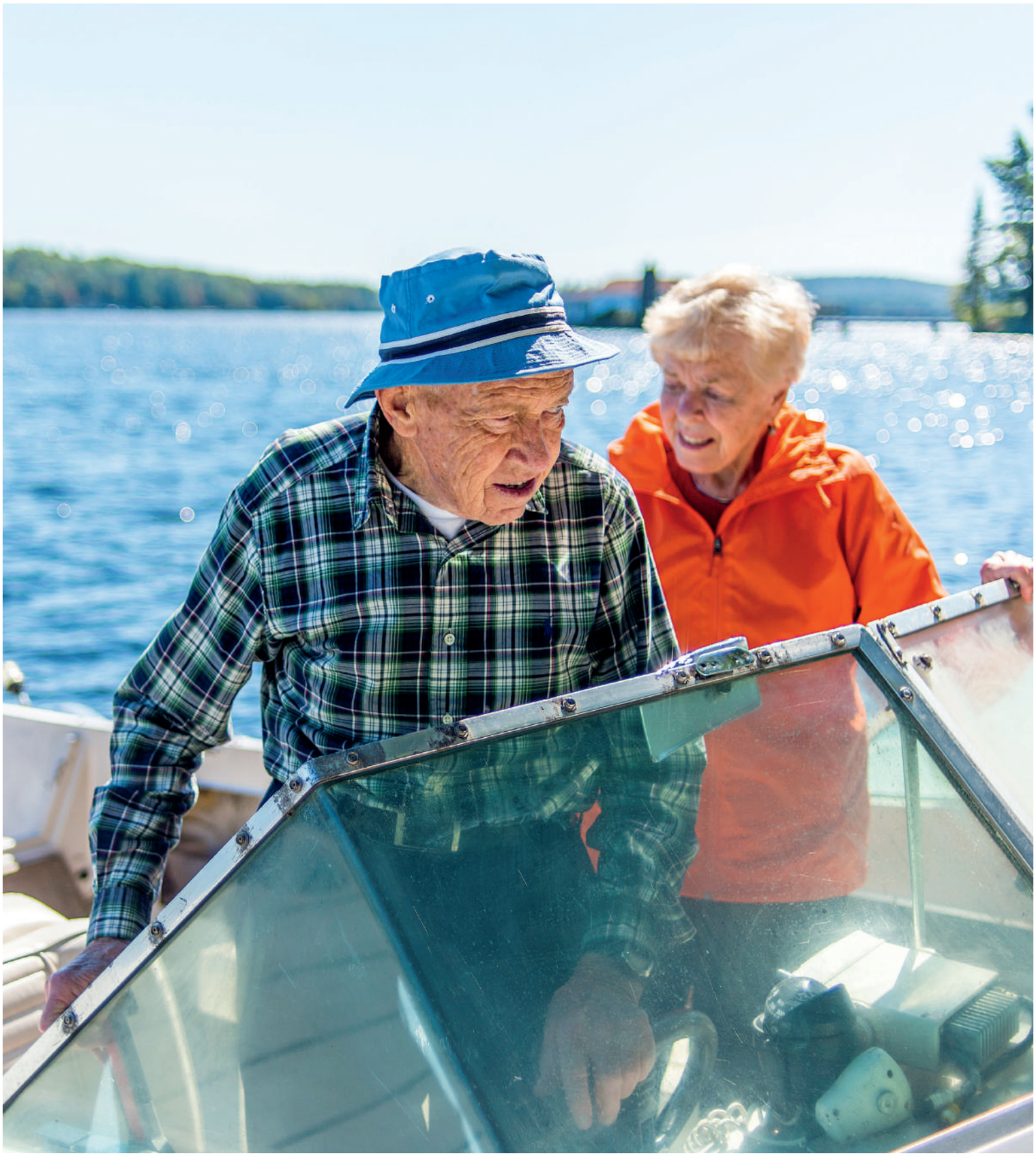
cornerstone

CELEBRATING PHILANTHROPY AT THE UNIVERSITY OF ALBERTA

AUTUMN/WINTER 2015



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ISSN: 2292-7964
Publications Mail Agreement No. 40112326

If undeliverable in Canada, return to:
Office of Advancement
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3-501 Enterprise Square
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On the cover:
George and Margaret McNeill photographed at their family cottage in Massachusetts in September 2015.
Photo by John Ulan

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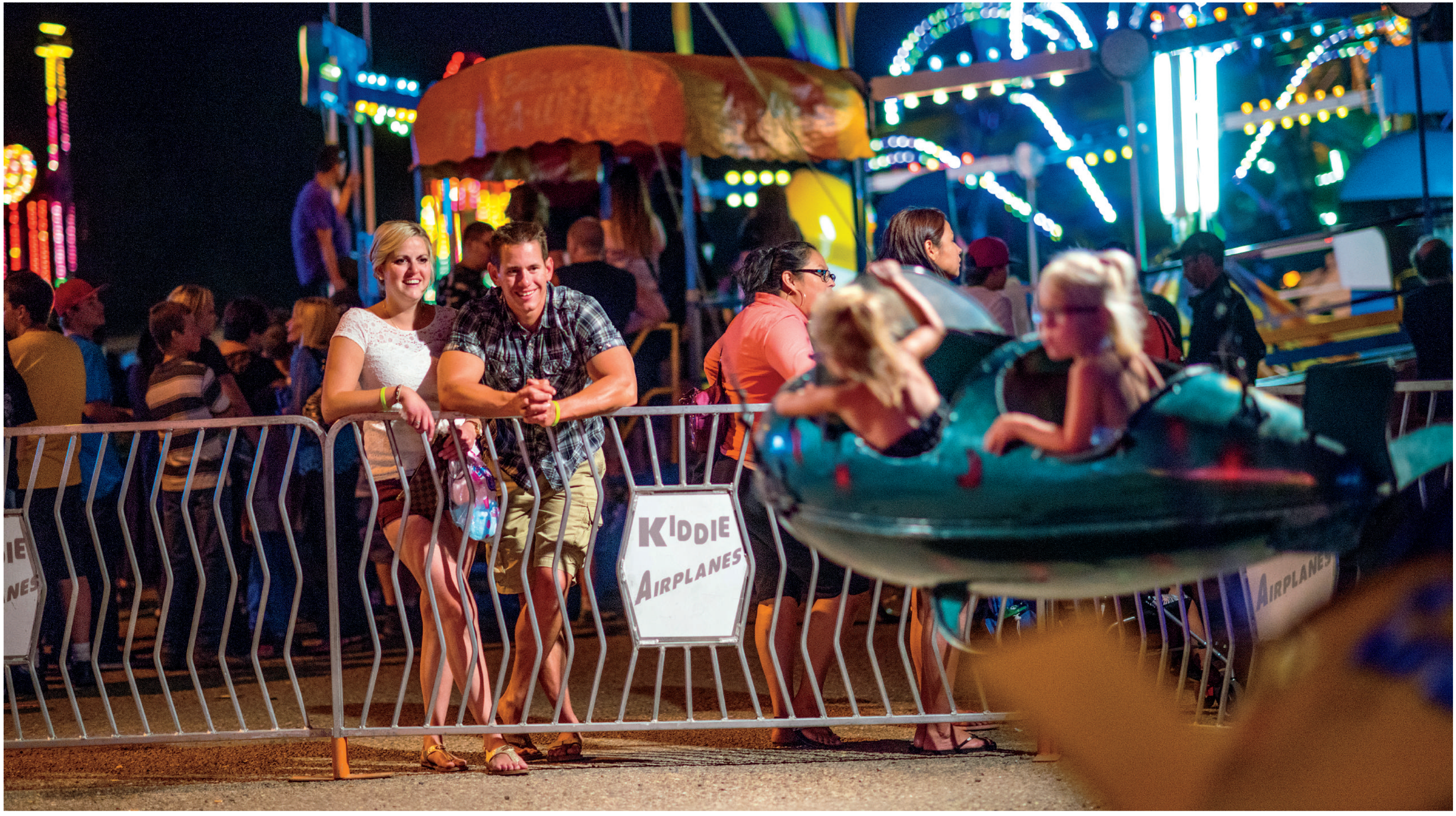


A stroll down the midway at Taber Cornfest in Taber, Alta., would have been impossible for Karen Hamilton just a few years ago. A lung transplant, made possible by a cutting-edge technology, means that Hamilton and her family can now enjoy the simple moments other people take for granted.

Photo by John Ulan

COMMUNITY IMPACT BY THE NUMBERS

The University of Alberta populates the world with knowledge, citizens and a pioneering spirit. Here are a few examples of how UAlberta has connected with communities locally and globally to find solutions to the world's most pressing issues.

