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UNIVERSITY OF ALBERTA
ALUMNI MAGAZINE





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ON THE COVER

How do you find hope in a dark time? It turns out hope is a powerful tool that you can learn to activate in your own life. And research shows it can make a very real difference. Page 28.
Illustration by Fatinha Ramos

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Empty spaces this spring were a potent symbol of the disruption caused by COVID-19. Go online to see more photos of what the shutdown looked like on our campuses.
Photo by John Ulan

The Hope in Us All

WHEN THE NEW TRAIL TEAM CHOSE the topic of hope for this issue's feature, they knew it would be tricky. But nobody had any idea quite how close to home it would hit.

In the first few months of this year, two major disasters upended life for our university community and much of the world. In January, the U of A lost 10 people and three members of their families in the Flight PS752 disaster. Two months later, COVID-19 had crossed the globe and was declared a pandemic.

When I reflect on the events of this year, I see how delicate hope is.

Two of the passengers on Ukraine International Airlines Flight 752 were recent grads. **Sara Saadat**, '19 BSc, had just started a clinical psychology program in San Diego, and **Mohammad Mahdi Elyasi**, '17 MSc, had co-founded a startup company combining tech and agriculture. I wonder what the future would have looked like with these bright minds contributing their passion and skills to the world. Would they have been our Alumni Award recipients in a few years?

And as of this writing, we don't know the full effects of COVID-19 on our world but we certainly can predict that there will be people in our U of A community whose lives will be unalterably changed by this virus. As you'll see in the stories starting on page 12, life after COVID-19 will look very different in ways we are only starting to understand.

It can be hard to find hope when tragedy seems to hide around every corner, so the story starting on page 28 shares a few

ideas—including how social science researcher **Denise Larsen**, '88 BA, '92 BEd, '95 MEd, '99 PhD, is teaching educators and health-care providers to develop hope just like you would strengthen a muscle. And U of A researchers have some tips that can help us all bring a little more hope into our lives.

As a U of A grad and your Alumni Association president, I've learned that hope can also be found in the alumni community. When a call went out for volunteer support for students and staff grieving the loss of friends, relatives and co-workers on Flight PS752, Alumni Student Support and Engagement Team volunteers filled the 50 hours immediately. That gives me hope.

It gives me hope to see grads like **Pegah Salari**, '08 MBA, (page 34) and **Deena Hinshaw**, '97 BSc, '04 MD, '08 MPH, (page 21) rise up as community leaders in times of distress. And perhaps most of all, it gives me hope to know that whether through volunteerism or good citizenship, U of A alumni are committed to supporting one another through the most difficult times.

The grieving isn't over. And bad news will creep in again. But you are not alone. When the journey ahead seems impossible, look behind you. Your community is there to support you—and I find a great deal of hope in that.

Heather Raymond
Heather Raymond, '82 BEd, '86 Dip(Ed), '95 MEd, '02 PhD
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PHOTO BY JOHN ULAN

► letters



“Just made a batch ... yum!!”

– Kim Campbell, '95 BA, Ottawa, Ont.



We would like to hear your comments about the magazine. Send us your letters by post or email to the addresses on page 4. Letters may be edited for length or clarity.



A Fresh Batch of Memories

Editor's note: We had a flood of responses to the Winter 2019 issue of New Trail, as grads of all ages tried their hands at making the Tuck Shop Cinnamon Buns.

'60 **Betty Donaldson**, Dip(RM), wrote in to *New Trail* after longtime friend **Shauna Veale**, '59 BA, (seated) arrived on her doorstep with a fresh batch of homemade Tuck Shop Cinnamon Buns. As the pair caught up, **Mary Laughren**, '59 BA, '60 BEd, called with New Year's greetings. The old friends had met in their university days and reminisced, as so many have, over the sugary treats.



@Canadian_gent:
 “Tuck Shop cinnamon buns! Courtesy of New Trail @ualberta”

Terry Gent, Edmonton



Don't Sugar Coat It

Editor's note: Several readers wrote to us about the twists and turns they made to the Tuck Shop bun recipe to make it even better. One grad wrote in to say that the homemade knots were short on cinnamon. He advised increasing the cinnamon to 3 Tbsp and adding ½ cup of brown sugar to the mixture for a tastier bun that is truer to the original.

“Made the Tuck Shop cinnamon knot recipe from the @UAlbertaAlumni New Trail magazine.

- 1) I never had these while I was there. Before my time.
- 2) Needed WAY more flour.
- 3) 1 9x12 pan with 3” square per knot is 12 knots, but the recipe makes 18. More pans needed!
 #yum”

–Katt Hryciw, '05 BEd, Calgary

“After the old Tuck Shop was closed ... many alumni decided to make their own [cinnamon buns], so we tweaked our recipe to suit ourselves, and our families enjoyed. We added more to them like raisins, nuts, icing and whatever else suited our likes and dislikes, but the basic recipe remained ...”

–Samuelle Wilinski-Schwake, '68 BSc(HEC), '72 BA, '92 Dip(Ed), Edmonton

CORRECTION

We missed a name in our list of grads elected as members of Parliament on page 48 of the Winter 2019 issue. **Jack Harris**, '79 LLB, was elected as an MP for St. John's East, in Newfoundland and Labrador.

MORE ONLINE *New Trail* offered a number of stories online to help our grads cope with the isolation and anxiety that accompanied the COVID-19-related shutdowns. Find these stories and more at ualberta.ca/newtrail.



Love in a Dangerous Time
 How to make sure your relationship survives all this together time.



How to Help Seniors Feel Less Isolated
 Exercise by telephone. Write a good old-fashioned letter. Experts offer ideas for connecting with seniors.

We're here for you with stories that matter from people you trust.

Thanks for being there for us.

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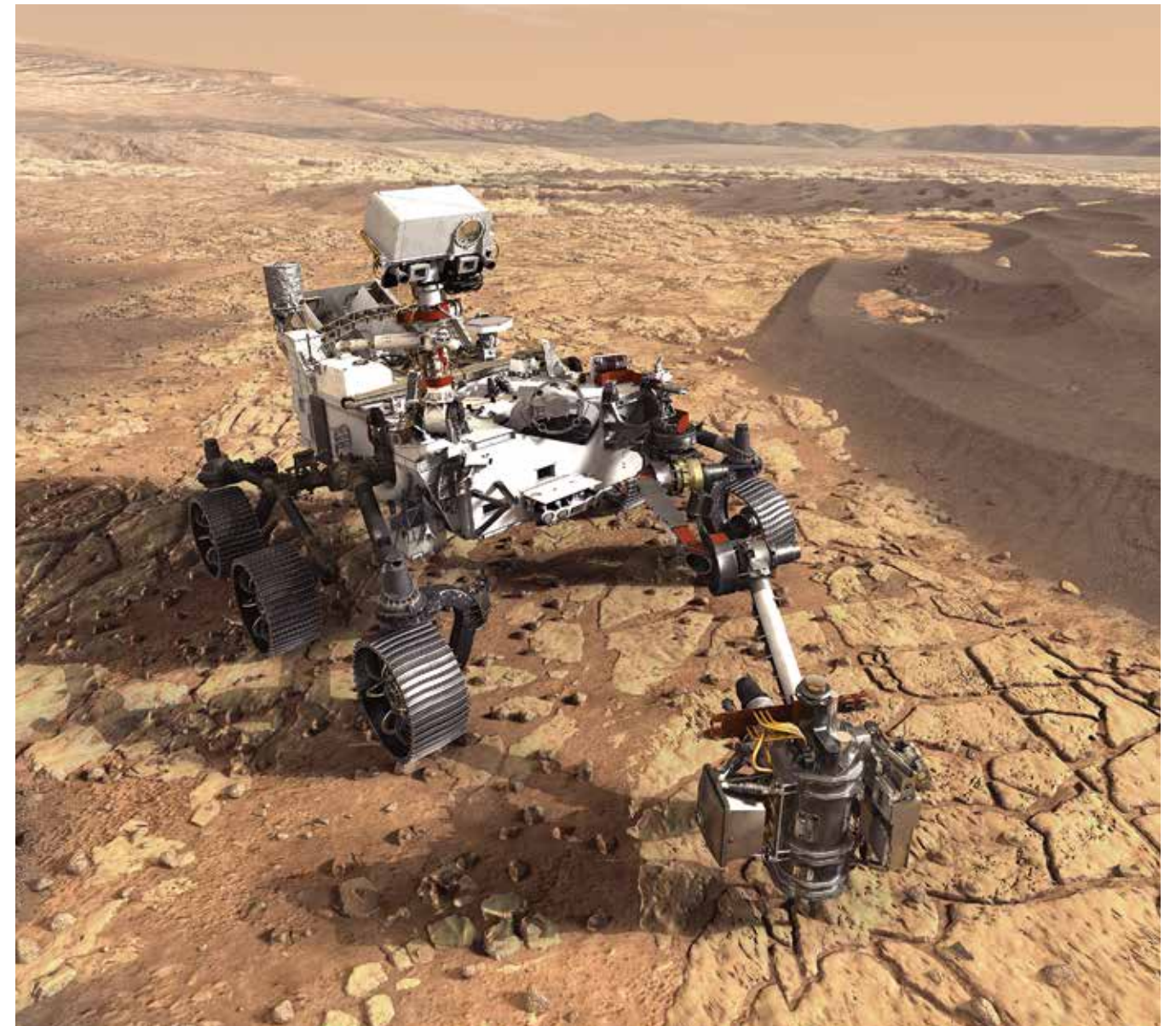
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Rock 'n' Roll

Geologist will help NASA select samples during Mars mission

U OF A SCIENTIST CHRIS HERD has been chosen by NASA to help select rock and soil samples for the Mars 2020 rover mission. Launching this summer, the mission will give scientists clues about the climate, geology and past microbial life on the planet. It will be the first attempt to store the samples with the goal of returning them to Earth in future missions. "Mars 2020 will let us choose where to collect samples and will allow us to get context for the rocks that are collected," says Herd, a professor in the Department of Earth and Atmospheric Sciences. "Returning samples with that context is the Holy Grail of Mars exploration." It's a dream come true, he adds. "I will be helping select which rocks might someday be analyzed in labs on Earth." —KATIE WILLIS, '13 BA, '18 MA



continuing development of key energy and agriculture industries, the future growth opportunities and innovation posed by artificial intelligence, research to enhance human health and well-being, and the defence and advancement of open, diverse societies," he says.

Flanagan earned a BA in English and philosophy from Carleton University, a JD from the University of Toronto and a DEA in international economic law from the *Université de Paris*. He went on to earn a master's in law from Columbia University.

He has substantial experience in Ontario with performance-based funding models, which the U of A is moving to adopt. He noted the activity-based budget model offers great potential to unleash innovation, with the thoughtful creation of new programs and opportunities to expand existing programs. He says his priority will be to preserve and sustain the university's excellence.

"We need to create a path forward that will be sustainable and enable the university to continue to build on its outstanding record of teaching and research excellence."

Flanagan takes over July 1 from David Turpin (more on page 9). —MICHEL PROULX

LEADERSHIP

Bill Flanagan to become 14th U of A president

Former Queen's dean of law takes over from David Turpin this summer

AN EDMONTON-BORN former dean of law will become the university's 14th president.

"This is a very exciting opportunity, and I'm absolutely delighted to have this chance to serve as president and vice-chancellor," Bill Flanagan said in the March 19 announcement.

"I grew up in Alberta. I know the significance of the university and its importance not only to Alberta but the country, and really the world."

Flanagan joins the university from the Faculty

of Law at Queen's University, where he served as dean for three terms. During that time, in which provincial support for post-secondary education diminished, he increased his faculty complement by 25 per cent, finding new sources of revenue to grow the school.

He says he's fully aware of the financial challenges facing the U of A.

"There are challenging times ahead, but also tremendous opportunities.

The U of A is a leader in areas where Alberta and the world need solutions, including the

NUMBERS

2,429

Number of postcards written by alumni since 2017 to encourage students during final exams. (This year, Project Postcard shared them virtually because of COVID-19.)

BUDGET

ANNUAL FUNDING REDUCED BY 11%

The U of A received a second significant cut to its provincial funding in the Government of Alberta's 2020 budget released in February.

The university must reduce its budget by 11 per cent for the 2020-21 academic year, on top of a 6.9 per cent cut to its 2019-20 budget announced in October. The total reduction is \$110.3 million.

The impact of cuts differs by faculty. When offset by an average tuition increase of seven per cent, the average reduction is 8.3 per cent.

The university projected 400 lost jobs in 2019-20, with an additional loss of about 635 positions for 2020-21.

The provincial government has also implemented a new performance-based funding model for post-secondary education that is expected to have additional budget implications. Details are still to come from the province.

In addition, COVID-19 will have a substantial, though still unknown, financial impact on the university, says president David Turpin. "We stand with Alberta's businesses, industries and community organizations in dealing with the challenges we face. Our commitment is to educating the next generation of citizens and leaders and supporting world-leading research.

"Together with all Albertans, we will find the innovative and compelling solutions to ensure a strong return to social and economic prosperity for all." —STAFF

For detailed information on the 2020-21 budget, please see uab.ca/budget.



IN MEMORIAM

A Loss That Still Reverberates

Community mourns 10 professors, alumni and students who died aboard Flight PS752

THE UNIVERSITY OF ALBERTA LOST 10 PEOPLE AND THREE OF THEIR FAMILY members in the devastating crash of a Ukraine International Airlines flight in Iran on Jan. 8. They were among 176 people killed when an Iranian missile shot down Flight PS752 a few minutes after takeoff from Tehran International Airport in Iran.

Victims included engineering professors Pedram Mousavi and Mojgan Daneshmand and their two young daughters, Daria and Dorina. Among the students and alumni on board were newlyweds Pouneh Gorji and Arash Pourzarabi, returning to Canada after getting married in Iran on New Year's Day, and two sisters, Saba Saadat and **Sara Saadat**, '19 BSc, who were travelling with their mother, Shekoufeh Choupannejad, an Edmonton gynecologist.

Others killed were friends and classmates Nasim Rahmanifar and Amir Hossein Saeedinia; Elnaz Nabiyyi, who had moved to Canada with her husband less than two years ago to pursue doctoral studies at the U of A; and **Mohammad Mahdi Elyasi**, '17 MSc, who had recently moved to Toronto to establish a tech startup.

More than 2,300 people gathered to honour the victims at an emotional memorial service Jan. 12 at the Saville Community Sports Centre.

"They were problem-solvers, innovators, aspiring entrepreneurs and community leaders, both on our campuses—and off," U of A President David Turpin said during his remarks at the service. "Let us honour them by following the example that they set."

A memorial fund has been created in memory of the victims. It will support two graduate student scholarships at the U of A, with the goal of endowing these student awards in perpetuity.

—STEPHANIE BAILEY, '10 BA(HONS) WITH FILES FROM FOLIO, FACULTY OF SCIENCE, CBC

See "Reflections," page 34

"Simply put, DNA is not your destiny. ... The vast majority of diseases — including many cancers, diabetes and Alzheimer's disease — have a genetic contribution of five to 10 per cent, at best."

Computational biologist **David Wishart**, '83 BSc(Hons), co-author of a study that examined two decades of data from studies on the relationships between common gene mutations and different diseases and conditions (see more from Wishart on page 24)

PHOTO SUPPLIED
ISTOCK / GETTY IMAGES



TRACK TRICK A research group hoped to teach bears in Banff, Alta., to avoid trains in a recent study. PhD student **Jonathan Backs**, '10 BSc(EngPhys), supervised by **Colleen Cassidy St. Clair**, '88 BSc(Spec), and **John Nychka**, '97 BSc(MetEng), came up with the device—a warning bell and flashing lights—after St. Clair's previous research found bears are attracted to tracks for many reasons and keeping them off the tracks would be extremely difficult. "So we wondered, what if we shifted focus?" says St. Clair. "What if we tried to teach bears to avoid the trains?" —**KATIE WILLIS**, '13 BA, '18 MA

PHYSICAL THERAPY

CUFF THAT SHOULDER INJURY

Rotator cuff injuries can be debilitating at their worst, painful at best, and they're all too common. Formed by four converging muscles, the rotator cuff stabilizes the shoulder joint while allowing the arm to rotate. These are important tasks, and injuries can have major consequences. Thankfully, many rotator cuff injuries are preventable and others can be treated with time and exercise. **Judy Chepeha**, '89 BSc(PT), '97 MSc, '11 PhD, associate professor in the Department of Physical Therapy, offers tips to help keep this all-important bundle of muscles in good working order. —MICHAEL BROWN

KNOW THE RISKS

Surprisingly, most rotator cuff injuries aren't caused by a major episode like a fall but by repetitive strain, especially if your work has you doing tasks above shoulder height.

STRENGTHEN THE SHOULDERS

"The rotator cuff arises from the shoulder blade, so the two are absolutely partners in this," says Chepeha. Try shoulder strengthening exercises like shrugs, rowing and lat pull-downs, as well as shoulder rotations.

TREAT INJURY QUICKLY

If you have a cuff injury, Chepeha advises moving and strengthening your shoulder within a pain-free range as soon as possible so your shoulder doesn't stiffen up, making rehab harder.

NUMBERS

810

U of A research projects supported by donors in 2019-20. Details at uabgive.ca/myimpact.

LEADERSHIP

BUSINESS OWNER APPOINTED CHANCELLOR

An independent business owner and former chief strategic communicator for ATB Financial has been named U of A chancellor.

Peggy Garritty, '71 BA(Hons), '75 MA, was elected by members of the university senate to succeed **Douglas Stollery**, '76 LLB. She will begin her four-year term June 18.

"I'm absolutely thrilled ... to be in a position where I can connect the university to the community and, in turn, represent community views to the university," says Garritty. "The University of Alberta is a special place for me. It formed and informed so much of the person I am today—the career I've pursued, the values I hold, my passion for constantly learning and my love of this community."

Garritty is the owner and president of PG Communications Ltd., providing strategic communications advice to clients across Alberta. She was also a member of ATB Financial's corporate leadership team for a decade as chief reputation and brand officer. She is a passionate advocate for the arts and serves on a number of boards.

The chancellor is a volunteer position. As ceremonial head of the university, Garritty will chair the senate, serve as a member of the board of governors, represent the U of A at ceremonial occasions and confer degrees. —FOLIO



6 THINGS THAT MAKE ME PROUD

Departing president David Turpin reflects on the last five years

By Michel Proulx

DAVID H. TURPIN will be vacating the office of the president of the University of Alberta on June 30, handing over the keys to incoming president Bill Flanagan.

Turpin hasn't decided what he will do next, other than to take time to consider his options. Wherever the next stage of his career takes him, he says he will always be a big supporter of the U of A. "This is an amazing institution with outstanding students, faculty and staff. It continues to make a major difference in this country and in the world. We're leaving a legacy for generations to come."

In an end-of-term interview, Turpin reflects on some of the accomplishments under his leadership over the last five years that are placing the university, despite its challenges, in a position to thrive.

1 STUDENT OPPORTUNITIES

In light of incremental tuition increases over the next three years, Turpin championed the move to allocate an additional 15 per cent from those funds to provide financial assistance to students. That adds up to an extra \$11.5 million for students. "We want to make sure we're not excluding outstanding students based on their financial needs," he says.

2 ALUMNI ENGAGEMENT

Under Turpin's leadership, all areas of alumni engagement saw substantial growth. For example, alumni participation in various programs jumped 75 per cent while the volunteer hours alumni spent supporting students grew by 55 per cent.

3 CULTURAL RICHNESS

Turpin points to the connections made with Indigenous communities, which resulted in a 40 per cent increase in Indigenous student enrolment. In addition, a national recruitment strategy resulted in a 16 per cent increase in the number of out-of-province students attending the U of A. "If you want an educational experience that is among the best nationally, you've got to meet people from across Canada," he says. "It really helps students understand this country."

