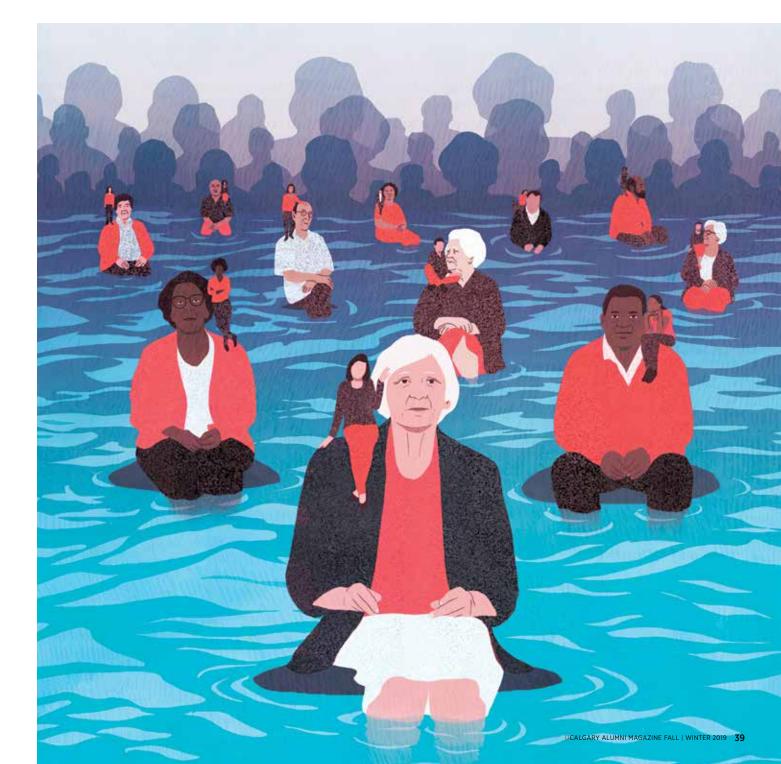
will double, including in Alberta where, by 2038, more than 1 million Albertans will be over the age of 65. In Calgary, the number of seniors is expected to grow to more than 280,000, or 15 per cent of the population, by 2042.

We're in uncharted territory. Caregiving is just one slim tributary in a vast network of social undercurrents driven by an aging population. While the House of Commons has

declared a national climate "emergency," no such designation has yet been afforded the potential stormy weather brewing alongside an aging population.

Aging

According to Calgary's Aging Population Report, the city of Calgary is "on the edge of a rising tide of seniors" that will impact our communities, challenge the way services are delivered, and alter housing and support services, health services, »



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There are more than **8 million** active caregivers in Canada, most of whom are unrecognized and unpaid, and this number is expected to double within **20 years**..

» recreation, transit and more. And these changes will not just impact this city, but communities across Canada.

So, what's the plan?

The City of Calgary's
Age-Friendly Strategy,
launched in 2015, has a focus on seniors and includes
UCalgary faculty on the
steering committee. There's
a federal Ministry of Seniors
Canada. The Province of Alberta has its own Ministry
of Seniors and Housing. Quebec
even has a Minister Responsible
for Seniors and Informal
Caregivers.

Dr. Yeonjung Lee, PhD, an associate professor in UCalgary's Faculty of Social Work, says preliminary findings from her ongoing research project to identify the concerns of older adults in Calgary show that aging communities have grown rapidly and spread across the city.

There is recognition that splintered services for seniors can be improved. A March 2018 report by a team of UCalgary researchers, presented by the Kerby Centre, focused on caregiver perceptions of support programs in Calgary. Creating a onestop shop for caregivers to navigate available services was among its recommendations for community-support bodies to consider.

Is the system that serves seniors, their families and caregivers byzantine? Yes, given the sheer size and breadth of services. For housing alone, senior living and care arrangements span a wide range at varying costs, from independent retirement living (typically private-pay) and assisted living, to residential care homes, Alzheimer's and dementia care in nursing homes, along with government-subsidized options such as supportive housing and long-term care homes.

When speaking to anyone involved in dealing with our aging society, including caregivers, it's clear there are no quick solutions. Study is required to understand the varied problems and lay the groundwork for implementing practical solutions.

University of Calgary researchers, graduates and alumni are already on the front lines.