10,000
Albertans to be tested in a biomarker research trial led by the Frank and Carla Sojonky Chair in Prostate Cancer Research

5,544
total hours 14 Play Around the World students spent this summer working with children in schools, orphanages and community organizations in Southeast Asia and Canada

7,400
students who received mental wellness support from UAlberta's Counselling & Clinical Services in 2014-15

750
millilitres of saliva collected by the Institute for Stuttering Treatment and Research to study the genetic cause of stuttering

1991
year microbiologist Lorne Tyrrell developed the first antiviral therapy for hepatitis B, leading to treatments that have saved lives around the world

301
patients treated during the 2014-15 school year by the student-run SHINE Dental Clinic, which provides free services to Edmonton's underserved youth

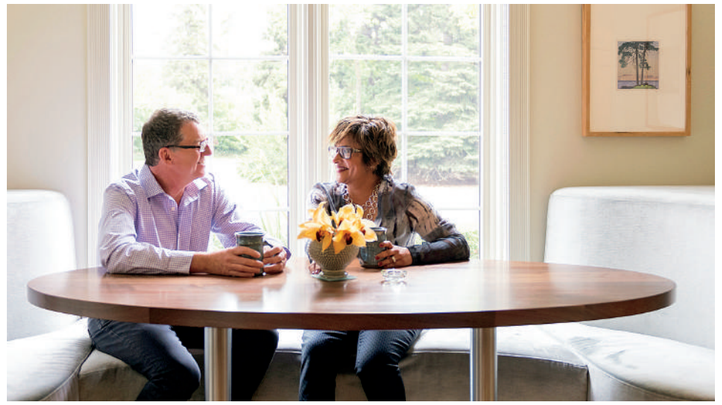
1.7
million page views on the Institute for Sexual Minority Studies and Services website *nohomophobes.com*

800,000
years of age of Canada's ice core collection — a key source of information for climate change research — soon to be housed at UAlberta

1
pill being developed by researchers in the Faculty of Pharmacy and Pharmaceutical Sciences to help people with celiac disease digest gluten

To support UAlberta's ongoing success, visit giving.ualberta.ca or call 1-888-799-9899.

Building Bridges



The role of great universities is to stand up and solve the challenges of society. To accomplish that, we must build bridges between the institution and the communities we serve — not only in Alberta but across Canada and as far away as Ghana, India, Germany, China and Syria. We must engage with the problems people are facing every day, learn what people need, bring the world closer to solutions for the biggest questions. It is our responsibility to address issues such as human rights, equality, energy and the environment, health and the innovation gap. It is our mission to change lives and, in some cases, save lives.

A few weeks back, as we were all being reminded of the enormity of the Syrian refugee tragedy, I asked my team how we could create a local response to such a pressing global issue. In just a matter of days, we had crafted a new set of president's awards for refugees and displaced people.

These awards will cover tuition and living costs for up to 10 Syrian students displaced by the ongoing conflict in their home country. We could welcome them as early as January. Every individual who is offered a brighter future becomes part of a changing story. That's what universities do best: we create possibilities for individuals and, by extension, for communities.

As my wife, Suromitra Sanatani, and I meet more members of the University of Alberta community — such as the people you will encounter on the pages of this magazine — I see limitless potential across our campuses. This university is in a position to take a leading role in enriching the social, cultural and economic development of our country. And as I meet members of our philanthropic community, I'm confident that we have the right partners as we take on these grand challenges.

Our mission is to build up our community. Our responsibility is to create a better world.

David H. Turpin, President and Vice-Chancellor of the University of Alberta

The work of building a great and enduring institution can only be accomplished with our university community. To learn more about supporting the President's Award for Refugees and Displaced Persons and other community initiatives, turn to page 44.

A Breath of Relief

STORY BY MICHAEL HINGSTON | PHOTOS BY JOHN ULAN

Karen Hamilton was the first person in the world to receive a lung transplant using groundbreaking new technology. It did more than save her life; it gave her the chance to live fully

Some landmarks of childhood are universal: birthdays, good report cards, losing the first tooth. But from a young age, Karen Hamilton has been keenly aware of another, more ominous, series of milestones — ones caused by the cystic fibrosis with which she was diagnosed as an infant.

As the disease slowly filled her lungs with mucus, the number of things Hamilton was able to do steadily dwindled. One day in junior high, for instance, the Taber, Alta., native woke up and realized that she could no longer play soccer with her friends at school. She found herself out of breath. She tired easily. And she had to cough, constantly, which only damaged her lungs further.

"I knew my whole life that [my condition] was very severe, that I could potentially die early, and that I would need a lung transplant one day," Hamilton says.

Despite some scary long-term projections — half of all patients who died of cystic fibrosis in 2013 were under the age of 35, according to Cystic Fibrosis Canada — Hamilton's doctors always encouraged her to lead a normal life and to not let her disease limit her. She attended the University of Lethbridge, got married and became a certified accountant. But even her career path was informed by her medical history. "I was always told, even at a young age, 'You're going to need a job with good disability benefits.' "

It wasn't until the arrival of her children, however, that things took a more serious turn. Twins Emma and Lily were delivered via a surrogate more than three months prematurely. The stress of having her infant daughters in the neonatal intensive care unit proved too much for Hamilton, who was already easily fatigued. She suffered a large lung bleed and ended up in hospital alongside them, feeling drained and helpless. After years of trying not to think about it, it was time to seriously consider transplant surgery.

Hamilton was lucky. On Christmas Eve 2013, after being on the wait list for just three months, she got the call that a plane would transport her from her home in Taber to Edmonton within the hour. Still, she felt nervous. Organ transplants are complex, and Hamilton knew there was a good chance her surgery would end up being called off at the last minute due to any number of possible complications ranging from potential

damage to the organ to the distance it had to travel for transplant.

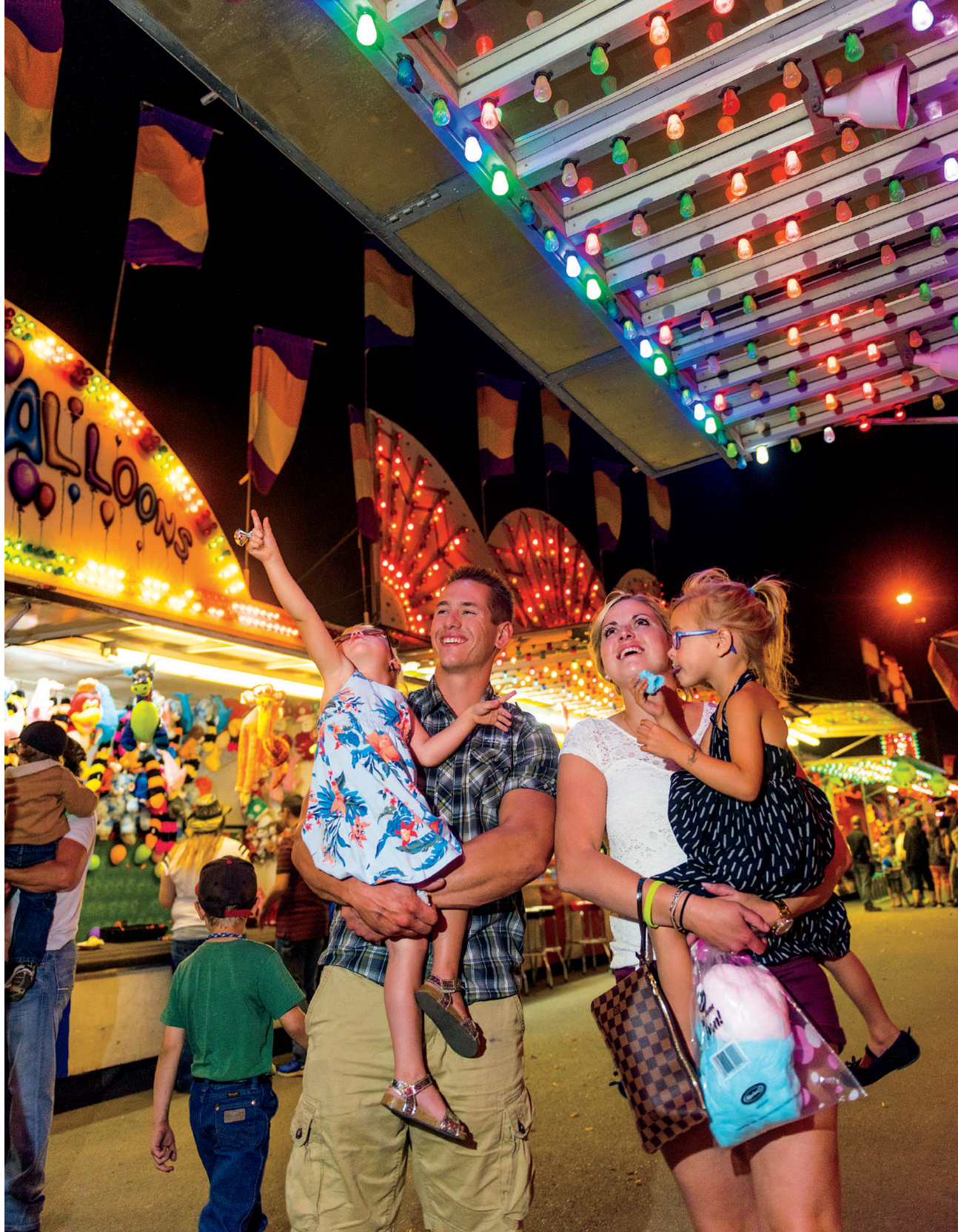
In fact, that's exactly what happened to the woman who flew alongside her, seeking the same donor's liver. When Hamilton and her husband saw the woman wheeled back out, unsuccessful, she started to pray. "I don't want to go home and do this all again," Hamilton remembers saying, unsure she would have the strength to keep fighting after getting her hopes up so high. That's when a surgeon walked into the room and told her she'd be going in for her lung transplant surgery in 10 minutes.