4 ECONOMIC SUSTAINABILITY

In work that will help deal with the significant financial challenges it faces,

the U of A built a tool kit that includes three-year budgeting cycles; the elimination of a structural deficit; an integrated plan to manage facilities and deal with deferred maintenance; benchmarking the U of A against world-leading institutions on administrative support services and costs; and a new activity-based budgeting model, which rewards performance in teaching and research activities.

5 SIGNATURE AREAS

A significant effort was undertaken to identify the university's signature areas of teaching and research, where it is—or will be—recognized as a global leader. To date, the areas include energy systems, precision health, intersections of gender, situated knowledges: Indigenous people and places, and AI (artificial intelligence) 4 Society.

6 RECORD DONOR SUPPORT

The U of A set records in donor support, twice surpassing \$165 million in a year. What Turpin quickly points out about those numbers is the impact the support provides to students. At a Changing Lives brunch, where students get to meet the donors who supported them, Turpin vividly remembers students talking about the impact of the award. "Some of them looked at the donors with tears in their eyes. Those personal connections are just unbelievable," he says. "I think it's one of the most amazing things I got to see as president." ■

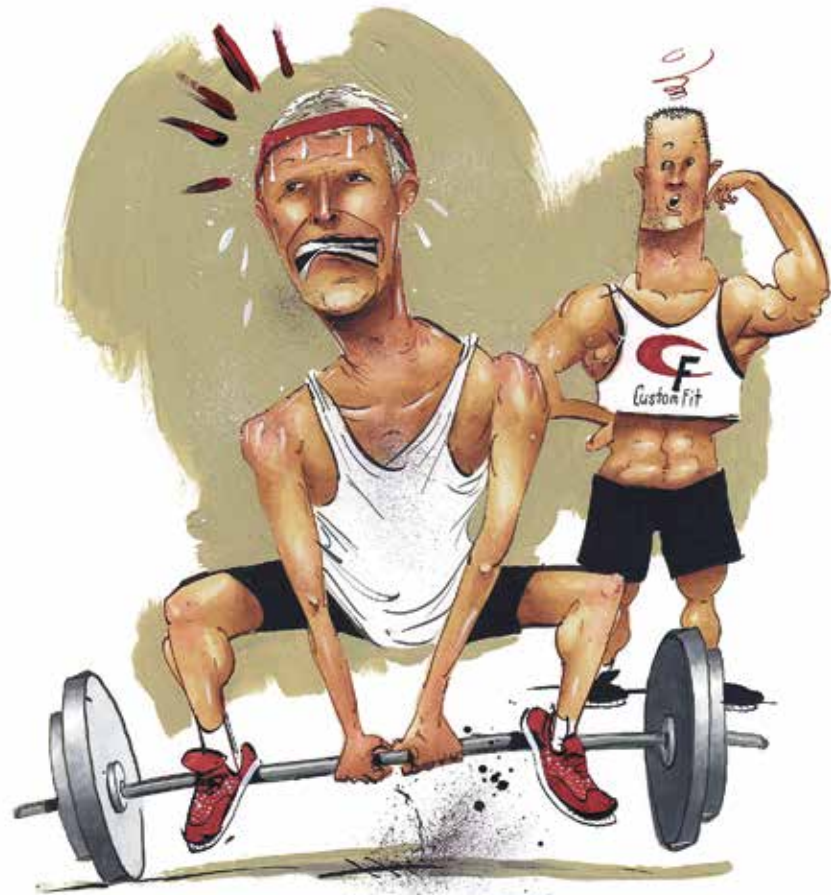
PHOTO BY NIELS DENIJS

PHOTO BY RYAN WHITEFIELD, '10 BA

Learning doesn't end when you accept your degree. We are all lifelong learners, whether we pursue lessons in a class or a lecture hall—or these lessons pursue us. **Curtis Gillespie**, '85 BA(Spec), reflects on the continuing opportunities for education that life throws our way, sometimes when we least expect them.



by Curtis Gillespie



A Weight on My Shoulders

WHAT MY FRIEND ASKED OF ME TOOK SOME HEAVY LIFTING AND A FUNDAMENTAL SHIFT IN MY THINKING

A couple of weeks after I filed the first draft of this column, the seriousness of the COVID-19 pandemic came into focus. What remained hazy, however, was the scale of the suffering. You will be reading these words many weeks after they were written, and I hope we'll have passed through the worst by then. Either way, it might not be a bad thing to take your mind off the pandemic for a while and put it in my hands. I promise to be gentle ...

In the fall of 2019 (the good ol' days), I had one of those life encounters that comes out of nowhere and turns heavy. You can't avoid them, simply because you don't know they're coming. My close friend Murray suggested I get in touch with a mutual friend whom I hadn't seen much over the last few years. I called the friend. What he asked of me—no, what he demanded from me—forced me into a decision of such fundamental gravity that I could not give him an answer on the spot. I had to go home, think about it, discuss it with my wife. But I didn't regret the encounter or the decision that followed. Every now and then you just have to put a load on your shoulders and lift it. We all have a weight to bear.

In the end, I decided to comply with what that friend—let's call him "Jeff"—was asking because it seemed the right thing to do. "I promise," he said, "you won't regret doing as I ask." I told him I'd been hurt before by what he was suggesting. "That won't happen this time," he said. "You have to trust me." Then he mentioned money.

Looking back, I'm not sorry I proceeded. This journey has reminded me that, as with so many instructive life experiences, yes is sometimes the better answer even if no might be more sensible.

Some background. Attentive and even distracted readers of this column will know that I still cling to the notion, delusional or not, that even on the back nine of my time on this planet I remain an athlete—or at least someone capable of an actual, if occasional, athletic activity. I have long pursued various sports and have drawn a great deal of pleasure—as well as the attendant physical and emotional benefits—from staying active. But for me it has always been about more than staying fit. It was about being able to answer the bell in the athletic arena, from playing college golf and soccer, to stepping on the squash court, to cycling long distances. But these modest achievements were due more to hand-eye co-ordination and caveman determination than muscle or strength. My fitness level has always been a byproduct of the sports I've played. It seemed to work well enough when I was younger, but now that I am, ahem, not young ... well, let's just say that no one has been knocking down my door looking to sculpt my physique out of marble.

Along came "Jeff."

Jeff Woods, co-owner of Custom Fit personal training in Edmonton, had been encouraging me for years, decades even, to start weightlifting with him as my trainer. We'd met in the early 1990s when I was getting into squash and he was starting out as a trainer. Back then, although I liked Jeff, I put weightlifting in roughly the same activity classification as car theft or being a nightclub bouncer—something

that probably required swagger and a rudimentary skill set but that didn't precisely match up with my life goals.

Yet through the years the evidence kept mounting that my blithe approach to fitness might not be working. I began incurring a series of minor injuries that often seemed related to muscle strain. I was also coming across more and more articles and books about muscle loss as you age. My good friend **Bruce Grierson**, '86 BA(Spec), wrote a great book, *What Makes Olga Run?*, about a 90-year-old athlete who did resistance training as part of her upkeep. Another friend, **Tim Caulfield**, '87 BSc(Spec), '90 LLB, author of the soon-to-be-published book *Relax, Dammit! A User's Guide to the Age of Anxiety*, was regularly supplying me with the latest science proving the value of resistance over cardio. It was coming at me from every angle. Then Murray started working with Jeff and it was all I could do, whenever Murray and I got together for a beer, to stop him from waxing hypertrophic. The universe was giving me explicit instructions.

Which is how I found myself last fall in a weight room, confronted immediately by the sight of a guy about my age but who looked like Brad Pitt's body double. The dude had muscles on his muscles. I nearly turned around and left. But no, I told myself, put your biases and preconceptions aside. Stay strong ... I mean, get strong.

In the first sessions, Jeff explained that the point of resistance training for the vast majority of the population is not to get stronger just for strength's sake but to avoid injury and live better. "Most of us just don't lead task-oriented lives anymore," he said. "It's become common to farm out the duties associated with caring for our homes and property. You can even grocery shop from your laptop." Which is why, he explained, the medical diagnosis of frailty is being applied more and more to people as young as 50 and even 40—we just aren't using our bodies anymore. "We have to just move!" he said. Thereafter, it's important to make sure you are pursuing what he calls Primal Movement Patterns, which I at first took

to mean drinking beer and operating the TV remote. But no. He described these as "movements that force you to squat, push and pull."

We started slowly, lifting various bars without much weight on them, just to get the technique down. Jeff focused on form rather than pounds. It's vital to perform a movement properly with some of the more technical lifts, such as the dead lift, the goblet squat, the back squat, the bench press and so on. If your technique is bad, your back will be, too. We progressed slowly over the weeks and months, adding a few pounds here and there. One day, a few months in, a curious sense of achievement came over me when I managed to do a goblet squat with a weight I couldn't even pick up in my first session. The surprises continued, the most astonishing coming when I realized I'd double-booked myself, scheduling a squash match and a weight-training session on the same day.

I cancelled the squash match.

Now, let's not overdramatize this. I haven't installed mirrors in the kitchen to check out my guns as I lift my bagel to my mouth. I'm hardly lifting Olympic-level loads. The amounts are numbers I never thought I'd reach, but anyone who has been doing resistance training for some time would find them modest. I haven't even really tried the bench press yet because I'm protective of the rotator cuff I tore a couple of years ago.

The point is not how much I'm lifting but just that I feel so much more stable. What is amazing is the difference I have noticed in things you can't really see (which, I suppose, is what I have to say given that there has been no appreciable increase in the size of my musculature). I do feel stronger, but it's more about sturdiness than anything else. When I play squash, I don't fear injury and I'm moving around the court with more assurance. When I pick up a chair in the kitchen or lift a bag of groceries to put in the car, the load feels effortless. Small things, I admit, but small things become big things the minute you can't do them. In other words, when you become frail.

The evidence keeps tumbling in.

The *New York Times* reported in mid-February that a new Australian study found the healthiest adults were those who combined cardio and resistance, to which I say, *Duh*. Humans were built for two things primarily—to move from place to place under our own power and to lift things that need lifting using our own strength. It's not that complicated. The truth is that I don't see much of a difference when I stand in front of the mirror. My love handles are still graspable. My pecs have yet to pop a button. My calves still look like pale birch saplings. The only thing that's noticeably bigger is my ego, because now I'm a weightlifter. (Though if you ever catch me drinking a lumpy brown protein shake out of a plastic slurping cup, you must immediately alert my family and friends for the pre-arranged intervention.)

More than anything else, Jeff has convinced me that resistance training is not so much about how you look (though over time that might improve) and not even so much about how you perform your sporting activities (though that will also improve over time). It's more about how successfully you cope with life's physical demands as you move into your 40s, 50s, 60s and beyond. Not everyone has to be Arnold Schwarzenegger. Strength is not about how good you look but how well you live. It pains me deeply to admit that my thinking has been imperfect for 40 years, but it turns out there's nothing wrong with being strong. It's a weight I'm learning to carry.

And, of course, in these very unsettling COVID-19 days, we all have a different kind of weight we're learning to carry. The toll—physical, emotional, spiritual, psychological, economic—won't be fully understood for some time. But we have to persist even, or especially, in the hardest times. "Stay strong" is an oft-used metaphor, but it becomes even more powerful if we can turn it into both metaphor and habit. ■

Curtis Gillespie has written five books and earned seven National Magazine Awards. His New Trail article "A Hard Walk" won gold for best article of 2018 from CASE, an international post-secondary association.

ILLUSTRATION BY KELLY SUTHERLAND

PHOTO BY JOHN ULAN



THIS CHANGES EVERYTHING

Across the university, as everywhere, COVID-19 has upended lives. But the work didn't stop with the lockdown. Working remotely or in isolated pockets of the suddenly quiet campus, members of the U of A community entered the high-stakes race to counter COVID-19's grip on our world. Get a glimpse inside the labs and lives of those working to solve the problems of COVID-19 today and those trying to help us anticipate what's next.

PHOTOS BY JOHN ULAN

“We can save time by transferring the technology we developed for the hepatitis C vaccine into the COVID research.”

Michael Houghton, virologist

very large biohazard manufacturing facility, which we don't have in Canada.

Another common method involves weakening the virus before inoculation. This is the type of vaccine given routinely to Canadian children to prevent diseases such as measles, mumps and chicken pox. But it can take a long time to develop a safe version — a big risk when there is no approved treatment for COVID-19.

And time is something we don't have.

That's why many of the COVID-19 vaccine projects underway around the world are taking new tactics to produce effective antibodies. Some will isolate and inject a nucleic acid (DNA or RNA) from the virus in order to trick the body into mounting an immune response even though the whole virus isn't present. Others will use a harmless, defective “vector virus” that acts as a delivery vehicle for the surface spike protein of the coronavirus — again tricking the body into creating antibodies against just part of the virus.

Houghton is taking his own approach, which his many years of experience tell him is the best way to produce viral antibodies. And he knows a thing or two about infectious diseases. He is the co-discoverer of the hepatitis C virus. In collaboration with **Lorne Tyrrell**, '64 BSc, '68 MD, founding director of the Li Ka Shing Institute, Houghton developed a hepatitis C vaccine that is headed for clinical trials next year.

“We can save time by transferring the technology we developed for the hepatitis C vaccine into the COVID research,” Houghton says.

Their approach is to make the sticky spike proteins themselves. These are the “awesome-looking mushrooms” on the virus's surface, Houghton says, as seen in many illustrations of COVID-19 (see page 20). When viewed on an electron micrograph, they look like a halo or “corona” around the virus, hence the name “coronavirus.”

Houghton used the same “subunit protein” method to find a prototype vaccine during the SARS epidemic, when he was working for a pharmaceutical company in the United States. The vaccine was shown to produce protective antibodies to the SARS virus, which would have prevented infection.

While a SARS vaccine wouldn't have been a perfect fit against COVID-19, Houghton believes there are enough similarities between the two viruses that it would have at least slowed the

When COVID-19 hit, researchers across the globe had to pivot quickly to tackle the health crisis. The U of A, home to one of the world's pre-eminent virology institutes, was ready.

RAPID RESPONSE

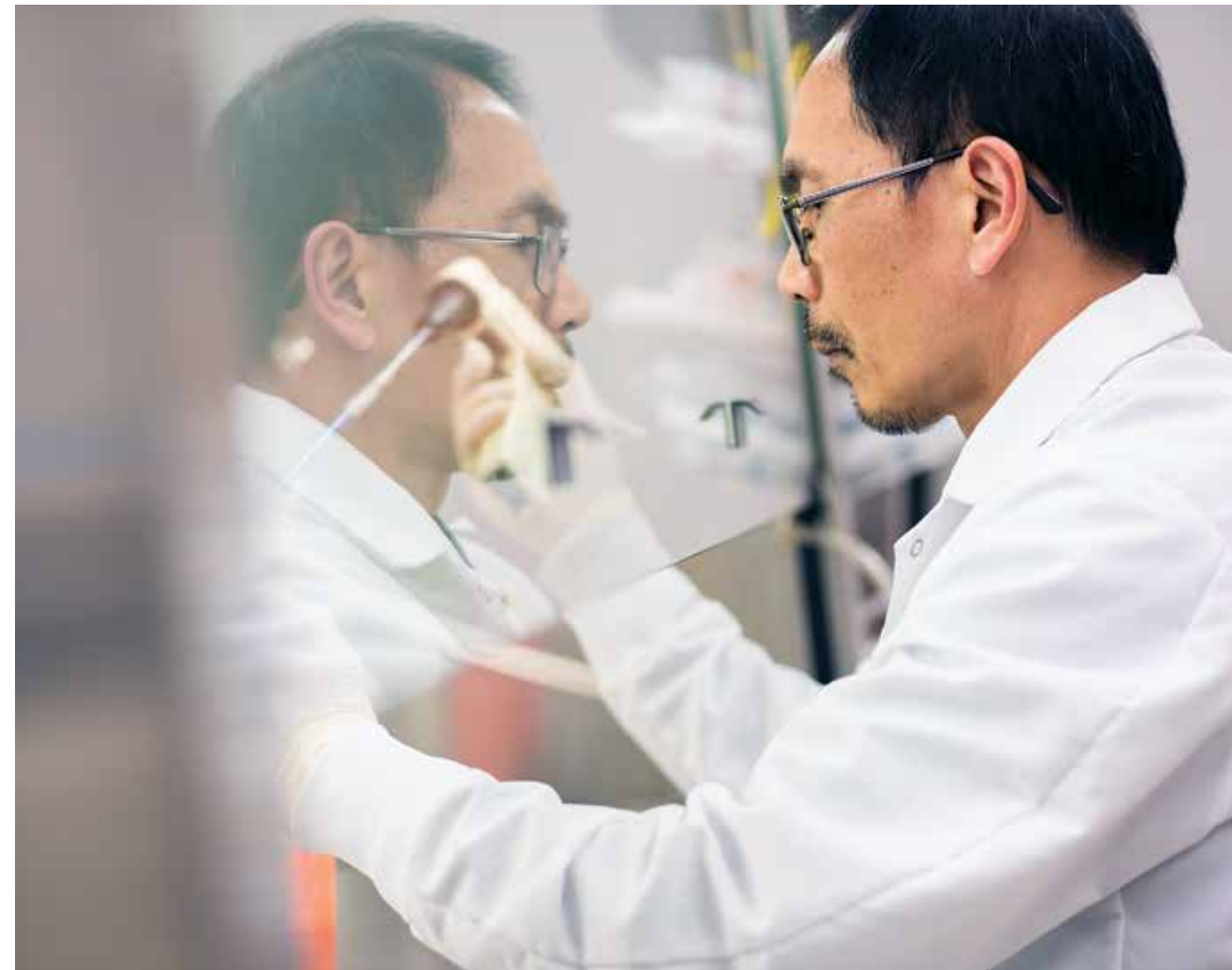
By Gillian Rutherford

➔ As most of us were blithely welcoming the new year of 2020, word was just starting to get out in medical and scientific circles. A virus that had never been seen before in humans was making an alarming number of people in Wuhan, China, desperately ill with pneumonia.

Soon the worst was confirmed: the new virus was exceptionally virulent and contagious, spreading quickly within China, then to other countries. Nowhere was safe.

Within weeks, the genome of the SARS-CoV-2 virus, which causes COVID-19, had been sequenced and shared online, launching an unprecedented worldwide co-operative effort among scientists, public health officials and health-care workers, all focused on stopping the virus's deadly progress.

At the U of A's Li Ka Shing Institute of Virology, researchers were paying attention. They had been preparing for this moment.



READY TO PIVOT

The Li Ka Shing Institute was formed in 2010, bringing together top researchers to tackle the world's deadliest scourges: infectious diseases like hepatitis, human immunodeficiency virus, Ebola and coronaviruses. They knew the next one could be the big one — a pandemic that would bring the world to a halt.

But they had never seen anything quite so vicious as COVID-19.

When virologist Michael Houghton first heard about COVID-19, he thought it might be like the SARS epidemic of 2003. “You know, SARS was a major problem but it went away quite quickly,” he says. “Of course, I and everyone else soon realized this is much worse than SARS.”

Which is why, once the genome was public, Houghton and many others at the Li Ka Shing Institute jumped straight to work brainstorming new ideas and re-examining old ones, pivoting to focus their expertise and laboratories on the novel coronavirus. Over the course of a weekend, federal officials reviewed research proposals — record time in the world of scientific funding — and in early March, five U of A projects received federal

dollars and the green light. Before the end of the month, 11 U of A projects were awarded a total of \$5.8 million by the Canadian government's rapid response fund for COVID-19 research, the highest number of funded projects at a Canadian institution (see page 17). Philanthropists saw the need, too: soon after the pandemic began, one anonymous donor stepped forward with a \$100,000 investment in promising COVID-19 research across the university.

Across faculties and disciplines, researchers and others have responded, ready to apply their expertise in any way they can.

Among them are some of the world's foremost experts, who are hunting for three important weapons against COVID-19: tests, treatment and, of course, the Holy Grail — a targeted vaccine.

