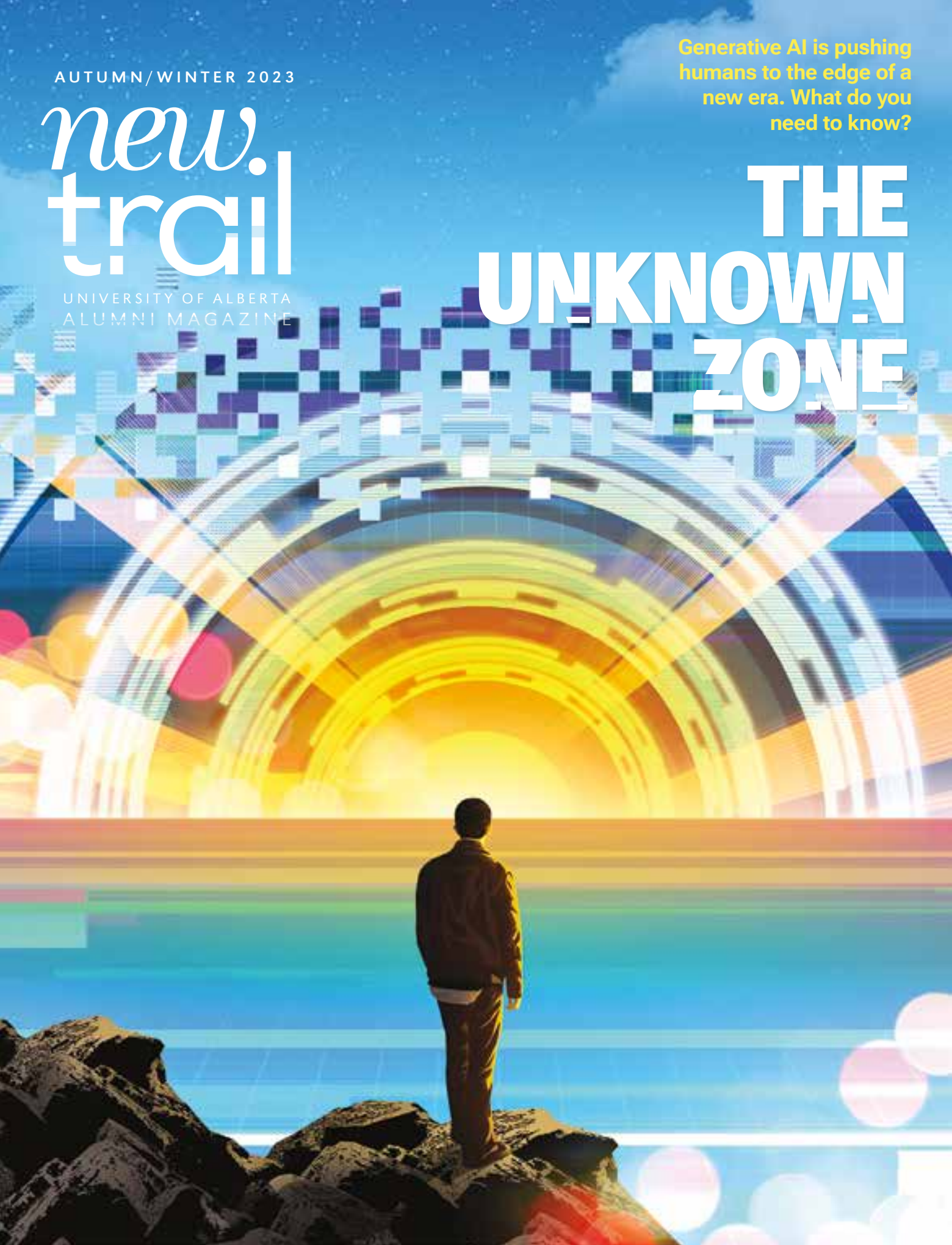
AUTUMN/WINTER 2023

new trail
UNIVERSITY OF ALBERTA
ALUMNI MAGAZINE

Generative AI is pushing humans to the edge of a new era. What do you need to know?

THE UNKNOWN ZONE



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ON THE COVER
Generative AI tools have put artificial intelligence in the hands of the average person. What will it mean for our jobs, our learning, our creativity? U of A researchers are working to answer these big questions. Page 20. *Illustration by Taylor Callery*

Together, We Pack a Punch

A FEW YEARS AGO, I was volunteering with the Business Alumni Association and had an idea for a signature event at Alumni Weekend (now U of A Days). I suggested we host a competition for new businesses to win $10,000 and a year of mentorship to help them get off the ground. To my surprise, our Business Alumni Association Board was really supportive of the idea. I wasn't in a leadership position at the time, and I didn't even know if I had the skills or capacity to make it happen. But the board saw the potential. We staged our first event in 2016 and have hosted more iterations in the years since.

The competition's first winner, **Kate Latos**, '08 BCom, '11 MBA, '23 JD, went on to open a business providing recycled plastic fence and decking material. She was also selected as a One to Watch recipient by RBC Women of Influence in 2018. She said without the innovation challenge, she wouldn't have taken the idea beyond her living room. For me, it was so rewarding to help a fellow alumna realize her entrepreneurship dreams.

It's one of the many reasons I'm so excited to be your new Alumni Association president. Because when we pool our talents and passions, and especially when we support one another, we can make real change in people's lives.

The U of A is also devoted to making a positive impact for our students, alumni and the broader community. That's clear in its new strategic plan, which lays out the university's goals for the next 10 years. It revolves around the university's core mandate of education, research and community engagement, with the goal of having "lasting, transformational impacts on people's lives." (Learn more on page 7.)

As a mother of two, I'm always thinking about how we can make things better for the next generation. Being part of the alumni community means you can leverage your skills and those of nearly 300,000 other grads to solve problems and create a lasting, transformational effect. I am often amazed at the legacy left by U of A grads—they have led breakthroughs, built industries, created communities and been leaders at every level. And they don't do it alone. I truly believe when we work together, we have the capacity to shape the world.

If you're looking for a way to make an impact, let's find out what that looks like for you. Alumni Council is here to listen to you, amplify your voice and help harness the ideas and energy of this cross-section of curious thinkers and vast array of talents to create the university—and world—you want to be a part of. Get in touch with us at *alumni@ualberta.ca*. I can't wait to create change alongside you.

Ashton Rudanec started her two-year term on July 1. Get to know her better on page 56.

PHOTO BY JOHN ULAN

Ashton Rudanec, *'12 BCom, '16 MBA*
PRESIDENT, ALUMNI ASSOCIATION

What do you think about the magazine? Let us know by email or the old-fashioned way; you'll find the addresses on page 4. Letters may be edited for length or clarity.

Big Dreams Start Small

Thank you for all the wonderful work that you all do. My husband, **Restituto Cena**, '76 PhD, and I enjoy getting *New Trail* though we graduated from the U of A many, many years ago.

When our son, **Jonathan Cena**, '03 BSc(Hons), '08 PhD, '18 PostGradCert(MedEd), was born, we went to the U of A campus for a fall outing every year. We were always in awe of the vibrant display of leaves in red, orange and brown hues. Besides enjoying the view of the campus, my husband and I were actually preparing Jonathan to see where he would be going when he grew up. Because of his severe allergies, we would often rush him to Leduc Hospital or the U of A Hospital. He enjoyed staying there because he was spoiled by the nurses and doctors. I thought I should share my son's dream of becoming a doctor when he was young. I am very happy to tell you that his dream came true. ***–Estelita Cena**, '74 BEd*

MORE ONLINE

Find these stories and more at *ualberta.ca/newtrail*.

Five Tips for Learning Mandarin
One of the world's most widely spoken languages offers a passport to Chinese culture

Take a Walk on the Wild Side
The former host of *Nature Nut* offers advice to help you appreciate the great outdoors

Helpful Hints

Always happy to receive the *New Trail* print magazine. The tweet-like news and forward-looking articles summarize content that I seldom encounter elsewhere. Good work!

***–Debbie Reinhart**, '75 BA, '81 BSc*

Scholarships Make an Impact

Mine and my husband's (**Hans Boerger**, '78 PhD) issue arrived yesterday and we're both in the midst of reading it cover to cover. *New Trail* always brings back fond memories of the U of A. So glad to hear about the special edition of *Who Has Seen the Wind* and the W.O. Mitchell Scholarship endowment fund. I received a Salter scholarship way back when I really needed extra money to see my way through grad studies. I'm forever grateful. The W.O. Mitchell fund ensures current realities will be thoughtfully represented by deserving writers.

***–Carolyn Redl**, '78 BA(Spec), '83 MA, '91 PhD*

More Evidence Needed

Your short article "Digging Up Pseudoscience" in the Spring/Summer 2023 issue attacks the Netflix series *Ancient Apocalypse* created by Graham Hancock. In your article, Professor **Timothy Caulfield**, '87 BSc(Spec), '90 LLB, criticizes Hancock for being provocative and "playing to anger," while archeologist Andre Costopoulos states that "scientific knowledge is advanced by evaluating evidence, not suppressing it." But your article itself appeals to emotions such as scorn and contains not a single scientific fact. It is precisely the suppression of actual facts that Hancock criticizes in the series.

Finally, you should note that the power of *Ancient Apocalypse* comes directly from Hancock showing on camera the facts that support his hypothesis. Can Caulfield or Costopoulos produce countervailing facts? If so, they should have done so rather than trying to smear Hancock and his ideas. I expect better from *New Trail* and from U of A faculty.

***–Simon Segall**, '72 BSc(Hons)*

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ALBERTA-MADE MAG

notes

WHAT'S NEW AND NOTEWORTHY

PHOTO BY IVANA SCHOEPF

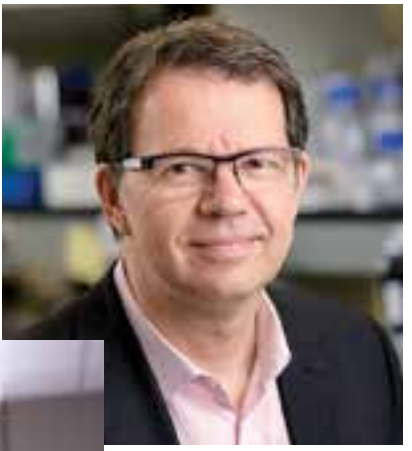
For the Birds

AI-powered video analysis helps single out birds and their behaviours from hours of field camera footage

AUGUSTANA STUDENT Priscilla Adebanji has developed a method that could save scientists hours of time reviewing field camera footage. Looking for a faster way to review two field seasons' worth of video, ecology professor Ivana Schoepf, who studies the effects of parasitism on bird behaviour, asked Adebanji's computing science professor Thibaud Lutellier to help analyze about 30 hours of recordings of 30 red-winged blackbird nests. Using computer vision and motion detection algorithms, Adebanji was able to pinpoint individual birds, the times they visited their nests to feed their chicks and whether they were entering or leaving. "We have gone from eight hours to a couple of minutes to automatically detect everything," says Adebanji. –BEV BETKOWSKI

Two U of A Grads Awarded 2024 Breakthrough Prizes in Life Sciences

Treatments for cancer and cystic fibrosis earn alumni 'Oscars of Science'



Michel Sadelain (above); Fredrick Van Goor (left)

ALMOST 35 YEARS HAVE passed since **Michel Sadelain**, '89 PhD, last sat in a U of A lab searching for ways to harness the power of the immune system to fight cancer.

In September, he was awarded a 2024 Breakthrough Prize in Life Sciences in recognition of his discovery of cancer-fighting immunotherapy based on the genetic engineering of a patient's own T cells.

A second U of A grad, **Fredrick Van Goor,** '91 BSc, '97 PhD, was also named as one of 11 recipients for developing the first effective medications to treat the underlying cause of cystic fibrosis.

The annual $3-million prizes, sometimes called the "Oscars of Science," are awarded to "the world's most brilliant minds" in mathematics, fundamental physics and life sciences. They're sponsored by tech entrepreneurs, including Mark Zuckerberg of Facebook and Google co-founder Sergey Brin.

Sadelain, an immunologist and director of the Center for Cell Engineering at Memorial Sloan Kettering Cancer Center in New York, demonstrated that T cells — a type of white blood cell that helps the immune system — can be engineered to recognize and destroy cancer cells. These refurbished T cells are made by extracting a cancer patient's T cells, inserting synthetic antigen receptors, and then reinfusing the cells.

Sadelain shares his award with Carl June, a University of Pennsylvania immunologist, who developed a gene therapy for patients with B-cell acute lymphoblastic leukemia.

Van Goor, now vice-president and head of cystic fibrosis research for Vertex Pharmaceuticals, based in San Diego, has spent more than 20 years developing life-transforming drug combinations that repair the multiple defects in the protein found in people with cystic fibrosis. His team's newest therapy, Trikafta, combines three drugs that work to combat these defects, greatly improving the length and quality of life for more than 90 per cent of patients.

"Since winning the award, people have been asking me, 'Where did it all start?'" Van Goor said. "I've really been thinking about that a lot lately, and that experience at the University of Alberta and being from Canada is pretty neat. I am thankful."

He shares the prize with co-discoverers Sabine Hadida and Paul Negulescu.

–MICHAEL BROWN AND SHELBY SOKE, WITH FILES FROM CAITLIN CRAWSHAW

QUOTED

"Our focus doesn't need to be to 'normalize' kids to fit into our preconceived notion of what behaviour or participation should look like. Letting kids be who they are and … helping their peers understand has great outcomes for everyone."

Sandra Hodgetts, '10 PhD, of the Faculty of Rehabilitation Medicine found in a study that sharing a brief awareness-raising script encourages peers to engage with autistic children in day camps

MENTAL HEALTH

STUDY IDENTIFIES FARMERS' RISK FACTORS FOR SUICIDE

A U of A study exploring risk factors that can make farmers vulnerable to suicide could help individuals, communities and governments identify much-needed supports.

The study has resulted in an analytical tool called the Farming Adversity-Resilience Management (FARM) framework to highlight how farm culture, work-life stressors and mental health can intertwine to potentially contribute to the risk of suicide.

Rebecca Purc-Stephenson and her team reviewed 14 scientific studies from Canada, the United States, the United Kingdom, Australia and India that contained insight from farmers' partners, relatives and others who worked closely with them before their deaths.

"Farming is a lifestyle, not just a job, which makes farm culture unique," says Purc-Stephenson, also the current lead researcher with AgKnow, a non-profit mental health program for farmers and others in agriculture.

The analysis revealed seven factors linked to suicide. Two were especially dominant: challenges to their identities as farmers and a significant financial crisis. Other factors included emotional, social and geographical isolation, unpredictable events like weather or livestock disasters, and having easy access to harmful agricultural chemicals and firearms.

The FARM framework, created by Purc-Stephenson and Augustana undergraduate co-researchers Jenessa Doctor and Jude Keehn, also identifies factors that can improve a farmer's resilience to stressors.

"This is going to be a tool for precision medicine, which can be used by researchers, mental health therapists, doctors and other health-care workers to help understand what farmers experience and what puts them at risk," says Purc-Stephenson. –BEV BETKOWSKI

ICE INHIBITORS PROTECT CELLS DURING CRYOPRESERVATION One of the biggest challenges in cryogenically preserving human organs for transplantation has been freezing living cells without damaging them. Researcher **Jason Acker**, '95 BSc, '97 MSc, '00 PhD, '09 MBA, has helped to develop a solution. Acker and Robert Ben, a University of Ottawa chemistry professor, have engineered ice recrystallization inhibitors—sugar-based molecules that control how ice forms around and in cells. The potential applications for the inhibitors in cryopreservation are wide-ranging, including medical treatments, organ and tissue preservation, reproductive medicine and agriculture.–GEOFF MCMASTER

FINANCES

HOW TO EAT WELL ON A BUDGET

Inflation is biting into our food budgets, but there are ways to keep good nutrition on the table, says registered dietitian **Heidi Bates**, '92 BSc(HEc), '10 MSc. "We have the ability to be savvy shoppers, to plan differently and to do more food preparation ourselves to offset inflation and still eat really well," says Bates, with the Faculty of Agricultural, Life & Environmental Sciences. Here are four ideas to help keep nutritious food on the table, even on a tight budget.–BEV BETKOWSKI

PLAN AHEAD

Before shopping, have a rough idea of what your meals for the week will be. "Upwards of 63 per cent of food we throw away could have been eaten if we'd planned differently."

STOCK THE BASICS

Stock the pantry with staples like pasta, flour, sugar, rice, lentils and canned foods. "They can be used in many different recipes and they help build the platform for a lot of meals."

BUDDY UP

For single people or small households, shared shopping is one way to make costly food items more affordable. Ask a friend or relative to share expensive, bulk or large items.

MIND THE PORTIONS

That single steak, though expensive, may go further than you think, says Bates. For example, a healthy serving of meat for one person is only the size of the palm of a woman's hand.

SHUTTERSTOCK

Footnotes

A brief look at what's new at the U

New Fund Supports Fresh Ideas

A new fund will invest in ventures working to diversify Alberta's economy and solve complex challenges. Supported by donors and public partners, the University of Alberta Innovation Fund (*uab.ca/innofund*) will work with startups in artificial intelligence, health, energy, agriculture and other areas of research strength at the U of A.

Plans Set Course for the Future

The university has laid out its vision for the next decade in Shape: A Strategic Plan of Impact. Built on the pillars of education, research and community engagement, the plan includes a goal to increase enrolment to 60,000 students to meet population demand. Also launched in the fall was Forward with Purpose, a strategic plan to strengthen and broaden the impact of U of A research and innovation on the world. (Search *folio.ca* for more information.)

Dashboard Tracks Progress on TRC Calls

A new dashboard outlines the U of A's response to Calls to Action for post-secondaries from the Truth and Reconciliation Commission of Canada in 2015. Progress includes work across the institutional mandate in teaching, learning, research and community engagement. *ualberta.ca/indigenous/trc*

STRONG SHOWING

U of A Continues to Climb in Global and National Rankings

MULTIPLE RANKINGS HIGHLIGHT THE U OF A'S STRENGTH IN teaching and research, as a whole and across such disciplines as health, science, engineering and education.

The university ranked among the top six per cent worldwide and fifth in Canada in the Times Higher Education World University Rankings 2023. It also moved up to seventh in the world in the Times Higher Education Impact Rankings based on efforts toward achieving the UN's Sustainable Development Goals for 2030.

In subject rankings, nursing and petroleum engineering ranked first in Canada in the 2023 QS World University Rankings by Subject, with 18 U of A subjects listed among the global top 100. *Maclean's* ranked the U of A's nursing and education programs first and third in Canada, while engineering, computing science and business placed in the top six.

In ShanghaiRanking's 2023 Global Ranking of Academic Subjects, five U of A subjects ranked among the world's top 50, with four deemed best in Canada.

Biological sciences rose to 29th place globally and first nationally, and earth sciences held on to its first-place ranking in Canada while remaining in the 51-75 range globally. In engineering, instruments science and technology finished first in Canada and 36th internationally. Chemical engineering kept its first-place rank in Canada while remaining in the 76-100 range globally. Environmental science and engineering ranked second in Canada and was the U of A's highest-ranked subject globally at 20th. Automation and control came in at 37th worldwide and second in the country, and mining and mineral engineering ranked 48th globally and fourth in Canada.

In the 2024 Times Higher Education subject rankings, the Faculty of Education made the biggest gain to place 75th in the world. Computing science came in at 89th worldwide and engineering tied for 90th.

—SEAN TOWNSEND AND OUMAR SALIFOU

For more on these and other great U of A research stories, visit *folio.ca*.

LONG COVID

NEW CLUES FOR BETTER CARE

U of A researchers have identified an amino acid that may play a key role in predicting and treating long COVID.

The team says it has developed a predictive test to determine which patients with COVID-19 are more likely to develop longer-term symptoms.

The study involved 117 Alberta patients admitted to hospital with acute COVID-19, and it examined their clinical records for 18 months. Of the 55 patients who developed severe post-COVID condition, or long COVID, the researchers found a key difference in the plasma levels of the amino acid taurine, a semi-essential amino acid produced by the human liver and also found in meat and fish.

The researchers hope to launch a clinical trial of the already approved supplement as a potential treatment.

"Patients with lower levels of taurine had a lot more symptoms, more of them were hospitalized and there was an increased risk for mortality," says principal investigator Gavin Oudit, professor of medicine. "This research helps us understand what's happening in the bodies of people with long COVID and could lead to better treatments and tests for them in the future."—GILLIAN RUTHERFORD

NUMBERS

30

The number of years DiscoverE has hosted camps and workshops to get young people K-12 excited about engineering. Today, with the addition of remote programming and kits sent to students across Western Canada, the organization connects with about 27,000 students in 80 communities

EDUCATION

AN IMPORTANT CHAPTER

A new resource has been created to teach students about Japanese Canadian culture, contributions and history, including internment during the Second World War. The project, led by education professor **Olenka Bilash**, '84 MA, '89 PhD, is the result of a broad community-campus collaboration with the faculties of arts and education, the departments of sociology and drama, the Edmonton Japanese Community Association, the Prince Takamado Japan Centre for Teaching and Research, the Canadian Race Relations Foundation and the John Humphrey Centre For Peace and Human Rights.

Alberta students aren't required to learn about the internment of Japanese Canadians during the Second World War until Grade 11 social studies, says Bilash, and often what they do learn is taught without sufficient context. The directory is a tool that can be used in every year of study, offering students touchstones on Japanese Canadian culture and positive contributions. It is available on the Edmonton Japanese Community Association website.—GEOFF MCMASTER

RENEWABLE RESOURCES

Tool Helps Predict the Path of Wildfires

THE U OF A WILDFIRE ANALYTICS TEAM HAS developed a fast, easy method to map possible wildfire pathways into a community.

"It tells us which direction we can expect a wildfire to come from by identifying any continuous pathways for a fire to travel," says team leader Jen Beverly, a professor of wildland fire in the Faculty of Agricultural, Life & Environmental Sciences.

That piece of information can be vital, she says, noting that the disastrous wildfires that devastated the communities of Lytton, B.C., in 2020, Fort McMurray, Alta., in 2016 and Slave Lake, Alta., in 2011 all burned along a trajectory, driven by wind.

The tool could help communities and fire authorities pre-plan evacuation routes, prioritize where to deploy their crews and proactively reduce fire fuel by thinning tree stands and creating firebreaks along the pathways that pose the highest risk.

The method is user-friendly, making it valuable in crisis situations. "It's a relatively cost-effective, accessible and practical tool that can be used even by smaller communities with limited resources to plan for fire," Beverly says.

"It's giving the decision makers one more piece of information they can use to plan for fire."—BEV BETKOWSKI

MEN'S HEALTH

NEW TEST MEANS FEWER PROSTATE CANCER BIOPSIES

The typical screen for prostate cancer is a blood test for prostate-specific antigen (PSA). When a patient's PSA is high, doctors usually order a biopsy to confirm the presence of cancer. But high PSA levels can be caused by non-cancerous factors such as age, infection or an enlarged prostate, and lower-risk prostate cancer may not require treatment. The new test can give patients and their doctors more information to make informed decisions about whether to proceed to biopsy.

The new test is based on technology developed at the U of A and patented by spinoff company Nanostics Inc. "The ClarityDX Prostate test will reduce the number of unnecessary biopsies, which are invasive, uncomfortable and carry some risk," says John Lewis, Bird Dogs Chair in Translational Oncology at the U of A and CEO of Nanostics.

The Lewis team is already at work on a predictive blood test for bladder cancer using the same technology and sees potential to develop diagnostic tools for other illnesses, including cardiac disease, infectious diseases and neurodegenerative diseases.—GILLIAN RUTHERFORD

ENGLISH AND FILM STUDIES

ANALOGUE RESCUE IN THE DIGITAL ERA

A U of A team is helping restore a treasure trove of sound to its rightful place in cultural history.

Thousands of audio and video recordings on reel-to-reel and cassette tape are languishing in dusty library storerooms or destined for the landfill, says Michael O'Driscoll, a professor in the U of A's Department of English and Film Studies. Unless the recordings are digitized and meticulously time-stamped, they are largely inaccessible.