UCalgary at forefront of solutions for an aging population

Calgary Ward 3 Councillor and UCalgary alumna Dr. Jyoti Gondek, MA'03, PhD'14, knows well the tight squeeze that sandwich-generation caregivers feel daily — she's one of them.

She's got a 14-year-old daughter and an 80-year-old mother at home. As she zips from council meetings to home to her mom's medical appointments to her kid's school and activities, time is always tight.

"I'm the primary caregiver for my mom, but I have to prioritize like everyone else and it's very difficult," says Gondek, who earned her PhD "Sometimes it just kills me, but I know I'm not the only one doing this."

— Dr. Jyoti Gondek, MA'03, PhD'14

in urban sociology and worked as the director of the Westman Centre for Real Estate Studies in UCalgary's Haskayne School of Business before being elected to city council.

Today, Gondek's mom has an appointment for knee surgery. Gondek needs to take her. If she does, Gondek misses an audit committee meeting. Cue sharp intake of breath. Multiply it throughout the day.

"Sometimes it just kills me, but I know I'm not the only one doing this," says Gondek, who acknowledges that almost everyone over age 50 these days knows someone who's ferrying kids and parents around town while dealing with an already crazy work schedule.

Gondek recognizes the city faces thorny problems with a growing senior population, yet she sees opportunities to get things right. While there is some fragmentation of City services, she says, efforts are underway to make improvements.

For example, the City and UCalgary have worked with other partners on the issue of housing affordability, Gondek says, referring to the Community Housing Affordability Collective (CHAC) that helps to identify gaps in services and how >>>

cent missed work, 15 per cent cut down their hours and 10 per cent passed up a promotion or new job because of their caregiving duties, again according to StatsCan.



If you're between the ages of **40 and 65** and have parents — get ready. The reality of an aging population is that about **50 per cent** of Canadians have cared for an aging, sick or disabled family member or friend at some point, according to

the latest data from Statistics Canada. Women face a larger caregiving burden: The proportion of women who cared for an adult family member or friend on any given day was three times that of men in 2015, according to StatsCan. And **43 per**

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» to address them. There has also been mutual work on the One Window initiative that aims to improve how Calgarians, including seniors, access housing.

Gondek says seniors would love to age in place, but Calgary needs to diversify its housing stock and be more creative. Today, for example, City approvals are required to build a secondary or backyard suite.

UCalgary's School of Architecture, Planning and Landscape (SAPL), formerly the Faculty of Environmental Design, has presented the City with innovative advancements in agingin-place laneway housing.

Technology including medical devices and health monitoring was part of the SAPL design for a one-bedroom. portable housing unit that could be temporarily placed in the backyard of a residential lot.

"Calgary was far behind in approving secondary suites in the home," says Gondek. "I think we'll get to the point where we understand laneway housing is a good thing for seniors and communities, but we're still catching up on this idea."

On a much larger scale, the University District is a new comprehensive, 200-acre community built on endowment lands owned by UCalgary. The mixed-use, multi-family development features The Brenda Strafford Foundation Cambridge Manor.

Slated to open for occupancy in mid-2020, Cambridge Manor will provide innovative aging-in-place living while being an integrated research and education facility in collaboration with the university's Brenda Stafford Centre on Aging. The centre is a cross-faculty, interdisciplinary organization under the umbrella of the university's O'Brien Institute for Public Health.



"Cambridge Manor will offer multiple levels of care to support aging in place," says Brenda Strafford Foundation President and CEO Mike Conroy. "It's one of the few facilities to offer the continuum of aging in place with supportive living and long-term care services."

While Gondek applauds the development, she says there is always a concern to get the balance of affordability right. Not everyone can afford to live in seniors' residences or cutting-edge developments, especially seniors and families who are disadvantaged.

Despite government programs and caring families doing what they can, when people fall through the cracks, where do they go?

UCalgary filmmaker works to protect the most vulnerable

Seniors age 65 and over are a slim portion of the adults who use homeless shelters in Canada, but they are the only demographic group for whom shelter use has increased over 10 years. As the number of seniors increases in coming years, it's a fair expectation that the problem will get worse. "Old-age pensions used to be a kind of saving grace for people, but social security hasn't kept up with the housing and rental markets across the country," says Dr. Victoria Burns, PhD, an associate professor

of social work at UCalgary. "We're seeing people over 50 becoming part of the homeless population that wouldn't have in the past. There are long lists for social housing. We need more of it."