QUEST FOR A VACCINE

Here is the traditional approach to making a vaccine. First, grow the virus in a cell culture. Next, purify it, then chemically inactivate it and, finally, inoculate people. Those people will now produce antibodies that, when exposed to the active virus, help shut down any potential infection and prevent disease. The downside? This approach requires a

◀ Aside from vaccines, treatments and tests for COVID-19, U of A scientists are searching for ways to inactivate the virus to help sterilize personal protective equipment and make it reusable. Pictured: James Lin, a research associate in virologist David Evans' lab at the Li Ka Shing Institute.

current pandemic down. But when SARS faded thanks to public health measures, the \$150 million needed to develop a new vaccine just wasn't worth it with only private sector funding, he says.

The good news is that the previous research is providing a foundation for the work today—work that could help the world rein in COVID-19.

PROMISING RESULTS FOR TREATMENT

It could take anywhere from six months to two years to create, test, make and begin to distribute vaccines against SARS-CoV-2, and that's if we can find one. So researchers are searching for treatments to help reduce the impact of the virus in those who get sick.

It may seem strange, but some of the most promising weapons against the new virus are drugs that were developed to bring down past scourges. One of these is a drug called remdesivir, which you've likely heard about in the news. Made by the U.S. pharmaceutical giant Gilead, the drug was first tested to treat Ebola, a virus that causes a horrifying death by internal bleeding in up to 50 per cent of patients. During the most recent Ebola outbreak in 2019, remdesivir proved to be less effective than two other treatments.

But when COVID-19 emerged, a research team at the U of A that was already studying how remdesivir worked wondered whether it had potential against SARS-CoV-2. The fact that remdesivir has already been used in humans gives it a huge advantage over anything that might be developed from scratch during the pressure-cooker time frame of a pandemic.

Matthias Götte, chair of the U of A's Department of Medical Microbiology and Immunology and an expert in HIV and hepatitis C, retooled his lab a couple of years ago to study the World Health Organization's list of top pathogens likely to cause severe outbreaks, including coronaviruses.

Götte's lab is focused on viral polymerases, which are key enzymes involved in the replication mechanism of viruses. Polymerases are kind of like the engines of a virus: if they're not in working order or given the right fuel, the virus can't go anywhere in the body.

The lab last year showed how remdesivir, a polymerase inhibitor, works on Ebola. A fast-tracked paper in late February then showed how the drug works against SARS and MERS. By April, after COVID-19 reared its head, the team had shown remdesivir also works against SARS-CoV-2.

“Our lab worked as fast as we could to get results out. We did not take weekends. The days of the week blurred.”

Joanne Lemieux, biochemist

Remdesivir shows enough promise as a treatment that clinical trials are already underway around the world. One randomized trial has announced the drug reduced recovery time from 15 to 11 days. Based on this data, the U.S. Food and Drug Administration (FDA) gave emergency use authorization in May, making remdesivir the first treatment to be made available, even though it's not officially approved.

And that means that Götte's work on remdesivir is done. He is what's known as a bench scientist—a researcher who works in the lab—so while others take up the torch on remdesivir and clinical trials, he is back at the lab bench, starting to test other potential antiviral agents.

One of the reasons research like Götte's could move so quickly is that he started the groundwork years ago. That's the thing about research: a success in the lab is anything that can be proven

Researchers are striving to figure out how the COVID-19 virus works, an essential step in developing therapies to boost the immune system's defence. A research assistant analyzes proteins of infected cells in virologist Tom Hobman's lab at the Li Ka Shing Institute.



or recreated, no matter how seemingly small to the layperson. Results don't necessarily mean cures for disease, but every confirmation or discovery adds up—and it often lays the path toward something else. The work happening now on COVID-19 wouldn't be possible without all the work that went before.

BUILDING ON PAST RESEARCH

Other U of A researchers are also dusting off and revisiting past work in the hunt for a treatment.

Biochemist Joanne Lemieux, who usually works on proteases involved in diseases such as Parkinson's and urinary tract infections, is building on research first done at the U of A during the 2003 SARS epidemic. A team of researchers studied a mechanism that stopped the virus from replicating, using compounds known as protease inhibitors. The approach was never developed into a drug, but veterinary scientists have since used it to treat and cure a virus that causes fatal peritonitis in cats.

Like polymerases, proteases are involved in the replication of a virus when it infects a body, in this case helping to cut the viral proteins into pieces so they can reproduce, kind of like scissors. Proteases are key to many body functions and are common targets for drugs to treat everything from high blood pressure to cancer and HIV.

Lemieux, Tyrrell and chemist John Vederas combined their labs' efforts to test the SARS protease inhibitor against the COVID-19 virus. Within a couple of months, they discovered the feline drug does inhibit the SARS-CoV-2 virus from replicating in cells. They hope to take the drug to clinical trials as soon as possible.

“Our lab worked as fast as we could to get our results out,” says Lemieux. “We did not take weekends. The days of the week blurred.”

The non-stop work can take its toll, but Lemieux says it's worth it. Despite the impediments of physical distancing on her lab's day-to-day work—cumbersome personal protective equipment and staggered shifts—and the fact that she leaves her scientist husband behind to work from home and home-school their three children, Lemieux says she's proud to add her expertise to the anti-COVID-19 effort.

“My kids are excited about it, too. They say ‘Go to work, Mom, we want you to get this done.’”

ADVISING THE COMMUNITY

Lynora Saxinger finds herself checking the online editions of medical journals before she goes to bed each night, just to be sure she hasn't missed anything new. The associate professor of infectious diseases has become an almost-nightly feature on CBC News and other media ever since COVID-19 restrictions began, doing her best to explain the latest developments in layperson's terms. She is the epitome of calm, clear authority in the face of constantly shifting science.

Saxinger acknowledges it can be frustrating and confusing for the public to try to keep up with changing messages from health officials. “That's why I decided when this thing started that I was

11 Projects Receive Funding

The Canadian government has invested almost \$6 million in 11 U of A research projects as part of its COVID-19 rapid research funding, the greatest number of projects of any Canadian university. The grants from the Canadian Institutes of Health Research support research on a variety of fronts—from the hunt for diagnostic tests, vaccines and treatments to understanding the pandemic's psychosocial effects. —FOLIO

TIMOTHY CAULFIELD
'87 BSc(Spec), '90 LLB
Faculty of Law/School of Public Health
Coronavirus outbreak: mapping and countering misinformation
\$381,708

MATTHEW CROXEN
Faculty of Medicine & Dentistry
Rapid RNA sequencing of coronavirus for public health surveillance and transmission
\$788,040

MATTHIAS GÖTTE
Faculty of Medicine & Dentistry
Development and evaluation of SARS-CoV-2 RNA polymerase inhibitors
\$675,000

MICHAEL HOUGHTON
Faculty of Medicine & Dentistry
Production of a recombinant S (spike) protein vaccine against SARS-CoV-2 and emerging coronaviruses
\$750,000

MICHAEL JAMES
Faculty of Medicine & Dentistry
Toward anti-COVID-19 therapeutic development by targeting the viral papain-like proteinase
\$311,000

CHRISLE
Faculty of Medicine & Dentistry
Point-of-care diagnostics of COVID-19 using isothermal amplification and CRISPR technology
\$828,046

JOANNE LEMIEUX
Faculty of Medicine & Dentistry
Synthesis, structural studies and evaluation of inhibitors of the 3CL protease of SARS-CoV-2 as potential drugs for treating infection
\$714,250

KIMBERLY NOELS
Faculty of Arts
Chinese and non-Chinese Canadians' response to the 2019 novel coronavirus (COVID-19): interrelations between risk perception, discrimination and preventive health actions
\$219,580

MICHAEL WOODSIDE
Faculty of Science
Targeting programmed ribosomal frameshifting as a therapeutic strategy against 2019-nCoV
\$370,700

SHELBY YAMAMOTO
School of Public Health
Assessing and addressing the psychosocial impacts of COVID-19 among pregnant women and health-care providers in Anhui, China
\$396,470

LEXUAN ZHONG
Faculty of Engineering
Mitigation strategies against the public transmission of airborne COVID-19 in high-occupancy structures: a program of research to develop optimized mechanical ventilation systems
\$444,000



▲ When Lorne Tyrrell, founding director of the Li Ka Shing Institute of Virology, first heard about COVID-19, he pulled together more than 20 members of the institute, including some of Canada's top virologists, to brainstorm how they could help combat the pandemic.

going to be accessible to answer questions, as we need to work together and trust each other right now," she says. "That puts me in the uncomfortable position of looking like I want to be a TV doctor, which I don't—I can't even watch myself!"

The audience responds to Saxinger's quiet assurance, and so do the public health experts who are shaping Alberta's response to the pandemic. Saxinger was tapped to co-chair Alberta Health Services' Scientific Advisory Group on COVID-19, which reviews and assesses the new medical information coming in daily from around the world.

The science of COVID-19 is a moving target, which is why the public sometimes hears new directions from health officials or sees very different takes on the same topic, and why Saxinger will continue to explain the nuances of COVID-19 rather than making definitive statements. "The biggest red flag for me is when someone says something that is certain with COVID," Saxinger laughs. "I'm like, 'OK, I don't trust you now.' You just can't say anything with certainty when it comes to this virus."

Many U of A experts are applying their knowledge to help deploy health-care resources, even as that knowledge changes daily.

Stephanie Smith is ensuring that health-care workers know how to protect themselves and their patients from the virus. In normal times, Smith—as director of infection prevention and control for the University of Alberta Hospital and Mazankowski Heart Institute in Edmonton—devotes about 30 per cent of her time to infection control. "Now I'm pretty much doing infection control 120 per cent of the time," says Smith, who is also an associate professor of medicine at the U of A. All the while, she continues to see patients remotely and to conduct research. "The attention to detail that is necessary

in this situation, where we have no immunity, is unprecedented," says Smith.

Like Saxinger, Smith advises public health officials daily—in her case, the Public Health Agency of Canada—interpreting the latest knowledge about how the virus is spread and the most appropriate protective gear and systems to prevent it. She also oversees local patients enrolled in the worldwide clinical trials for treatments. She knows hopes are high for all the trials but cautions we must be careful as studies come out fast and furious from all over the world. "The methodology in some is not quite as rigorous as we would like, so we have to be

really careful about drawing definitive conclusions based on these studies."

WHAT'S NEXT?

As we contemplate the reopening of business and society—and possibly a new round of restrictions—so many questions linger about the virus and how it will behave. For the foreseeable future, public health officials will continue to hold the key to where we can go, whom we can spend time with, how we behave. We're told that life will never be the same post-COVID-19. It's certain to change in ways we can't even anticipate.

Helping us navigate this future will be a host of U of A researchers and experts, who will continue to seek and share knowledge, comment, guide and participate in the public discussion about how to move forward in a safe, fair and humane manner.

Perhaps near the top of that list will be **Carole Estabrooks**, '87 MN, '97 PhD, a U of A nursing professor whose work will help us understand why the pandemic took hold so fiercely in Canada's long-term care homes, where nearly 80 per cent of all deaths have occurred.

Estabrooks, the Canada Research Chair in Knowledge Translation, is

calling for co-ordinated national and provincial reviews of nursing homes. She's asking for facility upgrades, better training and equipment, more support for families, and improved working conditions for nursing home staff, who are at the bottom of the ladder in terms of pay, benefits and status within the health-care system. She wants nursing homes to be places where quality of life is primary. "[The elderly] have no voice, they're frail, they have dementia," she says. "But these people built this country, so it seems to me that since we're all going to be there [one day], we might want to think differently and use this tragic pandemic to make fundamental and lasting changes."

The forward-looking research taking place now is broad and deep. Across the U of A, scholars are digging into topics like how being stuck at home is affecting the movement of toddlers and preschoolers, how to combat misinformation around the origins and treatments of the virus, the impact of COVID-19 on pregnant women, and the stigmatizing of people of East Asian descent.

As for Houghton, he's hopeful the world will be much better prepared next time a virus runs rampant. And that we will learn from what we did—or didn't do—after past major virus infections.

It was the work of Houghton and his colleagues, remember, that back in 2003 found a vaccine shown to produce protective antibodies to the SARS virus. But when the SARS threat faded, so did the will to fund development of a vaccine.

This time, it has to be different.

"[In 2003] the governments of the world should have said, 'We will fund you to make a stockpile,'" Houghton says. "Not enough to give to everyone in every country, but enough so that if a related virus outbreak occurs, we'd have enough stockpiled to give it to the first responders, the vulnerable elderly in long-term care homes, the relatives of those infected to stop familial transmission and so on."

He predicts this isn't the last time we'll have to respond to the threat of a pandemic.

"When you look back at infectious disease over the past 30, 40 years, it's apparent that every few years we will be under major threat from virus infection. Thanks to the hard lessons learned from COVID-19, we will be able to respond faster and better."

Götte agrees. He revels in the remarkable co-operation that COVID-19 has created among scientists and public health officials around the world, and he's hopeful it will continue. "It is a highly collaborative international scientific environment right now and that's a good thing," he says. "It helps to explain the incredible pace of research."

"It's very clear that there will be a lot of support to cross the finish line to find treatments and vaccines this time." —WITH FILES FROM MICHAEL BROWN

How Do You Run a University During a Pandemic?

Here's the play-by-play of how the U of A responded to a global crisis

By **Stephanie Bailey**, '10 BA(Hons)

➤ Operating a large research university like the U of A is like running a small city. At the best of times, it's complicated work, with more than 40,000 students in labs, lecture rooms and residences spread across five campuses. Not to mention the faculty and staff. So what happens when a global crisis strikes? This spring members of our community came together to protect and support one another—from a distance—all while making sure that essential teaching, learning and research continued. Here are a few milestones of the university's COVID-19 response so far:

MARCH 13: The U of A suspends in-person classes two days after the World Health Organization declares COVID-19 a pandemic.

MARCH 14: The university announces it will deliver all classes and exams remotely, starting March 17.

MARCH 20: As the City of Edmonton announces a state of emergency, the university asks students living in residence to return home if able, and starts to relocate remaining residents to support physical distancing measures.

The U of A temporarily sets aside a letter grade system in favour of credit, no credit or incomplete marks on transcripts to ensure equity among students and preserve academic integrity.

The university also extends the deadline to withdraw from winter 2020 classes to give students the time they need to make an informed decision amid all the changes to course delivery and assessment.

MARCH 22: Remaining non-essential research and non-critical operations on campus move to remote work. Campuses remain open to support and maintain essential student services, administrative services and building maintenance. Only essential research continues

on campuses, such as that related to COVID-19.

APRIL 1: The Butterdome opens as an assessment and treatment centre for COVID-19 to reduce patient load on emergency rooms.

APRIL 2: The U of A schedules virtual convocation ceremonies for June 12 to celebrate the spring class of 2020.

APRIL 6: The university decides to offer spring and summer 2020 courses through remote delivery.

MAY 14: The U of A sets out a course for a gradual reopening, while continuing to respond to the public health directives, including opening some on-campus research activities in May with new precautions in place. The university also announces plans for the upcoming fall semester:

The university will continue to deliver the majority of classes remotely. Where possible, it will provide small group in-person learning opportunities, such as labs and clinical instruction.

Residences will be available for incoming students in fall 2020 and winter 2021. If possible, the university plans to open other parts of physical campuses by September, as well.

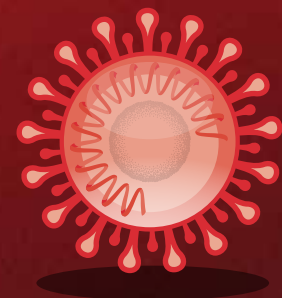
For the latest, visit ualberta.ca/covid-19/index.html.

HOW DO VIRUSES WORK ANYWAY?

These microscopic machines have one thing on their minds

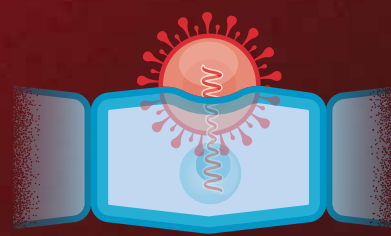
By **Lisa Szabo**, '16 BA

Most viruses follow the same basic routine: find host, reproduce, repeat. But there are a lot of factors that determine whether a virus becomes a weeklong cough or a global pandemic. Some viruses have evolved to hide from the immune system, mass-producing before your body even knows they're there. New viruses, like the one that causes COVID-19, can spread quickly because society hasn't built any immunity to them yet. But not all viruses make you sick. Justine Kniert, a grad student with the Department of Medical Microbiology and Immunology, is researching how the non-pathogenic reovirus can be used to fight cancer. So don't think viruses are out to get you; they're just programmed to replicate and co-opt your cells to do it. Here's how it works.



1. Virology 101

Quick anatomy lesson: a virus is a small piece of genetic material (DNA or RNA) surrounded by a protein shell. Many viruses, including coronaviruses, also have a lipid envelope that holds everything together. Unlike bacteria, viruses need to occupy a cell in a host like you to reproduce.



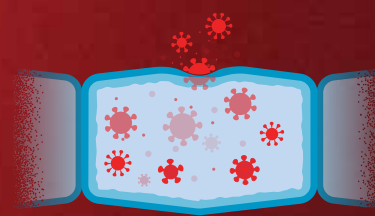
3. Select and Inject

Once inside your body, the virus looks for a host cell. A respiratory virus prefers cells in the airways, but blood-transmitted viruses like Zika will seek out immune cells, while ingested pathogens stick to the digestive tract. The virus uses its protein coating to attach to receptors on the preferred host cell's membrane, and then injects its DNA or RNA.



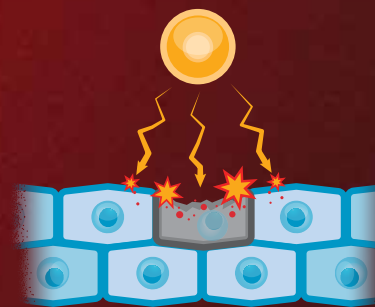
2. Find a Friend

Many viruses often hitch a ride from one body to another in the tiny droplets of moisture produced when you sneeze or talk. Inhale the droplets or touch a surface they've landed on, then touch your eyes, nose or mouth and you catch the virus. Some viruses can also be passed through contaminated water, blood or skin-to-skin contact.



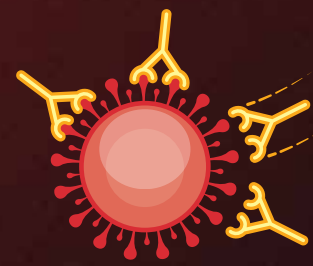
4. Replicate

The genetic material of a virus carries blueprints for reproduction and, once inside, it tells the cell to build copies of the virus. The newly assembled viruses then either escape from the cell, leaving it intact, or cause it to self-destruct, releasing the viruses into the body and starting the process all over again.



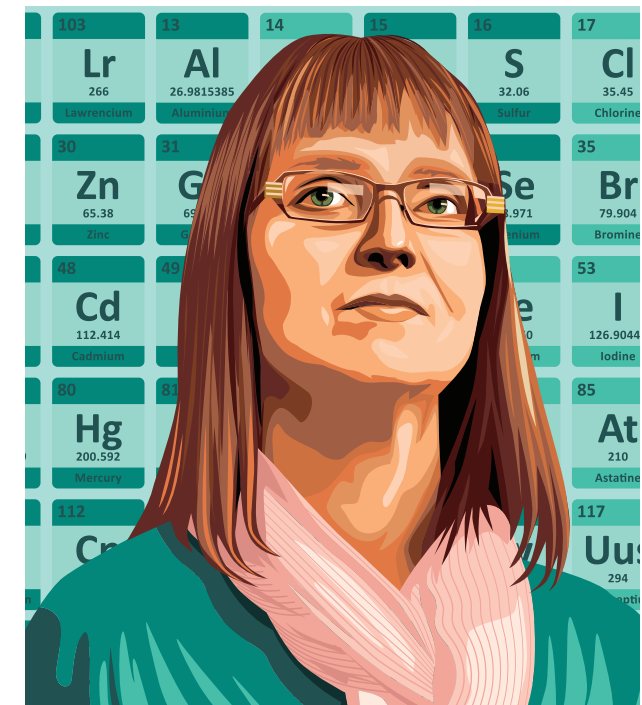
5. Battle It Out

T cells, a kind of white blood cell, circulate in your body, scoping out infection. They use specialized receptors to identify proteins in a virus-infected cell. If the T cells detect a compromised cell, they destroy it. Some viruses create such a frenzied reaction that the immune system accidentally targets healthy cells, too, which can lead to permanent damage.