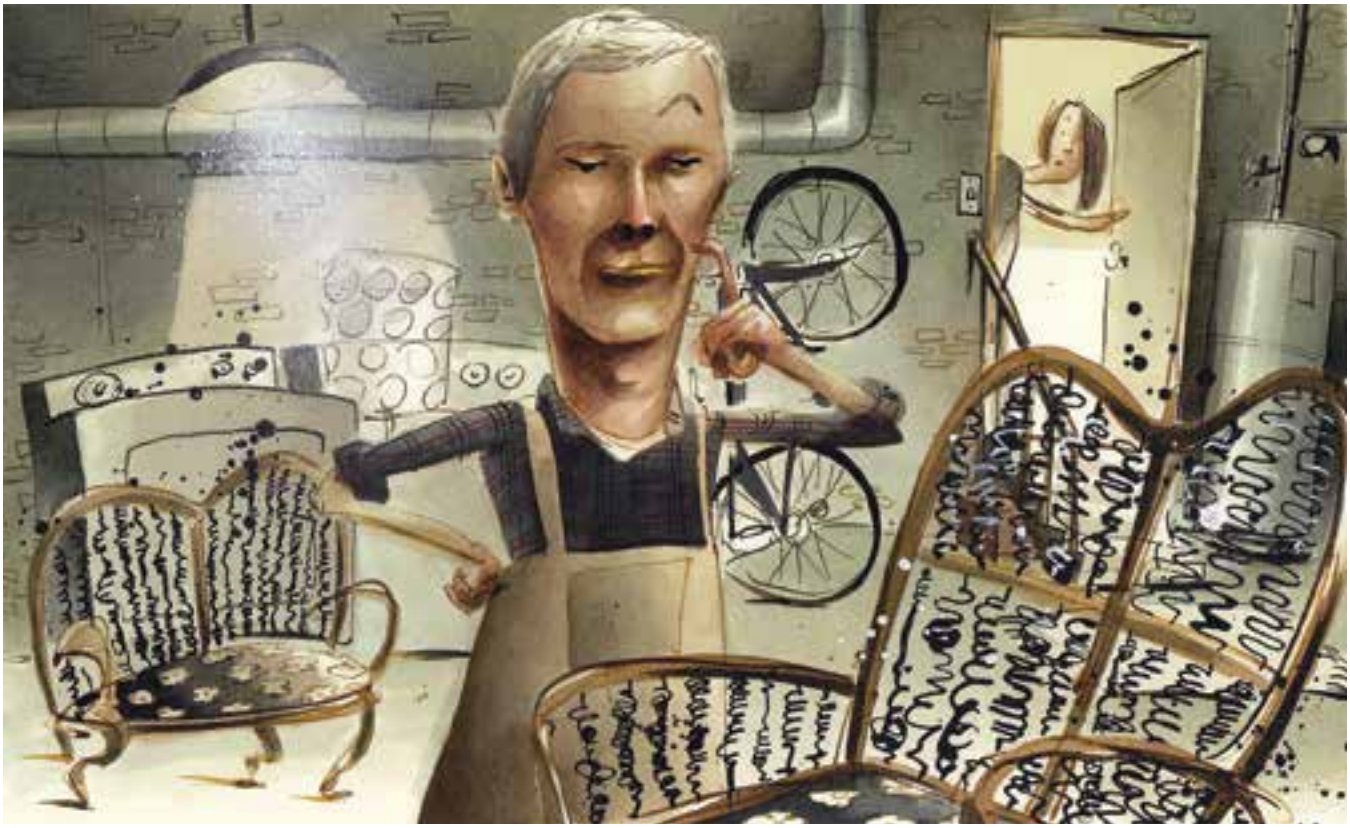
O'Driscoll, along with Sean Luyk, the U of A's digital curation librarian, and digital media expert Geoffrey Rockwell, are helping change that by making recorded lectures, interviews, performances, oral histories and other creative artifacts readable and accessible online. It's part of a project called SpokenWeb involving 50 multidisciplinary researchers in 18 institutions in Canada and the United States.

Even in his home department, O'Driscoll points to a valuable collection of some 3,000 analogue recordings, some of which were slated for disposal, that his colleagues helped inventory and preserve. They include readings and interviews with the likes of **W.O. Mitchell**, '43 BA, '75 DLitt (Honorary), **Rudy Wiebe**, '56 BA, '60 MA, '09 DLitt (Honorary), Sheila Watson, Margaret Atwood and Michael Ondaatje.

The plan is to create a publicly accessible portal into all sound collections that are part of the SpokenWeb network "for study, research or pleasure."—GEOFF MCMASTER

TOP PHOTO BY J.L. BEVERLY; BOTTOM PHOTO GETTY IMAGES

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.*



Sofa, So Good

THEY SAY IT'S THE JOURNEY THAT MATTERS. BUT WHEN THAT 'JOURNEY' INCLUDES FURNITURE REPAIR WITH LIMITED SKILLS, IT HELPS TO HAVE AN EMPTY BASEMENT AND AN OPEN MIND

My wife, Cathy, is a woman of patience and goodwill. She looks for the positive spin on just about anything and is usually right. But I think I have found something that lies at the bounds of her good nature. That something has good bones, lanky arms, big feet, plays the strong, silent type and is there to cushion the falls of family members. It's getting old and could really use some new threads. It was once reasonably fashionable but now just looks a bit tired and soft in the middle.

No, I am not talking about me, though the descriptors are worryingly apt.

I'm talking about a sofa. Not just any sofa, mind you. My elder child and their partner moved south for work about a year ago and, as we were helping them relocate, they happened to wonder out loud what they should do with their living room furniture set — couch, chair, loveseat. Without even pausing to give it any real thought, I said I'd be happy to take them and that I would reupholster them. It is a lovely set, though very worn, and I thought it would make for a great winter project. They agreed and were keen to see the pieces go to a good home and get a new lease on life. I didn't really have a space in which to do the work or the right tools for the job — or the skills. But these seemed minor impediments at the time. I borrowed my friend Norm's truck (and Norm) to move the three pieces into my basement. I then borrowed two work tables from Norm, as well as Norm's staple gun and Norm's air compressor. Really, I should have just paid Norm to do the things.

Anyway, I was set. I got a great start on the chair. I took off the old fabric, removed all the old webbing, padding and burlap, pried out the old staples. I got that baby down to the studs. I did some drawings to mimic the existing fabric pattern. I sourced new fabrics. Everything was lining up nicely and it was still just early October.

Then I had to go away for work in the late fall, so that derailed me a bit. After that, well, it was Christmas and the holiday season. I mean, who gets anything done over Christmas, right? January and February got hectic, somehow, and then we went to Vancouver to visit our other kid. After that, there was a ton of planning that needed to be done for a late spring cycling vacation we were taking with some friends. And then the weather turned nice and, come on, you can't expect me to spend all day in a basement when the sun is shining.

ILLUSTRATION BY KELLY SUTHERLAND

by Curtis Gillespie

So, you can imagine my shock the other day when Cathy asked me what I planned to do with the three pieces of partially disassembled furniture clogging up our basement family room and making it look like an Ikea test lab, abandoned after someone pulled the fire alarm. I asked her what she meant.

"Well," she said, "it has been over a year and it doesn't look like you're making much progress down there. The only thing that's changed is that our basement is basically unusable."

Naturally, I protested. There was no way it had been a year. It felt as if I'd just started and was making decent headway. She showed me the calendar. There's nothing as deflating as having no rebuttal.

Well, that's not quite true. I do have a rebuttal. It is philosophical, even metaphorical. However, the problem with my rebuttal is that it is philosophical, even metaphorical.

I have always been kind of handy and have written before about how stupendously handy my father was. The guy could, and did, fix everything. I don't think I inherited his level of skill for fix-it jobs, but I certainly inherited his belief that it's worth trying for yourself before conceding defeat and handing things off to a professional. I also inherited from somewhere an unbalanced synthesis of self-belief and skill. My dad figured he could fix most anything and he had more than enough ability to justify that confidence. I figure I can fix most anything and I have just enough ability to think I'm capable of more than I probably am. It's an unpredictable combination.

So the issue is this: The couches sitting in the basement are not just a project. They represent a way of being. They speak of doing things for yourself, even if you're not that good at them and even if they don't always get done properly. Sometimes they just don't get done at all.

Part of the desire to reupholster the furniture is rooted in the fact that my dad (who died young) did precisely this kind of work throughout his career running his own glass and trim shop. I spent countless hours in his workshop as a kid, hanging out, sweeping up, playing hide-and-seek with my siblings among the rolls of fabric, having staple-gun fights (hey, it was the early '70s), all the while listening to the whirring clickety-clack of his old Pfaff Industrial sewing machine speeding up and slowing down. It was a beast, that thing, and it jutted out of his workbench like an anvil sitting on a dining room table. If there is one sound that connects me to my childhood and being in my dad's workshop, it's that.

So, yes, the obvious interpretation is that I want to reupholster these couches because, I don't know, maybe it'll make me feel closer to the father I lost? That it's a way to subtly — and probably only to me — honour his memory and all that he gave me? Or maybe it's a way to prove that the effort he and my mother put into raising me wasn't a complete waste of time? I suppose that the furniture project has elements of all those things to it.

But it's more than that. Or less, depending on your point of view. Let's just say it's something *different* from all that. For whatever reason, but surely again due to the influence of my parents, I have always believed there is genuine value in doing things for yourself. And this isn't just about special projects. It applies to anything. Cutting the grass. Making your own meals with real food. Fixing your clogged drain. Shovelling your driveway. Basic hammer and screwdriver handiwork. Doing your gardening, laundry, ironing, vacuuming. It hardly matters what you're doing, more that you're doing it. Or at least attempting it. It's partly about competence (trust me on that one) but I believe it's more about agency, about independence, about taking this brief span we have on the planet and making the best use of it.

Maybe I think this way because I'm a philosopher at heart. Or maybe it's because I'm just so bored cutting the lawn for the 848th time that I'm daydreaming about ways to make it matter.

The truth is that just about anything can be a metaphor for something else … including hunting for metaphors. Anyway, that's one rabbit hole I don't want to descend, even metaphorically. Suffice it to say that wanting to reupholster the couches isn't just about reupholstering the couches. And perhaps even my relaxed work pace on the project is not just laziness and procrastination, but something deeper and more profound.

The more life experience that gathers around my feet, the more I realize that any activity we undertake that connects us to ourselves is simultaneously an activity that connects us to our past — a past we can consider with some melancholy, perhaps for its passing, but also some joy for having had the experience. You're cutting the grass the way your dad used to cut it, in the same diagonal rows then doubling back? You're marinating salmon the same way your mum used to, with rye and brown sugar and soya sauce? If so, you're not just doing yardwork or making Sunday dinner, you're honouring everything the people in your life have given you.

Despite that profundity, those couches are still splayed out in various states of disrepair in the basement. For the next project, I suppose it wouldn't hurt to start looking for efforts that require a smaller footprint. Anyway, this project is currently behind schedule, I admit, even if it is so much more than just a stalled project.

Cathy is perceptive and alive to these sentiments. She gets it. But to her point, even though it took more than 20 years to build the Great Pyramid of Giza, the ancient builders eventually got around to finishing it. I don't want to take quite that long. And I'm not arguing the point — the project has to come to an end, one way or another. Though when it does, when those couches are done and out of the basement, there will be another project, then another and another. And I will be thankful to have them. ■

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.*

PHOTO BY JOHN ULAN

Some of our grads are at the centre of experiences others only read about. Their perspectives bring us close to the story. ***Jenna C. Hoff****, '02 BSc(PT), has thoughts on what it means to communicate.*

by Jenna C. Hoff

Can We Talk?

BEING A NON-VERBAL COMMUNICATOR REQUIRES SOME TECHNOLOGY, PATIENCE, HUMOUR AND A WHOLE LOT OF PERSISTENCE

It's 10 a.m. on a Tuesday, and the 20 newcomers to Canada in the brightly lit conference room look expectantly at me as I roll to the front in Scarlett O'Chaira, my power wheelchair.

For the next few hours, we'll work on their conversational English skills — telling stories and sharing feelings, tackling pronunciation, exploring the nuances of the language and how the slightest changes in tone or sound alter a word's entire meaning.

I'll lead this group, despite not a word crossing my lips.

Instead, I'll type into an AAC (augmentative and alternative communication) device, which will speak my words in an electronic voice. As my late grandmother would say, I can talk the ear off a cat. I love to communicate — and AAC allows me to, despite a long-standing medical condition that drastically limits my verbal ability.

When I began volunteering with Catholic Social Services in 2019, I wondered if it was even possible for an AAC communicator to help others acquire spoken English. I aspire to live with vibrancy, however, so I decided to try. Life has taught me that with a little creativity and a whole lot of never-giving-up, beautiful things are born.

And that's what happened. Despite its somewhat robotic sound, my AAC voice is smooth and clear, the perfect communication method with people new to English.

While it's true the voice is woefully devoid of the richness and vastness of human emotion and tone, I compensate through heightened facial expressions, enhanced body language, the glint in my eyes and a left eyebrow I can strategically arch at whim.

Being an AAC communicator has built a bridge of understanding with the newcomers I volunteer to teach. Many have shared their struggles to communicate in stores, offices and their children's schools. They've told me how stressful it is to try extremely hard but still not be understood. To sometimes be treated with contempt.

"While it's true the ACC voice is woefully devoid of the richness and vastness of human emotion and tone, I compensate through heightened facial expressions, enhanced body language, the glint in my eyes and a left eyebrow I can strategically arch at whim."

While I don't pretend to know what it's like to be a newcomer, I understand what it's like to experience misunderstanding and judgment.

Some people get nervous around me, giggling uncontrollably. Others talk in a slow, high-pitched voice like I'm a toddler. When I order a burger at a restaurant, it's not uncommon for the server to ask my husband if I want fries. These situations hurt, but they inspire me to be more intentional about the kindness I offer others.

I've learned that people intuitively sense how much you care, which positively affects the quality of your communication and connection. Empathy is the heart of communication. Forging a connection is far more important than how you communicate.

But it's not easy to communicate through AAC. Nearly every first meeting with someone begins awkwardly, be it with my child's teacher, a cashier, new neighbours or another person at a meeting. Usually, an involuntary startled expression crosses their face; I see them mentally recategorize me as different. I still haven't figured out how to stop the shame this triggers.

But what I find heartening is how, with the vast majority of people, the initial awkwardness quickly transforms into genuine warmth. Within seconds, we dive into robust conversation.

Sometimes, though, fear bests me.

For example, my husband and I adopted four kids who range in age. The older two are young adults now, and when I first met their doctors, prior caregivers, social workers and teachers, I worried that they'd register my differences as parental incompetence.

Going through the adoption approval process with Children's Services is intense at the best of times, but it's a whole different ball game as a non-verbal applicant. To my relief, my disability was not treated as a deterrent.

When my kids arrived, they didn't see my disabilities as a big deal. To them, I'm just their mom who adores them, cooks supper, nags them to do homework and offers hugs and love aplenty. Instead, it's society that is often stunned to see a mom with differences.

Wherever I go, I'm cognizant of the increased pressure to present well in a way verbal communicators don't face, whether at church, meeting the parents of my kids' friends or making small talk at a party. I live with the knowledge I'll be judged differently; there is less room for mistakes in a world where disability is often seen as a detriment.

But, as with all things in life, I've learned to take it in stride, allowing the pain to build empathy, reminding me that a vibrant life is not built on my method of communication but on kindness, creativity, contribution and joy. ■

Jenna C. Hoff*, '02 BSc(PT), lover of black cats and delighter in sunshine yellow, is an Edmonton-based freelance writer and editor. She adores her four kids, is passionate about social justice and inclusion, and strives to live with verve.*

PHOTO SUPPLIED

thesis

DIVING DEEP INTO ONE IDEA

ILLUSTRATION BY EVA VÁZQUEZ

Better by Increment

Repetition is part of how good becomes awesome. But what about the role of refining your technique, little by little, as you learn?

SMALL ADJUSTMENTS MAKE FOR INCREMENTAL IMPROVEMENTS, which are easier to adapt to and internalize than are grand, sweeping changes. Just like it's more sustainable to refit and renovate an existing structure than it is to knock it down and build new, people and entire systems and organizations can build success, brick by brick, by gradually incorporating refinements, rather than starting from scratch. ■

For Want of a Nail

The revolution is incremental

SEVERAL YEARS AGO I WENT TO see my friend **Dov Mickelson**, '91 BEd, in a production of *Frankenstein*, staged by the Catalyst Theatre. One memorable part of the play was a song by artistic director **Jonathan Christenson**, '89 BA, '92 BA(SpecCert), '96 MFA. It was his version of the nail-and-shoe parable: "For want of a nail, the shoe was lost / for want of a shoe, the horse was lost / for want of a horse, the rider was lost / for want of a rider, the battle was lost."

The parable advises us to mind the details that underpin something bigger, and I found myself humming the song in the days after I spoke to former Golden Bear hockey player and current Edmonton Oiler **Derek Ryan**, '11 BSc(Hons).

Oilers fans are ever hopeful about the team's chances to win hockey's biggest prize. And if Ryan were to hoist the Stanley Cup, he'd be in the roughly 15 per cent of NHL players who've ever had the chance. Not bad for an undrafted player who made his rookie debut in the NHL in 2017, aged almost 30. Ryan recently signed for an additional two years with the Oilers and, now 36, he is arguably playing his best hockey. His unusual career path earned him a nomination for the Bill Masterton Memorial trophy, awarded to a player "who best exemplifies qualities of perseverance, sportsmanship and dedication to ice hockey."

That's true of Ryan, but as a description of his journey it misses something. It's one thing to be a good guy and persevere, but it's another to establish and maintain a relentless build—over years.

For want of a nail, he might not have made it this far.

Hockey scouts look for a rare combination of size, skill, athleticism and explosive speed, evident when an athlete is still a young teenager. Players who are destined for the NHL will often be there by 20, drafted out of juniors. At 21, Ryan was 5'10", 170 lb., undrafted, studying science at the U of A and playing for the Golden Bears at Clare Drake Arena. He was preparing for a future off the ice, with thoughts of going into pharmacy, and he learned what every student athlete must: the discipline to balance academics and sports.

The skills Ryan built in the juniors, followed by the self-discipline he honed in varsity hockey, earned him the chance to play pro in the Austrian league. So Ryan and his wife moved to Europe, thinking of adventure—maybe followed by pharmacy school.

"In Austria I learned how to play on the larger ice surface, and the style of play was really about offence," he says. Pundits say that the extra five metres in the width of the ice means a less physical, more tactical game. So when Ryan found the puck, he had a bit more time to develop the play.

"After three years, we moved to Sweden, where the play is very defensive," he says. "It's 1-0 and 2-1 hockey games all the time." Ryan learned to take advantage of rarer offensive opportunities while building his defensive game. Improvements stacked up and he was voted league MVP.

Ryan's is less a story of putting in 10,000 hours of practice and more one of making 10,000 fine adjustments. "I've spoken a lot about my journey. It's something that I cherish," Ryan says. "It's given me the perspective I have now."

Incremental change is also the stuff of cognitive behavioural therapy, or CBT, an evidence-based psychological therapy.

"There are many interconnected factors that characterize mental health problems, including a person's thoughts, emotions and behaviours," explains **Ellen Klaver**, '16 MEd, a registered provisional psychologist completing her PhD in counselling psychology at the U of A. She says changing one factor will help change the others. For example, CBT can take small steps to target thoughts, leading to changes in a person's behaviours and emotions.

It's an old idea. Klaver points out that Epictetus, a philosopher who did his thinking around 1,900 years ago, said that events are not what upset us, it's how we think about them afterwards.

Learning to reframe our thoughts is a journey of multiple increments. It often involves creating clear goals that are achievable and measurable. While this comes naturally to some, the rest of us might flail a little towards a goal, in life or therapy. CBT is a strategy that feels custom-built to realize these refinements, however you define them.

Dramatic organizational change can also be realized through small gains based on incremental learning.

Hyeik Kim, an assistant professor at the Alberta School of Business, studied 2,400 world airports that each served more than 10,000 passengers per year. She and several international colleagues found a consistent difference between poorer-rated airports and higher-rated ones: the better performers, 437 of them, were owned by private equity funds rather than run as public infrastructure. The

ILLUSTRATION BY EVA VÁZQUEZ

Epictetus, a philosopher who did his thinking around 1,900 years ago, said that events are not what upset us, it's how we think about them afterwards. Learning to reframe our thoughts is a journey of multiple increments.

better performers were able to increase the number of passengers per flight, which is a marker of success.

"Fund managers want to stay in business, and their reputation is based on their performance," Kim told *Folio*, the U of A's news site, in March. Yet building value for investors didn't involve slashed costs, high prices or staff layoffs. In fact, she found there were no layoffs and if costs rose, the increase was modest.

Private equity management practices created gains through small improvements — by increasing the number of routes and terminals and by adding low-cost carriers. They improved retail and food services, waiting areas and cleanliness, borne out by passenger surveys and industry awards.

Whether in sports, business or ordinary life, small changes are behind big achievements. They're the nails that help us win battles, demonstrating that people and whole systems make gains by increment. And that's part of the journey that all of us can cherish. –**MIFI PURVIS**, '93 BA

HEALTHY COW, HALE HERD, HAPPY FARMER

Prevention is a bovine's best medicine

PREVENTION IS PREFERABLE TO TREATMENT when it comes to health, and this applies to cows, too. A probiotic developed at the University of Alberta is the first of its kind to have widespread benefits for dairy cows, and the product is starting to make its way into the marketplace. Alberta dairy producer Jeff Nonay, whose herd was involved in the research, noticed a link between the probiotic and a higher quality and quantity of colostrum — the cow's first milk fed to calves after birth, which helps build their immune systems.

Developed over a decade by immunobiologist Burim Ametaj, the probiotic contributed to a 50 per cent reduction in post-calving uterine infections. It lowered by half the rate of an illness called milk fever, reduced the incidence of placenta retention and reduced lameness caused by inflammation. Additionally, test cows increased their milk yield by four to six litres daily in the first 50 days after calving.

The calves experienced benefits, too: they showed higher weight and better immunity four weeks after birth.

The herd's well-being improves, one animal at a time. Because the probiotic is a natural product, it won't cause problems such as antibiotic resistance, says Ametaj. It can benefit dairy farmers' bottom line, too: Nonay notes that probiotics would be inexpensive for producers. "It's a good tool to have available for us to do the job," he says. And adding this single tool could eventually benefit the entire industry.

The probiotic is being marketed as ProPreg by a Canadian startup, Healthy Cow Corp. Small-scale sales have started in the United States, with plans to commercialize in Canada in the next year or so. –BEV BETKOWSKI

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Photosynthetic Champions

Imagine if a food crop was a little better at using sunlight

CANOLA CONTRIBUTES $29.9 BILLION PER YEAR TO CANADA'S ECONOMY from domestic sales and $11.9 billion a year from global exports. These profits could be boosted if farmers were able to harvest more canola, but options for increasing crop yields had been largely exhausted—until now.

Linda Gorim, a University of Alberta plant scientist, runs a research program that focuses on developing productive, sustainable and resilient cropping systems on the Prairies. One of her goals is identifying which breeding lines of canola are the best photosynthesizers. These canola varieties make the most of solar energy to grow, producing a better yield.

Using a handheld device (the MultispeQ meter) Gorim and her technicians, graduate students and

ILLUSTRATION BY VIDHYA NAGARAJAN

summer assistants collected data from U of A field plots in the summer. "It's exciting to expose students to different experimental designs and ideas. It really gives them the opportunity to be innovative and grow," says Gorim, Western Grains Research Foundation Chair in Cropping Systems.

The device pairs to smartphones to measure which plants and breeding lines are capturing solar energy more efficiently. Gorim's research could empower farmers to select the best-performing canola varieties to refine their existing breeding programs and crop management strategies. "Scientists and farmers are interested in the idea of capturing the sun, which is a free resource, and if we can get higher plant output together with optimizing fertilizer use in cropping systems, it makes sense," says Gorim. –BEV BETKOWSKI

STEPS TO CLEANER HEAT

A new way to reduce carbon emissions

GAINS IN CLEANER ENERGY often come in small steps. But the increments build, creating a big effect over time.

In his latest study, University of Alberta hydrogen expert **Amit Kumar**, '04 PhD, and his team, led by engineering PhD student **Matthew Davis**, '17 MEng, found adding hydrogen to natural gas decreases carbon emissions. Kumar found that burning the resulting fuel, hythane, saves as much as five per cent on these emissions without modifying existing infrastructure, as long as the hydrogen doesn't exceed 20 per cent by volume. "You can use it in your appliances and for heating purposes with current equipment," says Kumar.

Switching to hythane has economic benefits as well. "Economies will benefit from the infrastructure scale-up through job creation, attracting investment and technology exports," he says. For instance, some hydrogen is produced by converting natural gas, producing carbon dioxide. By using carbon capture and storage, this "grey hydrogen" becomes cleaner "blue hydrogen."

"We produce a large amount of hydrogen in Alberta, but most of it is used in the industrial sector in bitumen upgrading and fertilizer production," Kumar says. "If we convert our infrastructure to produce blue hydrogen—and that means adding carbon capture and storage—to all of these production facilities, that's a big win for us."

Alberta is already a global leader in carbon capture and storage, creating an enormous opportunity for the export of its hydrogen and expertise in the future. It could all start with the small step of switching to hythane.

"You don't need a major investment," says Kumar. "You can use the existing infrastructure and slowly replace it to take on a higher percentage of hydrogen. It gives you time in a slow transition." –GEOFF MCMASTER

What Goes Into Your Wish List

Refine your reading list by taking and making better recommendations

MORE THAN 10,000 BOOKS ARE PUBLISHED IN CANADA EACH YEAR. So how do we narrow down our choices? Danielle Fuller, an English and film studies professor, investigated this question and others with DeNel Rehberg Sedo of Mount Saint Vincent University in Halifax. They researched contemporary readers' opinions about fiction and their influence on the creation of bestsellers, publishing their findings in *Reading Bestsellers: Recommendation Culture and the Multimodal Reader,* by Cambridge University Press. They looked at how readers approach a text, and found that your bestie has more influence than random reviews. "We made a podcast about our research for BookNet Canada called 'Reading Bestsellers,'" says Fuller. Here are some findings.