The federal government's announcement in 2017 of a \$55-billion, 10-year national housing strategy is a timely investment into remedying problems, she says.

Burns, who has experience as a frontline social worker, combines academic know how with on-theground grit with her role as a documentary filmmaker. Her film, Beyond Housing, which she shot with the help of Calgary media artist Joe Kelly and released this year, focuses on seniors as they bounce in and out of homelessness.

"We can't work in silos," says Burns. "The health and housing sectors will have to work together so that people across the spectrum can get the right level of support at the right time."

Housing is a social determinant of health, says Burns, having just returned to Calgary from showing her documentary film in New Zealand. "Without proper housing, seniors" health will decline and they'll become socially isolated, which can lead to even worse health."

The social links that connect us

If life is one lengthy marathon, how do we best get to the finish line once we become seniors?

Dr. David Hogan, MD, a UCalgary professor who has been at the forefront of geriatric medicine research. says one of the main challenges posed by the wave of aging seniors is advising them on how to remain as healthy as possible and financially secure so they can live a meaningful life. There is an element of personal responsibility that will require foresight, planning and perseverance.

The **75-plus** age group will double, including in Alberta where, by 2038, more than 1 million Albertans will be over the age of 65.

"If you're age 55 now, you may live another 40 years. You have to ask yourself, 'What can I do now to enjoy the last third or more of my life?" says Hogan, who was the Brenda Strafford Foundation Chair in Geriatric Medicine at UCalgary for 25 years and is now the academic lead of »

"We need to start thinking about it early, consider how we treat our bodies and minds, stay engaged in society and life and activities that you find rewarding." - Dr. David Hogan, MD

» the Brenda Strafford Centre on Aging at the university. "We need to start thinking about it early, consider how we treat our bodies and minds, stay engaged in society and life and activities that you find rewarding."

The importance of physical activity and the role it plays in overall health can't be overstated, especially for vulnerable populations, says Dr. Meghan McDonough, PhD, an associate professor and researcher in the Faculty of Kinesiology. Activity contributes to keeping people mentally and physically fit, allowing them to retain a degree of mobility and independence.

"I see the urgency of learning more about our aging population, and people's particular experiences, so that we can determine how to help them," says McDonough, who, in her research, is investigating the social supports that adults 55 and older have that keep them physically active.

UCalgary has put considerable weight behind this area of research. This study and others that the university is collaborating on with the City of Calgary — there are at least five of them ongoing — will translate into practical applications and recommendations on how to move forward, she says.

Making the mind-body connection is another key to promoting good health.

With demographics changing globally, there will be an increase in dementia and other diseases of the brain. Each year, 25,000 Canadians are diagnosed with dementia, and, by 2030, that number is expected to be just shy of 1 million. Led by the Hotchkiss Brain Institute, UCalgary has more than 200 researchers engaged in brain and mental health research.

The Alberta government launched a strategy for addressing the impending epidemic of dementia in 2017, including plans to improve the primary care system's ability to manage patients and better educate the public. More than 42.000 Albertans live with some form of dementia; that number could triple to 155,000 if nothing is done, says the strategy.

Dr. Marc Poulin, PhD, a Cumming School of Medicine professor, and a research team from UCalgary conducted Brains in Motion, a study that focused on the links between lifestyle interventions — such as diet and exercise - and sleep and cognition. The findings showed regular aerobic activity can lead to declines in anger, confusion, depression, fatigue and tension. »

Cheat Sheet for Senior Services

The rising seniors population is daunting for policy-makers who are tasked with finding workable solutions for emerging problems in everything from health care to housing. It can be even more challenging for seniors themselves and their families who face a dizzying array of information pathways into services across governmental, private and volunteer organizations.

Here's a primer to help get you started:

Federal government programs and services

(canada.ca/en/employmentsocial-development/campaigns/ seniors.html)

Open the landing page on the federal government's Programs and Services website and you'll see large, boxed instructions to help you increase the page-view type size. There's information on the Canada Pension Plan, Guaranteed Income Supplement, Old Age Security, caregiving benefits, health, safety at home, funding programs and more. Or call 1.800.O.Canada (1.800.622.6232).