6. Immunity

In most cases, the immune system regains control, killing infected cells and intercepting viruses trying to commandeer new ones. If that virus infects you again, antibodies bind to it and neutralize it. Once you've had a virus and recovered, or been vaccinated, you're usually immune. But the same virus can evolve in different hosts, drifting far enough from its original form that your immune system might not recognize it next year.



Deena Hinshaw, the Voice of Calm in the Storm

➤ Across Canada, the COVID-19 health crisis has found its heroes in the calm demeanours and fact-based guidance of health professionals like **Deena Hinshaw**, '97 BSc, '04 MD, '08 MPH, Alberta's chief medical officer of health. Hinshaw spoke to the U of A in early May; here is some of what she had to say. —GEOFF MCMASTER

ON GROWING UP IN SYLVAN LAKE, ALTA.

My upbringing was, in many ways, privileged. I'm mindful that not everyone comes from that same perspective—just because I have a particular view on something, it doesn't make it the only view. That's been a real touchstone for me as I've taken on this job: feeling the responsibility to care for all Albertans no matter what background they have, no matter where they come from.

ON HER PASSION FOR HEALTH CARE

As a young person, I was interested in health care, in general, and thinking about prevention, alternative medicines and wellness training. That's what I was always really passionate about. [In medical school] I found there was this whole specialty dedicated to public health and prevention, and I've never looked back.

ON HER NEW CELEBRITY

It's certainly not something that I expected to be dealing with. I'm just doing my job to the best of my ability, making sure I'm giving people the best information so they can make the best decisions. Like most people who go into medicine, it's with a hope to make a difference.

ON TRANSPARENCY

I think it is important to always stay open to feedback and to learn from every experience. I strive to make the best decisions and recommendations that I can with all the information available at the time of the decision, but sometimes information changes, and decisions and approaches need to be re-evaluated. If I'm wrong about something or if I make a mistake, I apologize and seek to make amends.

This interview has been edited for length and clarity. To read the full story, visit folio.ca.

Pandemics shape societies as much as they do public health practices, exposing rifts and new potential

THE VIRUS OF SOCIAL UNREST

By Mifi Purvis, '93 BA

➔ It's hard to grasp the scale of a pandemic from the middle. We attempt to flatten the curve to better care for people and buy time for treatments and vaccines. But that curve feels like a colossal roller-coaster. We're chugging our way to the top, waiting to crest and descend to where we started. But things might look different when we get there.

While COVID-19 is new, the plagues that have shaped our societies aren't. In looking back, we glean hints about what might lie out front.

The Black Death arrived in Europe in the mid-1300s, killing a third of the population. It burned across the continent in a few years, then bubbled up around the globe for hundreds more. In a combination of luck and foresight, some regions mitigated the effects, where others failed.

"In Florence, there was social breakdown," says Liza Piper, associate professor in the Department of History and Classics, who teaches a course in pandemic disease. Some estimates, Piper says, pin the mortality in Florence at as high as 75 per cent. Nearby Pistoia, however, had a very clear set of rules. "Pistoia restricted travel and changed funeral practices," she says. "They had a much lower mortality than Florence."

You've been hearing a lot about another pandemic, Spanish flu. But for decades it went unremarked, disappeared into the story of the First World War. The disease was deadlier than the conflict, killing more than 40 million people in the winter of 1918-19. As in Pistoia and Florence, in 1918 officials in St. Louis and Philadelphia dealt with this pandemic differently. Where St. Louis closed schools and houses of worship and encouraged physical distancing, Philadelphia threw a parade, inviting the whole city. Days later, Philly's hospitals were full. Weeks later, it had registered twice the deaths per capita of St. Louis. The lesson is clear.

According to experts, COVID-19 may necessitate an awkward dance of test, trace and isolate until research creates a vaccine. It's nothing new. This was the response to polio, which made frequent summertime forays before that vaccine was developed, says Piper. Children saw the heaviest burden, sometimes suffering paralysis or death. "There were a lot of restrictions around gatherings in summertime, swimming pools closed, kids couldn't go to the movie theatres."

But polio epidemics were also instrumental in building social medicare, Piper says. Paul Martin Sr. contracted the viral disease as a child in 1907, as did his son, (later prime minister) Paul Martin Jr., '12 LLD (Honorary), in 1946. The experiences were formative for the elder Martin who, as national health minister in the mid-1950s, was instrumental in rolling out the then-controversial polio vaccine. It informed his support of milestone bills on the road to medicare.

But socialized medicine doesn't remove inequity. Indicators of

health mark some of us for harsher treatment: age, existing illness, lower incomes, tenuous job security or being an immigrant or Indigenous person. COVID-19 has put workers in the crosshairs of the bug. History has lessons on that, too.

After the Black Death, Tuscan artisans and farmers agitated for better pay and land ownership. The labour shortage increased the value of their work, hurrying the end of feudalism.

"I wonder if there would have been a general strike in Winnipeg in the spring of 1919 if the city hadn't just experienced the flu?" asks Kristan McLeod, '92 BA, '94 MA, '04 LLB, managing partner of Chivers Carpenter Lawyers, a firm specializing in labour and employment law. The *Winnipeg Free Press* reported 1,216 Winnipeggers died of the Spanish flu that winter. By May, the disease had largely burned out, leaving roiling unrest culminating in the strike. "I think a pandemic can have a great equalizing force," McLeod says, "in that it exposes giant rifts in our system and makes people realize how interdependent we are."

Piper says research supports that theory. She points to Esyllt Jones's book *Influenza 1918*, which argues that supporting each other through the flu was foundational to workers' resistance during the Winnipeg General Strike. The city was home to around 180,000 people in 1919. As many as 35,000 workers walked off the job; many were immigrants and women. Six weeks later — after a riot, 30 injuries and two deaths — strikers were forced back to work, their grievances mostly unanswered. But the event brought awareness of full-time workers unable to climb out of poverty, according to Piper. It had a unifying effect on Canadian labourers.

In mid-April 2020, there were 38 cases of COVID-19 at a southern Alberta meat-packing plant, whose union wanted it shut to manage the problem. It remained open as an essential service, eventually closing for two weeks to implement safety features. But by mid-May there were nearly 1,500 cases linked to the plant. These mainly working-class immigrants are bearing the brunt, their jobs making the virus hard to avoid. It all sounds familiar.

When public health measures weren't followed in Winnipeg in 1919, Jones writes, "it was because the material realities of working people's lives made it all but impossible for them to respond to the implications of germ theory in day-to-day living."

It's hard to say if the current pandemic will bring the social change of past ones. Friends ask Piper to weigh in. "As a historian I get nervous about predicting the future," she says. "But globally, there's inequitable access to robust public health systems. That makes such a huge difference in the course of contemporary epidemics."

So here we are, hopefully cresting the curve. And what we find at the bottom will surely surprise us, even if it shouldn't. ■



➔ There's some evidence that the so-called Spanish flu of 1918-19 actually started at a military camp called Funston, in Fort Riley, Kansas, where this image of an emergency hospital was captured.

ARMED FORCES INSTITUTE OF PATHOLOGY/NATIONAL MUSEUM OF HEALTH AND MEDICINE, DISTRIBUTED VIA THE ASSOCIATED PRESS / PUBLIC DOMAIN

ILLUSTRATION BY DANIEL HERTZBERG



COVID-19 DISPATCH

Excerpts from the life of a recreation therapist

Health officials were clear: to stop the spread of COVID-19, stay home. But what if there were no home in which to stay? This spring, Maegan Ciesielski, '15 BA (RecSpoTourism), worked shifts at the Edmonton Expo Centre, which was set up as a temporary health centre to support vulnerable people.

➔ Day #1

8 A.M. / I check in at the Expo Centre. It's relatively quiet, which I'm OK with as I have to learn a totally new electronic medical records system.

12:30 P.M. / Later, I deliver lunch to other patrons of the shelter. "Let me put this on your coffee table," I joke with one of the men as I place his food on his box of belongings. I clean my face shield for at least the 10th time today.

4 P.M. / As the nurses do shift reports, I cover their station, handing out cigarettes, books, coffee and word-search puzzles. And I de-escalate complaints.

➔ Day #2

9 A.M. / One of the attending doctors discovers I am a recreation therapist and asks if I can run a bingo. I inwardly groan and then start brainstorming how to make it work, along with other activities you can do with groups in isolation.

11 A.M. / Staff from another agency show up to learn the procedure in case

they need to bring clients here. I super-appreciate their work, but I have to put on full personal protective equipment before talking to them, which means I need to clean it all, again, and sanitize my hands, again.

12 P.M. / First admission of the day! Chance that I did something wrong: very high. In my defence, I learned an entire new medical record system yesterday.

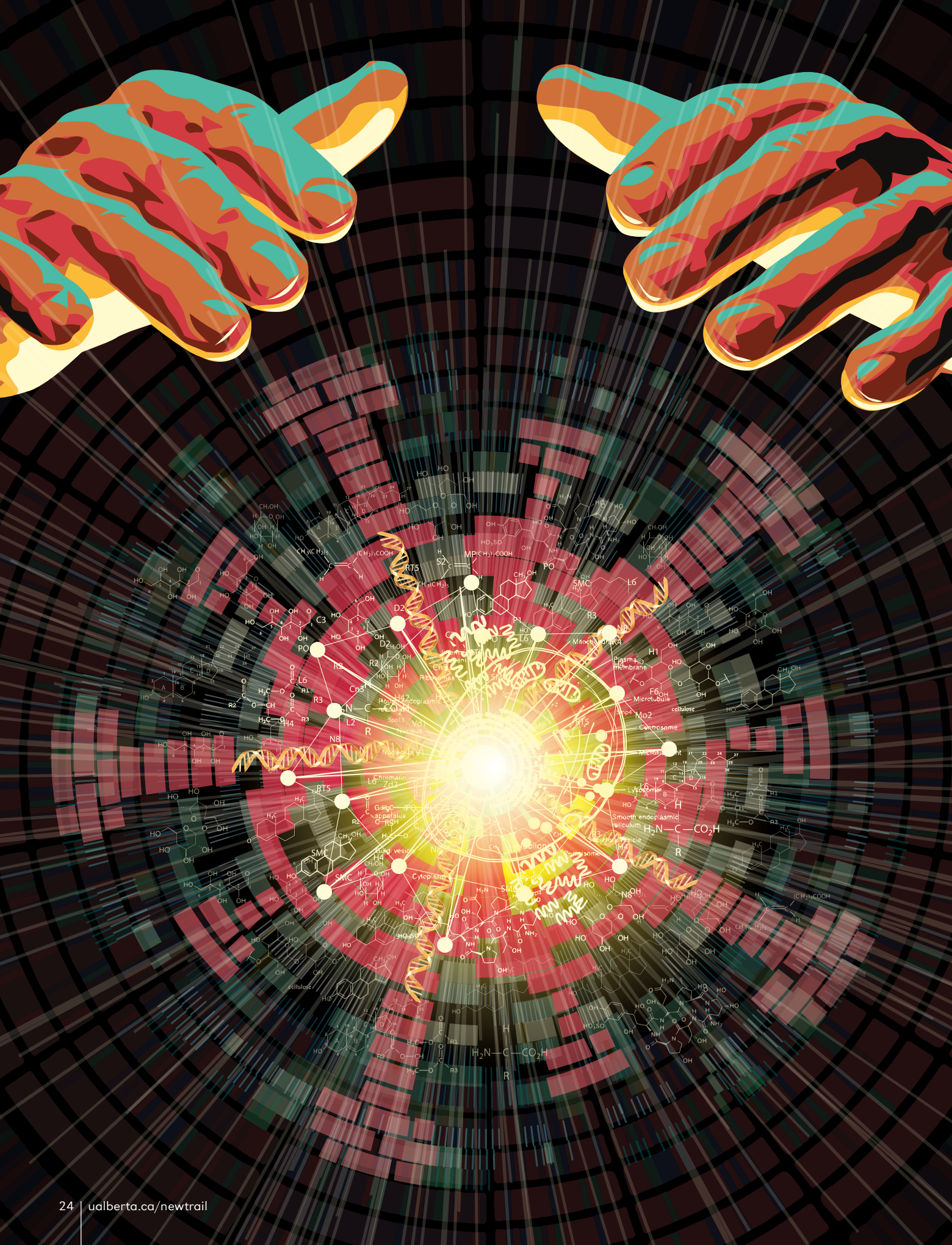
➔ Day #3

8 P.M. / I remind someone to wear their mask. They get angry and stomp on their crack pipe, sending glass all over the floor.

10 P.M. / Phew! Just finished moving people to a different hall and cleaning all their cots. It's hot — the face shield over the mask just locks in the heat.

11 P.M. / As more people are sleeping, I find a minute to chat with one of the nurses. We talk about how worried we are about our clients. We feel so helpless in trying to stop this.

This has been edited for length and clarity. For more, visit ualberta.ca/newtrail.



Instead of playing catch-up with the next new virus, precision medicine aims to let us find it early and deal with it swiftly

THE FUTURE IS PROACTIVE

By **Bruce Grierson**, '86 BA(Spec)

➔ On March 17, **David Wishart**, '83 BSc(Hons), fielded a call from Medellin, Colombia. A company called Quantrack had a job for him. The novel COVID-19 coronavirus had its hooks in the country. The Quantrack team figured that if Wishart, a professor of both biology and computing science, could make one of his famous heat-maps showing the virus galloping across the landscape, it would help Colombians understand the crisis in a way that raw numbers couldn't. It seemed a perfect application of the mapping technology. Wishart said yes, and his computing staff of four at The Metabolomics Innovation Centre got to work creating a data map, without charge.

By then infection and mortality data were pouring out of governments, health systems and universities all over the world. It appeared COVID-19 might be the disease the World Health Organization was preparing for when it put out a call in 2015 to the world's top virologists to propose methodologies for developing vaccines. Even the dreaded one that it dubbed "Disease X."

So, Wishart decided to scale up and expand the scope of the mapping project to the whole Earth. He called the interactive web tool Covidmapper.

By crunching data from multiple sources—government, universities, the WHO—he and his team created a kind of real-time snapshot of the ever-morphing moments that added up to the virus's global impact. With a degree of granularity normally available only to epidemiologists, the average citizen could see how fast this thing was spreading. And where.

A kind of magic ratio of 50-to-1 began to emerge from the data. Fifty negative tests for every positive test seemed to be a kind of tipping point:

countries that exceeded that ratio were in good shape. Indeed, by mid-April the death rates in those countries that hit the ratio were one-one hundredth of those countries that didn't.

But the true value of the Covidmapper technology was only just becoming apparent.

Wishart's team had tracked backward, retroactively filling in the picture right back to Jan. 1. That long runway made it possible to then track forward into the future. This thing, they realized, was a kind of crystal ball.

"It's predicting what's going to happen," Wishart says. To the great, unGoogleable question that was on everybody's mind in that moment—when can we resume our lives?—Covidmapper seemed to point toward answers. These are invaluable data, the kind that allow people not just to react, but to plan.

And planning is what this story is all about.

IN THIS PANDEMIC, we've all now seen what "we weren't ready" looks like: full lockdown, with an almost incalculable economic and psychological fallout. International borders slammed shut. Businesses shuttered. Civil liberties suspended. "This is a totally unprecedented situation," we've heard over and over again. There was no playbook.

But the public-health response actually was adhering to the playbook—the only one it knows: admit the sick, identify the disease, make a drug to treat it. Or at least try to keep people alive until the cavalry arrives in the form of a vaccine. "Medicine has always been reactive, just like our response to pandemics is always reactive," Wishart says.

The problem is, the cavalry may never show up. So few viruses have ever been quashed by safe and effective vaccines that some names come readily to mind. Polio. Smallpox. Mumps. Measles. Every research team working on COVID-19 knows it's bucking serious odds to come up with a vaccine in the 12- to 18-month window repeatedly stated as the goal. No one has ever done it.

John Lewis is one of the people hopeful that an unprecedented collective global effort will pull off the heretofore impossible. Lewis is a professor of oncology, a prostate

cancer researcher, and is helming a group working furiously on a COVID-19 vaccine. “Fear of our loved ones getting this thing,” as Lewis puts it, provides another level of motivation for researchers. He knows this more intimately than most. Lewis lost his father-in-law to kidney cancer in 2002 and it was the inadequacy of available tools for the job at the time that prompted him to pursue a career in genetic medicine. “I thought, ‘We can do better than that,’” he says.

Lewis, who also holds the Alberta Cancer Foundation Frank and Carla Sojonyk Chair in Prostate Cancer Research, has since staked his career on the promise of precision health care; his focus is personalized cancer medicines and vaccines. It’s part of an anticipated shift from generalized health care, based on population averages, to specific care aimed at the individual on the other end of the stethoscope. For Lewis, the future medical ideal will involve sequencing the genomes of every cancer patient and then very quickly designing medicines uniquely tailored to that person.

It’s that approach that the health-care biotechnology company headed by Lewis, Entos Pharmaceuticals, is applying to the COVID-19 challenge. As of late March, the lab had begun manufacturing vaccine candidates against the novel coronavirus and is in the process of testing in animal models before moving to human trials.

If Lewis is betting on the power of genetic science to help us eventually get the better of disease, Wishart is doubling down on a lesser-known human bio-map—one for which the U of A has become the world leader.

COURSING THROUGH THE BLOODSTREAM of you and me and all living organisms are small molecules called metabolites—smoke from the metabolic fire. Like the genome, each person’s metabolome, thousands of circulating compounds, is unique. Taken together, they amount to a kind of report card of your health right now, except that it’s in code. The patterns need to be algorithmically crunched to make sense and Wishart, who has invented several processes that make the metabolome easier to sequence, has effectively shepherded the metabolome into the scientific mainstream. He oversees The Metabolomic Innovation Centre, located at the U of A. The centre houses the Human Metabolome Database—an open-source archive of all known metabolites and their structures.

“We can tell more from the chemicals or the proteins in your body than we can tell from the genes,” Wishart says. “The genome tells you what might happen to you. The metabolome tells you what *is* happening to you.” Say, for example, you’re a 40-year-old woman who feels healthy; your metabolome might tell a different story. “It might say, ‘You’re trending toward diabetes in about 15 years.’” The metabolome could even help detect colon cancer from a urine test. To be clear, it’s not the cancer itself that the test picks up, but rather biomarkers of the disease. It zeroes in on a few key metabolites, measures their concentrations, runs them through an algorithm and determines whether you have cancer.

“My view of precision medicine is proactive medicine,” Wishart says. “It’s trying to say, ‘You’re predisposed to this,’ or ‘This is happening but it’s early stage so we can do something about it.’ That kind of information gives us agency.” These are proactive public health measures, he says.

The three “omics”—genomics, metabolomics and proteomics (the study of proteins in the body)—are the large-scale studies of very small building blocks of our bodies. In the future, all three will likely be marshalled in a kind of synchrony to help avert pandemics. How?

Well, think of what might happen if everyone had access to their own biodata. A device installed in the plumbing system of every home could analyze body waste for pathogens and send the results—zoop!—to your smartphone.

“That’s possible and even happening,” Wishart says. Indeed, the U of A is developing technology that is leading the world in metabolite analysis, and “smart toilets” are being developed in Japan, Europe and elsewhere. They’re not yet ready for prime time, but here’s how they could work.

“If you had something that could perform a quick chemical analysis before you flushed the toilet, you might see if you’re, say, developing pneumonia,” Wishart says. “And then see if it’s bacterial or viral pneumonia—which is very close to what COVID causes in people.” In a pandemic scenario, you might know early on when to self-isolate.