GETTY IMAGES

Paper or screen? Yes
Fuller and Rehberg Sedo found contemporary fiction readers to be "multimodal" in that they engage with texts across physical and digital formats. Similarly, these readers consult online and offline recommendations to pick new reads.

Bricks-and-mortar abide
Bookstores still play an important role in the book selection process. Fuller explains that the idea of the "decline of the bookstore" isn't necessarily accurate. "It's actually an era in which analogue and digital forms co-exist," she says. "Before and during the pandemic, independent bookstores in Canada surged because they could make in-person, curated recommendations."

Internet experts
Fuller encourages readers who consult online recommendations to check out influencers who share their favourite genre on BookTube, Bookstagram and BookTok. "That can be a good way to cut through the overwhelming number of choices out there."

Readers, IRL
The most persuasive type of recommendation Fuller found is also a time-tested one: book endorsements from family, friends or colleagues. "Don't forget to ask people you know or work with for recommendations," Fuller says. "They still loom large in the lives of many readers, and in our research." —GEOFF MCMASTER

Small Connections Build Bigger Community

Non-profit promotes innovative programs for older adults

ALBERTA SCHOOL OF BUSINESS GRAD Samantha Gardner, '23 BCom, wanted to find a way to help older adults feel less isolated during the COVID-19 social restrictions. To achieve this goal, she co-founded the non-profit Sunshine Connected, a digital platform where older adults could connect with student volunteers. Step-by-step, it evolved into a space where students and older adults exchanged intergenerational knowledge.

Sunshine Connected's pilot program, Teach-n-Trade, paired students and older adults who had similar interests. The pairs would learn new skills from each other over the course of three weeks. The program has completed several rounds. "We try to create the best possible match and experience because people want to take something away," Gardner says.

"The older adults felt a sense of pride and fulfilment, being able to share their accumulated wisdom," she says. "And the students, myself included, were excited to learn and engage, because we have things to share as well."

Sunshine Connected is in its fourth year, and Gardner continues to tweak its programs. This year, the non-profit will pilot a program that helps older adults learn about health literacy topics. "There's room for a lot of innovation in programming for older adults," says Gardner. "That population will continue to grow. There's a lot of funding and support available to really make an impact."—GEOFF MCMASTER

ILLUSTRATION BY EVA VÁZQUEZ

UNMASKING ALZHEIMER'S EARLY

Machine learning can reveal changes to speech that may help diagnose dementia

ALZHEIMER'S DEMENTIA can be difficult to identify early. Its symptoms can be confused with memory-related issues that are typical of age, and testing is not widely available.

"Before, you'd need lab work and medical imaging to detect brain changes; this takes time, it's expensive, and nobody gets tested early on," says Eleni Stroulia, a professor in the Department of Computing Science.

Stroulia is a part of a research team that is using a machine learning model as an improved approach to detecting Alzheimer's dementia. All it needs is a smartphone and a recording of someone's speech. Study co-author Russ Greiner emphasizes the model's ease of use.

"A person talks into the tool, it does an analysis and makes a prediction: either yes, the person has Alzheimer's, or no they don't," says Greiner, professor in the Department of Computing Science and member of the Neuroscience and Mental Health Institute.

Health-care professionals won't be replaced by the tool, adds Zehra Shah, a master's student in the Department of Computing Science and first author of the paper. She notes that it can help address geographic or linguistic barriers to accessing care, as well as support patient triage.

The model shows promise. It distinguished patients with Alzheimer's dementia from healthy controls with accuracy of 70 to 75 per cent in recent testing.

"If you could use mobile phones to get an early indicator, that would be informing the relationship of the patient with their physician. It would potentially start the treatment earlier, and we could even start with simple interventions at home, also with mobile devices, to slow the progression," says Stroulia.—ADRIANNA MACPHERSON


The

By **Lisa Szabo**, '16 BA

Generative AI puts the power of artificial intelligence in our hands. It's already changing our schools and workplaces. What do we need to know?

New Tech Revolution

Illustrations by Taylor Callery

In 1960, the Ford River Rouge plant in Dearborn, Mich., was a hive of automotive production. Men and women in dirty white jumpsuits buzzed around an assembly line. Welders' faces, shielded by massive helmets like those of early dive suits, lit up with flashes as they attached the limbs of steel skeletons with welding guns. Some workers ground the rough joints into smooth silver patches while others installed doors, hoods and bumpers. Nearly every accessory, from headlights to windshield to seats, was put in place and perfected by the nearly 40,000 people who worked at the plant.

Fast forward to 2012 and the scene had changed. In the Dearborn plant and others across North America, humans had largely been replaced by robotic giants. In just a few decades, new technology in the form of automation transformed the manufacturing industry.

Today, a new kind of technology is knocking on our doors. And, depending on who's doing the predicting, it could have an impact as large as the increased automation of the 1980s, '90s and 2000s. It's called generative artificial intelligence.

For most, our first inkling of generative AI was just over a year ago when the artificial intelligence company OpenAI released the newest iteration of its chatbot, ChatGPT, to the public. Similar bots from Google, Microsoft and myriad AI companies have followed, with promises to help users summarize information, write text, conduct background research or generate computer code, often in a matter of seconds. Other generative models can create images and video content almost on the spot. Unlike an artificial intelligence model that has been trained to suggest a Netflix show you might like, a generative AI model produces human-like responses to prompts from users. Meaning it can — theoretically — generate everything from a movie script to a will to a recipe for dinner.

Since its launch into public consciousness, questions have been swirling about the tool's potential impact on our jobs, our learning, our security — even our ability to tell what's real. Many agree that generative AI can be a useful tool and create efficiencies in many areas of life. But with AI becoming more powerful and increasingly integrated into our daily lives and tasks, there's also concern that it could go so far as to challenge aspects of our humanity.

Earlier this year, more than 30,000 people, including SpaceX founder Elon Musk and Apple co-founder Steve Wozniak, called for AI companies to pause developments for six months on AI systems more powerful than the technology behind ChatGPT. They argued we need to learn how to better manage these technologies and to consider to what extent we want them in our lives. Even Sam Altman, CEO of OpenAI, the company that created ChatGPT, told the U.S. Senate judiciary committee that "regulatory intervention by governments will be critical to mitigate the risks of increasingly powerful models."

So, what do we need to know about this potentially history-altering tool? What should we expect and what should we watch out for? Is generative AI really all it's cracked up to be? As we stand at the precipice of what could prove to be a new era in artificial intelligence, experts at the U of A — ranked among the world's best for the study of AI — are working to help us navigate this new AI technology and the ones to come.

WHY ALL THE EXCITEMENT?

GENERATIVE AI MODELS ARE GETTING A LOT OF ATTENTION right now, but they've actually been around for years. U of A computing scientist **Alona Fyshe**, '05 BSc(Spec), '07 MSc, first started studying these models a decade ago. At that time, she says, it was nearly impossible to get one to recognize that two words rhymed.

Now, researchers are using sophisticated generative AI to do everything from sorting through troves of data to diagnosing disease more swiftly to connecting people with mental illnesses to appropriate resources.

Part of the reason for all the excitement now is the pace at which these models are improving. But what makes generative AI really impressive, says Fyshe, is that it marks a shift in the type of tasks artificial intelligence models could traditionally perform. Where historically, an AI model was trained to complete a single task — like predict every winning chess move — generative models can interact with users and produce

Twitter took two years to reach one million users. Instagram took 2½ months. ChatGPT took five days.

text, code or images on an infinite number of topics. Not to mention that the release of ChatGPT marked the first time a relatively sophisticated, easy-to-use (and free) generative AI model was placed in the hands of the public.

Also unprecedented is the speed with which everyday people have snatched up the technology. Twitter took two years to reach one million users. Instagram took 2½ months. ChatGPT took five days.

"A large company put up a very easy-to-access website," says Fyshe. "I think that had a huge impact."

Eleni Stroulia, computing scientist and vice-dean in the Faculty of Science, agrees that the sudden accessibility of generative AI models is an important advancement. For one thing, it demonstrates the power of data, which are key to many modern algorithms.

"But ChatGPT is a very small slice of what AI work is about," Stroulia says. "It's very important for people to not lose sight of all these opportunities and all this potential just because of this important advancement that is grabbing our attention today."

To Richard Sutton, a world-renowned professor of computing science based at the U of A, generative AI is not really AI at all. True artificial intelligence uses computational abilities to achieve goals, he says. He gives the example of AlphaGo, developed by U of A grads **David Silver**, '09 PhD, and **Marc Lanctot**, '13 PhD, along with Aja Huang. In 2016, it became the first computer program to defeat a human world champion in the complex board game of Go, which has 10 to the power of 170 possible board configurations. In Sutton's view, models like AlphaGo meet the criterion for true AI; generative models do not.

He says generative AI models use computation to solve a hard problem, as in text summarization or language translation or protein folding. That's not

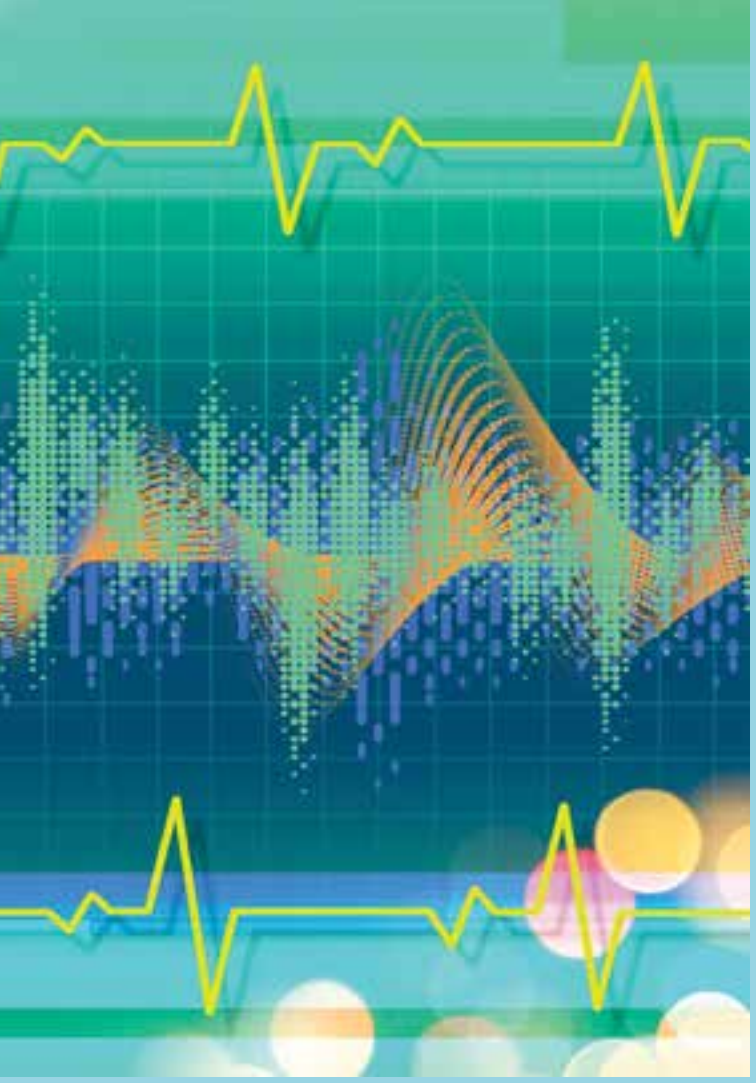
Potential Made Real

U of A researchers are applying AI across disciplines to enhance our lives

By U of A writers

The U of A launched Canada's first computing science department in April 1964. Over the decades, the university has overcome one artificial intelligence challenge after another to become a world leader in AI research.

Today, U of A scientists across disciplines are advancing what AI can do and how well it can do it. They're working on fundamental research to advance AI as well as ways to apply AI to health care, energy systems, law, agriculture, smart construction, autonomous vehicles and more. And they are striving to make sure AI works for us, by examining questions of privacy, security, ethics and bias to help us navigate its ever-advancing capabilities.



Smarter Energy Systems
Electrical and computer engineer Hao Liang is leveraging information and communication technology to develop "intelligent" energy systems that are more efficient, reliable, sustainable and secure, including energy systems that use various energy sources.

Fairer Algorithms
Computing scientist **Nidhi Hegde**,'95 BSc(Spec), focuses on identifying where and how bias occurs in machine learning and how to build fairness and privacy protection into algorithms to make them more trustworthy, effective and fair for all no matter what race, ethnicity, gender, age or other factors.

Chatbot for Seniors
Computing scientist Osmar Zaiane leads a project involving colleagues in psychiatry that's exploring how to create an empathetic and emotionally intelligent chatbot companion for seniors. The generative AI tool is also designed to detect signs of depression and dementia and pass that information on to caregivers and health-care providers.

Playlists for Patients
Music professor Michael Frishkopf and his interdisciplinary research team are using machine learning to select soundscapes to reduce stress in intensive care patients. An algorithm assesses a patient's psychological state by monitoring biosignals and responds with personalized soothing sounds.

Illness Early Warning
A research team led by Sunil Kalmady Vasu, a machine learning specialist in the Faculty of Medicine & Dentistry, has found a way to assess the chances that first-degree relatives of people with schizophrenia will develop the disease, given that they have a risk of up to 19 per cent compared with one per cent in the general population. The tool is not meant to replace diagnosis by a psychiatrist but could lead to earlier diagnosis.

Better Wildfire Responses
Using 15 years of wildfire fighting data, a team led by business professor Ilbin Lee did an experiment with a machine-learning simulation to determine how the resources used in initial attack operations affected success. The results offered insight into the best ways to allocate limited resources under different conditions.

Gender Bias Repair
Statistics professor **Bei Jiang**, '08 MSc, is working on a better way to reduce gender bias in natural language processing models while preserving vital information about the meanings of words. For example, when considering a word like "nurse," the research team wants the system to remove any gender information associated with that term while retaining information that links it with related words such as doctor, hospital and medicine.

Better Buildings
Researchers in science and engineering are working to optimize building systems through the use of artificial intelligence to improve the planning, design, construction, operation and maintenance of buildings. The goal is to increase the comfort of occupants and reduce energy consumption and costs.

Death Risk Indicator
A team led by **Padma Kaul,** '00 PhD, in the Department of Medicine trained a machine-learning algorithm to predict a patient's risk of death from all causes one month, one year and five years after having an electrocardiogram in hospital. The result was an 85 per cent accuracy rate based on 1.6 million ECGs done on 244,077 patients in northern Alberta between 2007 and 2020. When factors such as age, sex and six standard laboratory blood test results were included, the predictions were even more accurate.

Expert Answers
Augustana computing scientist Mi-Young Kim and colleagues are developing AI that can answer medical and legal questions—and explain its answers at the same time. In collaboration with Alberta Health Services and startup Jurisage, the tool will make hard-to-reach expertise more accessible and save time and money.

Tools for Construction
Aminah Robinson Fayek is an expert in fuzzy logic, an AI technique that represents expert knowledge and subjective reasoning through mathematical models. She is harnessing fuzzy logic, machine learning and simulation to capture expert construction knowledge, which can then be used to improve the accuracy and efficiency of decision-making in construction planning, execution and control.

Addiction Prediction
A team led by Bo Cao, Canada Research Chair in Computational Psychiatry, has created a machine-learning model that can predict with 86 per cent accuracy patients who are at high risk of developing opioid use disorder. Based on nearly 700,000 Alberta patients who received prescriptions for opioids between 2014 and 2018, the project found the top risk factors included frequency of opioid use, high dosage and a history of other substance use disorders.

Responsive Robots
Mechanical engineering professor Ehsan Hashemi is collaborating with colleagues in the Department of Psychology to control networked robots to work safely side by side with humans in dynamic work environments by responding to cues in body language, a branch of experimental psychology.

the same as being goal-directed agents. Ultimately, he says, the difference is a question of degree. But it is also fundamental because the limitation of large language models comes directly out of the way they are created.

"Generative AI is basically mimicking humans," he says. "Their appearance of being goal-directed is superficial and shallow."

Sutton is chief scientific adviser at Amii in Edmonton — one of three national AI institutes in Canada — and has been working in the field of artificial intelligence since the 1980s. He is one of the pioneers of reinforcement learning, a type of machine learning in which models are trained to produce the best results by receiving a reward for each right decision they make.

While generative AI is the big topic of conversation right now, he says, "there's so much more to artificial intelligence than this new generative AI stuff."

Sutton and others at the forefront of the field are focused on developing artificial general intelligence, a type of AI that could theoretically accomplish any (and every) intelligent task a human could.

Generative AI models, while still a far cry from what experts might think of as truly intelligent machines, are a step in that direction.

"It used to be if we wanted to create a new model or do a new task, we had to train it from scratch," says Fyshe. "When you could think about building a model through a text interface rather than having to train something special-purpose that could only do one thing, that was a new way of thinking."

These new models stand to save immense amounts of time, money and other resources, she says, and allow AI development to progress faster than it would if researchers had to train a new model for every task.

"It's just a fundamentally different way of solving AI problems," says Fyshe.

New Experts Set to Add to Canada's AI Force

Global hiring campaign fuelled by Amii, one of three national institutes, will enhance U of A expertise

TWENTY NEW FACULTY MEMBERS hired over the next five years will help propel artificial intelligence research at the U of A into the future, supplementing the work of existing researchers (see sidebar) who have put the university at the forefront of the field.

Amii, the Alberta Machine Intelligence Institute, a non-profit AI institute that began life as a research hub at the U of A 20 years ago, is investing $30 million to recruit AI experts from around the world.

Of the 20 new recruits, five will be hired as U of A faculty members in computing science, while 15 will focus on next-generation interdisciplinary science including health, energy and Indigenous initiatives in health and humanities. (Two of the health-focused faculty members are also being funded by the Dianne and Irving Kipnes Foundation.)

The global hiring campaign is aligned with the Pan-Canadian AI strategy stewarded by the Canadian Institute for Advanced Research (CIFAR), a federally supported program intended to build a robust AI ecosystem in Canada founded on fundamental AI research, commercialization, high-quality training and attracting AI talent.

An integral part of the national AI strategy is the Canada CIFAR AI Chairs program, with chairs based at three national institutes: Mila in Montreal, the Vector Institute in Toronto and Amii in Edmonton. The U of A has 26 faculty members and Amii fellows who are Canada CIFAR AI Chairs, and the new recruits will be eligible to be nominated.

Amii was created in 2002 with an investment by the U of A and the Alberta government. In 2017 it was named a national centre of AI by the Pan-Canadian Strategy and tasked with advancing Canada's AI potential. The U of A remains the primary partner of Amii's AI research.

To date, Amii has worked with more than 300 companies and organizations to translate scientific developments into industry applications. It has helped create more than 200 technologies, including algorithms, architectures, theories, methodologies, approaches and applications. Amii-affiliated ventures have secured more than $600 million in venture financing, including $450 million raised by Canadian-based companies.

—ADRIANNA MACPHERSON

WHAT IT CAN AND CAN'T DO

WITH GENERATIVE AI MAKING HEADLINES AROUND THE WORLD, AND NOT always for its merits, some may be tempted to view the technology as a real-life HAL, the sentient AI system in *2001: A Space Odyssey* that attacks the spacecraft's crew members after they attempt to shut it down. But unlike *2001*'s astronauts, experts at the U of A can tell us what's actually going on behind the screen. And it's not as scary — or even as smart — as it seems.

"Humans are famous for seeing intelligence where there is none," said Fyshe in a TED Talk earlier this year.

Generative AI models generate an output — at this point, mainly text, images or computer code — based on a specific dataset. Large language (also called generalist language) models such as ChatGPT and image generators like Dall-E and Adobe's Firefly are considered generative AI.

To train a large language model, developers feed it millions of pieces of information from the internet. (ChatGPT 3.0 was trained using roughly 300 billion words.) A model detects language patterns such as what types of words are used, which topics are connected and how often certain

"Can a neural network that doesn't actually exist in the world, hasn't really experienced the world, really understand language about the world? Many people would say no."

–Alona Fyshe

words occur together. When given a prompt, a model responds by predicting the most probable words in a sequence based on the data that were fed into it.

For example, while it might take a writer 30 minutes to generate an outline for a feature article, ChatGPT can come up with one in five seconds. You could even get it to write the story. Just enter the prompt into the chat box, "Write me 1,500 words on the role of railways in the First World War" and it will spit it out in no time (with an enviable lack of self-doubt).

But—and this is important—large language models don't always produce the *right* answers. As with autocomplete in an email or text message, generative AI is filling in the blanks. A given model won't actually "know" the answer you're looking for. If it can't find it in its mass of data, it might just make something up, a flaw that has been dubbed "hallucination."

Fyshe is a CIFAR Artificial Intelligence chair—one of a number of leading researchers at the U of A and across the country funded to carry out fundamental and applied research and help train the next generation of leaders. She has been researching human brains and large language models to determine whether or not AI is really capable of understanding language the way we do.

In one study, Fyshe and her colleagues looked at electroencephalogram, or EEG, images of infant brains as the babies heard familiar words like "banana" and "spoon" and compared them with images of a language model's neural network (the equivalent of a computer brain) prompted with the same words. The researchers found that the way infant and computer "brains" processed language was more similar than different. But that doesn't equate to understanding, says Fyshe.

In her TED Talk, Fyshe draws on the Chinese Room Argument formulated by American philosopher John Searle in 1980. She compares language models like ChatGPT to a man sitting in a room surrounded by thousands of books outlining the rules and patterns for speaking Chinese. Someone slides a piece of paper with Chinese writing on it under the door, and the man has to respond. He doesn't know the language himself but, using the resources around him, he's able to respond to the text and slip a coherent answer back under the door. To an outsider, it appears the man in the room knows Chinese—but we know differently. "Under the hood, these models are just following a set of instructions, albeit complex," she says.

The baby who hears the word "banana" might associate it with snack time, sweetness, a parent feeding them. The AI, however, does not. It has never opened a door or seen a sunset or heard a baby cry, Fyshe explains in the talk.

"Can a neural network that doesn't actually exist in the world, hasn't really experienced the world, really understand language about the world? Many people would say no."

THE IMPLICATIONS FOR LEARNING

WHETHER OR NOT GENERATIVE AI CAN BOAST OF intelligence—and it probably *could* boast, if you asked it to—these models are already transforming the way we learn and interact with information. That's raising all kinds of ethical and practical questions, especially in education. Is it cheating or is it a tool? Should we embrace it or blackball it? When evidence of students using generative AI sprung into homework assignments without warning in November 2022, some North American universities and high schools, including the entire New York City Public School district, responded by banning the technology completely (though the New York district later rescinded its ban).

Other institutions, including the U of A, are addressing the arrival of the new technology differently.

"The U of A's approach has been largely: How do we support our students to use AI as a tool?" says **Karsten Mundel**, '95 BA, vice-provost of learning initiatives. He chairs the Provost's Taskforce on Artificial Intelligence and the Learning Environment, made up of professors and educational experts from a broad range of disciplines. The group was convened early in 2023 to help instructors and students navigate the use of generative AI responsibly.

The task force came up with a number of recommendations. Among them are prioritizing learning opportunities that improve AI literacy among the U of A community and, particularly for graduate students, creating opportunities to explore the intersections of AI with their field of study. The recommendations also encourage professors to include "purposeful statements about AI" in course syllabuses so that students are clear on how they are and aren't allowed to use it.

"Students don't want to cheat. That's not the goal," says Mundel, but if their classmates are using generative AI to write their essay outline—or even entire papers—students may feel pressure to do the same.

"It is a challenge but also an opportunity to reimagine the kinds of assessments that we're doing and the ways in which we're asking students to demonstrate achievement," he says.

Some educators are embracing the technology as a learning tool. Geoffrey Rockwell, a professor of philosophy and digital humanities in the Faculty of Arts, sees the potential for large language models to help students process their ideas.

"There is a long tradition in philosophy of thinking through difficult topics with dialogue," Rockwell wrote in an article for *The Conversation*. Unlike speeches or written essays, which can't adapt to a listener or reader, a dialogue engages both parties and enables a two-way flow of ideas. Using a character generator like Character.AI, he says, students can engage in critical conversation with fictional characters and even question their ideas and philosophies.

Many universities, including the U of A, have given professors the power to decide if and how students use the technology in their classes. This has the potential benefit of familiarizing students with generative AI, including its risks and potential uses beyond generating a poorly written essay. When students learn how to use the technology responsibly, they can transfer those skills to the workplace.

That's the idea behind the U of A's new Artificial Intelligence Everywhere course, which is open to undergraduate students in any faculty. Fyshe and computing science professor **Adam White**, '06 MSc, '15 PhD, developed the course as part of a collaboration between the university and Amii. The goal is to demystify AI and give students the opportunity to consider how they might encounter — and harness — artificial intelligence in their fields of study. For example, says White, a chemistry student might start thinking about how a machine learning algorithm could assist them in future experiments, or a business student could consider how generative AI might benefit their startup.