Alberta government programs and services for seniors

(alberta.ca/seniors-andhousing.aspx)

The Ministry of Seniors and Housing, "provides quality and affordable housing and ensures seniors have the resources and care they need." Find information here on affordablehousing programs, the Alberta Seniors Benefit, Seniors Financial Assistance programs, dental and optical assistance for seniors, the Seniors Home Adaptation and Repair Program, and more. Or call toll-free 310.0000 in Alberta and request help with what you're seeking.

City of Calgary seniors' services and resources (calgary.ca/CSPS/CNS/Pages/ Seniors/Seniors-Programs-Services.aspx)

The City of Calgary offers a range of activities, services and resources for local seniors. Find housing and home-support services (there is a Housing Options navigation tool), recreation programs and the

» The follow-up study led by Poulin, the Brenda Strafford Foundation Chair in Alzheimer Research, is Brain in Motion II. This study explores the connection between physical activity and cognition in adults who may be at risk of developing Alzheimer's disease or another related form of dementia.

Signs of the times

There are signs, literally, that the health-care system in Alberta recognizes that caregivers need help. Taped to the wall of a room at Bowmont Medical Clinic in Calgary, where UCalgary medical students train and graduates work, there is a poster that reads: "Learn how to recognize that, in order to care for a loved one, you must learn to care for yourself."

The sign promotes COMPASS for the Caregiver, a free nine-session weekly workshop launched last year, offered by the Calgary Foothills Primary Care Network.

Primary care networks streamline patient access to primary health care. Within these networks, groups of family doctors work with Alberta Health as part of the province's public health-care system. >>

"You can't expect people to function every day as heroes, sacrificing themselves and their aspirations."

- Dr. David Hogan, MD

recreation fee assistance program, transportation, general information and links to Calgary Recreation's Active Aging Strategy, as well as the City's Age-Friendly Strategy. The City's general contact information phone number is 3-1-1.

In Calgary, there are also a number of service organizations available:

Kerby Centre

(kerbycentre.com)

The Kerby Centre, a not-forprofit organization founded by UCalgary alumna Patricia Allen, MSW'69, has been a flagship agency in Calgary since 1973, assisting more than 30,000 older adults annually in living as well as possible. You'll find handy links to the City of Calgary's 2019 Housing Directory for Seniors, as well as Calgary's Seniors Directory of Services. And there is information on support services, volunteering, events, activities and recreation. Call 403.265.0661.

Calgary Seniors' Resource Society

(calgaryseniors.org) This charitable organization combines outreach with volunteering programming and community engagement. You'll find information on its website that includes social workers and volunteer programs, as well as agency programs such as CaregiverConnect. There is

an information field on the

questions. Main phone:

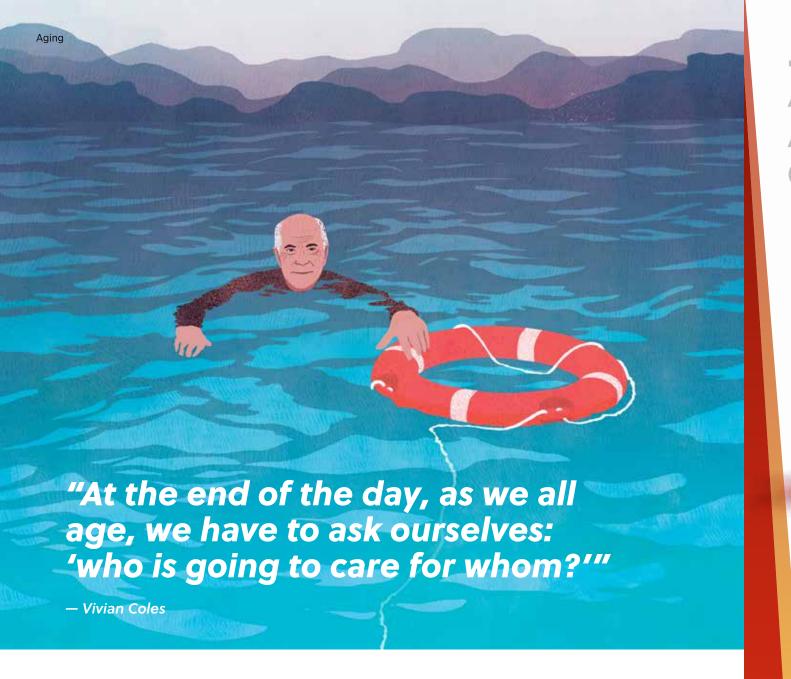
website where you can submit

Brenda Strafford Foundation

(hebsf.ca) The core business of the

403.266.6200.