Knowing your risk factors can also help people make healthy decisions. “Who is dying from COVID?” Wishart asks rhetorically. “It’s generally people who have underlying conditions. In some cases, they don’t know that. ... But if you could do metabolomic tests on people, you might be able to detect those silent risk factors,” he says. “That is precision medicine. That’s identifying the risks and then deciding how you treat people in a proactive way.

“If we had those smart toilets, then *everyone* would probably have a risk profile. They’d know, oh, I’ve got these issues, and COVID’s hitting now, so I’d better stay in.”

This year, COVID-19 testing ramped up all over the world, resulting in unprecedented amounts of biodata. Paired with the kind of geodata now instantly available from smartphones, it amounts to a powerful tool to contain this pandemic—and possibly avert the next one. It’s easy to imagine the day not so far in the future when border agents can dial up an instantaneous risk profile of every individual before admitting them into the country. They could see an electronic breadcrumb trail of someone’s recent travels, or call up a traveller’s health status, medical history, proof that their vaccinations are up to date, how sleep-deprived they are, their vitamin D levels, alcohol consumption, even how they’re managing stress.

Of course, all that shared data comes at a cost.

“There are obviously ethical issues around data ownership, data collection, data sharing and, quite frankly, privacy,” says **Michael Van Manen**, ’04 BMedSc, ’05 MD, ’13 PhD, who holds the Endowed Chair in Health Ethics and is director of the John Dossetor Health Ethics Centre.

“Who owns personal health data? Does ownership reside with the individual from whom the data was taken, or with the organizations that collect and store the data? Who decides on the appropriate use of such data? What happens if data is used in a way departing from the purpose in which it was collected?”

Clearly, there are a lot of important questions, and we are only just beginning to tackle them. But Van Manen offers some considerations. For example, what’s the trade-off between privacy and the greater good?

“We will need to ask how do these technologies change the nature of our relationships with one another, our

responsibilities to one another, and of course, our existence within society.”

After all, Van Manen says, at its core, ethics is about how we live our own lives while being part of a community of others. Which is why even the discussion of basic human rights over the past few months—the right to open your business versus the rights of others to avoid the risk of increased community transmission—has been complex.

“We are entitled to many rights, and sometimes rights come in conflict with each other.”

IT’S WHAT HUMANS DO that so often produces what looks, down the line, like awful bad luck. This pandemic is not really about the unique terribleness of COVID-19. SARS was 25 times as deadly. Ebola was 70 times as deadly. What makes COVID-19 so dangerous is that it doesn’t sicken its host right away. It lurks in them undetected as they unwittingly pass it on. And in a globalized age, the “passing it on” is savagely efficient.

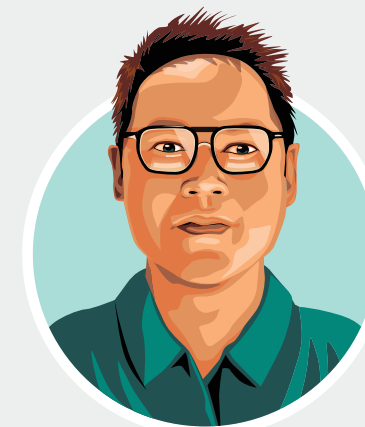
“It’s planes that made COVID-19 spread so quickly,” Wishart says. “Planes are basically missiles launching viruses around the world. If we’d had planes that flew that fast 100 years ago, it wouldn’t have been 50 million that died of the Spanish flu, it would have been 400 million. You could have been talking about an extinction event.”

In 2020, it was shared information, the advance notice, that made a difference, he says. “If we hadn’t understood where this disease was coming from and just lived our lives normally, if we hadn’t done anything—no social distancing at all—our numbers said by April 1 COVID-19 would have killed 40 million people. That’s how many people died of the Spanish flu over the course of a year. To take 40 million people off the planet in a month and a half: society collapses. Everything collapses.”

Now that we know first-hand the damage a pandemic can do, one would assume all world governments will make it Job 1 to ensure that something like this never happens again by rallying up a robust and nimble response protocol. Maybe you install walk-through fever scanners at every international nodal point—seaport, airport, international train station—and perhaps also in sports arenas, concerts halls, even shopping malls, Wishart suggests. You keep teams of epidemiologists on permanent standby, as Bill Gates famously envisioned, so the moment a disease outbreak is reported anywhere in the world, they’re parachuted in to test and contact-trace and nip the contagion in the bud. In effect, you create a kind of pandemic defence system. Meanwhile, you also work on improving the host: us. You leverage cutting-edge science to enhance the human immune system.

Perhaps the COVID-19 crisis is an opportunity. It’s the occasion for the pivot the world needs, from reactive to proactive medicine. ■

ILLUSTRATION BY DANIEL HERTZBERG



COVID-19 DISPATCH

Excerpts from the life of a Grade 5 teacher

Think holding a video meeting is tricky? Try it with 25 10- and 11-year-olds. **Chris Yiu**, ’00 BEd, is a Grade 5 teacher at Johnny Bright School in southwest Edmonton, who is teaching from home right now. His three children attend the school, too, which he sees as a bonus. His kids sometimes have differing opinions.

➔ Day #1

9:30 A.M. / I check in with my students via Google Meet. This is the best part of online learning—I really do miss seeing their faces. We talk about an assignment to write friendly letters to seniors living in a long-term care facility. Here are some choice excerpts of the letters that are perhaps a bit too blunt:

- ▶ I know you’re old and stuck inside.
- ▶ If you don’t make it, I know you’ll be looking down on us from heaven.
- ▶ Hopefully you have a device to talk to friends and family with. If not, even a phone will work. You just won’t be able to see them.

However, we also have these:

- ▶ Even though everyone is at home, there are still plenty of people thinking of you, including me.
- ▶ It might be sad not seeing your family members but just pretend that I am visiting you right now.
- ▶ Remember that your family is always with you even though they are not there.

1 P.M. / I have a video meeting with school administrators. Teachers are asking questions like: “How hard should we pressure parents whose kid isn’t doing work even if they have the technology at home?” Hard to answer amid so many unknowns.

➔ Day #2

9 A.M. / I open the morning email tsunami and, thanks to my flexible schedule, I can get my own kids going on their schoolwork. It makes me wonder if I’m expecting too much from my students’ parents.

➔ Day #3

8 A.M. / I record a video to go with the daily tasks I send my students. I’m getting pretty good at this.

2:30 P.M. / Work has been checked, emails have been answered. I’m done for the day. The weather is finally nice ... so it’s time to take advantage of working from home. My deck is calling.

This has been edited for length and clarity. For more, visit ualberta.ca/newtrail.



Illustrations by Fatinha Ramos

Photos by John Ulan

seeking hope

“Hope” is an overused word, but research in education, nursing and psychology is discovering how strong we become when we talk about it. And that we can learn how to find it

By Amie Filkow

MOST OF US KNOW

the myth of Pandora's box as the story the ancient Greeks told themselves to explain the presence of bad things in the world. Things like disease and pestilence were sent down as a "gift" with Pandora, the first woman. She was created by Zeus to blight humans and punish their creator, Prometheus, for giving them fire. But how many of us remember the part where, after all the other ills of the world escape, hope gets stuck in the box and remains behind? I sure didn't.


Even today, philosophers debate the meaning of that detail. If hope is the last of the evils, why did it get stuck? On the other hand, if hope is the remedy for evil, maybe it was being kept safe for us. Millennia later, we still can't agree on the meaning and role—even the definition—of hope. Throughout history and across disciplines, the concept has continued to raise questions. Does hope help us or harm us? Is it an illusion or a virtue?

When I started working on this story, the world hadn't heard of COVID-19. Since then, the virus has turned our lives upside down. But even before the pandemic, the word "hope" was so ubiquitous we couldn't have a polite conversation without it. You couldn't scroll far on social media before coming across #hopefor_____ (insert your favourite charity or crowdfunding cause). From cars to soap to pharmaceuticals to presidential elections, millions of dollars are spent on advertising campaigns that peddle hope because it appeals to our hearts even when our minds know better. Now, more than ever, the use—or should I say "misuse"—of the word risks making it meaningless. And yet, maybe we need it now more than ever.

As a university-educated, secular gen-X realist, I find it hard to take hope seriously. I mean, what's the point? Hoping my 11-year-old remembers his tuque will not keep his head warm at recess. Hoping my mother's breast cancer doesn't metastasize won't give her more time with her grandkids. Hoping the Earth's temperatures cool down won't slow rising sea levels. See what I mean? Silly.

So when I found out that the University of Alberta is a world leader in hope research, I wanted to know more. What is the value of hope and is it something we can learn? What I discovered is that hope is something we all have, whether we think we believe in it or not. Research is revealing that it can be a powerful tool for better mental health as well as a robust predictor of well-being.

From anxiety to aging to chronic pain, it turns out that hope is good for our health.

 **Denise Larsen**, '88 BA, '92 BEd, '95 MEd, '99 PhD, has studied hope for 18 years and can define it without hesitation: it's the ability to envision a future in which we wish to participate.

As a young elementary school teacher in the early '90s in Edmonton's inner city, Larsen met kids facing incredible obstacles. "We had children who were going through very difficult situations with parents with addiction, or where there was no food in the house, or where in the wintertime there was no electricity or heat," she says. "They would climb into bed after school to stay warm

and they would stay there until they got up in the morning to go to school. The family would all sleep in the same bed to stay warm."

One little boy, Jeremy, has never left her thoughts. "He just had the biggest, brightest smile the moment he'd see me," Larsen remembers. One day, while working one-on-one with Jeremy, she asked him how he got so many red marks along his arm. He told her they were burns from his mom's cigarettes. "It's how she woke him up in the mornings."

Larsen couldn't understand how Jeremy managed to stay so cheerful despite his trauma. "I began to wonder what hope looks like for children and what it is that allows them to stay so excited about life when it's that hard, particularly when a little one is so vulnerable."

She followed these questions to graduate school at the U of A, where she studied counselling psychology and worked with children and adults who had cancer diagnoses. "I would work with people who had very uncertain prognoses yet who seemed absolutely committed to engage in life and were insistent that they not be treated as if their situations were hopeless." It was yet another experience that turned her assumptions on their heads.

"Given what hope seemed to do for people, I began to be curious about what we could do to foster hope. How can we help people access it?"

Larsen couldn't have been at a better place to research hope and the ways it could help people. The U of A was at

"I began to wonder what hope looks like for children and what it is that allows them to stay so excited about life."

DENISE LARSEN

the forefront of hope studies under the leadership of **Ronna Jevne**, '70 BEd, in the Faculty of Education.

In Jevne's case, it was her work as head of psychology at the Cross Cancer Institute in the 1980s that first sparked her curiosity about hope. She was struck by the disconnect between the language of her profession and the language her clients used. "People didn't walk into my office and use the psychological jargon of our discipline like, 'Oh, my self-efficacy is weak,' she says. "They would walk

in and say, 'I don't know what to hope for anymore' or 'I never gave up hope.'" In her practice, she observed people who had lots of coping skills and support in life, and they still didn't act on their own behalf. "So I said, 'Something's missing, and I think that thing is hope.'"


Later, as a U of A professor, Jevne worked with community leaders to found the Hope Foundation of Alberta research lab in 1992. While others around the world focused on measuring hope and its effects, Jevne wanted to know

what hope looked like in practice. "What should a physician say or do differently if he wants his patient to feel hopeful? What do we need to do in schools if we want people to be hopeful?"

The foundation took the form of an integrated clinical, research and educational centre. It was one of the first community-university partnerships at the U of A. In 2003, Larsen took over as research director at what is now Hope Studies Central. She and her research team have developed and tested easy-to-learn and easy-to-implement strategies to build hope with students and clients. Their studies have examined the role of hope in many contexts, including schools, addiction clinics, medical clinics and the child welfare system, as well as in people with chronic conditions such as Parkinson's disease or chronic pain.

Nowadays, Larsen and the Hope Studies team speak publicly to more than 3,000 people a year—evidence of the deep thirst in our society for hope and for practical ways to apply it.

Those practical applications of hope are already taking root at a school in northwest Edmonton thanks to a U of A project.

 I'm trying to ignore my numbing fingertips and understand how a tree is a message of hope.

"We took a picture of one standing tree, surviving in the winters to last in the summer," says Raheem Chamberlin, 11. "It's committing to standing strong the whole winter. So in the spring and summer, it can get all its leaves back."

Raheem and his Grade 6 classmates are walking around their snow-covered schoolyard taking photographs of things that symbolize hope. The class is part of two U of A pilot projects in Edmonton working with the Strengths, Hopes and Resourcefulness Program (SHARP), research led by Larsen and Rebecca Hudson Breen, an assistant professor of counselling psychology at the U of A. The team is gradually developing resources and expanding the program within Edmonton Public Schools and beyond to other Edmonton-area schools. Eventually, materials will be available to schools across Alberta.





"[Hope is] way more than just getting up and keeping going. It's working together as a community and caring for each other," says Grade 6 student Raheem Chamberlin. His class is part of a U of A-led pilot project that teaches students to think and talk about hope.

The program teaches teachers and students how to foster hope in their lives and build resilience. For a long time, Larsen says, educators didn't believe kids could talk about hope. They argued it was too abstract to apply in the classroom. Remarkably, she and her team are finding that hope is exactly what kids should be talking about. "Hope holds meaning for kids," she says. Talking about hope is making explicit the need for kids, and for all of us, to connect, to cope and to find our strengths.

Raheem's teacher, **Amy Badger**, '01 BEd, sees the need first-hand. "Our kids are really struggling emotionally and it's manifesting physically," she says. "You have kids with headaches, you have kids with stomach aches. And they just don't cope. An 11-year-old is not developmentally able to cope with something like divorce or being bullied. They can't. They're not ready for it; they don't know how."


The SHARP model focuses on developing "soft skills,"

like critical thinking and resilience. Badger incorporates hope-focused learning activities into every subject on a daily basis. Listening, self-awareness, community service and reflection are the central pillars of a SHARP classroom. One lesson asks students to reflect on their own "hope suckers" — things that cause them stress and anxiety — and the strategies or "hopeful behaviours" they can use to feel better. Raheem says his hopeful behaviour is to "take a break and come back stronger."

Raheem is outgoing and articulate. He seems confident. And yet he's new to the school this year, his teacher tells me. He misses his old friends. Plus, he says, his dog was killed by a car last year, which was really hard for him. Learning about hope has not only made school more fun, he says, it has also made him more hopeful. He has learned that hope is more than resilience. "It's way more than just getting up and keeping going. It's working together as a community and caring for each other."

Badger, who has embedded hope in her teaching for close

to a decade, sees the impact every day. "They take it home with them. As a teacher you want everything to transfer to real life. But this is one of the things that really does connect to their real life."

 Jacki Newman knows that hope works. It saved her life.

Newman, a physiotherapy aide at the time, was diagnosed in 1993 with a rare nerve disease. Now known as complex regional pain syndrome (CRPS), it caused excruciating pain through her right arm and shoulder, pain so extreme that she couldn't work or care for her two young children. Doctors tried everything — pain medications, anti-seizure drugs, even

a nerve-blocking procedure — but nothing worked for long. One time she drove to the High Level Bridge in Edmonton planning suicide before thoughts of her husband and children made her turn back. Her husband had heard Jevne speak at a conference and urged his wife to see her.

At her first counselling session with Jevne, Newman was belligerent. She didn't think anything could work. After the third session, she told her husband, "She's going to save my life." The hope strategies varied. Once, Jevne took a photo of Newman holding a doll and asked her, "If you were a child, what would you say to this child?" Newman replied, "You can do this." Another time, Jevne asked Newman what her idea of hope was. "I realized I had no hope. So many doctors had taken it away from me."

It wasn't smooth sailing. There were setbacks, more thoughts of suicide. At one point, Jevne sent Newman to take photos that symbolized hope to her. She took one of a closed barn door, symbolic of closing the door on thoughts of suicide. Eventually, she started painting, writing and finding distractions from the pain. Today, she says, hopeful activities continue to give her the ability to deal with her illness.

"I have a chronic illness. I will never get better," she says. "But hope has taught me to live in the moment. It's the hope of enjoying the moment I am living. ... Physically it didn't make any difference. But it gave me the coping skills to understand what was happening with the pain in my body. I can make it worse by doing or feeling certain things. I learned to start protecting myself with hope. ... Hope is energy in your body."


Having Jevne and her family physician listen to her — empathize, not sympathize — was a key piece in her recovery, Newman says. She has joined Jevne on panels and lectures for nurses, physicians, graduate psychology students and others to help them understand the value of hope. "I don't want sympathy or pity. I want to inspire people to find their own hope and to live a good life even if you are in pain. Because it's possible."

The skills she has learned are still helping her cope, even as her children

"I learned to start protecting myself with hope. ... Hope is like a life jacket that is keeping me afloat."

JACKI NEWMAN

and husband have encountered health challenges of their own. "Hope has allowed me to draw on my strength and keep the family going. Hope is like a life-jacket that is keeping me afloat."

 Despite stories like Newman's, not everyone is convinced about the tangible benefits of hope.

"There are people who don't believe that hope is an asset, rather that it gets in the way, sedates people into inaction," says Larsen. Research, hers and others', refutes that idea. In 2014, for example, her team facilitated a hope group with chronic pain sufferers, a population that often struggles with depression and self-isolation. After a six-week intervention, the participants had an enhanced sense of hope and a decreased focus on the problem.

"The problem didn't go away — and we never promised that it would — but they actually engaged in life. They self-reported going out and doing more things, becoming more involved, becoming more engaged," says Larsen. A similar trial published in 2019, led by Larsen and Janis Miyasaki of the Department of Medicine's Parkinson and Movement Disorders Program, used the SHARP model with people with Parkinson's disease and yielded similar results.

The bottom line, Larsen says, is that although hope may have a soothing quality, it's not passive. On the contrary, it's highly motivating. "When we can imagine a future that we hope to participate in, we're energized."

We're mobilized to take action to do something different."

Jevne believes some of the skepticism comes from the intangible nature of hope. "You can't draw blood and see whether people have it," she says. While quantifiable tools to assess people's hope, such as the hope scales, have been used by practitioners and researchers for decades, Jevne says hope is best identified and understood through observation and narrative, which don't always satisfy the quantitative research paradigm.

"We keep trying to put it in a box. You can't put it in a box. You can't wrap it. But you can know components. You can know aspects of it."

And as research provides more and more quantitative evidence that hope does work, physicians and scientists are coming to see its potential as powerful medicine.

"It's backed by evidence," says Peter Silverstone, a U of A neuroscientist and psychiatry professor who researches mood, anxiety and self-esteem. "The science is clear that hope or optimism impact many medical outcomes as well as psychological outcomes. ... Those patients who have greater hope or optimism tend to do better in terms of clinical outcomes."

One of the big questions is how hope alters our brain chemistry. Scientists know that certain regions in the brain are involved in a variety of emotional states, but there is still much to learn about how those emotions work, Silverstone says. "Understanding emotions scientifically is very hard. We cannot yet, for example, even understand very profound psychological changes in the brain. I cannot point to a brain or a scan and say, 'This defines schizophrenia or bipolar or major depression or attention deficit disorder or obsessive-compulsive disorder.' So it's no surprise that we can't define less 'hard' concepts such as hope and optimism." Silverstone predicts our understanding will grow tremendously in the coming years, thanks to big data and developments in artificial intelligence.

"Over the next 10 years, maybe 15, we are going to see dramatic increases in our understanding of what may



REFLECTIONS ON FLIGHT PS752

With the small amount of solace I can offer,
I myself am comforted at heart

By Pegah Salari, '08 MBA

FOR IRANIANS, the spring equinox marks the beginning of our new year. We celebrate the moment the Earth finishes another trip around the sun and families come together. Common belief is that whatever you do at that moment determines how your whole year will turn out. This year, in the weeks leading up to the new year, I didn't have my usual feeling of anticipation. Snow piles got smaller and days grew longer. But this year, spring and its sense of hope felt so far away.