Hamilton's donor died of a pulmonary embolism, which meant that blood clots had worked their way into the lungs. Ordinarily, this renders the organs unusable — as are a staggering 70 per cent of all donated organs. But thanks to the Alberta Transplant Institute, part of the University of Alberta's Faculty of Medicine & Dentistry, Hamilton's surgeons, Jayan Nagendran and Darren Freed (who are ATI members), had access to the institute's state-of-the-art *ex vivo* lung perfusion machine, which is, remarkably, able to repair damaged lungs outside of the body. Typically donated lungs are transported and preserved on ice until transplantation. By contrast, the *ex vivo* device maintains the lungs at a normal body temperature while continuously infusing them with a bloodless solution of oxygen, proteins and nutrients. This revolutionary process makes the organs more suitable for transplant, vastly increasing the number of lungs available to patients who need them. Hamilton's transplantation, which used a clot-busting drug on the *ex vivo* machine to repair her donated lungs, is a first in the world using this portable device.

The Alberta Transplant Institute was founded in 2011 as a way for the constellation of scientists, physicians and educators involved in transplantation in Alberta to work together more easily. Organ transplants have always required input from multiple disciplines, says Lori West, director of ATI, but the institute's link to the university allows it to "sit right at that critical interface between health-care delivery and research and education." Donations to the ATI allow West and her colleagues to continue investing in cutting-edge systems such as the *ex vivo* machine (a liver-repairing version of which saved the life of a patient battling liver cancer in 2015 — a first in North America), as well as using their results to convince the health-care system to adopt these newer technologies faster.

As for Karen Hamilton, who has spent much of her life scouring parking lots for the spot closest to the door, when she takes her three-year-old twins to the grocery store today: "I can park in the farthest [spot] away. And I gladly walk."

Bringing together more than 100 researchers, experts and thought leaders into a comprehensive multi-organ transplant program, the Alberta Transplant Institute is one of the most advanced transplant research and training centres in Canada and the only one serving Western Canada. To learn how to help the ATI give thousands of people living with organ failure a second chance at life, turn to page 44.



Bloom Where You're Planted

STORY BY MARCELLO DI CINTIO | PHOTOS BY JOHN ULAN

When Jackie Steinhauer tells a student 'I know your kohkom,' she creates a connection that reaches beyond the classroom and into the community

Last June, Jackie Steinhauer finished her inaugural year as an elementary school teacher in Vilna, Alta. — a tiny community not far from Steinhauer's home in Saddle Lake. She revelled in the lively hustle and bustle of her small classroom, a split class of Grade 1 and 2 students, many of whom were Aboriginal students who lived on the nearby reserve.

A member of the Saddle Lake First Nation herself, Steinhauer knows first-hand the importance of incorporating Aboriginal content into all the subjects she teaches these children. She has lived most of her life in Saddle Lake, a tight-knit community steeped in Aboriginal traditions, frequently hosting powwows, round dances and pipe ceremonies among other cultural activities and celebrations. Though she would teach high school Cree language classes later in life, Steinhauer recalls that when she was a young elementary student, she learned nothing about her Cree culture. And for her own children, it wasn't until Grade 4 that they were offered stand-alone Aboriginal studies classes and learned to speak a little Cree.

According to a 2011 Statistics Canada report, the Aboriginal population is expected to grow at an average annual rate of between 1.1 and 2.2 per cent through 2031; potentially more than twice the rate of Canada's non-Aboriginal population at one per cent. There is an urgent need for Aboriginal teachers and teachers with an understanding and knowledge of Aboriginal histories, world view and perspectives in K-12 classrooms. In addition, many newly minted educators end up hired by small community schools, but few remain longer than a couple of years. It's not where they have roots.

The importance of teachers developing a deeper understanding of Aboriginal Peoples' histories and experiences — their ways of knowing and being — was underlined in the recent recommendations from the Truth and Reconciliation Commission of Canada. "All Canadian children and youth deserve to know Canada's honest history, including what happened

in the residential schools, and to appreciate the rich history and knowledge of indigenous nations who continue to make such a strong contribution to Canada," write the authors of the report.

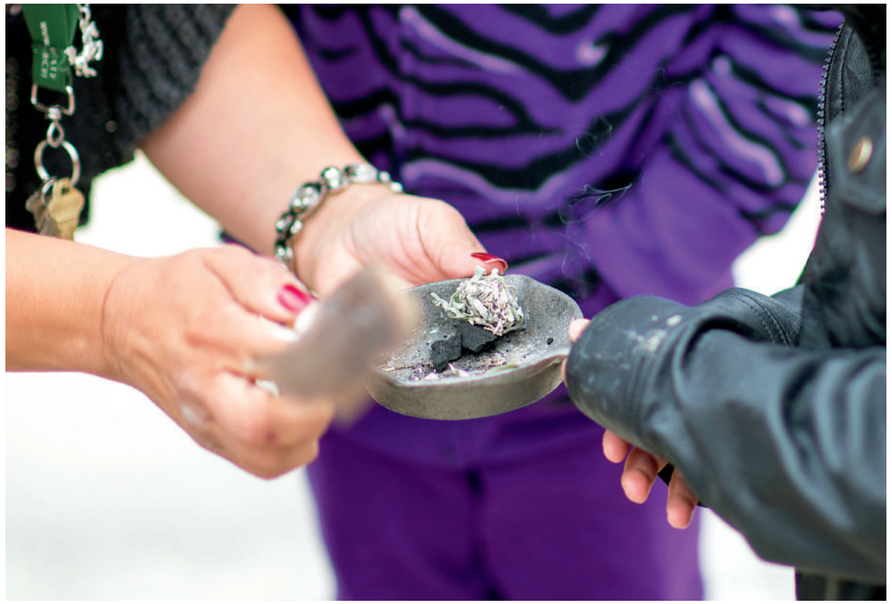
The University of Alberta's Aboriginal Teacher Education Program aims to address these issues by attracting education students who are already part of the communities that need serving. For Steinhauer, ATEP was a perfect fit. The innovative program grants bachelor of education students the opportunity to complete their final two years at partnering colleges in rural northern Alberta where they have roots. The majority of the 200 teachers who have graduated from ATEP in the last 12 years have gone on to teach in communities that serve a predominantly Aboriginal student population. And these teachers tend to stick around because they are, after all, at home; they feel a responsibility to their communities.

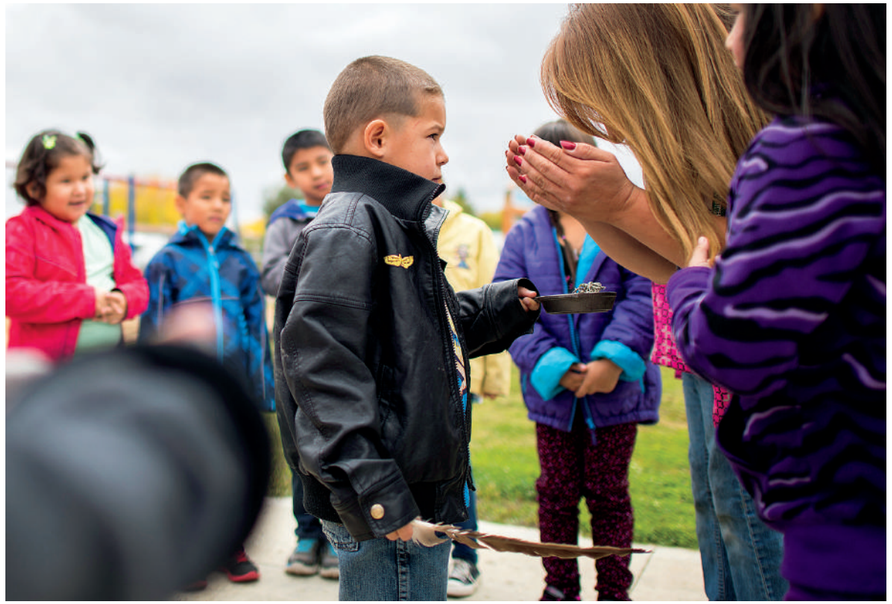
This familiarity breeds wonderful connections in the classroom. Steinhauer says she was related, either directly or through extended family, to three-quarters of the students in the first class she taught after graduating from ATEP. "I know your *kohkom* — your grandmother," Steinhauer remembers saying to one student. "She was really good friends with my mom and I used to visit when I was a child." These familial links draw students to their teachers. Teachers become more than just a source of curriculum, but a connection to their lives outside the classroom. They want to hear about their grandmothers, uncles and aunties. "You gain their trust in this way. They want to tell you things."

During their time as ATEP students, Steinhauer and her cohort studied an education curriculum enriched with First Nations concepts. Elders and Aboriginal leaders broadened their understanding of indigenous culture, history and world view. One year, a combined science and physical education course had ATEP students spending a day in canoes on a river with a local First Nations elder, layering lessons about the land with a physical activity. "For our program to be as successful as we want it to be, we need to have that elder support and community involvement," says Angela Wolfe, associate director of ATEP. "And those things cost extra to the program outside of student tuition."

Teaching core concepts through the prism of First Nations culture benefits all children. Steinhauer says her lessons fill the gap between the Aboriginal and non-Aboriginal, benefiting all of her students with a broadened understanding of Aboriginal perspectives and history prior to European settlement. "They have a moment of enlightenment," Steinhauer says. "They understand even if they aren't part of the culture."