"AI will continue to touch more and more aspects of people's daily lives but also their careers," says White. "It's really important that students coming out of the U of A have an appreciation for those nuances."

The course will soon be rolled out to other post-secondaries in Alberta, and the hope is to one day develop a massive open online course, or MOOC, so that anyone — not just university students — can better understand AI technology and its uses.

"AI literacy is critical, because we want people not to be afraid of technological advances," says White. "The best way to do that is to understand them in some reasonable way."

WHAT ABOUT OUR JOBS?

TECHNOLOGY HAS BEEN TRANSFORMING THE WAY we work since the advent of the wheel. From the agricultural revolution to the humble washer and dryer, humans have sought out ways to ease the burden of labour.

Advances in technology can be beneficial in the long term to individuals and society — safer jobs, more interesting work, better health, more productive economies, a higher standard of living — but new technology can also create painful dislocation and disruption, not to mention the loss of jobs in the short term. With a year of generative AI under our belts, it's a bit clearer what the technology is and isn't very good at in the workplace.

"People are using it for the boring stuff, or to get started on something more interesting," says Fyshe. "It's not writing A+ essays or novels." But, she notes, it's pretty good at formulaic writing tasks. "It has changed the way a lot of people do their jobs," she adds. And some companies are making the most of it.

Indian tech startup Dukaan made headlines in July for replacing 90 per cent of its support staff with an AI chatbot. German publisher Axel Springer announced it would cut hundreds of jobs, some of which would be replaced by artificial intelligence. Dropbox shared that it would reduce its workforce by 16 per cent, stating "the AI-era of computing has finally arrived" and the company needs a "different mix of skill sets" to continue growing.

Some employees have been fighting to prevent job disruption before it happens. TV and movie writers in Hollywood went on strike earlier this year, in part after failing to come to an agreement with studios about the use of generative AI in scripts.

"Any time a technology comes into place that wipes out certain forms of work or even changes the division of labour, it's going to challenge people's identities and sense of self," says Nicole Denier, an assistant professor of sociology who specializes in work, economy and society.

She points to a 2020 study out of the University of California that linked the opioid crisis in the U.S. to the increased automation of labour and the move to offshore manufacturing in the 1990s, which put many employees out of work. Using records of 700,000 drug deaths between 1911 and 2017, the author found "strong evidence" that the decline of state-level manufacturing in the labour market predicted as many as 92,000 overdose deaths for men and 44,000 overdose deaths for women.

"Certain segments of the working population lost their position in the social and economic hierarchy," says Denier.

"Work is really foundational to many of our identities," she says. Most adults spend around half their waking hours working. Our jobs are one of the first things we tell people about ourselves. Work has historically been so tied up in humans' identities that many people adopted their trades as their family names (think of Miller or Smith). Denier's own family speculates its surname may refer to the small gold coins minted by her French ancestors.

"I think what's new about large language models is that they will largely touch jobs that require more formal education — so lawyers, professors, engineers — occupations that have traditionally been protected from some of the previous waves of AI might finally see this impacting their occupations," she says.

Denier encourages employees and employers to talk about whether and how generative AI tools should be used in the workplace. She adds it's also important that academics and researchers from diverse fields, including history, languages and fine arts, weigh in on the matter.

"We need lots of conversations from lots of different people," she says. "Not just tech companies, not just computer scientists, but the people who will be affected."

Humans create tools all the time, she adds. It's up to people to decide how they are used.

"How will it be implemented in workplaces? That's still an open question."

THE CREATIVE QUANDARY

GENERATIVE AI IS CROPPING UP IN AREAS THAT ARE EVEN MORE difficult to navigate. When it is used to create visual art, poetry, stories — forms that connect us to one another, teach us about ourselves and unite us in our humanity — we get into murky territory. For some, it's a welcome tool that offers ideas, saves time and helps them work in tandem with technology. For others, it's a cheap trick, further alienating humans from the art they create.

With AI-generated art entering the mainstream (Adobe's newest version of Photoshop now includes generative technology), questions are cropping up about what makes something art, and *who* makes an artist. In August, a Washington, D.C., court ruled against a computer scientist

seeking copyright for a piece of visual art created by an AI system of his own making. The judge deemed that, based on centuries of understanding, human creation is a "bedrock requirement of copyright." The scientist's AI system did not pass the CAPTCHA.

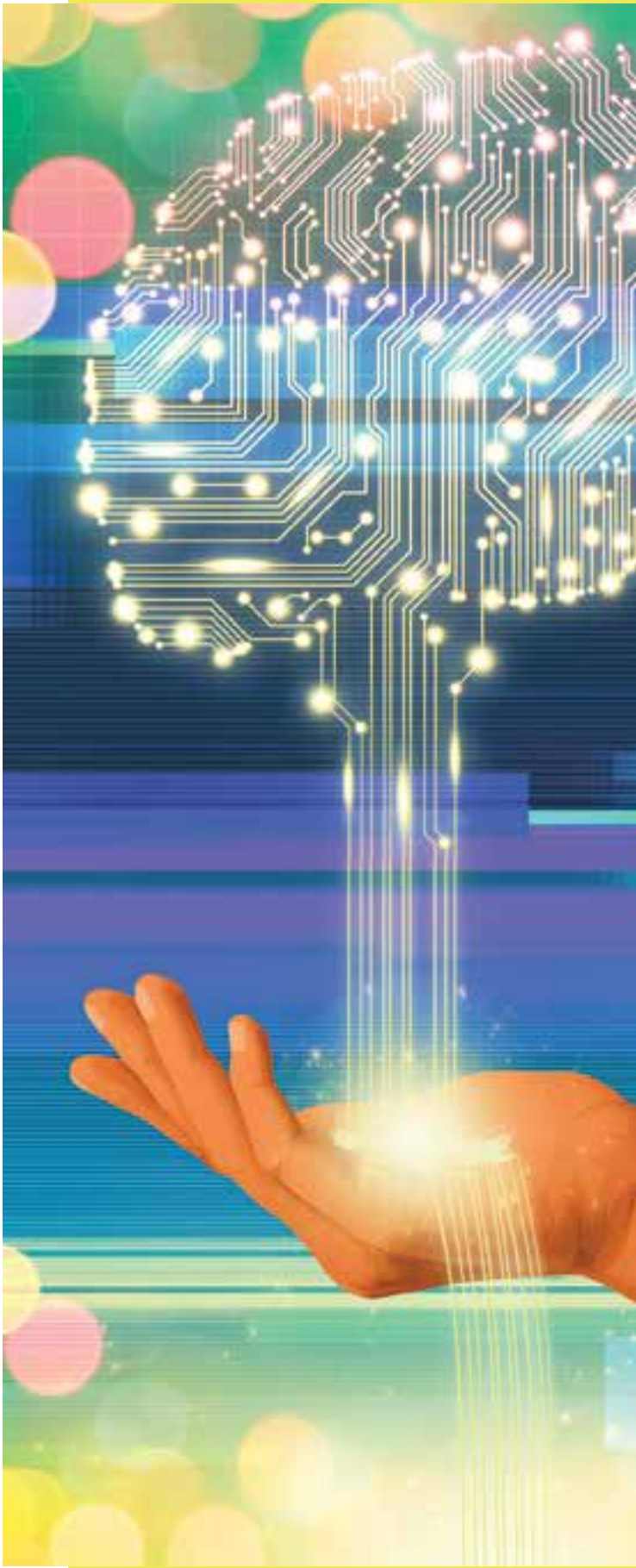
"Art has a deep meaning for us," says Rockwell. "We have a different relationship to art than we do to utilitarian objects. I need a stove to cook dinner. The paintings on my wall, I don't need them to do something. They're not tools to an end. They are the ends themselves."

The adoption of tools in visual art is not new. From watercolour markers to drawing software, artists have made use of advancing technology as much as anyone else. But new technology can come with tradeoffs. Until the end of the 19th century, drawing was a form of basic literacy among educated people, says Rockwell. Soldiers needed to be able to map out routes and battle plans; archeologists had to sketch their discoveries. With the advent of photography, that need was largely eliminated. People still draw, but as a specialty, not a basic skill.

Art is one of those topics people can never quite agree on. Is a splotch of red paint on a page or a rotting banana in a gallery "art"? Adding generative tools to the mix complicates the conversation even further. How much can a tool do before it's the tool's piece of art and not the artist's? What's more, when AI models are generating art based on pieces created by other artists — many of whom may not have given permission — it creates a whole other kind of ethical conundrum.

While it's becoming more common to see AI-generated images in magazines, on book covers and in advertisements, Rockwell thinks the novelty will eventually wear off. He suspects people will begin to seek out art forms that can't be produced by AI, such as ceramics or theatre.

"Even if computers get to be extraordinarily effective at imitating the arts that we find entertaining, I think we will continue to reflect on works of art that we know were made by humans," he says. "Because we see them as a way of learning about ourselves."



HOW WILL WE KNOW WHAT'S TRUE?

MORE THAN A YEAR AFTER THE LATEST IN GENERATIVE AI WAS first thrown open to the public, people have begun to realize it is not the workhorse they first thought it was. Enough stories have come out about the flaws — errors, hallucinations, downright silly answers — for users to realize its limits.

Back in June, a lawyer used the technology to generate a court brief that, unbeknownst to him, included phoney examples of similar cases. The mishap resulted in a disciplinary hearing for the lawyer and a warning for anyone using the tool without first checking the facts. "I did not comprehend that ChatGPT could fabricate cases," he told the judge.

This past November, a company called Vectara, founded by former Google employees, set out to test the accuracy of

Stephanie Enders, '02 BA, has learned a lot about generative AI in a short time. As the vice-president of product for Amii, the Alberta Machine Intelligence Institute, she was tasked with writing the framework to guide employees and clients on how to use it and to offer guidance for Amii's industry partners.

"For a long time, artificial intelligence and machine learning have felt like they were for a really specific slice of business—very innovative business, very data-driven business, that took a lot of expertise," Enders says.

"When these large generative AI tools with simple portals for public use launched, it heightened the excitement around this technology. It made it accessible and tangible as a thing that could be integrated into people's lives quite quickly."

The excitement over the sudden availability of the technology sparked a big demand from organizations and businesses to understand how to leverage the tools and whether jumping right in to use them was the right first step, says Enders. Internally at Amii, even with people who understand AI, there was a need to understand how to apply the new tools to day-to-day work.

Enders offers some tips on using generative AI tools based on her experience.

Tips to Get You Started

Generative AI tools have their uses, but make sure you know the limitations

By Karen Sherlock

1 UNDERSTAND THE LIMITS. Learn about the technology you're using before you dive in. Be clear about potential pitfalls, such as the danger of sharing personal or proprietary information, which other users will be able to see. "Understand where you feel comfortable, what kind of tasks you're prompting it to do, the kind of information you're uploading to the system," says Enders. She recommends the Amii website (*amii.ca*) as a good place to start. It has a range of blogs, courses and workshops for parents, teachers, businesses and others who want to learn more about AI.

2 READ THE MANUAL. Different generative AI tools have different abilities and risks. Make sure you know what they are. "The folks that are making these tools are doing a pretty good job of explaining them—though you have to consider the source," Enders says. "Because of the massive interest and influx of questions, companies have become better at documenting how the tool works, how to interact with it and answering the FAQs they're getting."

3 START SLOW AND IN CONTROL. Come from a place of curiosity, she suggests. "Approach the technology initially as a fun thing to try, with low stakes." Put some guiding principles in place so you're clear about how you want to use it. Keep it simple.

4 HANG ON TO THE REINS. Probably the biggest tip, says Enders, is to remember that generative AI is just a tool. The language component can make it feel more human and intelligent than it is. Don't be fooled. "Remember that whatever the tool's output, it's a starting point for you to continue the evaluation of that work and whether or not it's useful to you and the task you're trying to do."

5 TALK TO YOUR BOSS. If you want to use the technology in your workplace, as a brainstorming tool, for example, Enders recommends having a conversation with your employer. What would be considered proprietary information in your business or field? What should you not upload to a public tool? It's best to be absolutely clear about the parameters, she says.

6 STICK TO THE RULES. On the job, anything produced by generative AI still has to follow the rules and standards expected in your workplace or industry, Enders cautions. And the more regulated the industry, the more intense the vetting process has to be. A chatbot may have been trained, for example, in a jurisdiction with different regulations. "Just because generative AI exists doesn't mean you throw out all the regulations and processes that have been put in place for your work. All those rules still apply."

"AI literacy is critical, because we want people not to be afraid of technological advances. The best way to do that is to understand them in some reasonable way."

–Adam White

different chatbots by giving them 10 to 20 facts and asking them to summarize. The results? Vectara says depending on the chatbot, they invented information anywhere from three to 27 per cent of the time.

And it's not just the lack of accuracy that's of concern. It's the possibility that the tool might be exploited by bad actors.

"I worry about its ability to manipulate," says Fyshe. "That can happen with no ill intent, and that can happen *with* ill intent."

Governments are starting to react to the unsavory possibilities of generative AI. Canada's proposed Artificial Intelligence and Data Act is intended to "set the foundation for the responsible design, development and deployment of AI systems that affect the lives of Canadians." But the country currently has no regulatory frameworks specific to AI. That means a lot of responsibility falls on the public to educate themselves about the technology.

White and Fyshe's class is a step forward in creating a more AI-literate generation. The Provost's Taskforce on Artificial Intelligence and the Learning Environment has plans to expand its guidelines for high school teachers to help better prepare students to deal with generative AI as they enter university.

"AI is touching, and will continue to touch, more and more aspects of people's daily lives," says White. Learning more about the tool and its capabilities will help alleviate unnecessary fear while encouraging caution where it's justified.

"I encourage people to play around with it," says Fyshe. "Just see what it can do."

GROWING PAINS

CHATGPT IS NOT CAPABLE OF A MATRIX-STYLE TAKEOVER — NOT IN its current form, anyway. But it, and models like it, already are changing aspects of our lives. Some of these are evident: like the need for new approaches to teaching and learning or the ways workplaces are embracing the technology as a tool for efficiency. Other repercussions, like our sense of truth, our identities and the relationship between creativity and humanity, are much less quantifiable.

Generative AI as a branch of artificial intelligence has come a long way. It marks a shift in the way AI models are trained and the types of tasks a single model can undertake. While these tools have clear limitations, they can be incredibly effective if used within those limitations.

Experts still disagree on the potential effects of the technology and how cautious we should be in incorporating it into our lives. Sutton, for one, wants people to reconsider their fears around artificial intelligence in general, especially as models improve.

"It's not appropriate to be afraid of intelligence," he says. "We believe education is good. And all the efforts we put in to try to make us smarter people have brought about our civilization," he says. "More intelligence in the world would be a good thing."

Others are more circumspect about letting the wheels of progress push us along too hastily.

"We need to challenge the rhetoric of inevitability," says Rockwell, noting his concern for models like generative AI to be harnessed by people with hostile intent. "We need to, in some sense, empower our governments to regulate."

Stroulia feels great optimism about the opportunities and benefits that AI advancements will bring, particularly in the U of A stronghold of reinforcement learning. But she emphasizes the need for people to become informed about AI and how it might affect our careers and lives.

"As citizens, we should be asking for legal frameworks to be placed around AI systems and, more generally, software systems that are embedded in government decision-making. Commercial software takes our data and uses it for multiple purposes. We should all be making sure that these activities are both allowed and amplified but also contained into proper laws that take care of people."

The more we can educate ourselves about generative AI — and AI in general — the more we can understand, manage and benefit from its tremendous potential and steer clear of possible pitfalls.

Perhaps the furor over generative AI is a good thing. It has made many of us sit up and take notice. We are discovering its limitations and its potential. We are asking questions, learning and discussing. Perhaps many voices are just what society needs as we navigate the use of this new tool, and the AI advances to come, for the benefit of us all.

If the tools are in the hands of the people, as many believe they should be, then it's possible we all have more power than we think in shaping the role of AI in society. ■

These 30 people are leaders of change in their work, in their communities and in the world, near and far

2023 ALUMNI AWARDS

By Therese Kehler

DISTINGUISHED ALUMNI AWARD

"He is not afraid to push hard for change and he does not rest until he knows the very best care can be provided, even if it means changing systems that sometimes stand in the way."

***Barbara Ballermann**, professor emerita, former chair, U of A Department of Medicine*

Bruce Ritchie

'76 BMedSc, '78 MD

Doctor, professor, researcher

For working on the edge to make life better for people with rare blood disorders

"G.S.D." IS A LONGSTANDING motto among Bruce Ritchie's students. It stands for "getting stuff done" and that's exactly how their mentor operates.

"I once saw a sign that said, 'If you're not living on the edge, you're taking up too much space.' And that's one of the mottos I've tried to live by ... pushing the limits and being on the bleeding edge of things," says Ritchie.

"And I get in some trouble because of that."

The hematologist works doggedly on behalf of his patients, who have rare disorders that can be treated at home with blood or blood products. Ritchie says his employers haven't always liked his efforts to bring change but they're happy with the results.

Consider his work with sickle cell disease, a rare abnormality of red blood cells that can lead to anemia, pain, stroke or death. Noticing that pediatric patients were being given red cell exchanges to ward off complications, Ritchie finagled permissions and tackled logistics to start what is now Canada's largest red cell exchange program for adults. Similarly, stem cell transplants — a risky procedure that offers the one current potential cure for sickle cell disease — weren't offered to Canadian adults until Ritchie shepherded the first one in 2017.

"I've made a career out of looking for areas where we were giving what I thought was sub-sub-optimal treatment to patients," he says.

Ritchie founded the U of A's Comprehensive Rare Blood Disorder Clinic, which started as an addendum to a bleeding disorder program founded by his mentor, John Akabutu. Ritchie became director of the merged clinics, which now offer comprehensive care, blood product distribution and tracking, and a program that enables more than 1,000 patients to self-administer blood products at home.

Patients using home treatment say the program changed their lives. Ritchie's research shows the model saves about $3 million annually in Alberta and could be a game-changer for overburdened outpatient clinics by ensuring "the patients who *are* in hospital ... need to *be* in hospital."

Though not ready to retire, Ritchie has reduced his hours from 16 a day to about 10 and is handing the reins to younger colleagues who have their own G.S.D. sensibilities.

With evident pride, Ritchie says: "They've all taken the things I've done — which were very good — and they've made them great."

SPORTS WALL OF FAME

Recognizes the contributions of alumni as athletes and builders of University of Alberta sport

Chris Bowie

'92 BA

For outstanding performances as a freestyle swimmer for the Bears and as a national and international competitor

Dale Henwood

'74 BPE, '76 MA, '76 Dip(Ed)

For championing sport development as a coach and administrator at the U of A and beyond

Sarah Joly

'99 BSc(PT), '05 MD

For excelling on the soccer pitch and in the classroom as the only Panda to be thrice named Academic All-Canadian

Heather Parrish

'99 BSc(Spec), '03 BEd, '03 MEd

For being a leader, role model and strong player during four successful seasons with the Pandas rugby program

PHOTOS BY RYAN PARKER AND TREVOR LALONDE

ALUMNI INNOVATION AWARD

Recognizes an innovative program, process or product created, implemented or discovered by a University of Alberta grad or group of grads

Karla Buffalo

'00 BA(NativeStu)

For improving First Nations health, education and well-being in northern Alberta as CEO of the Athabasca Tribal Council

Suliman Ali Gargoum

'15 MSc, '19 PhD

For engineering advancements that use smart technology to improve road safety and infrastructure management

Michael Zouhri

'09 BSc

For founding an access-to-justice startup that helps accident victims seek injury settlements without a lawyer

"Dr. Hinshaw accepted the responsibility she had in her role to protect public health and the health-care system even though she knew that it would draw personal criticism."

***Jason Acker**, U of A associate vice-president, Research Integrity Support*

DISTINGUISHED ALUMNI AWARD

Deena Hinshaw

'97 BSc, '04 MD, '08 MPH

Former Alberta chief medical officer of health

For being the calm eye in the pandemic storm

GROWING UP, DEENA HINSHAW SPENT summers working at her grandparents' health food store, where she became intrigued by the possibilities of preventing illness rather than treating it.

With a science degree from Augustana University College (now Augustana Campus at the U of A) and a curiosity about alternative medicine, Hinshaw toyed with becoming a naturopath with training in western medicine. With this career plan, Hinshaw took the medical college admission test, applied to medical school and, to her surprise, was accepted.

Public health wasn't on her radar until she stumbled on a posting for a rural residency in community health. "I was like, 'What? I didn't even know this existed. This is what I was born to do!'" she says with a laugh. Hinshaw's path was set: a career in public health, with its focus on illness prevention and the potential to make an impact. She earned her master's in public health at the U of A and was hired by Alberta Health Services in 2010. In 2019, she became Alberta's chief medical officer of health.

One year later, SARS-CoV-2 arrived.

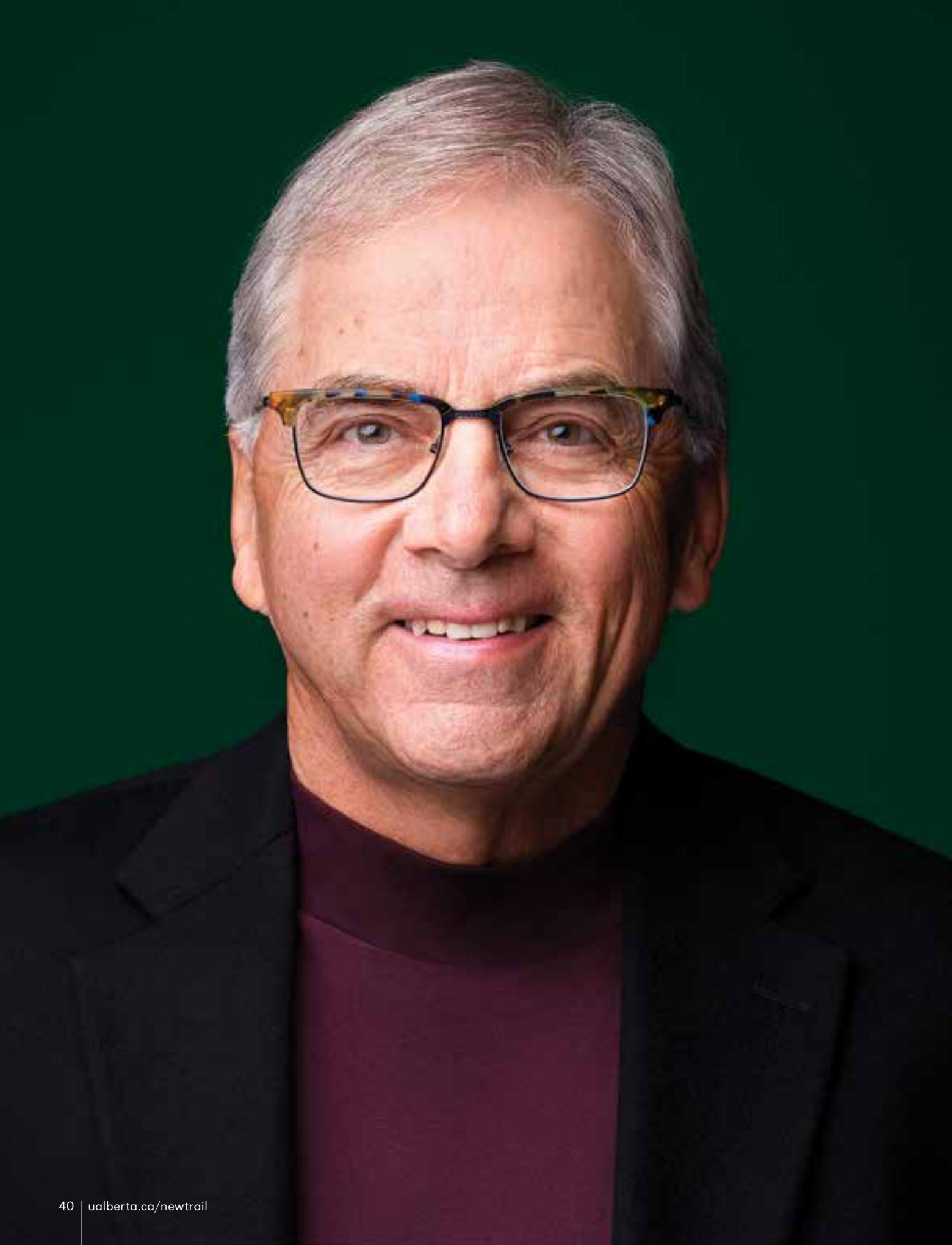
ALL OF US, EACH OF US

COVID-19 put the often-unnoticed discipline of public health in the spotlight. But as doctors like Hinshaw became the face of social restrictions and mandated measures, some people began to equate public health with an infringement of individual rights. "We're literally interconnected, we can't escape that fact, and yet how we live our lives day-to-day, we don't think that way," Hinshaw says. "One of the challenges we have now is articulating the everyday, post-pandemic value and benefit that public health brings to everyone."