I sat down to write about how to find hope and fuel it within myself—a challenge for sure. On Jan. 12, I had been the MC for a memorial event at the Saville Community Sports Centre to honour the victims of Flight PS752, the commercial airliner shot

underlie both mental health issues and the way people think," he says. "We're starting to marry the power of artificial intelligence with the extreme amounts of information captured in more detailed imaging techniques. We're just at the cusp of that."

 **Wendy Duggleby**, '90 MN, came to hope studies through death.

As a registered nurse living in Texas in the 1990s, Duggleby was also doing doctoral research on the experience of

pain in elderly hospice patients. One day she went to interview an 80-year-old man. "I took one look at him and I thought, he's not doing well." She offered to return in a few days, but he insisted on doing the interview. "I won't be here in two days," he said. Duggleby could tell he wanted—needed—to tell her something. His words jarred her. "I don't have much pain because I have hope." Two days later the hospice co-ordinator called to tell her he had died. She was the last person to speak with him.

down by the Iranian military a few minutes after takeoff from Tehran. Aboard were hundreds of people, 13 of them with close connections to the U of A. The crash and memorial service had left me drained and hopeless. It felt as if the tragedy got bigger once the public mourning period ended.

Then the world was hit by COVID-19, and hugging became a thing of the past. I think about how much lonelier mourning has become. All events and celebrations of the Iranian new year were cancelled to help flatten the curve and stave off the virus. Not that anyone was in the mood to celebrate, anyway.

In the weeks following the crash, before COVID-19 changed the world, I would find myself driving to work thinking about how many lives turned upside down in minutes. I would relive the moment I first heard the flight number "PS752." How hard it must be for the victims' close family and friends, I thought, if it has been this hard for me.

The first equinox after someone's passing is the hardest for the grieving family in Iranian culture. Maybe that's why I didn't want to think about spring this year.

I dragged myself to work, desperate and empty, the world around me dark. I dreaded reading the news. Nothing good had happened in what felt like a lifetime. When I did read the news, there

was word of a bad virus going around Iran. As Iranians, we are used to going from one tragedy to another. After PS752, though, I was too emotionally drained to move on. But the truth is, life doesn't care about how ready we are to deal with distress.

One morning as I was reading the news, a headline caught my attention: "How mattresses could solve hunger." It was a video about Syrians living in the Zaatari refugee camp in Jordan—where soil is so salty that nothing grows—growing food in old mattresses using only a small amount of water and recycled foam. These refugees had been farmers in their pre-war lives. Living in Zaatari must have felt like losing their essence. I listened as they talked about how hard it had been to go from being farmers to refugees.

But they obviously had not given up.

It felt as if a crack started to open on the wall of a dark room, letting the light in. A tiny ray of light brightened the room enough for me to remember. Remember that I used to be a positive person. What had happened to me?

I guess sadness doesn't always occur suddenly. It creeps up. When we lose hope, we become like a forgotten plant. I looked at the little pot of wilted daffodils, a gift from my co-worker after the plane was shot down. I got up

to get some water. I thought of the people around me. So many had reached out after the crash, I lost track of the condolences. As I poured some water in the pot, I reviewed in my head every hug, email and card. There were so many.

And I realized how important it is to step back from sadness and remember each person who offered support. I had been surrounded by these invisible circles of people in my different communities, trying to help me through. My friends, my work, the U of A, the city, my gym even! As I watered the pot of daffodils, I pictured how hopeless those Syrian farmers must have felt before they started to grow food again.

The daffodils perked up. Maybe I came back to life a little bit, too.

I started to feel a bit better every day. The sadness wasn't entirely gone, but it had stopped governing me. I'd always believed that life is bigger than death, all I had to do was to remind myself of that. I can't imagine how I would feel today if I didn't belong to all these concentric supportive circles, coming together the way they did.

Dealing with the new reality of our socially distant life, I've been able to play a leadership role and help other people through this trying time. Every day I reach out to some of my friends and colleagues to help them feel connected.

Because that is the secret: staying connected. It has not been easy living without the hugs or physical presence of our friends, but there are many other ways to be there for each other.

I'm trying to be part of those support circles for others. My effort may be virtual, but it is caring and honest. This is how we withstand grief. I like to think that I am surrounded by these concentric circles and the centre is me! To mark the hundredth day after the crash, I wrote a poem, recorded myself reading it, and sent it to the association of families of victims of Flight PS752.

I joined their circle of support and, with the small amount of solace I can offer them, I myself am comforted at heart.

The mix of adequate water and sunlight has brought my daffodils back to life just as all the love and hope did for me. It's April now and it's OK if I'm in isolation and it's OK that I haven't seen my friends. I'll be ready for the day they all come back. I will have blooming daffodils and, in the dark days, I'll look for a crack on the wall to let light peek through. ■

Pegah Salari came to Canada in 2006 to take her MBA at the U of A, specializing in natural resources and energy. She has been working in senior leadership roles with Emco Corp. since 2011. She loves working with and writing about people.

His revelation flew in the face of the assumption that people who are dying don't have hope. It inspired Duggleby to turn her attention to hope and its role in end-of-life care. She set out to define the phenomenon and figure out a way to help other people find their hope.

"Hope is the possibility—not an expectation—of a better future, but that future can be defined in moments," she says. "For someone who's dying, it might be: in the next couple of minutes I'm going to be able to breathe better, or I hope to see my family, or I hope to talk to my family, or I hope that my wife is going to be OK after I die."

Duggleby is now a professor and, until recently, was research chair in aging and quality of life in the U of A Faculty

of Nursing. Her studies and pilot projects have worked to better understand hope and the role it plays for patients, families and caregivers dealing with chronic illness, dementia, Alzheimer's disease or terminal illness. Just like studies into new pharmaceutical treatments, these studies use randomized control trials and other proven research methods. The goal has been to create tools and strategies to help people cope on an individual level and also help health professionals and long-term care facilities better care for their patients.

Her research with hundreds of hospice patients has found that the biggest barrier to hope is their uncertain futures. And so she encourages them to plan the future in small moments. One man planted a tree. One woman wrote letters to her family

and hid them in her house to be found after she died. Another woman wrote a thank-you note in her community newsletter. One woman in palliative care started to knit. "Her daughter was pregnant and she didn't know if she'd be alive when the baby was born, but she was wanting to leave this. And she talked about how that gave her hope," Duggleby remembers.

These examples are from participants in Duggleby's Living With Hope research project, an initiative to evaluate the effect of psychosocial interventions in palliative care patients. The research has identified strategies, tools and exercises people can use to find hope. The activities help palliative patients

find meaning and purpose in their lives and decide what is important to them. Duggleby has also developed a Living With Hope program to help family caregivers of people in palliative care.

An important component of the Living With Hope program—which is available for anyone to access and apply to their own lives (see Learn More on page 38)—is to actively recognize, allow and encourage hope. "We can go a long way just by making hope more obvious and making it a part of what we talk about," says Duggleby. "When we don't look for hope or when we negate others' hope, we actually lessen their joy."

She says each of us will find hope in a different place because it's a personal

HOW TO FIND HOPE

We could all use a little hope in our lives. These tactics, developed by the U of A's Hope Studies Central, are backed by decades of research in classrooms, hospitals and elsewhere.

Notice where hope is in your life:

Be alert to your feelings of hope and, conversely, times when your hopeful attitude is threatened. The tiniest thing can spark hope: the smell of cookies baking, a kind word. When we make a conscious decision to orient ourselves toward hope, we find more of it.

Actively look for it: Make it a mission to find things that represent hope for you. Watch for them during everyday activities or take a "hope walk" and look for objects that symbolize hope. With practice, you'll get better at remembering to focus on hope.

Find stories from your past: Look at photos and identify which pictures give you hope. Tell the stories that go with them. Finding evidence of hope in our past reminds us it's possible again in the future.

Keep reminders of hope nearby:

For example, what image is on your screen saver? Does it symbolize hope for you? What image might you choose?

Reframe your thinking: Think about what's most important to you today. Acknowledge the difficulties you face and consider the future in ways that highlight your strengths and the possibilities in your situation.

Identify your hope heroes: Who symbolizes hope for you? What makes you consider them that way? What have you learned from them?

Surround yourself with hope:

Choose to spend time with people who lift you up and help you see your strengths and abilities. If you're feeling hopeless or uncertain, tell someone.


You can find other exercises in the book *Finding Hope: Ways to See Life in a Brighter Light (2nd ed.)*, by **Ronna Fay Jevne**, '70 BEd, and **James E. Miller**.



Subith Selvathurai said in a project for Amy Badger's class that this anonymous quote helps motivate him: *It's going to be hard, but hard does not mean impossible.* "This gives me a bit of hope that this problem [COVID-19] won't last forever and that we can solve this."

journey. "Hope is about small things, not about big things," she says. It's about looking at the things you can control. Who will you choose to talk to? What music will you listen to? Is there one small thing you can do today that would give you hope?

"Through all the studies I've done, hope is so essential," she says. "It's highly, significantly correlated in a positive way with our well-being and our quality of life."

 I don't consider myself a spiritual person. So it's probably just a coincidence that my last interview for this story was with a spiritual counsellor. Named Augustine. On Christmas Eve.

Augustine Parattukudi is a registered psychotherapist who teaches counselling psychotherapy at St. Stephen's College on the U of A's North Campus. Born in southern

India and raised Catholic, Parattukudi grew up surrounded by religion. He remembers waking up every morning to the woven sounds of church bells, Hindu temple music and the Islamic call to prayer. He studied theology and philosophy and took a particular interest in Buddhism and its emphasis on compassion, which led him to the counselling profession, first as a hospital chaplain and then as a registered therapist.

When I started researching hope, I wondered how researchers were able to carve out an investigative space for hope that didn't include faith. But even Parattukudi does not link hope to any one faith. "For me, hope is much more existential," he says. "It is beyond a spiritual or religious language. It's the essence of human living and is just as true as suffering. It's as true as any human experience. I think hope is just sort of language for the next moment."

We all have hope but sometimes we need each other to help find it, Parattukudi says, because hope is not a product you can build or borrow. It's something you have to experience or awaken to through human connection and compassion. "Cultivating hope is cultivating human connection."


Even those who appear hopeless may not be, which is why it's important to seek it out and talk about it. Even the act of going to a therapy session is hopeful, he says. "When a person

says 'I'm hopeless,' they are really looking for someone to help. They're actually speaking the language of hope."

This reminds me of a story Larsen shared. One of her studies asked clients to watch a video of a recent counselling session they had attended. They were then asked by the researcher, who was not their therapist, to stop the video at the moment they most felt hope. "One of the first places they find hope is when the therapist really listens to the problem and takes them seriously," Larsen says.

Connection is recognized in nursing, education and psychology as important to build hope. In that connection is communication: being explicit about hope, sharing why we need it, when we feel we've lost it and how we might find it again.

"That is a true source of hope," says Larsen. "To be heard and understood."

 I thought writing this story would make me more hopeful. I was only half right. I remain suspicious but I've come to see hope in a new light.

The hope I am taking away from this story is the hope of school kids who cope with sadness and anxiety, the hope of people who talk through their depression, and the hope of hospice patients who wake up each morning and live.

This hope is not a cure-all. It's a mindset. It's an orientation, as Jevne puts it. "Because if you're oriented to the world by fear, you're always looking for what you're afraid of, what could hurt you," she says. "If you're oriented towards hope, you're looking for what might make a difference."

I see now that people can learn how to find hope, even in the most drastic situations, and that it's a powerful tool, especially when placed in the hands of the helping professions. Trailblazers like Jevne, Larsen and Duggleby have forged ahead, even in the face of resistance, to better understand hope because they have seen the impact first-hand. Their work shows that hope is rooted in connection. And that we take hope for granted, or even dismiss it, when it is exactly the thing we should be talking about.

The more we understand hope—how it works and how to talk about it—the more we can learn and teach how to be resilient in the face of whatever the future brings. ■

LEARN MORE

HOPE STUDIES CENTRAL

Includes a research database and handouts such as "Hopeful Things Others Want to Hear" and "Hopeful Things to Say to a Child." sites.google.com/a/ualberta.ca/hope-studies/

LIVING WITH HOPE PROGRAM

Includes research, resources and videos for people living with cancer, dementia and terminal illness, as well as their family caregivers.

www.nurs.ualberta.ca/livingwithhope

TEXT4HOPE

A free service that sends subscribers a daily text with a short message of encouragement. It was developed by Vincent Agyapong, clinical professor in the U of A's Department of Psychiatry. To subscribe, text COVID19HOPE to 393939. mentalhealthfoundation.ca/text4hope

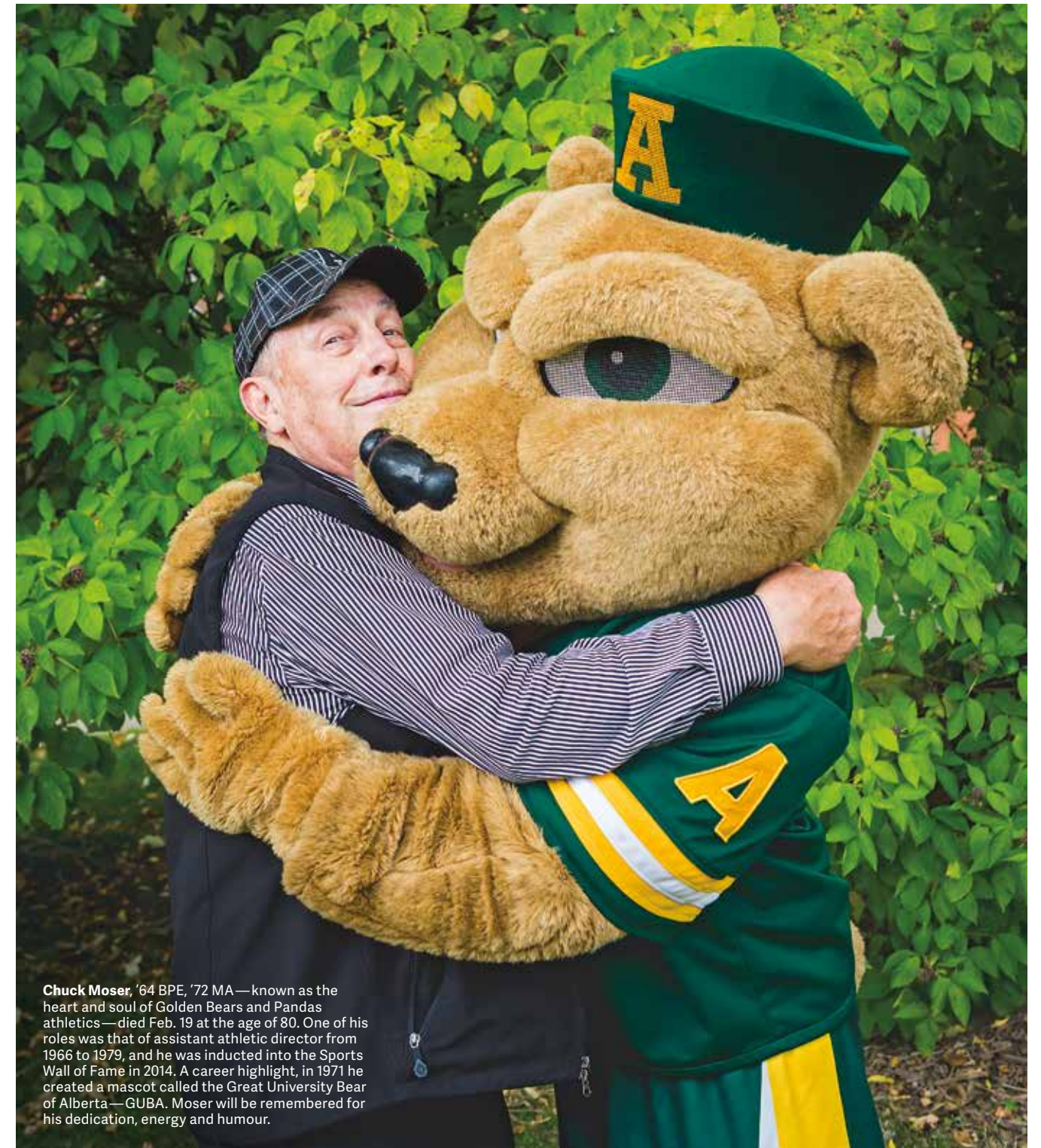


Megan Hong, a student in Amy Badger's Grade 6 class, chose a Dolly Parton quote for a project about hope: *If you want a rainbow, you gotta put up with the rain.* "The rain symbolizes to me COVID-19 and being isolated," Hong wrote. "The rainbow symbolizes when everything is almost back to normal, like I can go back to school and socialize with friends."

LAUGHING DOG PHOTOGRAPHY

trails

WHERE YOU'VE BEEN AND WHERE YOU'RE GOING



Chuck Moser, '64 BPE, '72 MA—known as the heart and soul of Golden Bears and Pandas athletics—died Feb. 19 at the age of 80. One of his roles was that of assistant athletic director from 1966 to 1979, and he was inducted into the Sports Wall of Fame in 2014. A career highlight, in 1971 he created a mascot called the Great University Bear of Alberta—GUBA. Moser will be remembered for his dedication, energy and humour.

Books



Check out new books by U of A grads, including the history of a Canadian feminist magazine and the real-life story of one bear's adventure through the town of Jasper.

Compiled by *Lisa Szabo*, '16 BA

▼
MEMOIR
I, the Woman, Planted the Tree: A Journey Through Dreams to the Feminine, Book I
by **Pearl E. Gregor**, '73 BEd, '84 MEd, self-published

In a memoir, Gregor details how meditation, dream analysis and journaling helped her cope with clinical depression.

▼
PSYCHOLOGY
Jungian Music Psychotherapy: When Psyche Sings
by **Joel Kroeker**, '01 MA, Routledge, routledge.com

Kroeker offers an introduction to "archetypal music psychotherapy," his approach to using music in psychoanalysis.

▼
EDUCATION
The Joy of Teaching! A Collection of Inspiring Moments & Memories
by **Ray Suchow**, '90 BEd, self-published

A teacher writes about his career and the honour and joy he experiences in educating the next generation.

▼
DATA ANALYSIS
How Qualitative Data Analysis Happens
edited by **Aine Humble**, '92 BSc(HEc), '95 MSc, and **M. Elise Radina**, Routledge, routledge.com

Social science researchers describe their processes for analyzing complex data,

revealing how they arrive at their themes and conclusions.

▼
HEALTH
The Guide to Optimizing Recovery After Prostate Cancer Surgery
by **Sam Hughes**, '08 MSc, self-published

A licensed physiotherapist offers strategies for patients to become informed and empowered before and after surgery.

▼
CULTURE
Shakespeare On Stage and Off
edited by **Kenneth Graham**, '81 BA(Hons), and **Alysia Kolentis**, McGill-Queen's University Press, mqup.ca

This essay collection considers why Shakespeare is still relevant today and how artists are interpreting his work for the 21st century.

▼
MEMOIR
Dad, God, & Me
by **Ralph Friesen**, '73 MA, self-published

The son of a Mennonite minister tells the story of his father's life and recalls his own crisis of faith.

▼
NON-FICTION
From the Heart: A Manifesto
by **Dennis Perrier**, '72 BPE, '73 Dip(Ed), '83 MEd, self-published

In anecdotes and bullet points, Perrier shares his personal

opinions on topics such as politics, public education, partnerships and parenting.

▼
CHILDREN'S LITERATURE
Cinnamon Bear Comes to Town
by **Liz Olsen**, '86 BA(Spec), '93 MA, illustrations by **Rico (Satoko Naito)**, the Municipality of Jasper

Inspired by a true story, this picture book shares the adventures of a cinnamon bear that made its way through the town of Jasper one autumn day.

▼
HISTORY
Feminist Acts: Branching Out Magazine and the Making of Canadian Feminism
by **Tessa Jordan**, '06 MA, '12 PhD, University of Alberta Press, uap.ualberta.ca

Jordan examines the history of *Branching Out*, a second-wave feminist magazine from the Prairies, which was published between 1973 and 1980.