The Aboriginal Teacher Education Program equips Aboriginal and non-Aboriginal educators with the skills needed to deliver an elementary education rich in indigenous perspectives, traditions and culture to children in Aboriginal communities. *To learn more about how to support the program, turn to page 44.*





Speak Up to Injustice

STORY BY SARAH PRATT | PHOTOS BY JOHN ULAN

Founder of the Human Rights Institute of Canada, Marguerite Ritchie has seen great strides in her lifetime — but there is always work to be done

At 96, pioneering lawyer and human rights advocate Marguerite Ritchie still cuts a polished figure. Professional, poised and collected in her blouse and business suit set off with a colourful scarf and a necklace peeking out, her appearance seems to reflect her nature. She is a humanitarian with kind eyes and a caring heart but also an unmistakably strong woman with powerful convictions.

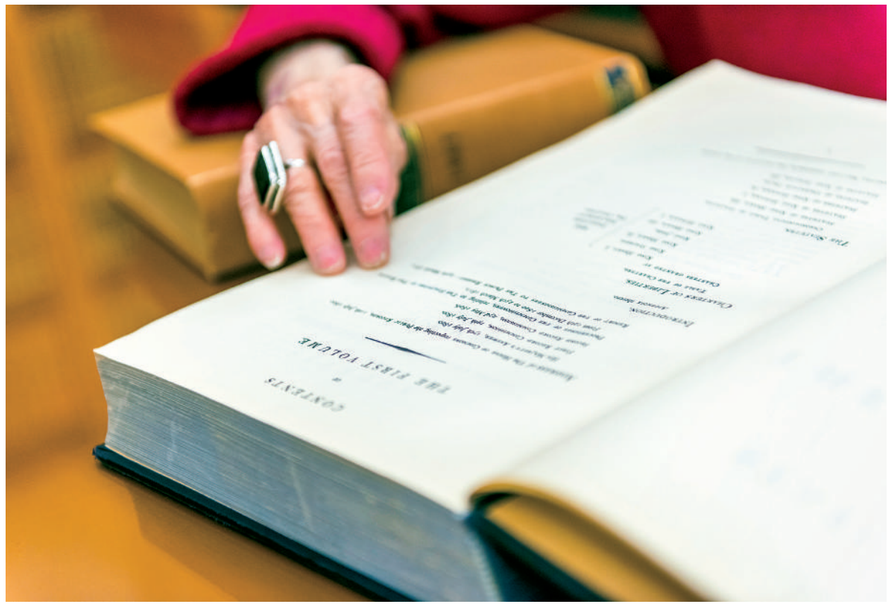
"From the age of six, I knew the direction I wanted my life to go," says Ritchie (shown here with the Famous Five monument on Parliament Hill and in the Library of Parliament).

Growing up in Edmonton in the 1920s, an attentive young Ritchie would sit with her father as he read aloud from the *Edmonton Journal*. She remembers him sharing news stories about political problems involving the federal government. Despite having a child's perspective, these stories sparked Ritchie's interest in justice and working for the people. A thoughtful girl, she watched her father go off to work every day while her mother stayed behind to run the family home and care for the couple's three children. "Even at my young age I recognized the inequality between the lives of women and men."

These childhood experiences laid the foundation for a lifetime of work dedicated to equity and integrity. And the field of law, Ritchie would later learn, was a vehicle through which she could make a difference in those areas.

Ritchie's mother, Marguerite Blanche Ritchie, was a guiding force as her daughter matured and made her way through school. "[My mother] found avenues for me to go toward the goals I wanted," says Ritchie. "She introduced me to libraries and the wealth of information they provided." Marguerite Sr. also screened her daughter's schools and teachers to ensure she would receive the highest quality education.

While Ritchie set her own focus on studying for university, her mother explored available scholarships. Marguerite Sr.'s emphasis on the importance of education even extended to Ritchie being exempt from household chores if there was schoolwork to be done. In 1943, their collective dedication paid off, as Ritchie earned her bachelor of arts degree and bachelor of law degree from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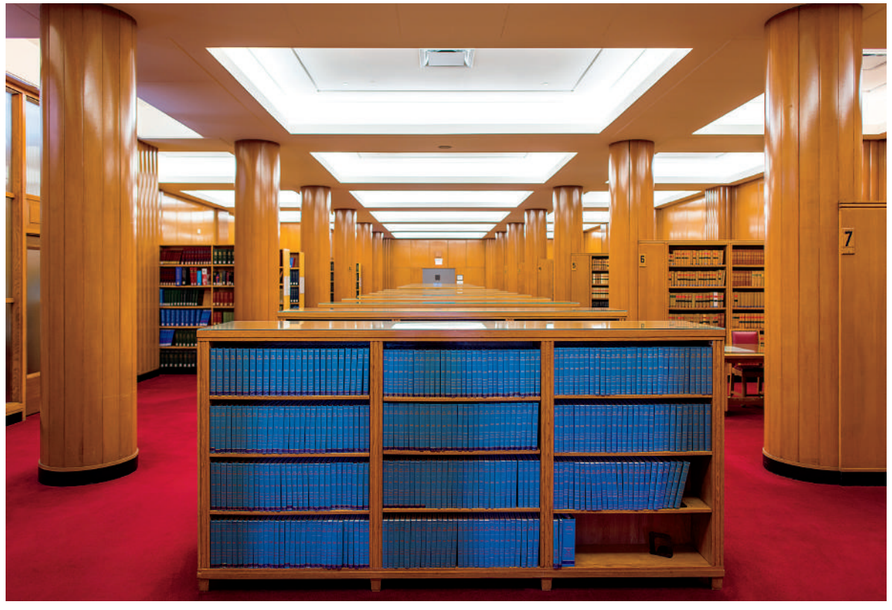
THE FIRST VOLUME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the University of Alberta. (She later received an honorary degree from the university.)

Perhaps emboldened by her mother's encouragement and sense of commitment, Ritchie threw herself into practising law at a time when there were few women in the legal community.

During her more than 50-year career — much of it based in Ottawa — Ritchie worked tirelessly in her pursuit of justice and advocacy of human and women's rights. Through her work with Canada's Department of Justice, she played a role in amendments to parliamentary procedure and constitutional and international law, and provided a voice on women's rights.

It speaks to Ritchie's inherent values when she says her favourite aspect of law is that "it's fundamental to the rights of people." In 1974, she founded the Human Rights Institute of Canada (which was dissolved in 2013), a citizen-based charitable organization with a mandate to help ensure equality, justice and government responsibility to citizens through research and commentary on existing laws.

Ritchie's dedication to the advancement of justice and equality has not gone unnoticed. It is fitting for a lawyer who fought for the rights of women that she was the first woman in Canada appointed federal Queen's counsel in 1963. She was also honoured by an appointment to the Order of Canada in 2000.

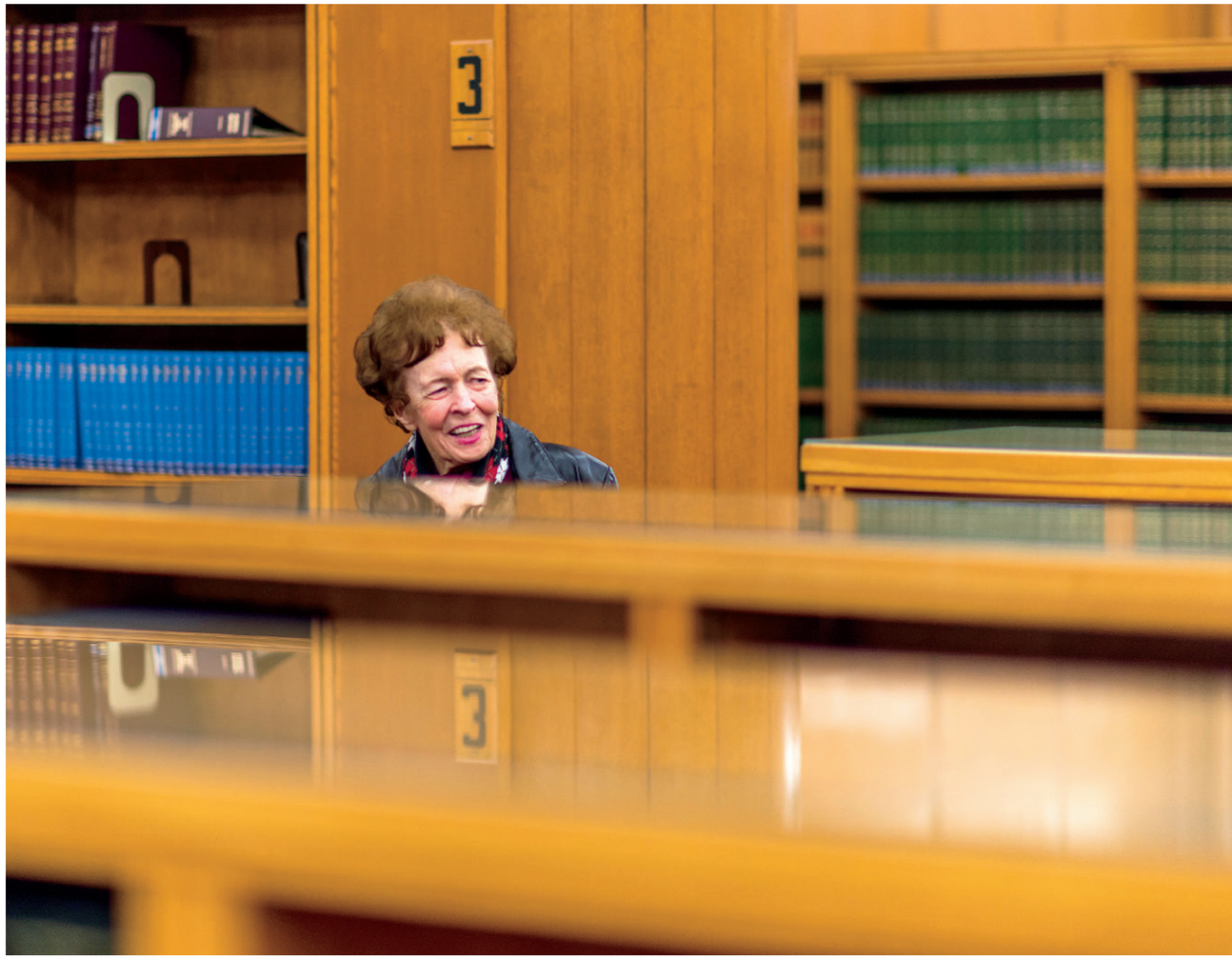
When Ritchie thinks about the difference between women's roles and opportunities now and those that existed when she began her career, she acknowledges the evolution of rights. "Women now have recognition and a general right of appointment to the Senate with no sexual discrimination," she says. Canada's first female senator, Cairine Wilson, was appointed in 1930, and women now make up more than one-third of the Senate's membership. But, Ritchie says, "there is always work to be done where there are questions of equality and justice."