ALL FOR ONE, ONE FOR ALL

Like athletes preparing for the Olympics, public health doctors were trained for the eventuality of a pandemic. But nothing prepared them for COVID-19's scope, scale, duration and very high stakes. "If you're a ski racer … you're only competing for this tiny little stretch of time with that intense pressure on you," she says. "We in public health were bringing our skills and experience to bear, with that intense pressure and scrutiny, for years. Literally, every single day." Hinshaw praises her team for its tireless behind-the-scenes efforts. There are echoes of the COVID-19 mantra — "We're all in this together" — as she acknowledges individuals from all sectors of society who chose to act for the collective good. "Whenever people stepped up and did the best they could for their communities, for the people around them — it mattered."

PHOTOS BY RYAN PARKER, CRYSTAL MERCREDI AND TREVOR WALKER



DISTINGUISHED ALUMNI AWARD

"It was a passion, a calling. … For Gordon Wilkes, this was about creating hope for patients who historically had little hope of access to innovation."

***Johan Wolfaardt**, professor emeritus, Faculty of Medicine & Dentistry*

Gordon H. Wilkes

'73 BSc(Med), '75 MD

Former plastic surgeon, clinical professor emeritus and co-founder of the Institute for Reconstructive Sciences in Medicine

For giving patients confidence to face the world

WITH THEIR NEWLY FITTED facial prosthetics, patients at the Institute for Reconstructive Sciences in Medicine (iRSM) would be sent to stroll through the nearby West Edmonton Mall.

The WEM test, as plastic surgeon and institute co-founder Gordon Wilkes called it, was a key measure of success.

One fellow who had avoided being in public after his ear was ripped off in a car accident "walked around the mall for a while and nobody noticed him," Wilkes recalls. "Nobody was staring at him. He came back with a big smile."

FACING CHALLENGES

When iRSM opened at the Misericordia Hospital in 1993, it was North America's first purpose-designed facility to help people with missing features of the head or neck. It used plastic surgery and craniofacial osseointegration, an emerging technology that involved attaching facial prosthetics with bone-anchored titanium implants.

The physical absence of a nose, ear, eye or cheek often comes with psychological distress and a heightened self-consciousness. "The public tends to not see these people because they just don't go out," Wilkes says. It also meant that Wilkes, when trying to win support from Alberta Health, couldn't provide much context about potential patient impact.

SERENDIPITY KNOCKS

Two fortuitous introductions got the ball rolling.

The first was Wilkes' introduction to the concept of osseointegrated facial prosthetics at a conference. The second was a Christmas party introduction to Johan Wolfaardt, U of A dentistry professor and eventual institute co-founder.

Wilkes had booked Harold McComb, an Australian cleft lip and palate expert, as a conference speaker. McComb offered to do a second presentation on facial prosthetics, which included a video showing a man casually removing—and replacing—his prosthetic nose, cheek and palate. Wilkes was intrigued but didn't know anyone who knew anything about prosthetics or implants.

That was remedied when Wilkes got an invitation to the dean's Christmas party. There he met Wolfaardt.

"If I wasn't in charge of the scientific program. If I hadn't chosen Dr. McComb to come. If I hadn't gone to that Christmas party," muses Wilkes. "It really changed the direction of my surgical career."

THE PILOT PROJECT

The institute's seed money came from a $25,000, no-strings-attached donation from the Mayfield Rotary Club. With that, Wilkes and Wolfaardt were able to get training, purchase equipment and then do a pilot project in which 10 Albertans were fitted with osseointegrated prosthetics.

A big part of the sales pitch made to Alberta Health was photos of people who were treated and a video of one patient talking about how the technology had changed their life. "The thought of a plastic surgeon and a dentist wanting to do implants and wanting [the health system] to pay for it didn't really resonate with them," Wilkes says.

But the testimonials did. "We turned on the lights, and the mood in the room had completely changed."

ALUMNI SERVICE AWARD

Recognizes grads who have demonstrated an extraordinary level of commitment, dedication and volunteer service to the U of A

Mary Pat Barry

'04 MA

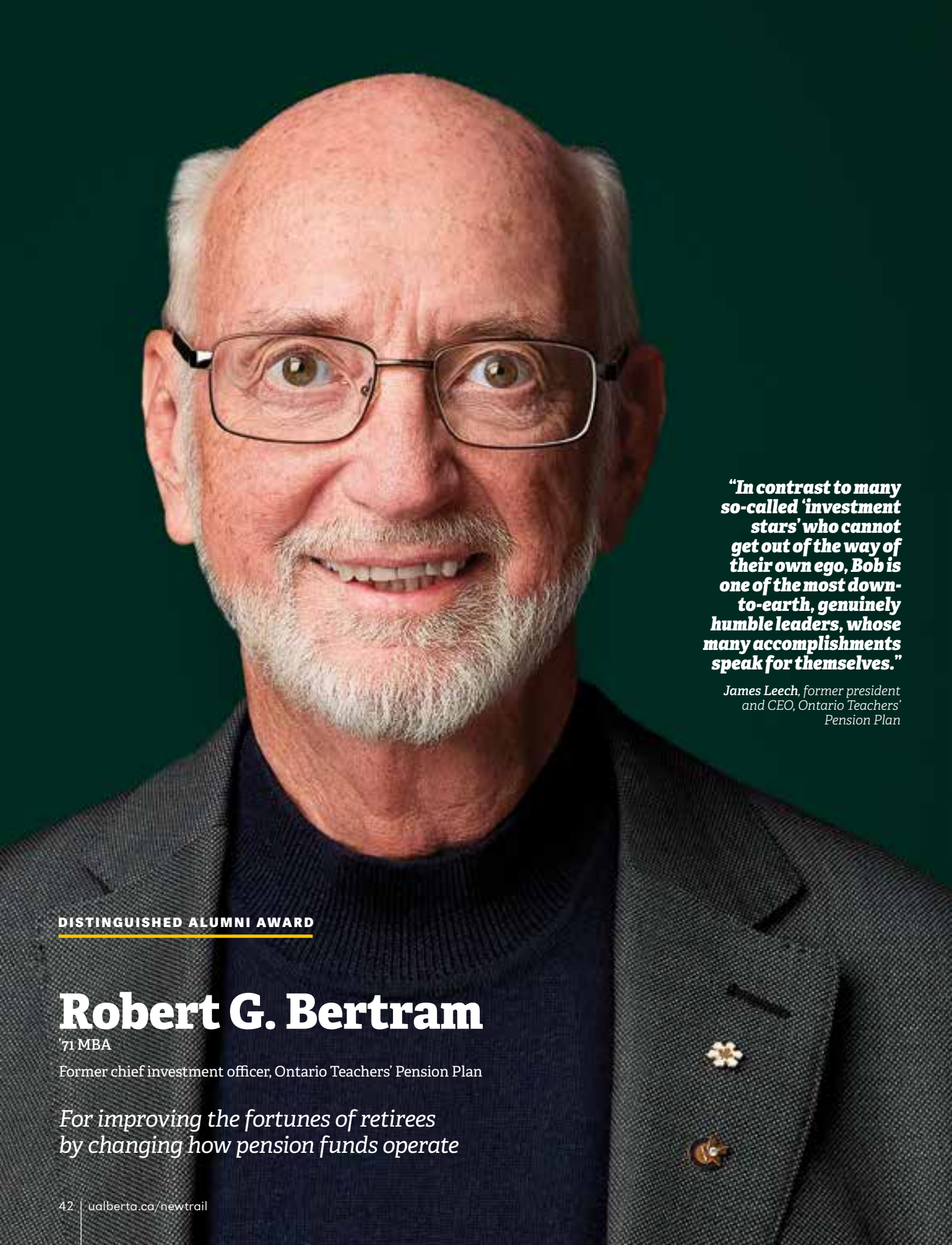
For championing the university and its graduates as a long-standing volunteer at the institution's highest levels

Gerald Lloyd Moysa

'70 BA, '74 MD

For his steady willingness to assist, whether as a volunteer or as a mentor to plastic surgery students

PHOTOS BY RYAN PARKER



"In contrast to many so-called 'investment stars' who cannot get out of the way of their own ego, Bob is one of the most down-to-earth, genuinely humble leaders, whose many accomplishments speak for themselves."

***James Leech**, former president and CEO, Ontario Teachers' Pension Plan*

DISTINGUISHED ALUMNI AWARD

Robert G. Bertram

'71 MBA

Former chief investment officer, Ontario Teachers' Pension Plan

For improving the fortunes of retirees by changing how pension funds operate

IT WAS SHEER LUCK THAT Bob Bertram got his hands on some company computers in 1978, scooping them up after another manager pooh-poohed their usefulness. Bertram, a pension fund employee at what was then Alberta Government Telephones (AGT), had done the math — and he knew the computer was a game-changer because it could do the math faster.

AGT's pension fund became a sandbox where Bertram tested financial theories devised decades earlier by the likes of Nobel winners Harry Markowitz, Merton Miller and William Sharpe, along with other contemporary thought-leaders.

"Until that point, you had no way of managing a portfolio of bonds because you couldn't do the mathematics fast enough," Bertram recalls. "All of a sudden we could do it instantly. You could go into the marketplace ... and make a ton of money. And we did."

He started testing new investing strategies — like derivatives, swap markets and hedge funds — and he consciously managed for risk rather than a rate of return. "We were feeling our way along," he says. But those experiments were laying the groundwork for a completely new mindset in pension fund investing.

In 1991, Bertram took a job as the first chief investment officer for the newly created Ontario Teachers' Pension Plan. With the retirement

PHOTOS BY RYAN PARKER, JENNIFER KLEMENTTI, DEAN KALYAN AND CARINA LAMARCHE

ALUMNI HONOUR AWARD

Recognizes the significant achievements and contributions of U of A alumni to their professions and/or their communities over a number of years

Reagan Mary Bartel
'04 BScN, '19 MPH, '19 GradCert(ComDiseases)
For improving the well-being of Métis people in Alberta as a public health leader

Mona Lisa Bourque Bearskin
'95 BScN, '07 MN, '14 PhD
For championing the redesign of Indigenous nursing education in Canada as an educator, scholar and researcher

Norma Dunning
'12 BA(NativeStu), '12 Cert(IndigGov/Ptnshp), '14 MA, '19 PhD
For preserving the culture and history of Inuit Peoples in Canada as an Inuk writer and researcher

Dianna MacDonald
'75 Dip(RM)
For pioneering the creation of pelvic floor health strategies as a physical therapist and educator

Michael B. MacDonald
'10 PhD
For reimagining ethnomusicology research by using filmmaking to amplify the stories of local artists

Temitope Oriola
'11 PhD
For translating his field-defining sociological research to be understood by ordinary people as a public intellectual

Patricia Marie Paradis
'75 BA, '76 Dip(Ed), '83 MEd, '88 LLB
For improving Canadians' understanding of the Constitution as a legal professional and educator

Darrel Robertson
'92 BPE, '94 BEd
For prioritizing student success and a values-based working environment as the Edmonton Public Schools superintendent

Thomas Trofimuk
'87 BA
For keeping Alberta's literary lights shining as an author, mentor and leader in the writing community

incomes of about 200,000 teachers on the line, Bertram started putting his strategies to work in a much bigger arena.

"I don't know whether you want to call it courage or just foolishness but I was willing to take risks to get out of the status quo and make things work better."

By his retirement in 2008, the $19-billion fund had grown into a $108-billion diversified portfolio that owned the likes of Cadillac Fairview and Maple Leaf Entertainment.

Not bad for the farm kid from Eston, Sask., who had drifted into university with a short-lived notion of being a lawyer. After earning a history degree, Bertram worked for a few years at AGT in Calgary, then quit that job to enrol in the University of Alberta's fledgling MBA program, thinking he'd become a chief financial officer.

He graduated into a recession and, about six months later, gratefully accepted a job offer from his old employer.

Today, the strategies Bertram put in motion are improving the retirement fortunes of retirees around the world.

He has received numerous honours, including the Order of Canada and an induction into the Investment Industry Hall of Fame, but he's quick to state that the credit is not his alone.

"There were pioneers in pension funds before me," he says. "But nobody did it consciously, starting with the balance sheet, worrying about the risks, optimizing the portfolio, fitting all the pieces together in a single portfolio. That's what I did.

"Other people had the full picture in their mind, just not the opportunity to do it. I had the picture and the opportunity." ■

ALUMNI HORIZON AWARD

Recognizes the outstanding professional achievements and/or contributions to the community of graduates who are 40 or younger

Cara Bablitz
'07 BSc(Spec), '11 MD, '16 PostgradCert(MedEd)

For ensuring vulnerable populations receive access to compassionate, dignified end-of-life care

Leslie Cove
'04 BA

For helping create a more equitable world as a leader in equality, diversity and inclusion initiatives

Lana Cuthbertson
'10 BA

For tackling the epidemic of online harassment as co-founder of a technology company that fights hate

Alice Lam
'11 BA

For creating spaces, events and initiatives that help Calgary's needy populations and bolster its volunteer sector

Cameron Linke
'07 BCom, '21 MSc

For his longtime leadership in tech sectors, including Startup Edmonton and the Alberta Machine Intelligence Institute

Hannah M. O'Rourke
'08 BScN(Hons), '15 PhD

For improving the quality of life for people with dementia through research into social connectedness

Morẹ́nikẹ́ Ẹniọlá Ọlá̀ọ̀ṣebìkan
'09 BSc(Pharm)

For creating awareness of and innovative solutions to health inequities as a pharmacist and non-profit founder

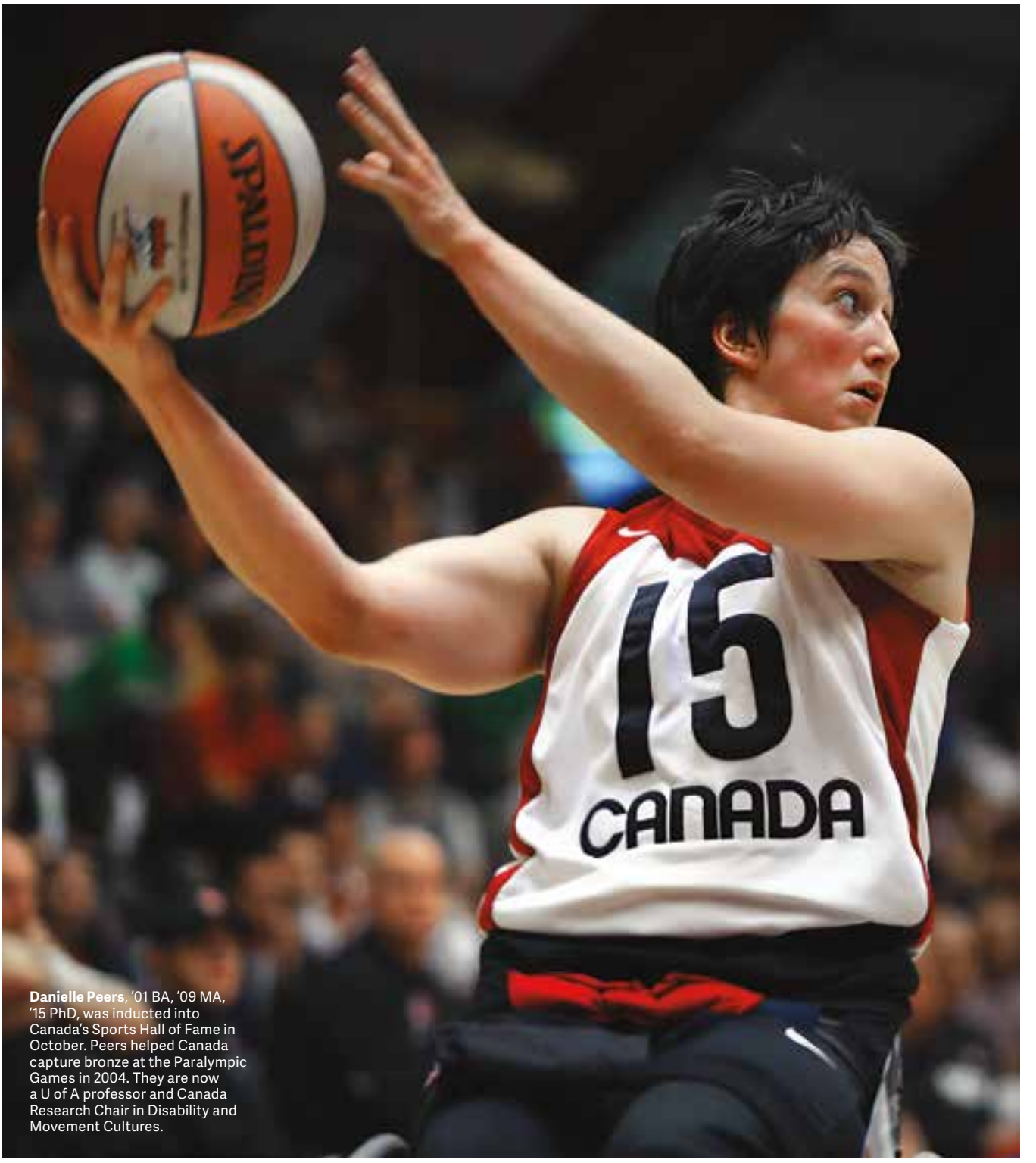
Andrew Gersham Parker
'08 BA, '14 BEd

For building community pride as a volunteer with Edmonton youth and the Black Teachers Association of Alberta

PHOTOS BY RYAN PARKER, ALEX TRAN, TREVOR LALONDE

trails

WHERE YOU'VE BEEN AND WHERE YOU'RE GOING



Danielle Peers, '01 BA, '09 MA, '15 PhD, was inducted into Canada's Sports Hall of Fame in October. Peers helped Canada capture bronze at the Paralympic Games in 2004. They are now a U of A professor and Canada Research Chair in Disability and Movement Cultures.

PHOTO COURTESY WHEELCHAIR BASKETBALL CANADA

Books


Here are the latest books published by U of A alumni, including advice for emerging academic writers, a Nisga'a reimagining of *The Last of the Mohicans* and reflections on building inclusive rural communities.

Compiled by ***Stephanie Bailey****, '10 BA(Hons)*

HISTORY
The Fur Trader: From Oslo to Oxford House
by Einar Odd Mortensen Sr. with Gerd Kjustad Mortensen; co-edited by Ingrid Urberg and **Daniel Sims**, '10 MA, '18 PhD, *University of Alberta Press*

The editors help readers unpack this English translation of Mortensen Sr.'s personal narrative—originally published in Norwegian in 2007—which details the years he spent as a fur trader in Manitoba in the '20s.

MEMOIR
For the Caregiver: Providing Yourself Emotional Support on Your Caregiving Journey
by **Tricia Perrier**, '16 BSc(Nutr/Food), self-published

Perrier shares the self-care practices that helped her manage her emotions and develop resilience following the death of her husband of 21 years.

NON-FICTION
Art-Care Practices for Restoring the Communal: Education, Co-Inquiry, and Healing
by **Barbara A. Bickel**, '86 BA, and R. Michael Fisher, *Routledge*

The authors outline how everyone may discover "art-care," a creative practice that explores the interconnections between art, nature and ourselves.

SOCIAL SCIENCE
Mixed Race Life Stories: The Multiracializing Gaze in Canada
by **Jillian Paragg**, '11 MA, '17 PhD, *Emerald Publishing*

Paragg examines the lived experience of mixed-race adults through a series of interviews. The work shows that when subjects tell their own stories on their own terms, it can advance the field of critical mixed-race studies.

SOCIAL SCIENCE
Walking Together, Working Together: Engaging Wisdom for Indigenous Well-Being
co-edited by **Leslie Main Johnson**, '93 MA, '97 PhD, and **Janelle Marie Baker**, '06 MA, *University of Alberta Press*

The collection takes a holistic view of well-being, looking at ways that Indigenous approaches to healing and western biomedicine complement each other.

EDUCATION
Research, Writing, and Creative Process in Open and Distance Education: Tales From the Field
edited by **Dianne Conrad**, '87 Dip(Ed), '91 MEd, '02 PhD, *Open Book Publishers*

Contributors share practical advice for emerging academic writers by drawing on personal experience and exploring the philosophies that guide their work.

BIOLOGY
Promoting Pollination and Pollinators in Farming
co-edited by **Peter Kevan**, '68 MSc, '70 PhD, and D. Susan Willis Chan, *Burleigh Dodds Science Publishing*

The book reviews research on our current understanding of pollination processes and their importance to global ecosystems.

HISTORY
Enemy Archives: Soviet Counterinsurgency Operations and the Ukrainian Nationalist Movement
co-edited by Volodymyr Viatrovych and **Lubomyr Luciuk**, '84 PhD, *McGill-Queen's University Press*

The editors review documents collected by Soviet authorities to combat the Ukrainian nationalist movement, a campaign that ultimately failed.

HISTORICAL FICTION
Heart Stones: A Ukrainian Immigration Story of Love and Hope
by **Christine Nykoluk**, '91 BSc(Ag), self-published

Based on the experiences of the author's grandparents, *Heart Stones* tells the story of a man torn apart from his wife and two young children in Ukraine during the First World War.

NON-FICTION
Grizzly Bears: Guardians of the Wilderness
by **Frances Backhouse**, '83 BSc(Spec), *Orca Book Publishers*

This illustrated book for tweens examines the biology and ecological role of grizzlies and invites readers to join the call for conservation.

POLITICAL SCIENCE
Building Inclusive Communities in Rural Canada
co-edited by Clark Banack and **Dionne Pohler**, '10 PhD, *University of Alberta Press*

This collection of essays shows the efforts of citizens, groups and municipalities in rural Canada to counter intolerance and build inclusive communities.

BIOGRAPHY
A Métis Man's Dream: From Traplines to Tugboats in Canada's North
by **Neil Gower**, '72 BA, '73 LLB, self-published

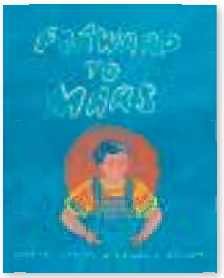
Gordon Gill is a hard-working Métis shipbuilder whose journey leads him from his grandfather's trapline to success in the marine transport business.

FICTION
Northern Outpost
by **M.S. Thomas**, '53 Dip(Nu), '54 BScN, self-published

Thomas shares stories inspired by her extensive career as a nurse, including a period when she worked at a northern outpost for almost a decade.

HISTORY
The Great Saint John Fire of 1877: The Rise, Destruction and Recovery of Canada's Leading Port City
by **Mark Allan Greene**, '01 LLB, *Formac Publishing*

Greene writes about the fire that destroyed the



New Brunswick city and its remarkable, four-year rebuild.

HISTORY
How Edmonton's West End Began: A Hidden History
by **Jean Côté**, '64 LLB, self-published

Côté provides a history of urban development in Edmonton's first western suburb, including how the deep ravines and the transcontinental railway helped give the district its particular character.

ADVICE
Better World: Safer, Cleaner, Fairer, More Secure
by **Bill Stollery**, '69 BSc(CivEng), self-published

Stollery shares a collection of the columns he wrote for the *Penticton Herald* on empowering people in the face of major world concerns, such as war and climate change.

POETRY
there's more
by **Uchechukwu Peter Umezurike**, '21 PhD, *University of Alberta Press*

Giving voice to the experiences of migrant and marginalized citizens, this collection challenges the oppressive systems that alienate us from one another and the land.

BIOGRAPHY
Micrographia
by **Jennifer Bowering Delisle**, '01 BA(Hons), '03 MA, *Gordon Hill Press*

This collection of essays explores Delisle's journey from infertility to motherhood while losing her own mother to a rare degenerative neurological disease.

FICTION
The Prodigy: How Maggie Bodychecks Doubts and Fears!
by **Patricia Ogilvie**, '77 BEd, self-published

Maggie, a 69-year-old retiree, strives to fulfil a lifelong dream of playing professional women's hockey and proves that you are never too old to dream.

FICTION
Dysfunctional Regulatory Bodies: Scarecrows and Stupidity
by **Doug Cameron**, '67 BSc(Ag), '69 MSc, self-published

A professional grower's efforts to complete an environmental plan are thwarted at every turn by groups trying to satisfy their own interests.

MYSTERY
Missing
by **J.T. Goddard**, '96 PhD, self-published

Gavin Rashford agrees to undertake one last task before his early retirement from the police force. Between missing persons and money laundering, it ends up being more than he bargained for.

FICTION
Empty Spaces
by **Jordan Abel**, '08 BA, *McClelland & Stewart*

Abel reimagines *The Last of the Mohicans* from the perspective of an urban Nisga'a person whose relationship to land and traditional knowledge was severed by colonial violence.

SHORT FICTION
This Is How You Start to Disappear
by **Astrid Blodgett**, '86 BA, '96 MA, *University of Alberta Press*

In 12 short stories, Blodgett explores the consequences of grief and denial and the single moments that can change lives.

POETRY
Monitoring Station
by **Sonja Ruth Greckol**, '67 BA, '78 PhD, *University of Alberta Press*

Greckol's experimental, feminist poetry explores belonging and responsibility in both recent history and far-flung cosmic realities.