▼
NON-FICTION
The Difficult
by **Stan Dragland**, '64 BA(Hons), '66 MA, Pedlar Press, pedlarpress.com

In a series of ruminations about writing, Dragland explores how readers can approach challenging literary works.

▼
HEALTH
Wisdom Engaged: Traditional Knowledge for Northern Community Well-Being
edited by **Leslie Main Johnson**, '93 MA, '97 PhD, University of Alberta Press, uap.ualberta.ca

In this collection, the voices of elders, healers, physicians and scholars come together to demonstrate how Indigenous

and western medicine can complement each other.

▼
CULTURE
Power Play: Professional Hockey and the Politics of Urban Development
By **Jay Scherer**, **David Mills** and **Linda Sloan McCulloch**, '03 BScN, University of Alberta Press, uap.ualberta.ca

Three authors delve into the politics that helped build Edmonton's Rogers Place and the Ice District, exploring rumours of manipulation and secret deals.

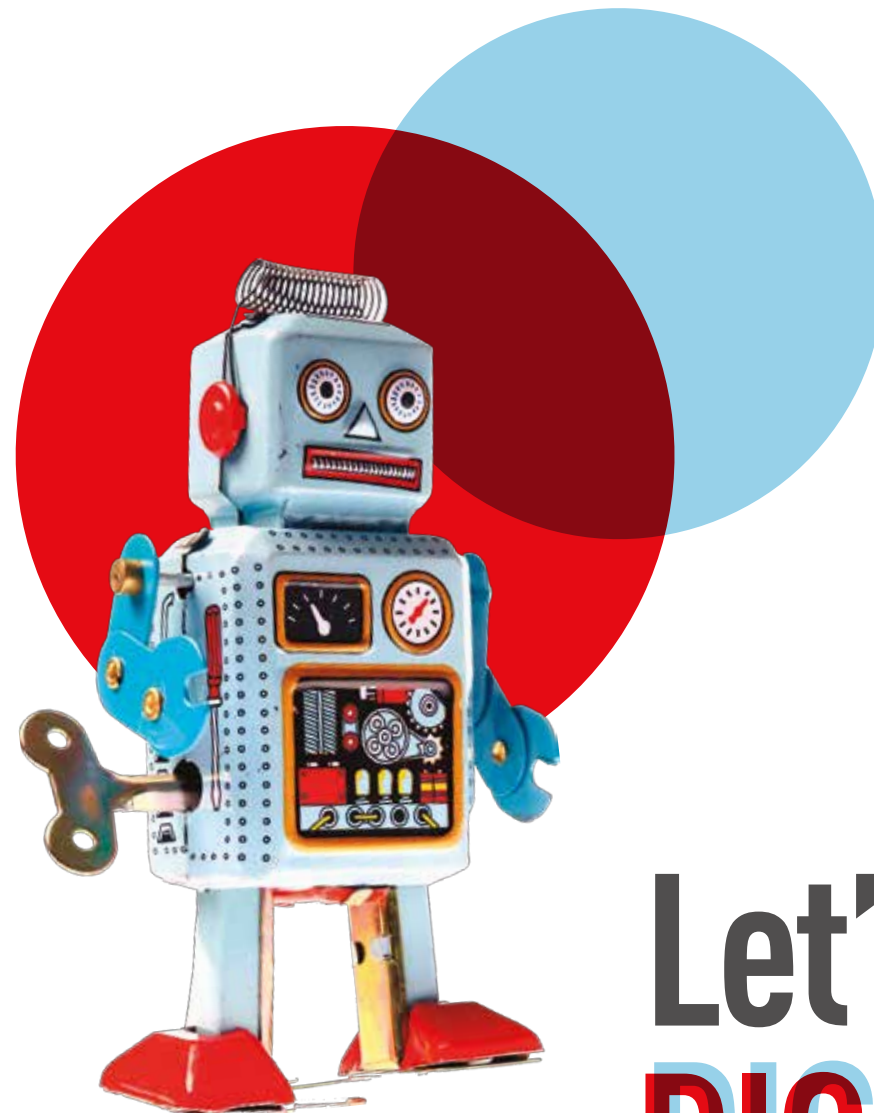
▼
POETRY
Poems From Life as it Happens
edited by **Jane Ross**, '65 Dip(Nu), Battle River Books, battleriverarts.ca/books

This collection of poems celebrates the culture, creativity and landscape of Battle River, Alta.

▼
THRILLER
Mirror Image
by **Patricia Trudeau**, '77 Dip(Ed), Austin Macauley Publishers, austinmacauley.com

Mirror Image is the seventh and last novel in the Agnes Carroll mystery series, as the author, Trudeau, died in February.

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Compiled by **Lisa Szabo**, '16 BA

Class Notes

1940s

'48 **Gwen Molnar**, Dip(Ed), '49 BEd, '78 BA, and **Barbara Hartmann**, '86 BA, recently received a 2019 Alberta Book Publishing Award for their children's book, *Bygumbo*, which the women wrote and illustrated, respectively. Molnar and Hartmann are delighted with the book's reviews, including one from the awarding body, the Book Publishers Association of Alberta, which called

Bygumbo "gorgeously presented, lyrically composed and sure to capture the hearts and imaginations of its young readers."

1950s

'53 **Joyce Cutts**, Dip(Ed), '54 BPE, took home a silver medal in the 85-plus ladies doubles at the 39th International Tennis Federation Super-Seniors World Individual Championships in Croatia in September. She has competed



DID YOU KNOW?

Cecil Scott Burgess, '58 LLD (Honorary), was the first and only architecture professor at the U of A. He was appointed professor in 1912 and designed several buildings, including Ring House 2 on North Campus.

Gwen Molnar (left) and Barbara Hartmann show off their new book.



Stewart Cohen

1970s

in tournaments all over the world, including Australia, New Zealand and Turkey, and she intends to compete in Spain in October.

'72 **Ellen Schoeck**, BA(Hons), '77 MA, is solidifying her role as the U of A's unofficial historian. Her most recent book, *Born to Build*, a history of the Faculty of Engineering at the U of A, has just been published, and she is working on two more: a history of Lister Hall and the older residences from 1911-2020, as well as a book about the Students' Union and Graduate Students' Association. Her previous history books, *I Was There: A Century of Alumni Stories* and *A Century of Campus Maps*, are referenced often around the *New Trail* office.

'77 **Stewart Cohen**, MSc, has retired from Environment and Climate Change Canada, where since 1984 he researched the effects of climate change. Over the course of his career, he contributed to several publications by the Intergovernmental Panel on Climate Change and wrote a book, *Climate Change in the 21st Century*, published by McGill-Queen's University Press. He blogs about climate change on his website, doctorclimatechange.com.

'77 **Kirpa Koundal**, PhD, wrote to say he has retired

Golden Oldies

The Old Golden Bears won the annual Ed Zaharichuk Hope Challenge Hockey Days tournament last December. The team brought together alumni athletes from 1966-1975 to play in the charity tournament, which was hosted by Edmonton Vintage Hockey.

Front row, from left: **Sam Belcourt**, '68 BCom, '81 Dip(Ed); **David Vinge**, '79 BEd; **Randy Smith**, '74 BEd; **Dave McIntyre**, '72 BSc(MetEng); **James Glasgow**, '75 BEd; and **Paul St. Cyr**, '73 BEd, '83 Dip(Ed); Back row, from left: coach **Barry Richardson**, '73 BPE, '74 Dip(Ed); **Jim Seutter**, '69 BEd, '77 Dip(Ed);

Randall Phillips, '77 BPE; **Marcel St. Arnaud**, '74 BEd; **Jerry LeGrandeur**, '74 LLB; **Harvey Poon**, '71 BEd; **Dennis Zukiwsky**, '71 BEd, '85 MEd; **Gregory Wilkes**, '69 BPE; **James Ofrim**, '77 BEd; **Dan Bouwmeester**, '71 BA, '72 Dip(Ed); **Bryan Sosnowski**, '76 BPE, '97 BEd; and coach **Dick Wintermute**, '63 BPE, '66 BEd



from his position as joint director (research) of the Indian Agricultural Research Institute in New Delhi, where he lives. Koundal's career in plant biochemistry included time as a professor of molecular biology and biotechnology, as well as the director of the National Research Center on Plant Biotechnology in New Delhi. "I always cherish the memories and friendships we developed as students while pursuing our degrees at the U of A."

'78 **Barbara Ward**, BMedSc, '80 MD, is retired from radiology but not from class organizing.

She is helping plan the Faculty of Medicine's class of 1980 reunion this fall. Learn more and connect with former classmates by joining the U of A Medicine 1980 group on Facebook.

'79 **Patti Hill**, BEd, '85 MEd, '00 PhD, was elected third vice-president of Lions Clubs International at a convention in Milan, Italy, last July. While fulfilling this volunteer role, Hill continues to work in Alberta championing the social and educational needs of children and youth. She hopes to assume the role of president in July 2022

at the Lions International Convention in New Delhi.



Patti Hill

ILLUSTRATION BY WENTING LI

Nikolaus Demiantschuk



'79 **Jeff Harries**, BA, is a family physician in the Penticton, B.C., area championing better treatment for alcohol use disorder, the medical diagnosis for problems with drinking. He has delivered over 120 talks to more than 3,000 clinicians on how medications can be used to effectively treat people with AUD. He recently won a Quality Award from the BC Patient Safety & Quality Council for this work.

'79 **Athanasios "Tom" Tavouktsoglou**, MSc, recently retired after 37 years as a professor in the Faculty of Science at Concordia University of Edmonton. He continues to be active in his role as a professor emeritus and volunteers for his

church and other societies. He divides his time between Canada, England and Greece.

1980s

'80 **Richard Aistrophe**, BPE, recently became the new assistant principal at Montgomery High School in Santa Rosa, Calif.

'81 **Borys Sydoruk**, BSc(Pharm), was honoured with the Shevchenko Medal at the XXVI

David Warwick and his daughter Robin Warwick Ermel



Strong Starters

Last October, Avenue Edmonton and Avenue Calgary named 24 U of A alumni in their annual Top 40 Under 40 lists. From singers to scientists, these grads are doing great things across the province.

Matt Anderson-Baron, '13 BSc, '19 PhD; **David Bridges**, '05 BSc; **Adam Brown**, '12 BCom, '18 MBA; **Sable Chan**, '08 BSc, '12 MSc; **Rehana Chatur**, '03 BMedSc, '04 MD; **Sheldon Croome**, '10 BCom; **Debraj Das**, '12 BMedSc, '13 MD, '19 MSc, '19 PostgradCert(MedEd); **Zita Dube-Lockhart**, '08 BA; **Laura Kinghorn**, '07 BCom; **Alexis Ksiaskiewicz**, '03 BA(Hons), '06 MA; **Jillene Lakevold**, '06 BCom; **Jonathan Lay**, '07 BSc(CivEng); **Haidong Liang**, '14 PhD; **Christopher Lloyd**, '11 BSc(ChemEng); **Tyson Mastel**, '03 BEd, '11 MEd; **Garret Matteotti**, '05 BA; **Qaasim Mian**, '17 BMedSc, '18 MBA, '18 MD; **Giang Nguyen**, '05 BSc(CivEng); **Richard Oster**, '05 BSc(Nutr/Food), '13 PhD; **Farida Saher**, '05 BSc(Dent), '07 DDS; **Naomi Stefura**, '03 BCom; **Matthew Stepanic**, '12 BA(Hons); **Kate Storey**, '07 PhD; **Sharon Yeo**, '05 BEd

Triennial Ukrainian Canadian Congress Awards Banquet in Ottawa last November. The Shevchenko Medal is the highest recognition granted by the congress and recognizes people, institutions and organizations for exceptional contributions to the Ukrainian-Canadian community. Sydoruk was recognized for his work raising awareness of the Holodomor—the genocidal

famine in Soviet-governed Ukraine—and Canada's first national internment operations of 1914-20.

'81 **David Warwick**, BSc, '83 DDS, wrote to say that he and his daughter, **Robin Warwick Ermel**, '10 BSc(Dent), '12 DDS, along with two colleagues recently penned a widely read paper in the *Journal of Occupational Medicine and Toxicology*. Their study unveiled a

Grads Recognized for Excellence

Malcolm "Col" Sissons, '75 BA, '76 Dip(Ed), and **Beckie Scott**, '14 LLD (Honorary), were inducted into the Alberta Order of Excellence last October. Sissons was recognized for his heritage advocacy work in the clay brick industry, and Scott for her career as an Olympic cross-country skier and anti-doping advocate. The order is the Province of Alberta's highest honour.

previously unrecognized source of mercury exposure when working with dental amalgam and showed that current techniques to measure this exposure are ineffective. Warwick believes this discovery has the potential to make dentistry safer for the environment, dental workers, students and patients. He and his daughter practise dentistry in their hometown, Hanna, Alta.

'83 **Nikolaus Demiantschuk**, LLB, has been the honorary consul for the Republic of Austria in Alberta since 2001 and became honorary consul general in 2015. In November, the Austrian ambassador to Canada presented him with the Grand Decoration of Honour for Services to the Republic of Austria in recognition of his more than 18 years of service. Demiantschuk is a partner at DBH Law in Calgary.

'85 **Timothy E. Williams**, BA(Spec), '96 MA, is an associate professor and chair in the Department of Public



A Compassionate Chancellor

Douglas Stollery, '76 LLB, ends his four-year term as the U of A's 21st chancellor this June. Stollery, a respected lawyer, community builder and philanthropist known for his commitment to social justice and humanitarianism, made community service a priority during his tenure. "Serve your communities to the best of your ability. Make your own dreams, and those of others, come true," he said during his convocation address in 2016. Stollery said his involvement with post-secondary has taught him how universities are among the most important institutions in our society and, in this world of rapid change, are increasingly essential.

Safety and Justice Studies at MacEwan University, where he has been a faculty member since 2002. In August, he was appointed as independent chairperson for Public Safety Canada in the Prairie region. Before his academic career, Williams worked as a parole officer for Correctional Service Canada and as a manager for the Edmonton John Howard Society.

DID YOU KNOW?

U of A was the first Canadian university to allow students to register by phone, in 1985.





DID YOU KNOW?

The Banff Centre for Arts and Creativity was launched by the U of A in 1933 as the Banff School, “an Experimental School in the Arts related to Theatre.”

1990s

'92 **Stephen Price**, BEd, is entering his third year as dean of the Faculty of Health, Community and Education at Calgary's Mount Royal University. He started at MRU in 2000 as the men's basketball coach and an instructor in physical education and recreation studies. Previously, Price

taught high school in Fort McMurray for seven years.

'93 **Kit Koon**, BA, has recently relocated to Toronto. Since moving, Koon has started her own insurance company, Insurance Kit (*insurancekit.ca*). She has also put her drama minor to good use acting in the TV shows *Blood and Water*, *Ming's Dynasty* and *Frankie Drake*. She looks forward to connecting with fellow grads in Toronto.

'96 **Gregory DeVries**, BEd, was recently inducted into the Canada West Hall of Fame for his achievements in basketball as a student athlete. As a former Golden

CAMPUS SAINT-JEAN

Êtes-vous une ancienne ou un ancien du Campus Saint-Jean? Partagez votre expérience dans le New Trail. Pour ce faire, nous vous invitons à remplir le formulaire ici: ualberta.ca/campus-saint-jean/anciens-et-amis/new-trail.

'03 **Martin Poirier**, MEd, a récemment été promu au poste de Directeur, Education et Langues au *Calgary Board of Education*. En plus de superviser l'éducation dans 20 écoles d'un quartier de la ville, il est responsable des programmes d'immersion et de langues au sein de la commission scolaire.

Bear, DeVries also earned a spot on the U of A Sports Wall of Fame in 2010.

'97 **Ashley O'Kurley**, BA, wrote to say that the fraternity Phi Gamma Delta (FIJI) is celebrating 50 years at U of A. Around 600 University of Alberta students have joined this organization in the last half-century and more than 200 were expected to

attend the Epsilon Alpha 50th Pig Dinner on Oct. 24, 2020, to celebrate. For more information, visit eafiji.ca.

'99 **Brent Knowles**, BSc(Spec), has completed his first full year as the senior technical lead for NAIT's Centre for Innovative Media. In this role, he has drawn on 15 years of experience making video games with studios such as

(continues on page 48)



Stephen Price



Kit Koon



FIVE THINGS I'VE LEARNED ABOUT...

EMBRACING DISCOMFORT

Cally Duncan, '11 BCom, shares her takeaways from a life journey

By Jennifer Allford, '84 BA

IN 2018, AFTER A MERE NINE WEEKS OF DATING, Cally Duncan and her partner threw caution to the wind, literally, when they bought an 11-metre boat together. The plan? To sail from the United States to Australia, where they're based. Nine months and 5,000 nautical miles later, they found themselves in the West Indies selling their boat. "Sure, we didn't make it back to Australia. But most people don't make it to a boat," she says. "I'd do it all again in a heartbeat." Lots of people fantasize about tossing their jobs to go on an adventure but few do it. For all those dreamers, here are some lessons Duncan has learned about stepping outside her comfort zone.

1 IT'S NEVER THE RIGHT TIME

Setting sail was one thing, but heading off into the winds of unemployment was equally unsettling. "Worrying about money and being unemployed for the first time since I had left university was strange," she says. To supplement their savings, the couple crowdfunded and started a YouTube channel. She learned that in life, as at sea, you'll never have the perfect conditions, so sometimes you just have to move ahead.

2 EMBRACE COMMUNITY

Wherever life takes her, Duncan says, she has learned to seek out mentors and people she can learn from. "Initially my mentors

started out as education or career mentors," says Duncan. "But then the people I met travelling began to impact my lifestyle choices and my emotional and intellectual development outside of work." This approach allowed Duncan to trade the stress of being uncomfortable for the benefit of meeting new people.

3 WHEN PLANS GO AWRY, DON'T GIVE UP

Getting the boat ready took longer than expected, so the pair launched from Rhode Island later than planned. Record cold and storms followed them all the way to Florida. After six weeks of misery, they were ready to sell the boat. But they reconsidered and got back on the water. "If you're uncomfortable, you know you're probably doing something that's exciting and interesting," Duncan says.

4 DON'T TAKE YOURSELF TOO SERIOUSLY

Duncan and her partner called their YouTube channel "How Not to Sail a Boat." Duncan says they knew they were not experts; they were just happy to have shared their adventures and misadventures. Mostly, she hopes their story spurred people to follow their own dreams.

5 GETTING STARTED IS THE HARDEST PART

While the adventure and the relationship may have ended before the pair made it back to Australia, Duncan says the trip was far from a failure. "Some people never get off the 'hard'—which is when your boat's on land and in storage," she says. "So, any nautical mile we sailed was still a success." ■

ILLUSTRATION BY WENTING LI

PHOTO PROVIDED BY CALLY DUNCAN

(continued from page 46)

BioWare to develop a variety of digital projects. He is excited to share the centre's work with former classmates and co-workers.



'08 **Mandy MacRae**, BCom, and her brother **Cameron MacRae**, '11 BDes, are helping to run DIY Opera, a program for Indigenous students at Prince Charles School in Edmonton. The two-week program, funded by the Edmonton Community Foundation, combines workshops on acting, singing and dancing with sessions on emotional resilience. DIY Opera is a collaboration between Edmonton Opera, where Cameron is director of marketing and communications, and the Faculty of Extension, where Mandy works as project specialist in the Métis Settlements Life Skills Journey program.



lovestory LOVE FINDS A WAY

'62 **Charles Crockford**, BEd, wrote to tell us about a series of very fortunate events that led to his wedding on campus.

“It all started in Convocation Hall. To avoid the crowds during enrolment, I sat so far back in the auditorium I could almost smell the cinnamon buns baking in the Tuck Shop. So, there I was, surrounded by a sea of empty seats, when a complete stranger plunked himself down beside me. As it turned out, we were in the same program, so we agreed to take our classes together.