Foundation is seniors care. Founded by Barrie Strafford, Hon. LLD'01, the organization invests in research and education at UCalgary, including the Brenda Strafford Centre on Aging, to enhance the health and wellness of seniors. You can find information on its seniors-care manors, private-choice care services and publicly funded care services on its website.



"The great thing about the workshop is that it's peer-led by dedicated people who have been caregivers themselves," says Allison Fielding, director, service delivery, for the Calgary Foothills Primary Care Network.

Andrew Hanon, acting spokesperson for Seniors and Housing Minister Josephine Pon's office, says the province is working to improve access to supports for seniors and Albertans with low income, while eliminating red tape, duplication and nonessential spending.

"Financial benefits are available to help seniors with low income meet their basic needs, make adaptations to their homes, afford personal and health supports, and more," Hanon says. "The government has committed to maintaining these benefits." Moving forward, we'll need to strike a balance between what the healthcare system can provide and what the family can do to support its

"It's not always easy to strike the most appropriate balance, and we will need to be flexible," adds Hogan. "Most family members are happy to assist a family member to live a fruitful, productive life, as long as it doesn't get excessive. You can't

expect people to function every day as heroes, sacrificing themselves and their aspirations."

Meanwhile, Vivian Coles, caring for her mom while balancing her home and work duties, believes the time for everyone to start discussing the impacts of an aging society is now.

"Our situation with my mom has opened up discussions with friends and peers," she says. "My husband and I have discussed what will happen with us. At the end of the day, as we all age, we have to ask ourselves: 'who is going to care for whom?"" U

AND THE UCALGARY ALUMNI ARCH AWARDS MOSER...



... Stories continued from pages 26-31

KENDALL ...

my stupidities, picked me up when I was falling, guided me at the forks in my career, advised me in decisions, and supported me when issues arose," he writes. "They are also the mothers of three wonderful children and four amazing stepchildren who are, collectively, far more important to me than any success that my career has brought."

Who better to ask than Kendall for a few words about attaining a proper work-life balance?

"Getting this balance is not easy," he admits. "Finding superiors, bosses, professors, leaders or colleagues who understand this issue and who can advise one in one's choices is critical. My wives and others who helped me find this balance are why I have had the successes and fortunes that I have attained."

our consensus over the rules that govern. What is the long-term implication for all of us, for my kids and their kids?"

Having resided in Japan, Taiwan, the U.S. and Canada, we had to ask Meikle his favourite place to live.

"I've liked every place I've lived," he says. "In Japanese, there is a saying, 'sumeba miyako,' which translates a little bit like, 'there is no place like home,' with the added nuance, 'wherever home might be."

And what a voice, one that was heard as a Crown prosecutor (for seven years) and now at Legal Aid Alberta (where she's worked for 12 years). Whatever side of the bench she's been on, Auger has spent her career narrowing the cultural gaps between Indigenous and non-Indigenous groups.

Former UCalgary professor and now Supreme Court of Canada Justice Sheilah Martin remembers Auger as a "quiet leader who made superb contributions to class . . . with an eye to putting her legal expertise and brilliant mind to work for the betterment of Indigenous people and communities."

The biggest thing that Auger gives her clients is the sense that someone is listening to them. That someone will give them a voice.

balloons bouncing over the crowd. It was magical, I was levitating.'

It was similar to the feeling she had as an undergrad student, when she discovered that she could help build the world she wanted. While pursuing zoology, she bumped into an emerging field called sociobiology, then found professors who were also interested in this new area and, before long, she was in a directed-study program.

"You don't have to accept what's on offer," Moser says, "I had the most amazing education because I wanted to explore new things and people kept saying, 'Yes, sure, we can do that!'

"When I look back at my education and, I guess, my life, I think all I've ever wanted was to create something delightful where science meets society. My first visit to a science centre as a child rocked my world that way and I've always wanted to pay that forward."

ALLEN ...

shape-shifter Bob Dylan, whom Allen has seen

"Every time Dylan gets to a certain point, he's able to change his facade and find another way forward," says Allen. "He became a model for me in terms of constantly having to evolve. Whether it's getting new skills or putting a twist on your story — that inspiration and guidance, for me, has come from Dylan. In the past few years, I've had to shift from being an IBM executive to being an entrepreneur, and that shift forced me to question what skills I had and what I needed to develop.'