MYSTERY
Haunting Pasts
by **Trevor Wiltzen**, '95 BA(Hons), '00 BSc, '13 MBA, self-published

Mother-of-two Mabel Davison is surprised by the return of her alcoholic ex-husband, which sets into motion events that could either unite her family or tear it apart.

CHILDREN'S LITERATURE
Forward to Mars
by **Karin Conradi**, '76 LLB, and **Stephanie Bailey**, '10 BA(Hons), self-published

A boy sets out to achieve his impossible dream of journeying to Mars. It's a story inspired by the real life of rocket scientist Friedrich Zander.

FICTION
The Pipeline Pugilist
by **D. Wellington Lee**, '76 BLS, '81 MLS, self-published

A disagreement between Carrie, an environmentalist, and Pete, a CEO of an oil and gas company, leads to a story of vengeance—complicated by a love triangle.

CHILDREN'S LITERATURE
Adventures on the Circle Star Ranch
by **Jackie Cameron**, '02 BEd, *Your Nickel's Worth Publishing*

Cattle have been disappearing from neighbouring ranches and it is up to a brother-and-sister duo to figure out what's going on.

MEMOIR
Toughest School in North America
by **Richard de Candole**, '72 BSc, self-published

De Candole tells the story of attending a boarding school in Manitoba in the 1960s that was known for its arduous outdoor education program.

SHORT FICTION
Exit Strategies
by **Paul Cresey**, '11 BEd, *Freehand Books*

Framed within a narrative about a journalist investigating choices of life and death, the stories in this collection explore restlessness, belonging, freedom and mortality.

MEMOIR
One Finger Dancing
by **Audrey Margaret Brooks**, '73 BEd, '78 Dip(Ed), '81 MEd, self-published

Brooks shares personal reflections of a Hungarian immigrant family from the perspective of a mother and daughter.

EDUCATION
The Game Changer: The Next Generation Science Educators Today
by **Ovid K. Wong**, '70 BSc, '71 Dip(Ed), *Rowman & Littlefield*

Wong provides data-driven guidance to the next generation of science educators about how to teach effectively.

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Compiled by ***Stephanie Bailey****, '10 BA(Hons)*

Class Notes

1960s

'64 **Reg Toliver**, BSc(MechEng), set a record at the 2023 Canadian Water Ski Championships at the age of 80. He set the Canadian slalom record for his age group—the newly established 80+ men's division—with a score of five buoys at 49 km/h. The achievement is especially impressive given that Toliver did not take up water-skiing until his mid-50s. In an interview with CBC, he shares what's next for him: "I don't have any immediate plans to stop. I plan on going as long as I can. I like to say if I can't beat these guys, maybe I can outlast them. Water-skiing is an addictive sport—an addiction that I enjoy!"

'67 **Judith M. Romanchuk**, BSc(HEc), was awarded the Queen Elizabeth II Platinum Jubilee Medal last February in recognition of her significant contributions to the province as the long-serving honorary consul of Finland in Calgary. The medal was presented by the lieutenant-governor of Alberta, **Salma Lakhani**, '21 LLD (Honorary).

1970s

'70 **Janet Palmer**, BSc, '72 MD, wrote in to share that, inspired by the 2022 U of A Days, the medicine class of 1972 held a reunion in Canmore, Alta., in June. "Dr. **Michael Bullard**, '70 BSc, '72 MD, was the inspired driving force who organized us! To the best of our knowledge, 21 have 'shuffled off this mortal coil,' leaving about 80 of us. In total, we had 40 grads plus partners and widows attend. Singing our unredacted med-show songs was a wonderful highlight. Thank you, University of Alberta!"

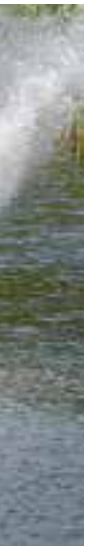
Reg Toliver

'72 **Jan Davies**, MSc, retired from the University of Calgary after 41 years and now holds the title of professor emerita of anesthesiology, perioperative and pain medicine. She and co-author Carmella Steinke are writing a sequel to *Fatal Solution: How a Healthcare System Used Tragedy to Transform Itself and Redefine Just Culture*. The 2022 book, co-written also by **Ward Flemons**, '82 BMedSc, '84 MD, highlights the story of two critically ill patients inadvertently exposed to an incorrect dialysate solution compounded in Calgary in 2004 and the aftermath that led to changes in the health-care system. When not writing, Davies continues

The medicine class of 1972 reunion

"Florence," a portrait by Mary Whale

A detail from Robert Dmytruk's piece, "Ukraine"



BOTTOM RIGHT PHOTO BY LYNN STREETER PHOTOGRAPHY

to pursue research in health-care safety and aviation cabin crashworthiness.

'78 **Mary Whale**, BA, '83 BScN, wrote in to provide us with an update to her class note, submitted last issue, seeking volunteers for her series of portraits, "Between the Lines: Merging Portraits and Stories of Older Adults." She is happy to report that the project resulted in 22 portraits and stories of people from 76 to 94 years of age, many of whom responded to her call for sitters in the Spring 2023 issue of *New Trail*. Whale describes the project as a "grand journey," including a stop at Niagara Falls in April where she presented a paper about the project at the Canadian Gerontological Nursing Association conference. Over the summer, she displayed the portraits at Woodcroft Library in Edmonton, where she also facilitated a discussion about aging and ageism as part of Seniors' Week in June. The exhibition then moved to Harcourt House Artist Run Centre in Edmonton in September and ran until Oct. 1, which is International Day of the Older Person. Whale would like to express her gratitude to everyone who sat for her portraits and made the project such a huge success.

'79 **Olivér Botár**, BA, was appointed associate director of the School of Art at the University of Manitoba in 2022. He also received the prestigious Moholy-Nagy Award in October 2022 from the Moholy-Nagy University of Art and Design in Budapest. The award recognizes his contributions to the field of art history, including his decades-long research on the Hungarian avant-garde, the artist László Moholy-Nagy and the Bauhaus — a German art and design school that operated from 1919 to 1933.

'79 **Robert Dmytruk**, BEd, showcased his tandem art exhibitions "Enigma: Unabstracted Prologue" and "Enigma: Ukraine" at the Penticton Art Gallery from Sept. 22 to Nov. 4. A second-generation Ukrainian-Canadian, Dmytruk explores the disconnection between his everyday life in Canada and the ongoing atrocities of war in Ukraine through the two exhibits, which exist in stark contrast to each other in terms of media, colour and style. His reflections about the war in Ukraine initially took shape after composer **Murray J. Reid**, '79 BMus, sent him his musical composition, *Ukraine*, which ended up accompanying the exhibition. Dmytruk taught with Edmonton Public Schools and worked as an art consultant with the school board for many years. Throughout his career, he has maintained an art studio and shown his work in galleries across Alberta and British Columbia.

1980s

'81 **Stan Blade**, BSc, was awarded the Queen Elizabeth II Platinum Jubilee Medal on Jan. 19, 2023, in recognition of his significant contributions to the province. A self-described farm boy from Millet, Alta., Blade has a passion for agricultural innovation that has led him to a variety of academic and professional roles in Canada and the United States. He has been dean of the Faculty of Agricultural, Life & Environmental Sciences at the U of A since 2014.

'82 **Brad Hayes**, PhD, was awarded the 2022 Stanley Slipper Gold Medal by the Canadian Energy Geoscience Association. The award, which is presented annually, recognizes Hayes for his leadership and business skills, his accomplishments in petroleum geology exploration and development, and his ongoing communication of fact-based energy science to geological and non-geological communities. Hayes has been an adjunct professor in the Department of Earth and Atmospheric Sciences at the U of A since 2017 and was the lead author of a 2022 U of A massive open online course called 21st Century Energy Transition.

'86 **Barbara Hartmann**, BA, recently published a book titled *Into the Midnight Garden* featuring her watercolour paintings and accompanying poems written

Stan Blade receives the Queen Elizabeth II Platinum Jubilee Medal

Karen Unland

by **Jessica Heine**, '04 BMus. The poetry is a personal response to Hartmann's whimsical, fairy-tale paintings. Also a musician, Heine recently released a new album entitled *Build Again*.

'87 **Mala Lange (Jagernauth)**, BScN, published her book *Kidney Friendly: A True Success Story – A Memoir of Food, Courage & Hope*, detailing her husband's 10-year-long journey living with polycystic kidney disease. As a retired registered nurse, Lange has helped her husband, Leonard, pursue a healthy lifestyle and a balanced diet by creating kidney-friendly recipes. Thanks to these efforts, Leonard has been able to manage his disease and has avoided the need for dialysis. Lange hopes that sharing their story as well as her recipes may offer inspiration and practical guidance for others living with the disease. The book can be purchased online, and Lange can be reached at *malalangeauthor@gmail.com* for inquiries. She and her husband live in Honolulu.

DID YOU KNOW?

The U of A's first classes were held in what is now the Queen Alexandra School. The five faculty members and 45 students used the school's gymnasium as a classroom for one term before moving to the Old Scona Academic senior high building, the U of A's temporary campus until the construction of its first campus buildings in 1911.

1990s

'93 **Trevor Harrison**, PhD, recently received the 2023 Distinguished Academic Award from the Confederation of Alberta Faculty Associations in recognition of how his research in political sociology and public policy has contributed to the wider community beyond the university. His insights have helped shape public discourse and guide the work of research institutes, including the Parkland and Kule institutes at the U of A and the Prentice Institute at the University of Lethbridge, where Harrison is a sociology professor.

'94 **Karen Unland**, BA, joined a subcommittee to review the ethics guidelines for the Canadian Association of Journalists in early 2023. This widely cited document, designed to help journalists hold themselves accountable for their professional work, has not been updated since 2011. She has served on the association's ethics advisory committee since September 2021 and is the co-founder of Taproot Edmonton, a local news service.

'95 **Christy Gibson**, BSc, published *The Modern Trauma Toolkit: Nurture Your Post-Traumatic Growth With Personalized Solutions* in spring 2023. The book provides an accessible overview of trauma responses, new theories in brain biology and practical strategies to promote healing. Gibson is a family doctor and trauma therapist as well as a TikTok mental health educator with more than 130,000 followers. She

Michael Halliwell

ILLUSTRATION BY WENTING LI

recently launched a new company, Safer Spaces Training, that teaches how to create a culture of psychological safety in the workplace.

'98 **Michael Halliwell**, BSc(CivEng), '99 MEng, was recently awarded the 2023 Engineers Canada Meritorious Service Award for Community Service. Always striving to make the world a better place, he has volunteered and helped fundraise for many charities, including St. John Ambulance, the Tour Alberta for Cancer and the Edmonton Food Bank. He is on the volunteer board of the Canadian Association of Radon Scientists and Technologists and has helped increase awareness of radon and its detrimental effects on the health of Canadians. Halliwell is a senior environmental engineer with 23 years of experience in environmental site assessment and remediation and a fellow of Engineers of Canada.

'99 **Jane Ashton**, BCom, recently published a book about the life of her father, **John Glyndwr Ashton**, '58 BCom, '63 LLB, *The Book of John: A Life Story of John Glyndwr Ashton, QC*. The book spans John's eight-decade journey from his rural upbringing to becoming a public force in Alberta, including a stint as a member of the legislative assembly of Alberta from 1971 to 1979 for the Edmonton-Ottewell district (which is now part of Edmonton-Mill Woods). Strathcona County recently recognized John's extensive contributions to its business, legal and political communities by naming a street after him: John Ashton Way. Other

PHOTO COURTESY UNIVERSITY OF NORTHERN BRITISH COLUMBIA

IN THE NEWS

Engineering Better Research

Paula Wood-Adams, '91 BSc(ChemEng), was appointed vice-president of research and innovation at the University of Northern British Columbia earlier this year. The engineer and expert in applied polymer science has more than two decades of experience working in academia, including several leadership roles at Concordia University in Montreal. In her new role, she will help foster research partnerships with local and international agencies and industry partners and support the commercialization of research discoveries.—CANADA TODAY

Order of Canada Appointments

Four grads were inducted into the Order of Canada in June 2023: **Gary Purdy**, '57 BSc(MiningEng), '59 MSc, for his contributions to the field of materials science and engineering and for his dedicated support for refugees, peace efforts and social justice; **Keith Dobson**, '75 BA(Spec), for his contributions as a world-leading expert in depression and anxiety and as an advocate for mental health and wellness in Canada and abroad; **Jeff Reading**, '83 BPE, for his contributions to Indigenous health research and for his leadership in bringing Indigenous perspectives to scientific and health institutions; and **Savage Bear**, '07 BA(NativeStu), '07 BEd, '16 PhD, for his contributions to Indigenous studies and for his committed community engagement.

honours include three Queen Elizabeth II jubilee medals, an Alberta Centennial medal, three Strathcona County awards and four Rotary International awards.

'99 **Patti Hill**, PhD, was elected to serve as president of Lions Clubs International, a volunteer-run non-profit association that operates in more than 200 countries. With 30 years of experience as an educator and psychologist, Hill has mentored more than 20 U of A graduate students and psychologists-in-training and worked to improve education for young people who are deaf. Committed to community service, Hill has also previously served on the Canadian Association of Educators of the Deaf and Hard of Hearing and the Alberta Premier's Council on the Status of Persons with Disabilities. She currently runs a consulting firm that helps government agencies design and implement effective programs for children and youth with diverse needs.

'99 **Patrick Montgomery**, PhD, was promoted to commodore and appointed commander of the Naval Reserve in 2021. He is chair of Mathematics and Statistics at Camosun College in Victoria.

2000s

'00 **Jayan Nagendran**, BMedSc, '01 MD, '09 PhD, was appointed by the Alberta government to the Edmonton Police Commission in July. Nagendran is a cardiac surgeon, clinician-scientist and a strong advocate for accessible health care. He is also the director of cardiac surgery at the University of Alberta and the surgical director of lung transplantation for Alberta Health Services. In 2019, he was honoured with the U of A Alumni Innovation Award for helping to develop a revolutionary organ support and repair device

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lovestory

FULL SPEED AHEAD

Paulette Breault shares how a memorable ride launched her 50-year love story

As told to Anna Schmidt

One -30 C day in January, my friends and I were gathered around the piano in the student lounge at Campus Saint-Jean—or Collège Saint-Jean, as it was called back then. As we took turns singing and playing, I spotted a student I'd never seen before. Because I am such a shy person (just kidding, no one has ever called me that), I started chatting with him and discovered he lived near me. I asked if I could catch a ride home. We walked outside, and **Maurice Breault**, '75 BEd, had the nicest-looking car I'd ever seen—a bright red '64 Acadian Beaumont.

I kept catching rides with Moe. I eventually realized how he could afford the convertible—he'd bought it with the driver's side all banged in! But he always parked it with the nice side facing my parents' house. On our rides, we never stopped talking. You know how they say opposites attract? I'm flamboyant, while he's quiet and calm. But he has a wicked sense of humour.

Just over a year after we first met, we gathered with our parents on the eve of our wedding. My dad put on an old home movie of me at French kindergarten and, all of a sudden, Moe's mom shouted, "Oh my gosh, there's little Maurice—and he's chasing Paulette!" Turns out, I didn't make the first move after all, and Moe had finally caught me.

We've had quite the life over the last 50 years. We've done everything together, from raising two children to developing a franchise to teaching junior high—where we were always known as "Mr. B and Mrs. B." (Moe earned his education degree and I got a teaching certificate). Now, we own a bookstore in West Kelowna that we run with Gracie, our 7½-pound Cairn Terrier-Yorkie mix.

Our love has long outlasted that convertible, but the vehicle made an impression. Every one I've bought since, I've made sure it's red.

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

DID YOU KNOW?

The University of Alberta Debate Society, established in 1908, is the oldest debating society in Western Canada. It's also the oldest student group on campus.

TOP ILLUSTRATION BY SABINA FENN; BOTTOM ILLUSTRATION BY WENTING LI

PHOTO SUPPLIED

FIVE THINGS I'VE LEARNED ABOUT...

SHOWING UP

What does it take to get up for a 6 a.m. workout week after week? For **Lazina Mckenzie**, '08 MBA, good vibes and good friends are a great start

By Jordan Whitehouse

WHEN LAZINA MCKENZIE SHOWED UP at Commonwealth Stadium for her first November Project workout in 2014, she didn't know what to expect. She'd seen tweets about the fitness group that then-Edmonton Oilers captain Andrew Ference had brought to the city from Boston, but that was about it.

"So there I was, with a crowd of people I didn't know, and at 6 a.m. we're told to start bouncing in unison," recalls McKenzie. "I was just thinking, 'What is this?'"

She quickly found out—and fell in love with it.

Started in 2011, the November Project is a free exercise group with 58 chapters around the world. The Edmonton chapter, which celebrated its 10th anniversary in July, meets three times a week at 6 a.m. no matter the weather. The locations vary, but the workouts usually involve running stairs, climbing hills or bodyweight training.

"Our biggest competitor is a warm bed," Mckenzie, now a co-leader of the group, says with a laugh.

So what does it take to get out from under the covers? Mckenzie shares five lessons she's learned about showing up to the November Project week after week.

1 YOU CAN START ANYTIME

One of the big deterrents to joining the November Project is that people think they need to be at a particular fitness level, says Mckenzie. That's just not true. "No one cares," she says. "I say that cheekily, but I think it helps to let people know no one is paying attention to them." Mckenzie and her co-leaders design workouts that anyone can participate in, regardless of age, background or mobility levels.

2 YOU SEE YOUR CITY DIFFERENTLY

One of the big reasons people join is to enjoy unique Edmonton spaces like Commonwealth Stadium or the Royal Glenora stairs. For Mckenzie, it's also motivating to see those spaces in a new light. "Say we're at a parkette doing decline pushups on a bench, and you notice a coffee shop nearby that you visit later," she says. "It helps you appreciate your city in a totally different way."

3 IT 'S OK TO HAVE FUN

As adults, we need to take some things seriously—but working out doesn't have to be one of them, Mckenzie says. "One thing we always say about the November Project is that we're serious about play. This is recess time, and so it's OK to be silly and wear a pickle costume for no reason." That sense of playfulness can be a real motivator for the person struggling to get out of bed.

4 WE ARE LIMITLESS

Working out at 6 a.m. any time of year might seem impossible. But once you do it, you realize what you're capable of, says Mckenzie. "I grew up in Richmond Hill, Ont. I never spent much time outside in the winter. Now I'm a winter runner in one of the coldest cities in Canada." Breaking through mental limits like these makes you realize you can break through others in your life, she adds.

5 COMMUNITY IS A GREAT MOTIVATOR

Edmonton's November Project chapter can get up to 200 participants on a warm, summer morning—and it's the sense of community that keeps people coming back. "Would I leave my house to go for a run by myself in January when it's -20 C and there's a warm bed upstairs? Probably not. It's easier when you know people are waiting for you. We show up for each other." ■

IN THE NEWS

Shoot for the Stars

Former Pandas soccer player **Aisha Alfa**, '03 BA, has been getting her kicks co-starring alongside Kaley Cuoco in the dark comedic thriller *Based on a True Story*. Nigerian-born Alfa grew up in Winnipeg before attending the U of A, where she helped the Pandas win nationals and two silver medals. She went on to play professional soccer in North America and South Korea before making the transition into comedy and dramatic acting. Alfa has played the Just For Laughs comedy festival, launched a podcast and appeared on *Degrassi: Next Class*. You can catch her in *Based on a True Story* on W Network in Canada and Peacock in the U.S.—NEW YORK POST

DID YOU KNOW?

Campus Saint-Jean is the oldest and largest French-language university degree program west of Manitoba.

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called Ex-Vivo Organ Support System.

'02 **Nicole Janssen**, BCom, received a Top 25 Women of Influence award in March for her leadership in artificial intelligence, including the promotion of ethical AI. Janssen is the co-founder and co-CEO of AltaML, an artificial intelligence studio that designs and implements applied AI solutions for businesses.

'03 **Scott Mussbacher**, BSc(ChemEng), '09 MSc, became CEO of Vista Projects in September 2023. He has worked at the Calgary-based engineering company for 17 years, developing his expertise in process and project engineering as well as data-centric project execution. He is also a member of the Association of Professional Engineers and Geoscientists of Alberta.

'04 **Mihaela Ciulei**, MEng, '23 MBA, and **Ken Hawrelko**, '86 BSc(ElecEng), were elected to the council of the Association of Professional Engineers and Geoscientists of Alberta in April. Ciulei has extensive leadership and regulatory experience in the energy industry and works in energy management at Enbridge. Currently board chair at PanGlobal Training Systems, Hawrelko is also a fellow of Engineers Canada as well as an honorary fellow of Geoscientists Canada.

'04 **Teresa Fowler**, BEd, has become a leading voice on how to redress the culture of toxic masculinity in hockey and sports in Canada. A 2020 paper published by Fowler, an assistant professor of education at Concordia University of Edmonton, is helping set

PHOTO BY SIPA USA / ALAMY; ILLUSTRATION BY WENTING LI

Alumni Recognize the Final Year of the Faculty of Extension's Visual Arts Certificate Program

The year 2023 marks the last year of the Visual Arts certificate program at the Faculty of Extension. In honour of the occasion, program development lead **Megan Bertagnolli**, '08 BA(Hons), '11 MA, curated two exhibitions featuring works from the program at the university's FAB gallery in June.

The first exhibition, "Lasting Legacy: Honoring the History of Visual Arts at Extension," provided a comprehensive overview of the program. The program and people involved have had a tremendous impact on arts in the province, dating back to the 1930s, when it offered painting courses in rural communities. The Banff Summer School (now the Banff Centre for Arts and Creativity) was founded under the auspices of the program, as was Latitude 53, an organization supporting artists, writers and curators. "Emerging Practices: Celebrating Visual Art Certificate Students" featured works by the 14 students from the final graduating class of the Visual Arts certificate program.

the agenda for Hockey Canada to create change. Her research included a series of interviews with elite-level men's hockey players about their experiences with sexism, misogyny and hypermasculinity in the sport. Her findings show the problem is pervasive, enduring and systematic. As a member of Scholars Against Abuse in Canadian Sport, Fowler has advocated for an independent judicial inquiry into the sport, which she spoke about at the House of Commons in March.

'07 **Joyce Yu**, BA, '15 MA, recently had her micro-fiction story "Unfamiliar Territory" published on a can of coffee stout beer by Blindman Brewery. The Lacombe, Alta., brewery has been publishing micro-fiction and poetry this way since 2019, when **Jason Lee Norman**, '06 BA, an Edmonton-based writer and publisher, first pitched the idea. Along with this recent story, Yu also had her story "Golden Hour" appear on the side of Blindman's summer session ale can. If you're not a beer drinker, you can hear the stories read aloud by the authors themselves as part of CKUA radio's "Session Stories" online.

2010s

'11 **Amy Porter**, BMus, '11 BEd, recently incorporated a non-profit society named Tiny HeartsCan Foundation, with a mission to use education to improve the outcomes of infants born with congenital heart disease. Porter became a passionate advocate for awareness of the disease in 2020 after her son received a prenatal critical heart defect diagnosis and she learned that heart defects often go undetected. Realizing how close her family had been to a very different outcome, she set out to change things for the better. Medical professionals at Tiny HeartsCan provide free specialized training programs for sonographers, teaching them how to find and better recognize these potentially life-threatening cardiac conditions during regular obstetrical screenings. The foundation's team includes two U of A faculty members: pediatrics professors Lisa Hornberger and Luke Eckersley. In October, Tiny HeartsCan started working with Net Impact, a U of A club that matches MBA students with non-profits to provide pro bono support.

'13 **Matt Anderson-Baron**, BSc, '19 PhD, and **Jalene Anderson-Baron**, '12 BA, '16 MA, have secured US$11.2 million in private and public funding to scale biomanufacturing for their company, Future Fields. The company uses fruit flies to produce cost-effective, ethically sourced recombinant protein, a vital component in biopharmaceutical development and cellular agriculture, which is the production of animal products like meat from cell cultures. The funding will help the co-founders increase their team from about 35 to 50 and pay for the development of a 6,000-square-foot manufacturing facility next to the company's headquarters in downtown Edmonton.

'13 **Helen Cheung**, MA, curated an exhibition at the Bruce Peel Special Collections Library entitled "Mercantile Mobility: Chinese Merchants in Western Canada," which is on display until March 2024. The exhibition recounts the history of Chinese merchants in Western Canada and is based on her years of

Joyce Yu

Helen Cheung

RIGHT PHOTO BY AKEMI MATSUBUCHI

research, family interviews and a collection of archival materials. On the opening day of the exhibition, Cheung and the U of A were presented with a proclamation by Edmonton Mayor Amarjeet Sohi, naming May 19 "Chinese Merchants in Western Canada Day." The exhibition's catalogue, which was written by Cheung, won awards of excellence in two categories at the 2023 University & College Designers Association Design Competition. It also received honourable mention for its cover design. Cheung pursued further education after retirement and attained her master of arts in East Asian Interdisciplinary Studies in 2013. She received the University of Alberta Alumni Centenary Award in 2015 and is currently a member-at-large for the U of A's Alumni Council.