The knowledge Ritchie gathered through years of work and study is being passed on through her donation of the archives of the Human Rights Institute of Canada to UAlberta, plus financial support to hire an archivist.

Her motivation is simple: the excellent education she received at UAlberta. "I hope students and researchers will have a clearer vision of how the federal government operates and that they will be able to use it for the benefit of the people of Canada."

Ritchie's life, her work and her legacy are an inspiration to many within and beyond the field of law. Her belief in the power of the law and the strength of the people's voice has never wavered, and she has never questioned her choice of career. "Not once," she says. "I encourage people to speak up to any injustice."

Marguerite Ritchie's gift of the Human Rights Institute of Canada archives will be used by student and faculty researchers across the University of Alberta campus and will attract the interest of legal and humanities scholars from around the world. To learn more about making a gift to University of Alberta Libraries, turn to page 44.



The Family That Gives Together

STORY BY SCOTT ROLLANS | PHOTOS BY JOHN ULAN

For Margaret and George McNeill and their family, life is about so much more than just making a living

Every year, George and Margaret McNeill would give each of their young children a sum of money and the freedom to donate to a cause of their own choosing. The idea was sparked by the couple's realization of how much satisfaction they had gained from philanthropy — a feeling they weren't able to experience until they were older and more established. What a shame, they thought, that people had to wait most of their lives to experience that satisfaction.

Which is why they decided to create and fund the McNeill Family Foundation, and to allot each of their children — and eventually their grandchildren — money to invest in those causes of their own choosing. These days, the youngest children are responsible for a few hundred dollars each, while older family members have thousands of dollars at their disposal. The McNeills, in other words, have designed a formal system to encourage a family culture of giving — and one that will long outlive them.

"They'll do a far bigger, better job than we did, because they get started at 15 years old," George says. "We didn't get started until we were 50 years old."

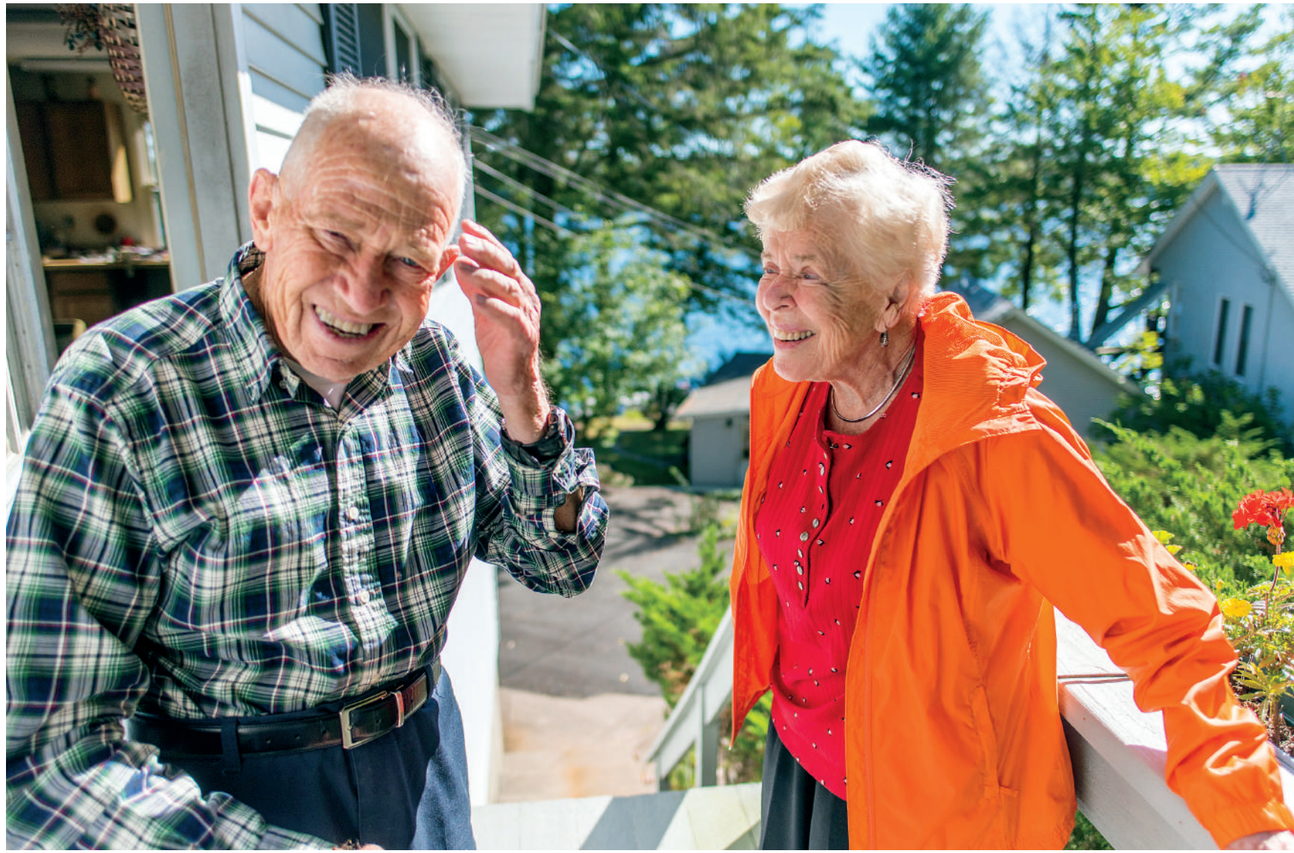
The family has a long history of working well together, ever since they decided to purchase a failing nursing home in Springfield, Mass., in 1972. George, a pioneering expert in electronics, had taken a challenging job at Monsanto's plastics plant in the city and Margaret was working at a local hospital — but they decided it was time to try their hand as entrepreneurs.

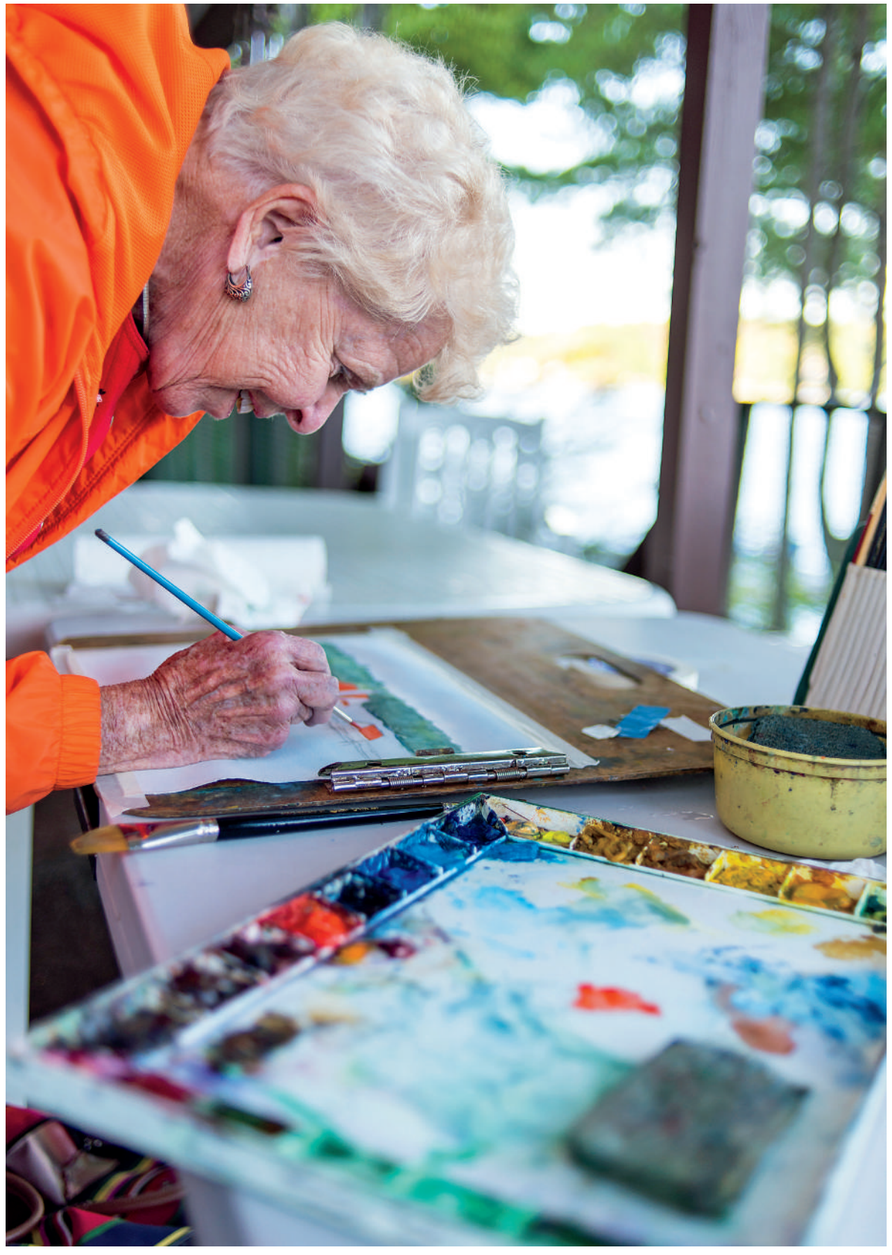
In short order, the facility had built a reputation as Springfield's finest nursing home, doubling capacity to 168 beds (with an extensive waiting list). Over the next 16 years, the couple added two more care facilities. George eventually took early retirement from Monsanto to join Margaret in the family business full time.