Fast forward four years to the time we decided to drop by an open house at the local television station in my hometown, Medicine Hat, Alta. When we arrived, we saw two young ladies waiting outside the station, and as soon as my friend (who was a rather dashing chap) got out of the car, he made a beeline for them. You old rascal, I thought. But, sure enough, he got a very warm reception!

After that encounter, I racked my brain as to how I could arrange an “accidental” meeting with “the young lady on the television station’s steps.” As luck would have it, she was at a party I attended a short time later. When the party broke up she did not have a ride home so, naturally, I offered her a lift. I saw it as an opportunity to be one of the chivalrous young gentlemen for which Alberta is famous — despite the fact that I had come with a different date. This somewhat questionable act eventually led to a first date, followed by a second date, followed by so many I lost count. **Arline Crockford**, '61 BEd, and I were married in the chapel at St. Stephen’s College on the U of A campus.

Was our marriage founded on a series of fortuitous meetings, with the help of a bit of selective chivalry? Well, yeah, but our marriage is 59 years long and still going strong — all because a stranger sat down beside me in Con Hall many years ago!”

Submit your own love story at newtrail@ualberta.ca.



'11 **Austin Mardon**, LLD (Honorary), and his wife, Catherine, travelled to Rome to meet Pope Francis in November. The visit follows the couple’s 2017 induction into the Pontifical Order of Pope Saint Sylvester in honour of their work

advocating for people with disabilities and mental illnesses. Mardon is an assistant adjunct professor at the U of A’s John Dossetor Health Ethics Centre and Department of Psychiatry.

'15 **Ryan Lindsay**, BA, released a music video for his song, *Way Back When*. A former Arctic wilderness guide, Lindsay was in his element filming the video, which had him dog-sledding and flying a bush plane. He also recently released his first album, *Wild*, and won the 2019 Rising Star award at the Alberta Country Music Awards.

'16 **Kate Black**, BA, was chosen to participate in the RBC Taylor Prize mentorship program. The program matches five emerging writers with the finalists of the RBC Taylor Prize, Canada’s top award for non-fiction books. She was paired with Ziya Tong, author of *The Reality Bubble*, for guidance on Black’s project, a series of essays exploring the social history of West Edmonton Mall and coming of age in suburban Alberta. Black was also nominated for a 2020 National Magazine Award in the Best Emerging Writer category. ■

ILLUSTRATION BY LYNN SCURFIELD

GOVERNMENT OF ALBERTA

Meet the Entrepreneurs

Each year, ThresholdImpact University of Alberta Venture Mentoring Service (VMS) matches grads starting their own businesses with mentors who support them. An alumni cohort from this year is innovating in everything from nanotechnology to news.

Michelle Kohl, '17 Cert(ResInteriors), **Amy Belliveau**, '98 BA, and **Sandra Bevington**, '18 MBA, are bringing curated room designs into homes with Room Maker, an online platform that helps buyers furnish their rooms from design stage to installation.

Riyaz Khair, '15 BSc(MechEng), and **Kyle Handfield**, '18 BSc(MechEng), started Ventrify to help innovators navigate the complex waters of product development.

Raymark Dizon, '13 BSc, '16 BCom, opened Liberty Autoworx, a mobile automotive detailing and services company.

Adam Brown, '12 BCom, '18 MBA, is using quantum tunnelling nanotechnology to improve audio quality in electronics with his company, Nanolog Audio.

Chris Robson, '16 BSc(MechEng), '18 MSc, and **Kurtis Broda**, '15 BSc(MechEng), '17 MSc, co-founded Wyvern in 2018. Their company provides specialized satellite imagery for a variety of industries, including agriculture to improve crop yields.

Nir Katchinskiy, '12 BSc(ElecEng), '18 PhD, is receiving mentorship for PulseMedica Corp. The startup is developing new treatments for age-related macular degeneration.

Karen Unland, '94 BA, and **Mack Male**, '07 BSc launched Taproot Publishing Inc. in 2016 to strengthen local journalism in Edmonton and beyond.

Charles Wong, '10 BSc, developed CarePros to bridge the gap between quality home care and the special health needs of children.



IN THE NEWS

Star Scientists

A new kind of celebrity replaced professional athletes on TV screens as Canadians looked for reassurance amid the coronavirus pandemic: the chief medical officer. The country’s chief public health officer, Theresa Tam, completed her pediatric residency at the U of A and now advises the federal minister of health. Chief medical officers **Brendan Hanley**, '80 BMedSc, '82 MD, in Yukon and **Deena Hinshaw**, '97 BSc, '04 MD, '08 MPH, in Alberta (pictured above) became the trusted sources for COVID-19-related facts and updates in their respective provinces. (For more on Hinshaw see page 21.)—CTV NEWS

The Killam Laureates

This year, eight U of A grads were named Killam Laureates for leadership, community service and contributions to research. **Sarah Raza**, '12 BSc, **Brett Carnio**, '12 BSc(EngPhys), '15 MSc, and **Nathan Wispinski**, '17 MSc, received the Izaak Walton Killam Memorial Scholarship for graduate students. **Maria Mayan**, '90 BSc(HEc), '96 PhD, **Lisa Strohschein**, '95 BA, and **Vera Mazurak**, '95 BSc(HEc), '01 PhD, were awarded Killam Annual Professorships, and **Glen Jickling**, '03 MD, and **Valerie L. Carson**, '09 MA, received the Killam Accelerator Research Award.



IN THE NEWS

Winning Streak

Pandas hockey coach **Howie Draper**, '91 BPE, '13 MA, has become the first U Sports women's hockey coach to win 600 games. Since 1997, Draper has led the U of A team to eight national championship titles and been named a U Sports national coach of the year four times, most recently last year. "He cares so much about everyone," Abby Benning, a defence player, told CBC. Draper, a former Golden Bear who also played defence, says that his approach behind the bench is inspired by the beloved Bears coach **Clare Drake**, '58 BEd, '95 LLD (Honorary), who died in 2018. —CBC

A National Honour

Last December, eight U of A grads were recognized for their extraordinary contributions to the country with the Order of Canada. **Donald Dingwell**, '84 PhD, '12 DSc (Honorary), was honoured for his work in volcanology; **Daniel Hays**, '62 BA, '18 LLD (Honorary), for public service; **Katherine Govier**, '70 BA(Hons), for literature; **Gordon Hoffman**, '66 BA, '74 LLB, for philanthropy; **Steve Hrudehy**, '70 BSc(MechEng), '12 DSc (Honorary), for environmental health sciences; **Robin McLeod**, '73 BSc(Med), '75 MD, for surgical patient care; **Josef Svoboda**, '74 PhD, for research and mentorship; and **James Zidek**, '61 BSc, '63 MSc, for mathematical statistics.

WHAT YOU NEED TO KNOW ABOUT...



DIGITAL ESTATE PLANNING

Five tips for setting your digital house in order

By Lewis Kelly

In uncertain times, it pays to focus on what you can control. Maybe that's why more Canadians have been finalizing their wills in light of COVID-19. But there's more than your physical things to think about, says estate lawyer **Stacy Maurier**, '96 BA, '97 BA(NativeStu), '00 LLB. She offers some top tips for leaving your digital assets and data to successors.

1) Read the fine print

One of Maurier's clients had spent \$10,000 in Apple's iTunes store. Naturally, the client wanted to include this trove of tunes in his will. But when Maurier looked into the matter, she had to deliver some unpleasant news. "In Apple's eyes, when you die their contract with you is over," she says. No one wants to devote too much time reading fine print. But if you put a substantial amount of money into a digital service or product, the effort is worth it.

2) Use password management software

Security experts advise us to change all our passwords. All the time. Forever. But keeping track of all your digital logins

can feel like an impossible juggling act. Maurier tells her clients to use password management software (such as LastPass or Passpack), something that will store and automatically change and input passwords for all of your online accounts. Then, create a hard-to-guess password and grant your executor emergency access to your account.

3) Have important photographs printed

It seems counterintuitive, but to ensure your snapshots and Instagram posts are available to posterity, Maurier advises you print the pictures. It's the best way to ensure that your prized photos remain easily accessible to your loved ones, she says, and not locked away in password-protected storage systems or outdated formats (DVDs, anyone?).

4) Include a flexible loyalty reward clause in your will

How can you ensure that all your hard-earned loyalty rewards don't disappear after you die? Depending on the type of reward, it may be a good idea to let your executor determine who should get the rewards if your primary beneficiary can't use them. For example, if your spouse no longer qualifies for travel insurance, make sure your executor has the flexibility to give your Air Miles to, say, your grandchild so he can go to Europe. It's sad but true that people often leave their loyalty rewards to people who have no use for them.

5) Consider leaving some digital assets out

Maurier has witnessed many clients come to unwelcome realizations about their deceased loved ones through their digital assets. The main culprit is granting them access to an email account, the contents of which can sometimes divulge more about us than we intend. When it comes to your digital legacy, a little judicious censorship might be in everyone's interest. ■

PHOTO BY TYLER VISSER; ILLUSTRATION BY IRYNA DANYLIUK / ISTOCK / GETTY IMAGES

The Alumni Association notes with sorrow the passing of the following graduates (based on information received between October 2019 and January 2020).

In Memoriam

1930s

'39 **Lilley Matilde Hamula (Berg)**, BA, '40 Dip(Ed), of Creston, BC, in November 2019

1940s

'40 **Robert Harold Blackburn**, BA, '41 MA, of Mississauga, ON, in September 2019

'40 **Margaret Helen Houchin**, Dip(Nu), of Innisfail, AB, in September 2019

'40 **Olive Margaret Moore (Websdale)**, Dip(Nu), of Ponoka, AB, in November 2019

'41 **Vivian Irene Storr**, BCom, of Edmonton, AB, in November 2019

'46 **Arthur James McGinnis**, BSc(Ag), in December 2019

'46 **Neil Edgar Allen Ronaghan**, BEd, in January 2020

'47 **Mamie Elizabeth Bailey**, BSc, '49 MD, of Prince Albert, SK, in December 2019

'47 **Rose Johnson Marshall (Fraser)**, Dip(Ed), '50 BEd, of Pincher Creek, AB, in November 2019

'47 **Elizabeth Mary Luchak (Szilagyi)**, BSc(HEC), in November 2019

'47 **Jocelyn Ruth McCreedy**, BA, of Nepean, ON, in June 2019

'48 **Margaret Agnes Brodylo**, BSc(HEC), of Calgary, AB, in October 2019

'48 **Herbert Henry Dofka**, BSc(ElecEng), of Edmonton, AB, in November 2019

'48 **Harris Magnus Kroon**, BSc, of Calgary, AB, in September 2019

'48 **Norman Raymond Smith**, BA, of Eugene, OR, in August 2019

'48 **Jeanmary Barbara Snowball**, BCom, of Calgary, AB, in October 2019

'48 **Solveig Marie Raasok (Steffensen)**, BEd, of Viking, AB, in June 2019

'48 **Robert Neil Taylor**, BSc, of Summerland, BC, in July 2019

'49 **Douglas Nalder Allen**, DDS, of Calgary, AB, in December 2019

'49 **Muriel Moyra Gillespie (Gibson)**, Dip(Nu), '50 BScN, of St. Albert, AB, in January 2020

'49 **Arthur Finlay MacKenzie**, BA, of Toronto, ON, in November 2019

'49 **Corinne Eadie Marshall (Fraser)**, BSc, '50 Dip(Ed), '51 BEd, of Edmonton, AB, in October 2019

'49 **Arthur Reg Underhill**, BSc(CivEng), of Victoria, BC, in December 2019

'49 **Nancy Jane Watson**, BA, of Calgary, AB, in November 2019

1950s

'50 **Leslie Earl Amonson**, DDS, in January 2020

'50 **Glen Donald Clark**, BSc, '53 DDS, of Claresholm, AB, in September 2019

'50 **Bernadette Gadzella**, Dip(Ed), '52 Dip(Ed), '56 BEd, in January 2020

'50 **Henry Arthur Grimsrud**, DDS, in January 2020

'50 **William James McKay Henning**, BA, '51 LLB, of Edmonton, AB, in December 2019

'50 **Arthur Nelson Finlay Longair**, BSc(Ag), '60 BEd, of Calgary, AB, in October 2019

'50 **Marjorie Eva Middleton**, Dip(Nu), of Medicine Hat, AB, in October 2019

'50 **Kenneth Gordon Taylor**, BSc(Ag), in January 2020

'50 **Allan Malcolm Winchester**, BEd, of Calgary, AB, in October 2019

'51 **Allan Kennedy Colter**, BSc(Hons), of Guelph, ON, in July 2019

'51 **Victoria Beatrice Cuff**, BA, of St. Catharines, ON, in November 2019

'51 **William Reed Erickson**, BEd, of Lethbridge, AB, in November 2019

'51 **Stuart Nelson Gell**, BSc(ElecEng), of Calgary, AB, in December 2019

'51 **Chris Walter Lattman**, BSc(CivEng), of Calgary, Alberta, in January 2020

'51 **Charles Wayne McDougall**, BSc(Pharm), of Calgary, AB, in October 2019

'51 **Marion Tena Morgan**, BEd, of Edmonton, AB, in October 2019

'51 **Norma Mae Novak (Halstead)**, Dip(Ed), '73 BEd, of Nanaimo, BC, in October 2019

'51 **William Anthony Preshing**, Dip(Ed), '52 BEd, '57 BA, of Edmonton, AB, in December 2019

'51 **William Edward Stollery**, BSc(CivEng), of Edmonton, AB, in January 2020

'52 **Joan Shirley Cameron**, Dip(Nu), of Sudbury, ON, in May 2019

'52 **Kathleen Lilah Miller**, BSc, in January 2020

'52 **Gertrude Clara Minchau**, Dip(Nu), of Edmonton, AB, in January 2020

'52 **Verna Louise Stelfox (Moore)**, Dip(PHNU), of Rocky Mountain House, AB, in November 2019

'52 **Janet Louise Walsh**, BA, of Vancouver, BC, in October 2019

'53 **David Meldrum Buchanan**, DDS, of Edmonton, AB, in September 2019

'53 **Joyce Olive Choate (Dutton)**, Dip(Nu), of Edmonton, AB, in September 2019

'53 **Mackim Kushniruk**, BSc, '56 MD, of Edmonton, AB, in November 2019

'53 **Frank Earl Starratt**, BSc(PetEng), of Calgary, AB, in December 2019

'53 **Kathryn Alice Tulk (Gordon)**, Dip(Nu), of Calgary, AB, in December 2019

'54 **Florence Kathleen Gallagher**, Dip(Ed), '60 BEd, of Burlington, WA, in November 2019

'54 **Jacob David Harder**, BEd, of Edmonton, AB, in October 2019

thehub

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SPEAKER'S CORNER

INVESTING 101

By **Stephanie Bailey**, '10 BA(Hons)

This spring the coronavirus wreaked havoc on the stock market. We wait to see the full extent of the damage, but one thing is sure: markets seem a whole lot scarier. If you're new to investing, you might be asking yourself, "Is now an opportune time?" **Bridget Casey**, '10 BSc, a financial expert who specializes in advice for millennials, is here with some dos and don'ts for newbies considering investing after a market crash.

DO INVEST IN YOUR EMERGENCY FUND There's nothing like a pandemic to teach you the lesson of saving for a rainy day. Financial gurus suggest having between three and six months of your household income squirrelled away for emergencies, not for investing. "I'm now recommending having \$10,000 saved up—at the very least," Casey says. She's also a fan of an "Emergency Fund of Stuff"—a three-month supply of household goods on hand in case of emergency.

DON'T LET VOLATILE MARKETS SCARE YOU That's right, according to Casey there hasn't been a better time to



invest in recent history. After a historic 10-year run of growth, the market was overvalued and it was just a matter of time until the bubble burst, she says. "Now, with securities more fairly valued, it's like buying stocks on sale."

DO CONTRIBUTE REGULARLY Casey suggests signing up for a robo-adviser—an online investment management system—and starting to contribute monthly. Robo-advisers automatically invest your money according to your financial goals and a set of complex algorithms. As always, the most important part of investing is consistency. "The habit is more important than the amount," she says.

DON'T BORROW TO INVEST Even though the low interest rates may tempt you, Casey

advises against borrowing money to invest. "We don't know how long the public health measures will last and what the economic fallout will be. There are just too many unknowns."

DO RE-EVALUATE YOUR RISK TOLERANCE Most people assume they're much more risk tolerant than they actually are, says Casey. "This crash is a reality check for investors who had misjudged their risk tolerance." So, take this time to find out how much cash you need to get by. This will help determine how much risk you're willing to take on in the future.

Casey is one of many speakers to share expertise at alumni events. Visit uabgrad.ca/OnDemand for more content, including podcasts, online courses and webinars.

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Learn how seniors can keep healthy—from medication decisions to physically distanced exercise—in this on-demand webinar: "Adapting to the New Normal: A Practical Guide for Seniors." Or check out more free webinars featuring U of A experts: uabgrad.ca/OnDemand.



PODCAST WISDOM

"I assumed that Sept. 11 would be — from the start of my career to the finish of my career — the biggest news story I ever covered. And then Hurricane Sandy came along, and it was close ... So, I thought those two would be the top two stories ever. This is clearly above all of those."

▼ **Pat Kiernan**, '90 BCom, cable news channel NY1's morning anchor since 1997, on reporting during the pandemic for the alumni podcast *The Line*

ISTOCK / GETTY IMAGES

125

The number of A+ enamel pins given to grads last year who are doing great things in their communities. Do you know a great grad who's representing their alma mater in a positive way? Nominate them for the U of A Alumni Honour Roll: uab.ca/HonRoll

9,050

The number of food hampers put together last year by Grocery Run with the help of alumni volunteers. Grocery Run, a project initiated by the Faculty of Extension, connects immigrant and refugee families with healthy food every week.



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smalltalk



Sunny Yesterdays

➔ At the time, you thought you were just making money, scooping ice cream or digging holes. Little did you know, you were making lifelong memories. We all have that one summer job that we still remember (or complain about) to this day. We asked grads to share their stories. Find more at facebook.com/UalbertaAlumni.

Worked at Mayfair Golf Club grounds. Crashed everything: golf carts, sand machines, mowers. I was known as "Crash." Enjoyed it, though, a beautiful place, a beautiful part of the city in the late '70s.

—Gordon Ramsey, '81 BA

I worked for the census when the data was collected through punch cards and the responses were made by filling in the circles. My job: to ensure the circles were completely, evenly filled in. No white showing. Anywhere. It was the craziest job! Paid well, though.

—Kate Young

I worked at a campground by a lake. We were cleaning up the beach, just a few metres in the water. I sunburned my eyes so bad I was out for two days. I could not believe how much it hurt. After that I always had sunglasses, but it didn't matter ... I was put on outhouse toilet cleaning duty for the rest of the summer!

—Tracy Innes, '94 BEd

Brought up on a farm, the summer job was the same as the spring, fall and winter jobs, LOL!

—Gil Charest



I worked at the Nestlé ice cream distribution warehouse. It would be 30 C outside and I would have to put on a parka, tuque, mitts and snow pants, and spend the day in a -30 C warehouse. A 60-degree swing for all-you-can-eat ice cream. It was a fair trade.

—David Lord, '04 BCom

Unfolding dollar bills for 7.5 hours. Every. Freakin'. DAY. I worked for Edmonton Transit Service for \$4.50 an hour.

—Diane Fargher, '89 BEd

Oh my gosh, having a summer break with less than four part-time jobs was a break! But working the Green & Gold Hospitality Room at Commonwealth Stadium was always enlightening!

—Natalie Ross, '95 BScN(Hons)

I had GREAT summer jobs! I worked three summers in slaughterhouses doing every job you can imagine (and many that you can't). The pay was good, I had all the overtime I wanted, and it was a great way to learn anatomy. I learned SO MUCH on those summer jobs. Every job served me well in my eventual career as a physician.

—Sandy Murray, '73 BSc(Hons), '77 MD



Camp counsellor! By far the best time I ever had, teaching archery, canoeing, games. Until dysentery hit the campers ...

—Margaret Blue, '85 BEd

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Natasha Danha is a second-year Science student and scholarship recipient

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