'13 **Brendan Gallagher**, BDes, and **Nick Kazakoff**, '13 BDes, along with their team at Onetwosix Design, won the grand prize in the Benchmarks design competition, hosted by K-Days and MADE this summer for their "pop-upsicle" benches and tables. Their playful designs, shaped like frozen treats, were inspired by the theme "Reimagining K-Days: Celebrating Summer in Our City" and were showcased on the grounds throughout the festival.

'16 **Christina Caouette**, BA(Hons), '16 Cert(EurSt), '16 Cert(IntLearning), won a 2021 Government of Canada Volunteer Award in the Prairies emerging leaders category. Caouette is the CEO of Young Diplomats of Canada, an organization that supports young policy leaders as they advance their careers. Caouette was cited for strengthening Young Diplomats of Canada's reach and impact by forming new partnerships and helping the organization better reflect the diversity of the country.

'18 **Hanna Friedlander**, MA, received a Civilian of the Year award from her employer, the Michigan State Police, in February 2023 in recognition of her exemplary work performance, leadership skills and extensive community involvement both on and off duty. Friedlander serves as department analyst in the search, recovery and identification of human remains. In her role with the Michigan State Police, she has also developed and expanded tribal consultation in accordance with the Native

PHOTO BY JOHN ULAN

Meet Your New Alumni President

Ashton Rudanec, '12 BCom, '16 MBA, started her two-year term on June 1

By Anna Schmidt

The proud owner of her dad's vintage Block A sweater, Ashton Rudanec can trace the U of A's green and gold threads through her personal and professional story. On June 1, she started a new chapter as the U of A's Alumni Association president. Rudanec works at Alberta Investment Management Corp. (AIMCo) as a member of the Responsible Investment team, and outside of work is an avid volunteer and enthusiastic fitness instructor. *New Trail* caught up with her to learn more about her volunteer philosophy, presidential goals and not-so-secret dance skills.

You've been volunteering with the U of A for nearly a decade. What makes you want to give back? The ability to help build a better future for the next generation. As a mother, I think about my sons and the kind of world I want them to grow up in—a world where everyone has the opportunity to bring their whole selves to their work and passions.

How do you see your role on the Alumni Council fitting into that goal? The U of A gave me so much. Almost every job I've had has been due to an alumni connection. I've travelled the world and met up with alumni in their cities. I've volunteered with other grads and together we've made an impact in the community. When I trace what I've done personally and professionally, there's always this alumni link. I hope that everyone can capture that same value from their degree. You're only in school for a short time, but you're a U of A grad forever. You're part of this community that's almost 300,000-people strong that can help you get where you want to go.

What are you looking forward to in your time as president? I'm excited about the opportunity to help students and alumni transition through different life stages. The students who graduated during the pandemic had a very different experience than the rest of us. Those years were challenging, but those grads are coming into the most welcoming alumni community. My goal is to connect with as many grads as possible and make sure our work resonates with them. If it doesn't, I want to fix that. My biggest skill set is my energy and enthusiasm.

Speaking of skills, do you have any hidden talents? I wouldn't say it's hidden, but I was a competitive Irish dancer for many years. I competed in the World Irish Dancing Championships, both as a soloist and on a team. I'll break it out at parties from time to time. I'm not shy about that!

Past presidents have had fun connections to our school colours. How do you show your green-and-gold pride? My dad was on the Golden Bears football team. He had the Block A sweater. He accidentally shrunk it and gave it to me. I wear it to pretty much every U of A event. It's a great way to honour my dad and show how important the U of A is to my family. ■

This interview has been edited and condensed.

American Graves Protection and Repatriation Act to help return ancestral human remains. She also serves on the Michigan Mortuary Response Team board for Michigan-based disaster response and recovery.

2020s

'20 **Lawrence Woo**, PharmD, and **Nathan Nguyen**, '19 BSc, co-founded Medi-scribe, a drug information and documentation platform aimed at alleviating the administrative burden for pharmacists. Woo teamed up with software developer Nguyen to create this solution, which allows pharmacists to access information and document clinical decisions much faster than the average pharmacist without it. The software allows pharmacists to focus on patient care and addresses the critical issue of burnout. The platform launched in June and is now used by more than 20 pharmacies in Alberta and B.C.

'23 **Diana Rockwell**, BMus, won a national vocal competition hosted by the Canadian Federation of Music Teachers' Associations in July. Originally from Yellowknife, Rockwell represented the Northwest Territories at the event and competed against four other female singers from across the country. ■

PHOTO BY FELIX CHOO / ALAMY

WHAT YOU NEED TO KNOW ABOUT...

APPRECIATING SCULPTURE

Four steps to interpret art

By Kate Black, '16 BA

Whether it's the likeness of a local legend or a pyramid of stainless steel balls, sculptures are the type of public art we are most likely to encounter. Maybe that's why it's hard to imagine a more loved, hated or debated medium. **Royden Mills**, '88 BFA, '90 MVA, a sculptor and instructor in the U of A's fine arts program, knows that appreciating sculptures can be intimidating—but his tried-and-true method helps you see them in a new light.

Bring an open mind

The first step to looking at a sculpture, Mills says, doesn't have to do with your eyes: it's all about mindset. You don't have to be an art expert or enthusiast to engage with a sculpture. The most exciting experiences come when you leave your expectations behind. "You don't have to guess what the artist meant," Mills says. "You just have to be open to it and let yourself be affected."

See how you feel

Don't get caught up figuring out what the sculpture is trying to represent. Instead, Mills suggests tapping into your senses. First, take mental note of what you see and even hear in the sculpture. For example, what shapes do you see? Does it blend in with or stick out from the space surrounding it? Then, check in with your emotions. Do you feel small next to it? Awestruck? Unsettled? "Let yourself feel what it's like to have your body in the same place as the sculpture."

Try an interpretation

There are many ways to interpret an artwork—or as Mills puts it, to figure out what the piece is "about." For example, here's one reading of Edmonton's Talus Dome (pictured above): The metallic pyramid disrupts the natural landscape of the river valley, communicating the intrusive power of artificial materials. Here's another: The spheres reflect the changing scenery, so you'll never look at the same dome twice. Maybe this shows how fallible humanity is in the face of nature.

Make your critique

Ask yourself what you would change about the piece to embody your interpretation further. This could mean creating a new artwork that better represents your analysis. Or maybe it means comparing this sculpture to the next one you see, refining your eye for how sculptures use materials and space to create meaning. Critique makes creators of all of us, Mills says. After all, you've just created a new idea—something that didn't exist until moments ago. "Art is supposed to do that," he says. "It's supposed to unleash your potential." ■

The Alumni Association notes with sorrow the passing of the following graduates (based on information received between February 2023 and October 2023).

In Memoriam

1940s

'45 **Harold L. Cormick**, BSc(ElecEng), in June 2023

'45 **Mary Patricia "Pat" Macmahon-Pechet (George)**, Dip(Nu), '46 BScN, in March 2023

'45 **Mary Vair Wilkinson (Souch)**, BCom, in January 2023

'47 **Margaret Anna Bredin (MacQueen)**, BSc(HEc), in September 2023

'47 **Kenneth Wayne French**, Dip(Ed), '53 Dip(Ed), '58 BEd, in December 2022

'47 **Lois Marjorie Hall (Courtney)**, BSc(HEc), in March 2023

'47 **Gertrude Marion Nelson**, BEd, '64 MEd, in August 2023

'47 **Bernice Celia Stewart (Eshpeter)**, BEd, in May 2023

'47 **Philip Uniat**, BEd, '66 MEd, in July 2023

'48 **Ethel Irene McLaren**, Dip(Ed), in January 2023

'48 **John Henry Scrimgeour**, BSc(ElecEng), in June 2023

'49 **Gwyneth Madge Bailey (Cook)**, BEd, in June 2023

'49 **Jean Louise Gant (Redmond)**, Dip(Nu), '50 BScN, in May 2023

'49 **Charles R. Guest**, BSc(MiningEng), in May 2023

'49 **Ella M. Hansen (Bellak)**, Dip(Ed), in August 2023

'49 **Ray Emerson Leppard**, BSc, '52 MSc, '60 BDiv, in February 2023

'49 **James Cameron MacDonald**, BSc(Hons), in May 2023

'49 **Percival "Percy" Charles Cormack Marshall**, BA, '53 LLB, in May 2023

'49 **Helen Lucile Murchie (Might)**, BSc, in March 2023

'49 **Marguerite Grace Whitley (Manuel)**, BSc, in June 2023

1950s

'50 **June Elizabeth Cook (Fraser)**, BSc(HEc), in December 2022

'50 **Mae Cox**, Dip(Ed), '80 BEd, in March 2023

'50 **Edith Garmony Drysdale (McCullough)**, Dip(Ed), in February 2023

'50 **Patricia Eidem**, Dip(Ed), '53 Dip(Ed), '53 BEd, '75 Dip(Ed), in March 2023

'50 **Raina Emily Fyson**, BSc, '52 MSc, in January 2023

'50 **Joyce Isobel Kelsall (Love)**, BA, '75 Dip(Ed), in July 2023

'50 **Gerald Samuel Langman**, BSc(CivEng), in December 2022

'50 **William Donald Lewicky**, BSc(CivEng), in June 2022

'50 **Ronald Arthur Ramsay**, BCom, in May 2023

'50 **Mary Johanna Sereda (Chemerys)**, BSc(Pharm), in February 2023

'50 **Kathleen Grace Stewart (Tanner)**, BSc(Hons), in February 2023

'51 **Matthew Martyn Baldwin**, BSc(PetEng), in April 2023

'51 **Marion Joyce Bennett**, BEd, in February 2023

'51 **Kay E. Buchanan (Balfour)**, BCom, in August 2023

'51 **Ramona Marie Ganton (Zelenka)**, Dip(Nu), in May 2023

'51 **Frank Cecil Haley**, BSc, '53 MD, '57 MSc, '95 BA, in April 2023

'51 **Ernest Arthur Hutchinson**, BA, '52 LLB, in July 2023

'51 **Edward Nathan Larter**, BSc(Ag), '52 MSc, in May 2023

'51 **James Edward McKellar**, BSc(ChemEng), in September 2023

'51 **James Rene Rose**, BCom, in August 2023

'51 **Russell Victor Stogryn**, BSc(Ag), in May 2023

'51 **Gordon Ditley Svendsen**, BSc(ElecEng), in June 2023

'51 **Carleton Thomas Taylor**, BSc(CivEng), '65 MD

'51 **Christopher James Varvis**, BSc, '53 MD, in May 2023

'51 **Harlow E. Way**, BA, in August 2023

'51 **Arnold G. White**, BSc(ChemEng), in February 2023

'52 **Ruth Wilson Burwash**, Dip(Nu), '79 BA, in August 2023

'52 **Marjorie Anne Lauer**, BA, in February 2023

'52 **Louis Andre Mosnier**, DDS, '58 MD, in January 2023

'52 **Shirley Elizabeth Munro**, BSc(Pharm), in January 2023

'52 **Helen Anne Parker (Panabaker)**, BA, in March 2023

'52 **Loran Fred Pilling**, BSc, '56 MD, in July 2023

'52 **Elmer Joseph Reist**, BSc(Hons), in February 2023

'52 **Leif Gordon Stolee**, BA, '54 BEd, '69 MA, in July 2023

'53 **Helgi Lavergne Austman**, BSc(EngPhys), in July 2023

'53 **William Alan Bell**, BA, '55 BEd, '67 MEd, in July 2023

'53 **Lance Murray Cathcart**, MD, in August 2023

'53 **Kathleen Westgarth Hatfield (Welham)**, Dip(Nu), in July 2023

'53 **Walter Hudyma**, DDS, in March 2023

'53 **June Louise Lore (Oel)**, Dip(Nu), '54 BScN, in February 2023

'53 **Edward Owen Marcum**, BEd, '65 MEd, in May 2023

'53 **Elizabeth Joan Thomson (McFarlane)**, BPE, in July 2023

'53 **Lillian Joan Parker**, Dip(Nu), in March 2023

'53 **John Stephen James Zmetana**, DDS, in May 2023

'54 **Bruce MacDonald Dafoe**, BSc(ChemEng), in February 2023

'54 **Lorne Francis Dixon**, BSc(CivEng), in September 2023

'54 **Paul Murray Heaton**, BSc(CivEng), in July 2023

'54 **Janet Mary Holt (De Candole)**, BA, in May 2023

'54 **Stephen M. Hunka**, BEd, '58 MEd, in March 2023

'54 **Robert Edmond Norton**, Dip(Ed), '58 Dip(Ed), '61 BEd, in March 2023

'54 **Jimmy Mitsuo Oshiro**, Dip(Ed), '68 BEd, in May 2023

'54 **Joyce Dorothy Petterson**, Dip(Ed), in January 2023

'54 **Irma Caroline Rowlands**, BEd, '74 Dip(Ed), in February 2023

'54 **Charles Donald Sawyer**, BSc(Ag), '62 MSc, in September 2023

'54 **George Howard Stafford**, BSc, in August 2023

'55 **Marion Rosalind Burrus (Neal)**, BSc(HEc), in September 2023

'55 **Alice Ruth Chelich (Blaskovits)**, Dip(Ed), '82 BEd, in September 2023

'55 **Alan Ross Collins**, BCom, in January 2023

'55 **Ken "Billy" Roland Leigh Hill**, BSc(Pharm), in March 2023

'55 **Donna Elaine Jensen**, Dip(Ed), in August 2023

'55 **Beverley Ann MacLeod**, Dip(Nu), in August 2023

'55 **Lorraine Marguerite McDonald**, Dip(Ed), in April 2023

'55 **Marguerite Ann Moore**, BSc, in April 2023

'55 **Lorna M. Wright**, BEd, in September 2023

'55 **Nancy Anita Zavediuk (Pasochnik)**, BSc(HEc), in March 2023

'56 **Joseph Stanley Bereznicki**, BSc(CivEng), '59 MSc, in 2023

'56 **William Gordon Brown**, LLB, in June 2023

'56 **Norman Edgar Hamilton**, BSc, '60 MD, in August 2023

'56 **Nick Hussar**, BSc(Ag), '58 MSc, in August 2023

'56 **Leona June Jason (Warshawski)**, BSc(Pharm), in January 2023

'56 **Wilfred Stephen Lencucha**, BEd, in April 2023

'56 **Frances Eleanor Losie**, Dip(Ed), '58 BEd, in September 2023

'56 **Inez Margaret "Peggy" Mollerup (Broughton)**, Dip(Nu), in January 2023

'56 **John Moysiuk**, BSc(ChemEng), in May 2023

'56 **James Wolfe Murray**, BSc, in May 2023

'56 **Roy Lynn Orvis**, BSc(Hons), '58 MSc, in January 2023

'56 **Johl Henri Ready**, BSc(CivEng), in March 2023

'56 **Edward Richard Saddy**, BA, '59 LLB, in September 2023

'57 **Ingebjorn "Inge" Hermann Anderson**, BSc(CivEng), in March 2023

'57 **Thomas Adam Bethune**, BSc(CivEng), in February 2023

'57 **Alan Fergus Brown**, MEd, '61 PhD, in July 2023

'57 **Kathleen Lenore Gill (Green)**, BSc(HEc), in May 2023

'57 **Doreen Odelia Hindle (Stelter)**, Dip(Nu), in January 2023

'57 **Albert Lloyd Kahanoff**, BEd, in May 2023

'57 **Harry William Laslop**, BCom, in March 2023

'57 **Theresa Marie Markle (Kehoe)**, BA(Hons), in December 2022

'57 **Edwin Mattheis**, BSc(PetEng), in September 2023

'57 **William J. Myers**, BSc(ChemEng), in March 2023

'57 **Eleanor Diane Stover**, BSc(Hons), '67 PhD, in February 2023

'57 **Orest A. Ulan**, MD, in January 2023

'57 **Patricia Sylvia Workun**, BCom, in September 2023

'58 **Axel Loren Benzon**, BSc, '61 BEd, in August 2023

'58 **David Leonard Bowman**, BSc(PetEng), in April 2023

'58 **Kenneth Harry G. Broadfoot**, BCom, in April 2023

'58 **John M. Clipperton**, Dip(Ed), in September 2023

'58 **Donald Rae Grekul**, BSc(ChemEng), '60 MSc, in July 2023

'58 **Gerald David Harle**, BSc, '62 DDS, '76 MSc, in April 2023

'58 **Donald Allan King**, BSc, '62 DDS, in June 2023

'58 **Robert Earle Klappstein**, BEd, in September 2023

'58 **Dallas Catherine Krysa (Wasieczko)**, BSc, in August 2023

'58 **Joan A. Lundstrom (Reid)**, Dip(Ed), '60 BEd, in January 2023

'58 **Rose Mercier**, Dip(Nu), in February 2023

'58 **Allan Charles Payne**, BSc(CivEng), in July 2023

'58 **Peter Proskiw**, BSc(ChemEng), in March 2023

'58 **Jane Theresa Reschke (Eisler)**, Dip(Ed), '61 BEd, in July 2023

'58 **Donna Marion Riplinger (Miller)**, Dip(Nu), in April 2023

'58 **Alec Shysh**, BSc(Pharm), '68 MSc, '70 PhD, in June 2023

'58 **Shirley Lorraine Stephenson**, Dip(Nu), in August 2023

'58 **Keith Allan Stromsmoe**, BSc(EngPhys), in June 2023

'59 **William Lloyd Badger**, BEd, '63 BA, '67 MEd, in April 2023

'59 **Gary John A. De Leeuw**, BA, '60 BEd, in January 2023

'59 **Elizabeth Mary Duplessis (Gamble)**, Dip(Nu), in March 2023

'59 **James John Hardy**, DDS, in January 2023

'59 **William Nobuyoshi Hasegawa**, BSc(CivEng), in July 2023

'59 **Rodney Kent Hendrickson**, BSc(CivEng), in July 2023

'59 **John Gardiner Jackson**, BSc(Hons), in February 2023

'59 **Barbara Joan Janz**, Dip(Nu), in March 2023

'59 **Reginald Garry Meadus**, BPE, '60 BEd, in March 2023

'59 **Gilbert Murray Parker**, BSc(CivEng), in April 2023

'59 **Ernest Anthony Rakochey**, DDS, in June 2023

'59 **George Samuel**, BA(Hons), '59 BA, in April 2023

'59 **Katherine "Kay" Anne Yakimets (Yorke)**, Dip(Nu), '60 BScN, in June 2023

1960s

'60 **Douglas W.R. Brown**, BEd, '62 BA, in April 2023

'60 **Zaniel Dennis Figol**, BSc(CivEng), in May 2023

'60 **Donald Robert Glover**, BCom, in August 2023

'60 **Peter Bill Makowichuk**, BSc(CivEng), '63 MSc, in February 2023

'60 **John Hugh McNeill**, BSc(Pharm), '62 MSc, in August 2023

'60 **Ralph Arnold Redding**, MD, in August 2023

'60 **Leonard Gordon Simpson**, BA, in January 2023

'60 **Barbara Ruth White**, Dip(Nu), in February 2023

'61 **Peter Edward Arabchuk**, BA, in May 2023

'61 **Michael Ignatius De Abreu**, DDS, in May 2023

'61 **Doreen Carol Leicht**, Dip(Nu), in January 2023

'61 **Franklin Caesar Loehde**, BSc, '62 BEd, in March 2023

'61 **George Charles Marrinier**, BSc(CivEng), '69 MEng, '74 MBA, in January 2023