All four of their children worked at the nursing homes at one time or another, part of the McNeills' philosophy about developing yourself in the workplace. At 14, the kids would tackle simpler jobs such as helping in the laundry. Older kids gradually took on more responsibility. Their daughter eventually became director of nurses.

The nursing home quickly developed a reputation as a vibrant, happy place with well-trained and satisfied staff. "The patients really loved to sing, and we got the idea of a kitchen band," Margaret recalls. They helped the residents create makeshift instruments by soldering kitchen gadgets onto kazoos. They fabricated washtub drums and made a bass out of an old washtub, a rope and a pole. Riding in a converted school bus, the band became a popular fixture at events around town.

It might all sound like a lot of togetherness, but George and Margaret have been an inseparable team since their high school days in Edmonton. At the University of Alberta, despite their workloads,






MISS-BE-HAVEN

they always found time for each other. “Either I’d ride my bike to the nurses’ residence, or she’d walk over to my parents’ house, and we’d have coffee every night,” George recalls.

Margaret even found time to help with George’s extracurricular activities. “I was on the intra-varsity wrestling team and Marg was my coach for after-hours practice,” George says with a wink. “We played a lot of chesterfield rugby.”

Of course there was time for study, as well. Margaret and George both graduated from UAlberta in 1952, she with a degree in nursing and he with a degree in electrical engineering. George says the quality — and diversity — of education he received at UAlberta has helped him navigate the variety of career paths he’s travelled down since graduation. Civil work, real estate — even in negotiations with the State of Massachusetts — in every case, George drew on skills learned at the university.

Of course there are also benefits of a degree that you can’t quantify. “University is where you really began to change from a wild kid to accomplishing things in the world,” George says.

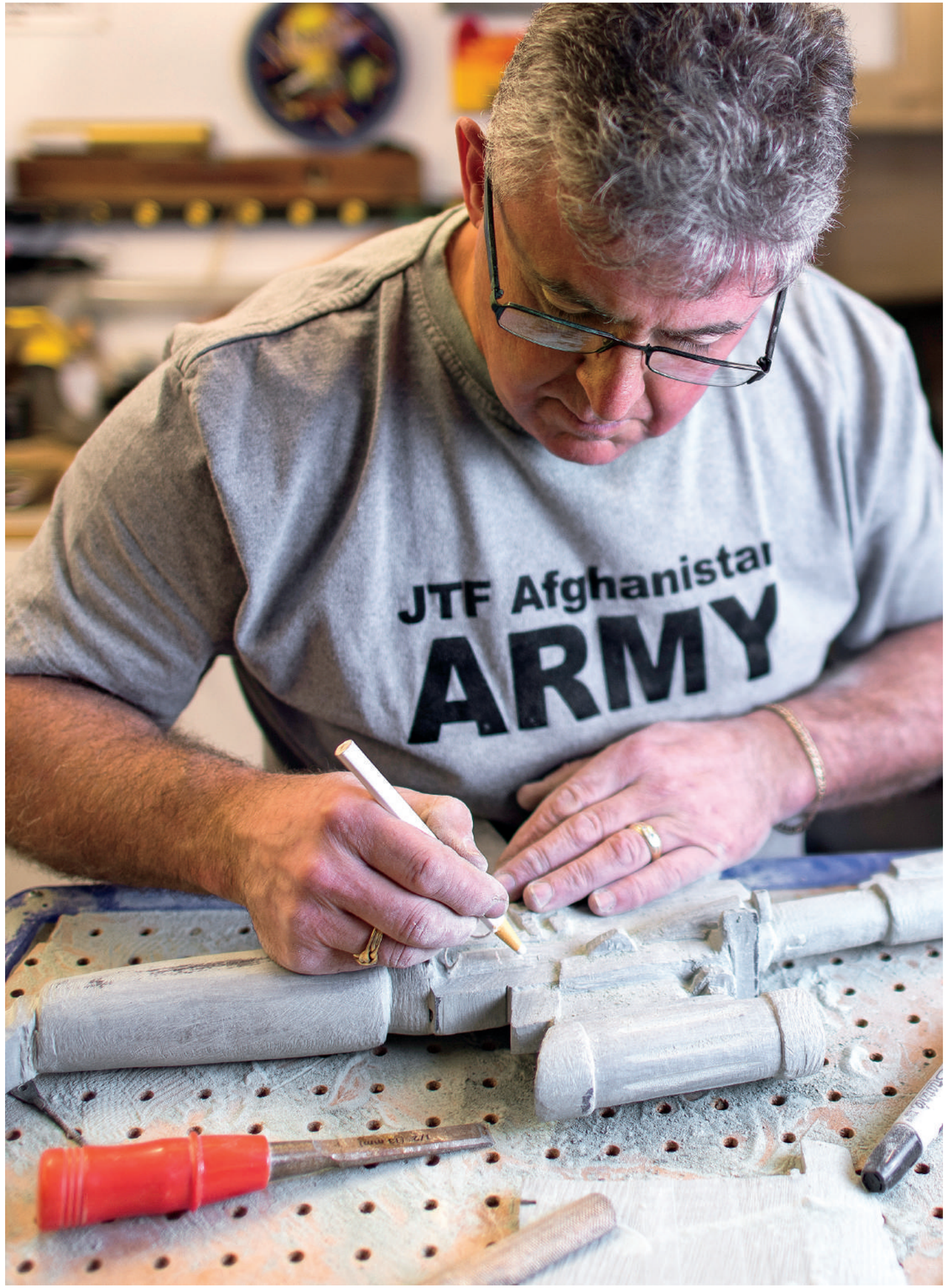
It was natural, then, that the McNeills would include UAlberta in their extensive charitable work, long investing in their respective faculties. George established a scholarship designed to support engineering students. Margaret, who still faithfully meets her nursing classmates at reunions (most recently, this year), donates annually to the UAlberta Hospital research programs.

These days, the McNeills divide their retirement time among a home in Jupiter, Fla., a real estate business in Houston and their family cottage in Massachusetts. Their investments now are geared toward family and philanthropy. Once a year, they invite their extended family for a Caribbean holiday. “We tell them we’re taking them on a ski vacation,” Margaret says. “That’s S-K-I: spend kids’ inheritance.”

And then there’s the family foundation. The McNeills glow with pride as they describe how their children and grandchildren have absorbed the benefits of giving. A grandson in Chicago, for example, has become highly active in United Way’s youth leadership group. “They get really involved in it,” George says.

In short, George and Margaret say, their children and grandchildren have learned an essential lesson at an early age: life is more than just making a living.

The McNeill family’s gifts to the University of Alberta include the George and Margaret McNeill Engineering Co-op Scholarship, which supports students who excel in the engineering co-op program. *Turn to page 44 for more information.*



The Things They Carry

STORY BY OMAR MOUALLEM | PHOTOS BY JOHN ULAN

It is a mental health crisis. Military personnel, veterans and first responders are struggling to deal with PTSD and other issues. We owe them a solution

"All of my pieces have to do with my healing, my journey," says Bruce Cleveland, holding a stone carving of a howling lone wolf. He turns the carving on its side. A limb is missing. "There was a flaw in my rock but I thought, 'That's it, that's life. What looks good on one side might not on the other.' " Cleveland, a former captain with the Canadian Armed Forces, adopted stone carving as therapy for his major depressive disorder and post-traumatic stress disorder.

Cleveland's words will sometimes slip away mid-sentence. His moods can be explosive. He's so hyper-vigilant that at a picnic this summer he nearly attacked a family member who accidentally fired a toy Nerf gun in his direction.

Much of what we know about depression, suicidal thoughts and anxiety in the military is based on self-reporting — asking the person to accurately and honestly detail what they are experiencing physically and mentally. But diagnoses can't rely on self-reporting alone, especially when soldiers know that "being honest" could halt their careers. And because earlier intervention makes for a better outcome, this inability to be forthright leads to a festering that can complicate recovery from mental health issues, says Cleveland.

"We're all great actors," he says, sitting in his Edmonton home not far from the CAF base he was transferred to in 2006. It was there that he began treating the mental health of repatriated Afghan war casualties, all while his own health started declining. "The world could be falling around us and any one of us could sit there stone-faced and tell a happy story."