Allen quotes a piece of advice he gives his mentees: "We all have to pay attention to the signals around us and be willing to adjust the channel of our story that we tell the world."

HICKS ...

on grants, private investment (thank you family. friends, Singularity University, Creative Destruction Lab and others), and successful pitch competitions (dozens of them) to pay its staff.

In fact, it was only a year ago that the company landed its first major contract with the Federal Government of Canada and only a few months since the first product has been launched.

"It takes a long time to start a business," says Hicks. "But, when I think about setting up this business around my parents' kitchen table five years ago, and then I look at our team of 14 and our lab... it's so, so, exciting for me." U





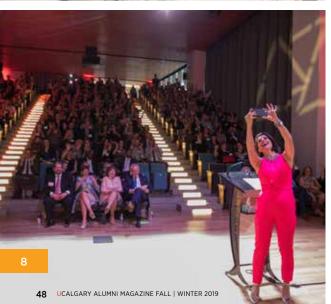














Out & About

Who says learning stops after convocation? UCalgary alumni reconnect all over the world for various networking and educational opportunities. Learn about upcoming events at alumni.ucalgary.ca/events

1. LINKS AND DRINKS: WORLD WIDE WORK

Four alumni shared tips on working around the globe (L-R): Deb Cummings, MEd'17; Michael Algra, BSc (Eng)'13; Paula Worthington, BA'01; Mark Blackwell, BComm'11.

2. IDEA EXCHANGE

In Toronto to discuss the mighty roles our microbiome plays in our health were (L-R): Margaret Newall, Hon. LLD'03; UCalgary Chancellor Deborah Yedlin; Walter Cavalieri, BSW'86.

3. THE WORLD UNCORKED

This inaugural "culinary adventure around the world" saw 60 guests pack Donna Mac restaurant in Calgary (L-R): Associate VP Alumni Engagement and Partnerships, Michael Sclafani; Anila Lee Yuen, BSc'06; Caroline Saunders, British Consul General in Calgary; Todd Hirsch, MA'93.

4. DIG IN!

This bimonthly breakfast series recently "dug into your DNA" (L-R): Dr. François Bernier, MD, Dept. Head of Medical Genetics; Leigh Hurst, BA'98; Dr. Elisabeth Woolner, MD'88.

5. VOLUNTEER LEADERSHIP SUMMIT

Saluting the thousands of volunteers who help with alumni programs were (L-R): Emily Aalbers; Nauman Anwar, MBA'11; Kai Hochhausen, BA'05, MBA'14; Nuvyn Peters, VP, Development and Alumni Engagement.

6. NURSING ALUMNI LUNCHEON

At this year's annual do (L-R): Dr. Jacqueline Smith BN'09, PhD'15; keynote speaker Margaret Trudeau; Zeeyaan Somani, BN'18; Sarah Dewell, BN'07; Jenna Nguyen (current BN student).

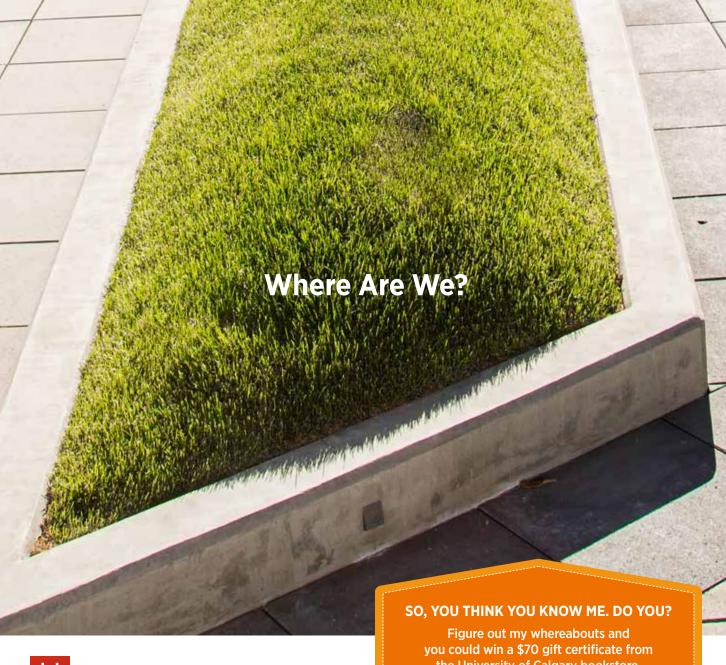
Celebrating the class of 2019 with a post-grad bash at Saltlik were alumni (L-R): Stephan Guscott, BSc'17; Nina Rehill, BA'16; Tyler Mah, BSc'10.