'61 **Elmer William Mychaluk**, BSc(CivEng), in September 2023

'61 **James McKay Orr**, BSc(Pharm), '65 MSc, in September 2022

'61 **Napoleon "Leon" A. Rebryna**, BEd, in September 2023

'61 **Brian "Barney" Olphert Kemmis Reeves**, BSc, '63 BA, in August 2023

'61 **Orville Cecil Sandall**, BSc(ChemEng), '63 MSc, in February 2023

'61 **Mary-Jo Williams (Powell)**, BA, '77 MEd, '81 PhD, in July 2023

'61 **Mary E. Woodhead**, Dip(Nu), in January 2023

'61 **Norman A. Zacharuk**, BSc(Pharm), in July 2023

'62 **David Grant Gunderson**, BSc(MechEng), '68 MBA, in August 2023

'62 **Donald Edwald Harder**, BSc(Ag), '64 MSc, in April 2023

'62 **Theodore Michael Hensby**, BSc, '65 BEd, in February 2023

'62 **Jack Morris Holt**, BSc, in March 2023

'62 **Glen Johnston**, BSc(Hons), in June 2023

'62 **Joseph Alec Kostiuk**, MD, in June 2023

'62 **Robert James Maynard**, BSc(ElecEng), in July 2023

'62 **Robert Gerald McArthur**, MD, in July 2023

'62 **David Lloyd Ozeroff**, BSc(CivEng), in September 2023

'62 **Harry Joseph Quinn**, DDS, in May 2023

'62 **Roger Keith Stagg**, BSc(MechEng), in April 2023

'63 **Irene Askew**, BEd, in April 2023

'63 **Calvin George Bohme**, BSc(PetEng), in June 2023

'63 **John Clyde S. Bradbury**, BSc(CivEng), '68 MEng, in April 2023

'63 **Mary Elizabeth Burns**, BEd, in January 2023

'63 **Wendy Patricia Flynn**, BEd, in June 2023

'63 **Shigeru Kitagawa**, BSc(MechEng), in August 2023

'63 **Derek Alwyn Law**, PhD, in April 2023

'63 **Robert Donald Merner**, BA, in April 2023

'63 **Nicholas Michas**, BA, in April 2023

'63 **Lorne Willson Scott**, BA, '67 LLB, in May 2023

'63 **Johannes Franciscus M. Secker**, BA(Hons), '66 MA, in February 2023

'63 **James Norman Sorensen**, BSc(ChemEng), in July 2023

'63 **Susan Caroline Tronsgard**, BA, '78 BEd, in April 2023

'63 **Ronald George Vekved**, BSc(CivEng), in June 2023

'63 **Alexander Reginald Watts**, MD, in March 2023

'64 **Ronald Blasner**, BEd, in April 2023

'64 **Robert Edward Borth**, BSc(Pharm), in March 2023

'64 **Walter James Chudobiak**, BSc(ElecEng), in June 2023

'64 **Robert Alexander Keys**, BSc(CivEng), in February 2023

'64 **Alice Karla Marie Kristensen**, BEd, in April 2023

'64 **Werner Walter Liedtke**, BEd, '68 MEd, '70 PhD, in February 2023

'64 **Douglas William MacFarlane**, BSc(Pharm), '69 BSc, in May 2023

'64 **Ian Ritchie McDonald**, BA(Hons), in August 2023

'64 **Robert Derrick Niven**, BSc(MechEng), in May 2023

'64 **Thomas Warren Tucker**, BCom, in August 2023

'64 **John Rowland Young**, BEd, '68 MEd, in August 2023

'65 **Phyllis Anne Bunting**, BSc(HEc), '68 BEd, in September 2023

'65 **Barry Leon Caplan**, MD, in May 2023

'65 **Mabel Cecilia Eastwood**, BEd, '68 LLB, in April 2023

'65 **Nelma Irene Fetterman**, BEd, in March 2023

'65 **Betty-Anne Gillund (Regehr)**, BSc(Pharm), in April 2023

'65 **Charles Herbert Harley**, MD, '69 MSc, in May 2023

'65 **Joseph Pavich**, BSc(Pharm), in February 2023

'65 **Robert Wallace Rae**, BEd, in June 2023

'65 **Ruth Corinna Rodger**, BA(Hons), in January 2023

'65 **Richard Drummond Sandilands**, DDS, in June 2023

'65 **Margaret Mae Shelton (Craig)**, BA, in July 2023

'65 **Loretta Mary Villeneuve**, BEd, in August 2023

'65 **Brian Hugh Voice**, BEd, '68 MEd, in April 2023

'65 **Hugh Archibald White**, BSc, '68 MSc, in 2023

'66 **Eric Rees Hayne**, BCom, in January 2023

'66 **Peter Frank Kirchmeir**, BEd, '11 MA, in March 2023

'66 **Shirley Clare Kirkpatrick (Burton)**, BEd, in August 2023

'66 **Peter Knaak**, BA(Hons), '71 LLB, in September 2023

'66 **Eileen Marie Cassidy (Maciborski)**, BEd, in January 2023

'66 **Tattanahall L. Nagabhushan**, PhD, '95 DSc (Honorary), in May 2023

'66 **Milton George Pahl**, BA, '71 MBA, in March 2023

'66 **Arlene M. Ryder**, BSc, in July 2023

'66 **Henry B. Unrau**, BEd, '73 MEd, in February 2023

'67 **Carol Maureen Cook**, MA, in June 2023

'67 **Walter "Wally" Din**, BCom, in March 2023

'67 **Reginald Carl Hadley**, BCom, in February 2023

'67 **Lucy Irene Krisco (Skikiewich)**, BEd, '75 BA, in June 2023

'67 **Joseph Roger Lecuyer**, BEd, '70 BA, in May 2023

'67 **Orest Andrew Luchka**, BEd, in February 2023

'67 **Lorne Herbert McKinstry**, BEd, in December 2022

'67 **Donald William McLeod**, BCom, in July 2023

'67 **Peter Lawrence Money**, PhD, in December 2022

'67 **Virginia Louise Sauve (Black)**, BA, '82 MEd, '91 PhD, in August 2023

'67 **Henry "Hank" John Scheunhage**, BSc(CivEng), in June 2023

'67 **Joseph Walter Stockal**, BEd, in December 2022

'67 **Sharon Mitsu Yuen (Hirabayashi)**, Dip(Nu), '69 BScN, in February 2023

'68 **Paul Edward Arnold**, DDS, in July 2023

'68 **Heather Jane Baser**, BA(Hons), in December 2022

'68 **Henry Florian Becher**, BEd, in June 2022

'68 **Carol Amy Bennett**, BEd, in January 2023

'68 **Larrie Noyce Boddy**, LLB, in June 2023

'68 **Valerie Ann Bright (Spencer)**, BPE, in July 2023

'68 **Larry Keith Brocke**, BSc(Ag), '70 MSc, in January 2023

'68 **Vivian Marie Broks (Ogrodnick)**, BEd, '89 Dip(Ed), in 2023

'68 **Blair Robert Ferguson**, BSc, '71 MD, in September 2023

'68 **Warren Elkanah Hathaway**, BEd, '70 MEd, '75 PhD, in August 2023

'68 **Eugene Ross Lobe**, BEd, '71 BLS, in July 2023

'68 **Larry Hector MacKenzie**, BSc, '71 Dip(Ed), in December 2022

'68 **William Blair McIver**, MD, in September 2023

'68 **Gerhard "Gerry" Ferdinand Metzinger**, BEd, in July 2023

'68 **Donna Lee Gwen Mitchell (Petrosky)**, BEd, '83 MEd, in August 2023

'68 **Gloria Leola Rogers**, BEd, in April 2023

'68 **Rodney Edwin Soholt**, BPE, '71 BEd, '73 MEd, in June 2023

'68 **Wallace Brent Steed**, BSc, '72 DDS, in March 2023

'69 **Roger Carlyle Bruntjen**, DDS, in July 2023

'69 **Charles Edwin Campbell**, BSc, '74 LLB, in May 2023

'69 **Kenneth James Croft**, BCom, in June 2023

'69 **Brian Harold Fraser**, BA, '72 LLB, in July 2023

'69 **Inder Nath Kher**, PhD, in July 2023

'69 **Richard Clark Kimmis**, MA, '76 PhD, in March 2023

'69 **Michael Owen O'Neill**, BSc, '71 MD, in April 2023

'69 **Donna Gayle Proctor**, BEd, '83 MEd, in September 2023

'69 **Brian Joseph Spence**, BSc, '71 MD, in March 2023

'69 **Anne-Marie Stacey (Swanson)**, BMus, '71 MMus, '94 BEd, in May 2023

'69 **Melvin Lorne Stromberg**, BEd, '71 Dip(Ed), in December 2022

1970s

'70 **Donald Stuart Ausman**, BCom, in February 2023

'70 **Sharon Margaret Bodard**, BEd, '76 BLS, in April 2023

'70 **William Patrick Bouthillier**, BSc(MiningEng), in March 2023

'70 **Donald John Clark**, MSc, '86 PhD, in February 2023

'70 **Wendy Ann Cook**, BA, in April 2023

'70 **Therese Marie Cournoyer (Croteau)**, BEd in 2023

'70 **Lynda Jeanne Durand**, BEd, in June 2023

'70 **Laura Susan Frost (Lemieux)**, BSc(Hons), '78 PhD, in May 2023

'70 **Kevin John Hendrick**, BEd, in May 2023

'70 **Christina Anne James**, BA, '71 BLS, in June 2023

'70 **William Kelly**, BA(Hons), '77 MBA, '89 BSc(Spec), in July 2023

'70 **Olga Klem**, BEd, in April 2022

'70 **Roland Malcolm Mansell**, BSc(ChemEng), in March 2023

'70 **Wasanti Bhalachandra Paranjape (Sohoni)**, MA, in September 2023

'70 **Hugh Lewis Stewart**, BSc, '72 MD, '76 MSc, in June 2023

'70 **Marjene S. Turnbull (Matsunaga)**, BEd, in March 2023

'70 **Howard Lyman Wildgrube**, BSc(MechEng), in June 2023

'70 **Alan R. Young**, PhD, in February 2023

'71 **John Scott Blackwell**, BSc, in January 2023

'71 **Danin Rosen Bodnar**, BScN, '84 MEd, in April 2023

'71 **Donald Paul Joseph Boisvert**, MD, '78 PhD, in March 2023

'71 **Fredrick Arnold Esslinger**, BEd, in June 2023

'71 **Larry Michael Huculak**, BA, '74 LLB, in July 2023

'71 **Ann Elizabeth Johnson**, Dip(Nu), in June 2023

'71 **Richard William Joyce**, Dip(Ed), in September 2023

'71 **Stuart Norman Lawrence**, BSc(CivEng), in May 2023

'71 **Marvin Ernest MacLean**, MEd, '73 PhD, in December 2022

'71 **Donald James Manning**, BPE, '74 LLB, in September 2022

'71 **Agnes Christine McAllister (Strembicke)**, BSc(Pharm), in December 2022

'71 **Tarcienne Meunier**, Cert(AdvObst), in February 2023

'71 **Laverne Dianna Nathan**, BA, '73 Dip(Ed), in August 2023

'71 **Wesley Jerry Penner**, PhD, in April 2023

'71 **Marietta Portigal**, BLS, in June 2023

'71 **Linda Kathleen Richards (Scott)**, BA, '72 Dip(Ed), in March 2023

'71 **Gary Wayne Spelrem**, BEd, in April 2023

'71 **Alexander Philip Stosky**, BSc, '77 BCom, in July 2023

'71 **John "Jim" Tymo**, BSc, '77 Dip(Ed), '83 MEd, '95 PhD, in July 2023

'71 **Stephen L. Whitney**, BSc(Hons), in January 2023

'71 **John James Williamson**, BEd, in March 2023

'72 **Glen Edward Bailey**, MSc, '75 PhD, in February 2023

'72 **Lucienne Marie Epp (Maurier)**, BEd, in March 2023

'72 **Kathryn Ann Hamill (Palmer)**, BSc(Pharm), in April 2023

'72 **Sharon Lee Hoekstra (Skuba)**, BEd, '78 Dip(Ed), '79 MEd, in August 2023

'72 **Paul Kolodej**, BSc(Med), '74 MD, '78 MSc, in March 2023

'72 **Margaret Kathleen Lucas (O'Neill)**, BScN, in May 2023

'72 **Richard David Parama**, BSc(ElecEng), in January 2023

'72 **George Alan Rusler**, BEd, in May 2023

'72 **Gordon David Skeels**, BEd, in December 2022

'72 **Gloria Jean Tetreault**, BScN, in April 2023

'73 **Edythe Gertrude Arscott**, BEd, in May 2023

'73 **Yvonne Collinson-Fleming**, BSc(OT), in March 2023

'73 **Orville Crosbie Grigor**, BEd, in April 2023

'73 **Barry Clifford Joe**, BCom, in April 2023

'73 **Marie Jean Laing**, BA, '79 MEd, '99 PhD, in March 2023

'73 **Robert Bruce Matheson**, BA, in April 2023

'73 **Sheila Louise Petersen**, BEd, in April 2023

'73 **Elsie Schaffrick (Schabert)**, BEd, '91 MEd, in March 2023

'73 **Patricia Mary Wankiewicz**, BA(Hons), '79 MSc, in February 2023

'74 **Nicole Elizabeth Curtis (MacBeth)**, Dip(Nu), in April 2023

'74 **Ida May Duriez (Carriere)**, BScN, in June 2023

'74 **Victor Joseph Esaiw**, BCom, in March 2023

'74 **Dianne Gail Fleetwood**, BSc(Pharm), in February 2023

'74 **Paul Kent Godfrey**, BSc(ChemEng), in September 2023

'74 **Mary L. Gould**, BEd, in December 2022

'74 **Mary Margaret Higginson**, MSc, in July 2023

'74 **Marie Adrienne Kramps (Campeau)**, BEd, in March 2023

'74 **Donald Douglas McDavid**, BSc, '75 Dip(Ed), '76 BEd, '77 MEd, in January 2023

'74 **Gerald Ivan Morse**, BA, in March 2023

'74 **David Brent Oyen**, BSc, '76 DDS, in July 2022

'74 **Susan Mary Ozubko (Lackey)**, BA, '78 MLS, in July 2003

'74 **Pawan Kumar Singal**, PhD, in June 2023

'74 **Janet Mary Wardrop (Ruryk)**, BSc(HEc), in July 2023

'74 **Linda K. Zevola**, BEd, in March 2023

'75 **Russell Irwin Cherneskey**, BCom, in May 2023

'75 **Shirley Jean Devlin**, Dip(Nu), '82 BScN(Hons), '92 MEd, in September 2023

'75 **Soraya Hafez**, Dip(Ed), '75 BEd, in April 2023

'75 **Larry Adam Hoffner**, BA, in February 2023

'75 **Samuel Osachoff**, BEd, in February 2023

'75 **Donna Elaine Watson**, BA, '76 Dip(Ed), in June 2023

'76 **Elberta Maud Christensen**, BEd, in January 2023

'76 **Sandra Lynn Dronyk**, BScN, '85 BA, in February 2023

'76 **Ronald Stanley Hanson**, BA, '78 BEd, in March 2023

'76 **Ann Hemingway-Kubo**, BFA, '88 MA, '96 BEd, in February 2023

'76 **David John Kenyon**, BSc, in July 2023

'76 **Daniel Anthony Palamar**, BA, '80 LLB, in July 2023

'76 **Clare Jeanette Scott (Pryor)**, BEd, in February 2023

'76 **Lyall Mitchell Thomson**, BEd, '85 MEd, in March 2023

'77 **Allan Keith Bothwell**, BA, '79 BEd, in March 2023

'77 **William Everett Costello**, BA, in June 2023

'77 **Carol Anne Dansereau (Banville)**, BA(RecAdmin), in September 2023

'77 **Michael James Hill**, LLB, in April 2023

'77 **Larry Andrew Kjearsgaard**, BEd, in March 2023

'77 **Marie Josephine Olson Dinwoodie**, MA, in July 2023

'77 **Robert Dale Strashok**, BSc, '80 DDS, in April 2023

'77 **Susan Carol Svarich**, BEd, '91 Dip(Ed), in June 2023

'77 **Gail Roxanne Reichert (Wilkes)**, BSc(Spec), in May 2023

'78 **Connie Allison Aggarwal (Andersen)**, BSc(Pharm), in July 2023

'78 **Muriel Isabella Avery**, MSc, in December 2022

'78 **John William Brink**, MA, in January 2023

'78 **Barbara Elaine Duffus**, MA, in May 2023

'78 **John Martin Kernahan**, BSc(ElecEng), in June 2023

'78 **David Charles Martin**, BSc(MechEng), in April 2023

'78 **Kenneth Stephen Meen**, BSc(Spec), '81 MEd, '89 PhD, in January 2023

'78 **Murray Farrell Millar**, BA, in February 2023

'78 **R. Vance Milligan**, LLB, in September 2023

'78 **Richard Andrew Ponomar**, BA(Spec), in June 2023

'78 **Louise Ann Prenovost**, BEd, in March 2023

'79 **Paul Ernest Dumont**, BEd, in August 2023

'79 **Jill Kathleen Germain (Higgins)**, BA, '80 BEd, in February 2023

'79 **Blair Trevor Newhouse**, BEd, in September 2023

'79 **Doreen Patricia Shanks**, MLS, in May 2023

'79 **Mildred Elaine Travis**, BSc(OT), in April 2023

'79 **Warren James Yake**, BSc, in February 2023

1980s

'80 **Albert Adelard Faubert**, Dip(Ed), in February 2023

'80 **Robert Dunsmuir Norris**, BEd, in July 2023

'80 **Ruth Loretta Robinson (Armstrong)**, BEd, in June 2023

'80 **Cherise Dianne Tkatch (Foster)**, BSc(FoodSci), in May 2023

'80 **Garry Lee Van Keimpema**, BSc(CivEng), in January 2023

'80 **Cherisse Kim Wetzel**, BSc, '81 BSc(SpecCert), in March 2023

'80 **Harry Woo**, BSc, in December 2022

'81 **Sheila Kathleen Arenburg (Holloway)**, BSc(HEc), in January 2023

'81 **Blair Lindsay Haukedal**, BSc(CivEng), in July 2023

'81 **Neil Robert Kirkpatrick**, MBA, in May 2023

'81 **Betty Rudolph**, Dip(Nu), in August 2023

'81 **Betty Ria Sparling**, BEd, in September 2023

'81 **Judith "Judy" Anne Werenka (Harrison)**, BEd, in February

'82 **Susan Mary Boyetchko**, BSc(Ag), '86 MSc, '91 PhD, in February 2023

'82 **Celestino Ciancibello**, BA, in September 2023

'82 **Albert Otto Schilling**, BEd, in March 2023

'83 **Robert Thomas Carriere**, BEd, in May 2023

'83 **Hilda Marie Henkelman**, BEd, '87 MLS, in February 2023

'83 **James William Hrynyk**, BA(Spec), in March 2023

'83 **Larry Thomas Lee**, BSc, in July 2023

'83 **Mark Stephen Misunis**, BSc, '84 BSc(SpecCert), in July 2023

'83 **Greg Antoni Polkowski**, MEng, in February 2023

'83 **Katherine "Kay" Sadlowsky (Krawiec)**, BEd, in August 2023

'84 **Mary Sheila Penelope "Penny" Deonarain**, BEd, '85 Dip(Ed)

'84 **Gerry John van Haaften**, BA, in February 2023

'85 **David Gordon Anderson**, BSc(PetEng), in January 2023

'85 **David Charles Ayre**, BCom, in July 2023

'85 **William Bruce Coppinger**, BA, '88 BEd, in February 2023

'85 **Sheryl Ann Hagen (Harrop)**, BCom, in April 2023

'85 **Zenovia Keryluk**, BScN(Hons), in September 2023

'85 **Gregory Wayne Kramchynski**, BCom, in February 2023

'85 **Robert Ralph Losie**, BEd, in August 2023

'85 **Martha Prudence Schiel**, MBA, in March 2023

'85 **Arvid Stensland**, BPE, in April 2023

'86 **Karen Elizabeth Hewitt**, BA(Spec), '89 LLB, in September 2023

'86 **Jennifer Marjorie Lawley**, BEd, in September 2023

'89 **Kenneth Edward McRobbie**, BFA, in March 2023

1990s

'90 **Claus Ronald Kube**, BSc(Spec), '92 MSc, '97 PhD, in April 2022

'90 **Kelly Ruth Lomas (Hudema)**, BSc(HEc), in February 2023

'90 **Rosemary Bridget Schmidt**, BScN(Hons), in December 2022

'90 **Jacqueline Anne Symbaluk**, BEd, in July 2023

'91 **Earla Mildred Henderson**, BA, '95 Dip(Ed), in May 2023

'91 **Michael Darren Warawa**, BA, in June 2023

'92 **Dennis Michael Jonk**, BSc(AgBus), in March 2023

'92 **Kathryn Isabel Merrett**, MA, in July 2023

'92 **Richard Priest**, BA, in December 2022

'93 **Lisa Marie Allan**, BEd, in March 2023

'93 **Laurie Anne Demers**, Dip(Nu), in September 2023

'93 **Doreen Paula Ritter**, BA(Spec), in April 2023

'94 **David Reid Sagan**, BA, in September 2023

'94 **Carrie Ann Thomson**, PhD, in May 2023

'95 **Kenneth Soohoon Lee**, BSc(Spec), in June 2022

'96 **Peter Walley Lightbody**, LLB, in February 2023

'96 **Catherine Margaret O'Neill**, BEd, in February 2023

'96 **James William Wessman**, BEd, in February 2023

'97 **David John Flower**, PhD, in February 2023

'97 **Ineke Catharina Lock**, BA, '99 MA, '11 PhD, in February 2023

'97 **Thomas Andrew Peebles**, BSc, '01 MD, in June 2023

'97 **Mamoru Watanabe**, DSc (Honorary), in July 2023

'98 **Oksana Kotovych**, BEd, '01 MSc, in May 2023

'99 **Dolores Cecile Peterson**, MBA, in April 2023

2000s

'01 **Lindsay Jayne Adrian**, BEd, in June 2023

'01 **Cheryl Ann Nepoose**, BEd, in May 2023

'01 **Stephen James Walton Slack**, BSc(ForestBus), in July 2023

'02 **Jonathan Morgan**, BA, in April 2023

'03 **Mathew Edward Neuman**, BA, in August 2023

'04 **Lorraine Janet Pearson**, BScN(Hons), in December 2022

'05 **Margaret Anne Ethel Halliwell**, BScN(Hons), in April 2023

'05 **Nappu Kehl**, BA, in December 2022

'05 **Leanne Gaye Reeb**, MBA, in May 2023

'07 **Ryan J. Haynes**, BSc(ElecEng), '16 MBA, in February 2023

'07 **Danny Babu Pulikkaseril**, BSc(ElecEng), '23 MSc, in April 2023

'09 **Alexander Coombes**, LLB, in February 2023

2010s

'10 **Ian Robert Hollingshead**, BSc(Pharm), in July 2023

'11 **Sandeep Nain**, MSc, '15 MSc, in June 2023

'14 **Linda Diane Hudson**, BEd, '14 BMus, in July 2023

'15 **Kaylie Sharayah Green**, MSc, in March 2023

'15 **Jonathan Andrew Harkins**, BEd, '22 GradCert, in July 2023

2020s

'22 **Katelyn Thomas**, BSc(EnvSci), in December 2022

'23 **Benjamin James Ryan**, BSc(EnvSci), in July 2023

If you've lost a loved one who was a University of Alberta grad, contact alumni records at alumrec@ualberta.ca, *780-492-3471 or 1-866-492-7516.*

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SPEAKER'S CORNER

BREAKING THE SILENCE ON HEARING LOSS

By Sandrine Camminga

Is it difficult to make out what someone is saying when other conversations are going on around you? This could be a sign of hearing loss, says **Bill Hodgetts**, '08 PhD, an audiologist and professor in the Faculty of Rehabilitation Medicine. During a webinar, Hodgetts and speech language pathologist **Esther Kim**, '98 BSc, spoke about hearing loss and how to communicate better with those experiencing it. Here are some takeaways:

YOU SHOULD HEAR WELL AT ANY AGE Many factors can contribute to hearing loss, including aging, certain medications and noise exposure. Some can cause changes in the brain, the physical structures of the ear or both, affecting your ability to hear. Hodgetts cautions people against assuming their hearing is healthy just because it seems typical of their age group. "It doesn't matter how old you are," he says. "If you don't hear well, there is help out there."

HEARING LOSS HAS A BIG IMPACT Untreated hearing loss doubles the risk of developing dementia, causes memory impairment and can lead to anxiety, insecurity and social isolation. One of the early effects of hearing loss is trouble hearing high-pitched sounds, which can affect the ability to understand speech. People experiencing hearing loss are likely to ask others to repeat themselves and tend to have difficulty understanding conversation in noisy environments. If you struggle to hear what people are saying, Hodgetts suggests visiting an audiologist to see if you are a candidate for a hearing aid.

NON-VERBAL CUES CAN HELP Speech is just one way that people communicate, says Kim, who is also an associate professor in the Faculty of Rehabilitation Medicine. Non-verbal cues can say a lot. When you communicate with someone experiencing hearing loss, she suggests, write out words, show images or make hand gestures while you speak. Kim also recommends pausing between phrases and speaking in shorter sentences. "Making these small changes can be beneficial not just for people with hearing loss and communication difficulties, but also for other individuals, such as English-language learners," she says.

Hodgetts and Kim are two of many speakers to share expertise at alumni events. For more, visit uabgrad.ca/OnDemand.

150

The total number of grads who attended two land-based learning events this summer. Alumni learned to connect with Nikawiy Aski (Mother Earth) during a plant walk at Miquelon Lake Provincial Park led by Métis Knowledge Holder Natalie Pepin, and during a river walk along kisiskâciwani-sîpiy (the North Saskatchewan) with professor **Dwayne Donald**, '90 BA, '09 PhD.

72

The number of grads who donned mortarboards once more as part of the Cap 'n' Gown Ceremony at U of A Days. The annual event celebrates the 50- and 60-year anniversaries of graduates with a commemorative medallion, as friends, family and fellow grads cheer them on.

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PODCAST WISDOM

"I have always been of the opinion that your business, regardless of what you do, is the people. People are the ones that actually move things forward."

Pooja Happy, '11 BA, talks on the alumni podcast *What the Job?* about how working together with people from different backgrounds creates the best results.

LIVING ROOM LESSONS

Canada has been "indigenizing" its prisons since the 1970s—with educational and cultural offerings for incarcerated people—and generating criticism about whether it is doing more harm than good. **Justin Tetrault**, '21 PhD, assistant professor at Augustana Campus, interviewed hundreds of people in prisons across Western Canada, many of whom self-identified as Indigenous, to find out what they think. Watch the webinar and other free offerings with U of A experts at *uabgrad.ca/OnDemand*.

DON'T MISS OUT ON

ONECARD PERKS

Grads have access to on-campus benefits with an alumni ONEcard. Flash your card to get discounts at the bookstore and recreation facilities on campus. You can also get discounted training on topics like Photoshop with the U of A's Technology Training Centre. Visit the ONEcard office in HUB Mall to get your alumni card.

GETTY IMAGES

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Friends Forever

Even though staying in touch has never been easier, it can be hard to carve out the time to cultivate meaningful, lasting connections off campus. We asked grads how they've kept the "forever" part of "BFF" post-graduation. Share your advice or tap into the wisdom of others at *facebook.com/UAlbertaAlumni*.

I still keep very close relationships with my U of A friends from Asia, the U.S. and Canada via Facebook and WhatsApp groups. We connect with each other regularly, send seasonal greetings every holiday and meet each other for chats, biking and meals in Calgary. We really treasure the friendships! ***-Daniel Tong**, '93 BSc(ChemEng)*

Staying in touch with fellow grads is worth every effort as some of my best friends today I met during my time at U of A. We have vacationed together for years, stayed in contact via email and calls, and really just made the effort to keep apprised of what is going on in each other's lives. Some of us are members of fraternities and have annual events that bring us together regularly. ***-John Windwick**, '90 BA(Spec)*

You have to find your community. I was fortunate to have my "family" from second-floor Mackenzie Hall in Lister, my Aggie community and my fraternal community of Ceres and FarmHouse. You are so bonded to many of these people that even if you're out of touch for years, once you get in the same room again, it's like no time has passed. The conversations always come easy with so many shared memories and experiences.

***-Brandi Horinek Wyatt**, '97 BSc(Ag)*

I've been fortunate enough to stay connected with friends through the past 25 years. It helped that at one point we all worked for the same organization, but since then we have made a conscious effort to connect. It's never about how many friends you can make in university, it's about the ones that are worth keeping! ***-Courtney Klinger**, '00 BPE*

I'm still best friends with a classmate after 50 years. We live at opposite ends of the province, but we see each other every year at U of A Days, plus we FaceTime, email and text to keep up with what's going on in our lives. Last summer, we had our 50-year class reunion. Twelve classmates attended the ALES breakfast, enjoyed the Cap 'n' Gown Ceremony and shared photos and memories. Keeping in touch is worth it, especially as you get older. ***-Janice McGregor**, '72 BSc(HEc)*

Greek life, hands down. Rooted in the wisdom of the ancients, fraternities and sororities aim to unite people around a lifelong pursuit of knowledge and truth. ***-Ashley O'Kurley**, '97 BA*

Value and look for various opportunities for connection! I can only meet up in-person with the best friends I met during study abroad every few years, which means making a commitment to other forms of keeping in touch. Follow them on social media, participate in online challenges, send e-gift cards for special occasions — the more ways you have to connect, the more opportunities you have to keep those bonds strong.

***-Sydney Tancowny**, '16 BA*

ILLUSTRATIONS BY RÉMY SIMARD

UNIVERSITY OF ALBERTA

Natasha Danha is a second year Science student and scholarship recipient

Paying it forward with a gift of life insurance

Former international student **Dilip Kembhavi and his wife Alaka** wanted to give back to the community that gave them so much.

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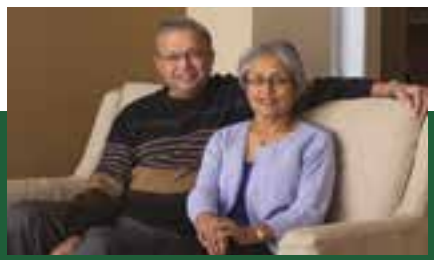

"Donating life insurance was appealing — providing good tax benefits while allowing us to create a substantial impact in the future."

Donors Dilip Kembhavi, '74 MEng, '78 MBA, and his wife, Alaka.

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