Though self-reporting is flawed, the CAF's 2013 mental health survey showed the rate of reported post-traumatic stress disorder among its members has nearly doubled since 2002, to 5.3 per cent. Despite what many are calling a mental health crisis, it's rare for the Canadian Armed Forces and academics to collaborate on such matters.

After 25 years in the CAF — first with the artillery, then combat engineers and finally as a uniformed military social worker — Cleveland received a medical discharge three years ago. In 2012, he became founding program manager of the Canadian Military and Veterans' Clinical Rehabilitation Research Chair, a role that allowed

him to serve as a link between the military and the researchers at the University of Alberta. (He left the UAlberta clinical rehabilitation program after a year in the position to focus on his own mental health.)

The chair, which is a first for Canada, is dedicated to research that will improve the quality of life for people in the military and for veterans. And it is only one piece of the efforts taking place across UAlberta to address issues affecting these populations, says Elizabeth Taylor, associate dean of Professional Programs & Teaching and a professor in the Faculty of Rehabilitation Medicine.

UAlberta's BLINC Lab — bionic limbs and improved natural control — has imported and improved upon leading-edge bionic limbs, including arms that allow patients to sense touch again through muscle re-innervation surgery. The 15-person team has also invented its own bionic parts at a fraction of the standard $60,000 to $500,000 prices, while prototyping new limbs with 3D printing models. Another dramatic example of research that can benefit members of the military is the much-publicized ReWalk Robotics Exoskeleton, a device that allows people with spinal cord injuries to once again stand upright, walk and even climb stairs.

There are researchers working on smartphone apps to help people with brain injuries manage memory issues. Another app could help people living with PTSD alleviate the stressors wherever or whenever the symptoms hit, rather than having to seek medical support every time. And, of course, existing research on sleep and concussions can also benefit veterans.

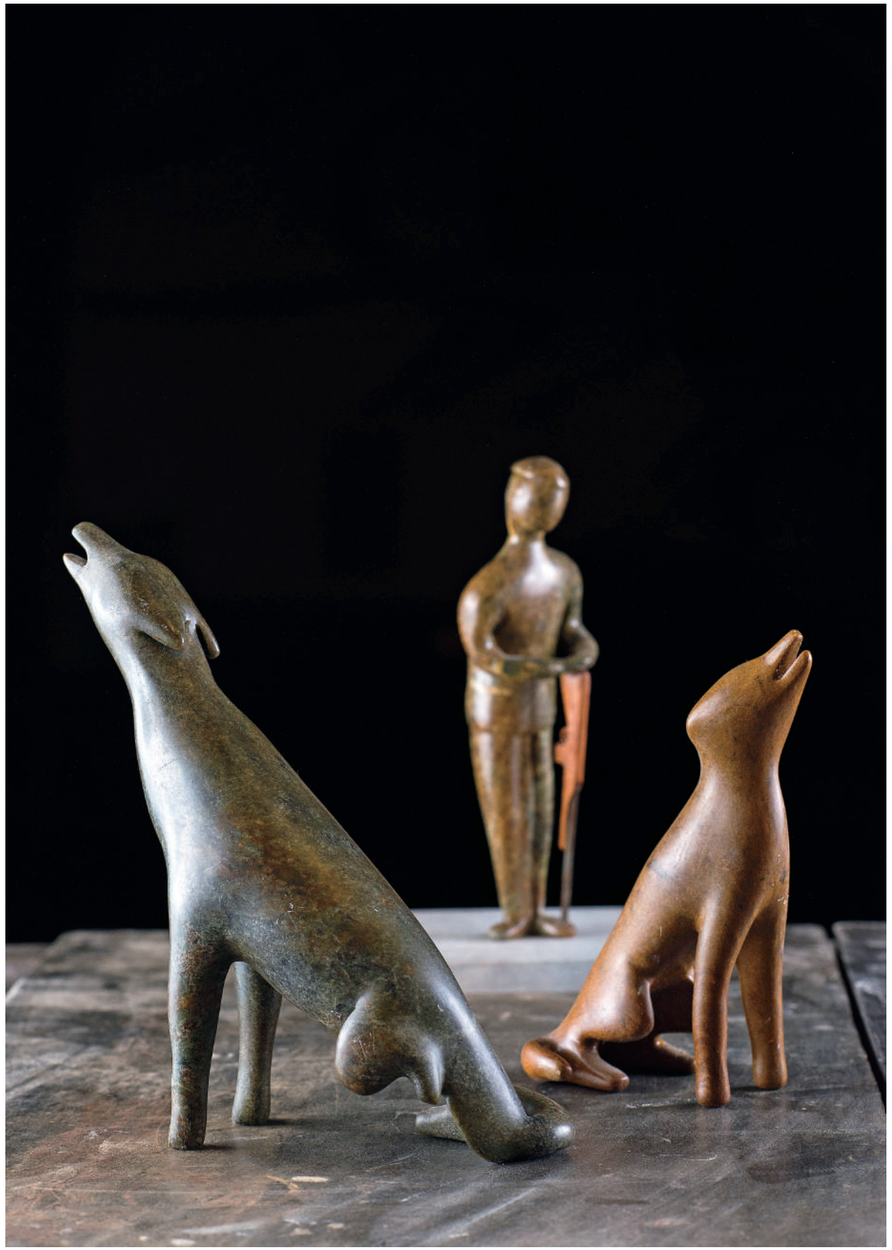
And because this is clinical research — where the researchers are working directly with clients — the work brings immediate benefits. This helps veterans in the here and now, says Taylor.

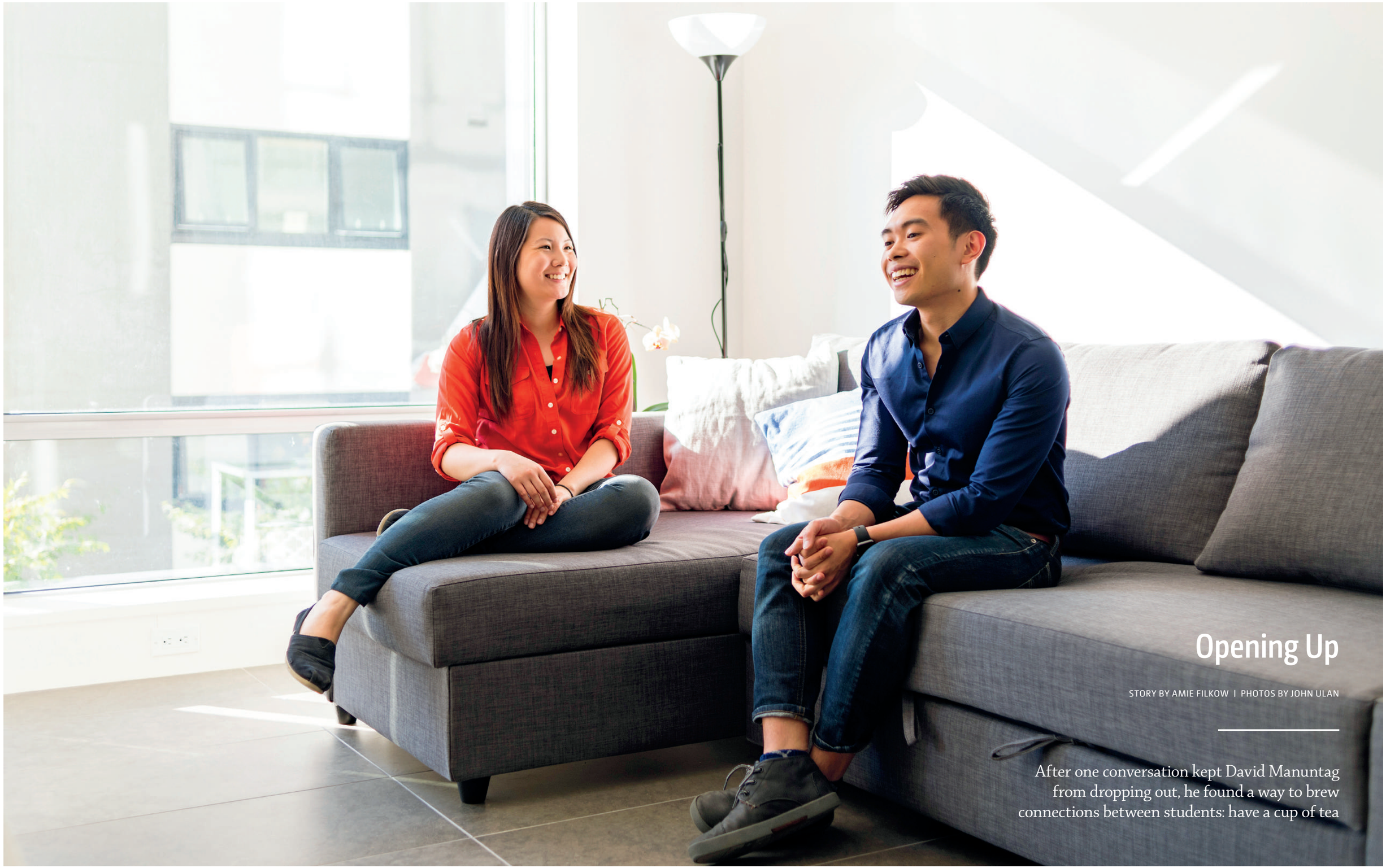
Taylor is passionate about this work. Both her father and her son have served in the military and her uncle, who once served as a bomber pilot, demonstrated the symptoms of PTSD long before it was an issue that society discussed openly. But, mostly, Taylor believes in the potential of research to unlock practical solutions for the issues facing those serving in the military, veterans and first responders. And she sees the need to create a single institute that could co-ordinate the collective efforts of all universities in Western Canada. She believes UAlberta has the capacity to create such an institute.