CBC journalist and UCalgary alumna Rosa Marchitelli, BA'95, emceed the 2019 Arch Awards and snapped a quick selfie of the audience at the new Central Library.

9. VANCOUVER ALUMNI SOCIAL

Grads connect at Steamworks for the inaugural Vancouver Regional Social (L-R): Tej Chawla, MBA'16; Braxton Gray, MBA'16; Marilyn Keller; Ed Keller, BComm'76. U





ere's what you need to know about me: I'm a connector. Once upon a time, I was the sort that faded into the landscape — you've probably barely noticed me forever. Now I've got a clear sense of purpose, and that's to serve as both an anchor and a link.

As of 2017, I started my effort to hold down the fort, but not with defensive cannons — quite the opposite. My drawbridge has been wide open ever since. Come on down! I'm big, bold and beautiful.

A lot of thought went into my production, which isn't complete; suffice to say, I'm very keen on "work-life balance." To that end, it wouldn't be unfair to describe my components as "carefully curated" and certainly "homey."

I'm a work in progress, quite honestly. Before my reconfiguration began in 2015, I'd been idling for an awfully long time. I wouldn't say I'm currently on the move, per se, but I'd call myself an upand-comer.

I'm causing a bit of a stir, in a good way. The things people say about me might make a modest individual like yourself blush. Good-looking? Yep. Inviting? I should hope so! Well-built? Duh!

the University of Calgary bookstore.

Visit: go.ucalgary.ca/alumni-where-are-we

Astute? Absolument! Health-conscious, thought-provoking, entertaining, nurturing, nourishing? Yes, yes, yes, yes and yes.

One of the greatest virtues of my new incarnation — if I may be so bold — is the fact that I hold a broad appeal. It's not my intention to reject anybody, but instead to welcome all kinds, cradle to grave, or at least cradle to Knowledge Network Partnership.

So what makes me perfect for this neck of the woods? I'm practical, first off. If you value your time, I'm here to help. I anticipate making the university proud, and that's no small boast. What else do I offer? Convenience. Connection. Trustworthiness.

But I'm getting ahead of myself. Let's focus now on what's really important. As the proverbial narcissist once said, "But enough about me. What do you think of me?"

Where am I?

— Kate Zimmerman

Congratulations

to our 2019 Haskayne Alumni Award Recipients







Patrick Lor, BA'90, EMBA'01 Big Ideas Bold Leaders Award

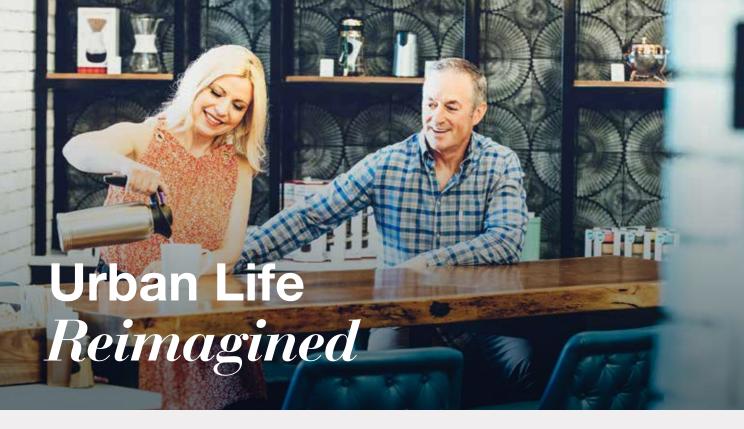
Dawn Farrell, BComm'83, MA'85 20th annual Management Alumni Excellence Award

Mark Blackwell, BComm'11 Rising Star Award

The Haskayne Alumni Awards celebrate alumni at all stages of their careers. Each award recipient demonstrates leadership, commitment, excellence, integrity and service to the university.

Learn more and nominate a future Haskayne Alumni Award recipient: haskayne-alumni.ca





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