"We owe our military, veterans and first responders the best research and the best services that we can provide," says Taylor. "When you think of what they do for our community, when you think of what they do to make all of our lives better and safer — we owe it to them."

–With files from Lisa Cook

With the support of donors such as the Royal Canadian Legion and True Patriot Love, researchers in UAlberta's Faculty of Rehabilitation Medicine are working to understand and create unique solutions to the medical and rehabilitation needs of Canada's soldiers and veterans. To find out how you can support this important work, turn to page 44.





Opening Up

STORY BY AMIE FILKOW | PHOTOS BY JOHN ULAN

After one conversation kept David Manuntag from dropping out, he found a way to brew connections between students: have a cup of tea

For much of his first year of university, David Manuntag was enveloped in social darkness. He hadn't made many friends. He was unsure about his chosen major. It was as if a barrier stood between him and the constant flurry of activity and interaction on campus.

A few weeks before the end of the school year, Manuntag received a letter of academic probation: unless he raised his grade point average the following year, he would be forced to withdraw. He felt as if the world was closing in on him. Maybe this is what it meant to be in over your head, he thought.

Like many students who find themselves struggling, he kept the news to himself. His anxiety mounted.

On the bus several days later, Manuntag ran into a friend from high school. Maybe it was the neutral setting, or maybe it was his old friend's impartiality to his situation, but Manuntag sat down next to him and revealed what he hadn't told anybody: he was thinking about quitting university. "I just wanted to get it out," he says, recalling that day. His friend listened carefully and then said, encouragingly, "Just try for one more year. You don't want to look back and say you didn't try."

In 2013, the American College Health Association surveyed 5,000 University of Alberta students about their health and well-being. The survey found that, in the previous 12 months, half of all UAlberta students surveyed reported feeling that things were hopeless. Nearly two-thirds felt very lonely. More than 54 per cent felt overwhelming anxiety. And, perhaps most troubling, 8.5 per cent — equivalent to 3,400 of the university's nearly 39,000 students — had seriously considered suicide.

Most students arrive on campus with the notion of university being "the time of your life." But academic, financial, emotional and career pressures can take an enormous psychological toll on even the healthiest, highest-achieving student. Combine these with additional stresses such as living away from home, being an international student adapting to a new culture or a rural student coming to a large campus, and that original understanding can take on a very different meaning.

Manuntag understood that stress. He had been to that dark solitary place and had climbed out, thanks to that one conversation on the bus. The following year he improved his grades, got into business school and soon found himself leading the creation of a campus program that would help other UAlberta students in need of someone to listen.

For an entrepreneurship assignment, he created Unitea with his girlfriend, Maggie Tong. Unlike many other student groups, this one required no faculty references or affiliations and its basis was simple: just two people and a one-on-one conversation over tea. "When two people share an experience, like drinking tea, it's a lot easier to get on the same page, slow down and just start talking," Manuntag, now a software developer, says from his apartment in downtown Vancouver, where he and Tong live. "People are so often on their phones — they're only half there. With tea, the only thing you can have in your hand is the cup of tea, so it allows you to be engaged and listen."

Manuntag's first Unitea conversation was with Dylan Hanwell, then a first-year political science student from Pigeon Lake, Alta. Hanwell had made some connections through the debate society but he was struggling with the overwhelming size of campus. Finding something that resembled the tightly knit community he had grown up in was difficult. "I was like a little fish in a big pond. My high school graduating class had 48 people in it, so jumping into the 30,000-student pond was pretty scary," Hanwell says.

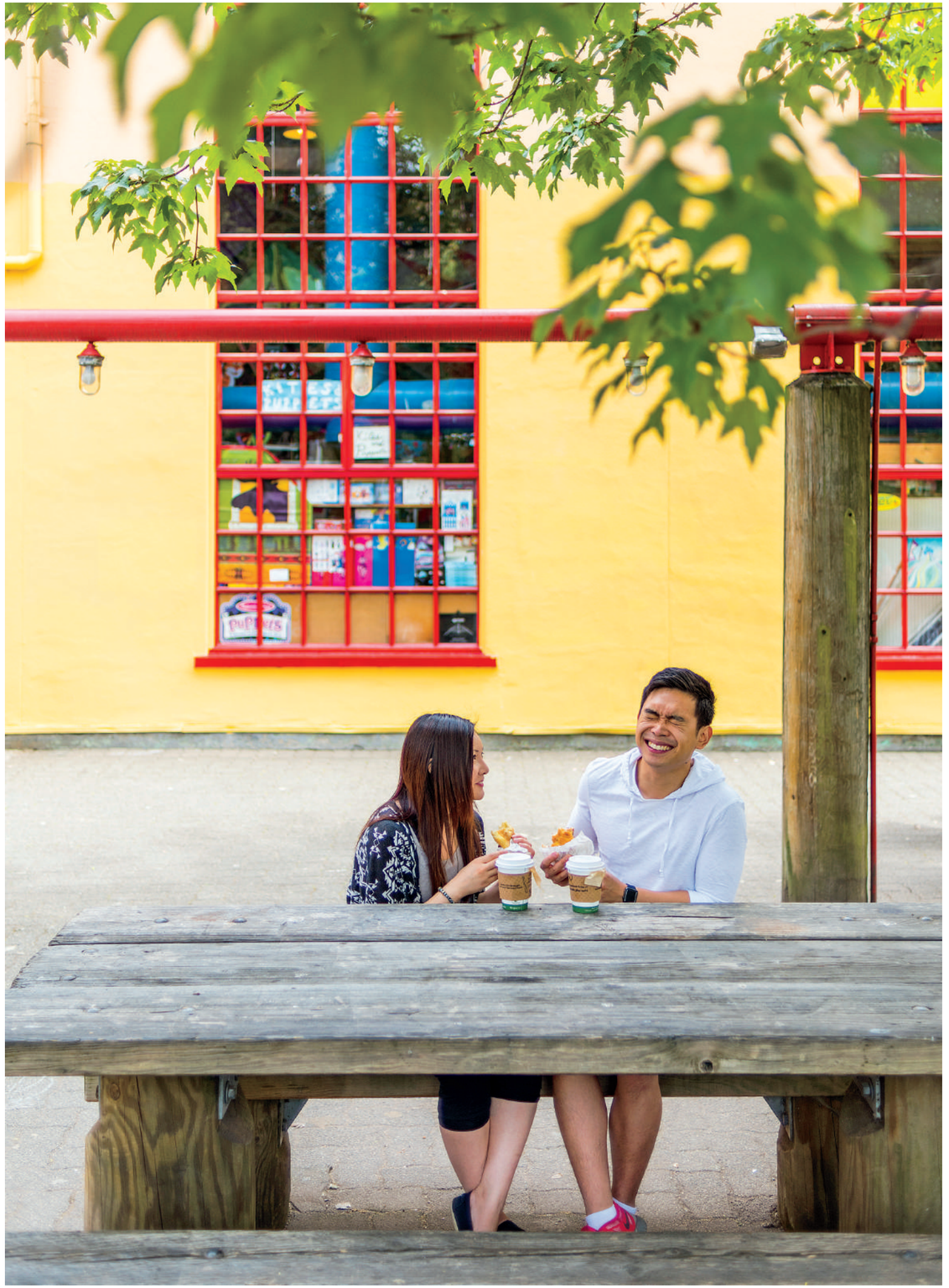
But during his conversation with Manuntag, Hanwell could already feel the impact of Unitea, how it could connect students and provide

an outlet to express concerns, fears and the stresses of university life. “Meeting people on an individual level was really difficult, so having somebody available to have a conversation about whatever you wanted to talk about — I didn’t know where else to find that,” says Hanwell, who now serves on UAlberta’s students’ union as vice-president, external.

Before Manuntag graduated in 2014, he led Unitea’s growth, recruiting more than 200 students, volunteers, mentors and people who donated supplies. The group raised funds and support from the school’s Dean of Students and Office of Sustainability. Now, due to growing student interest, the university’s Community Social Work Team leads the project. With donor support, Unitea can allow more students to develop their natural helping abilities, and create a campus where resiliency and connection are fostered and celebrated.

Sometimes one conversation is all it takes to encourage a student to keep trying. And sometimes that encouragement can save a life. To Manuntag, Unitea’s simplicity is what makes it most meaningful. “Just having those little moments where someone really believes in you as a person, when they believe that you’re a person that can do good, it can go a very long way.”

Unitea is one way the University of Alberta supports student mental health. Many services and programs — from counselling to recreation — help students build resiliency and cope with setbacks. To learn more about how you can help students succeed, lead and contribute to a healthy society, turn to page 44.



Dream Big. Work Hard

STORY BY JAY SMITH | PHOTOS BY JOHN ULAN

How do you help kids be lifelong learners and persist through failure? For two computing science students, the answer was clear: create an app

My nine-year-old daughter had a glint in her eye when I told her I had a writing game that she could play: "Really? A writing game?" I sent my computer's web browser to an online application called COW (which stands for Creative Online Writing) and left her to her awkward typing and enthusiasm.

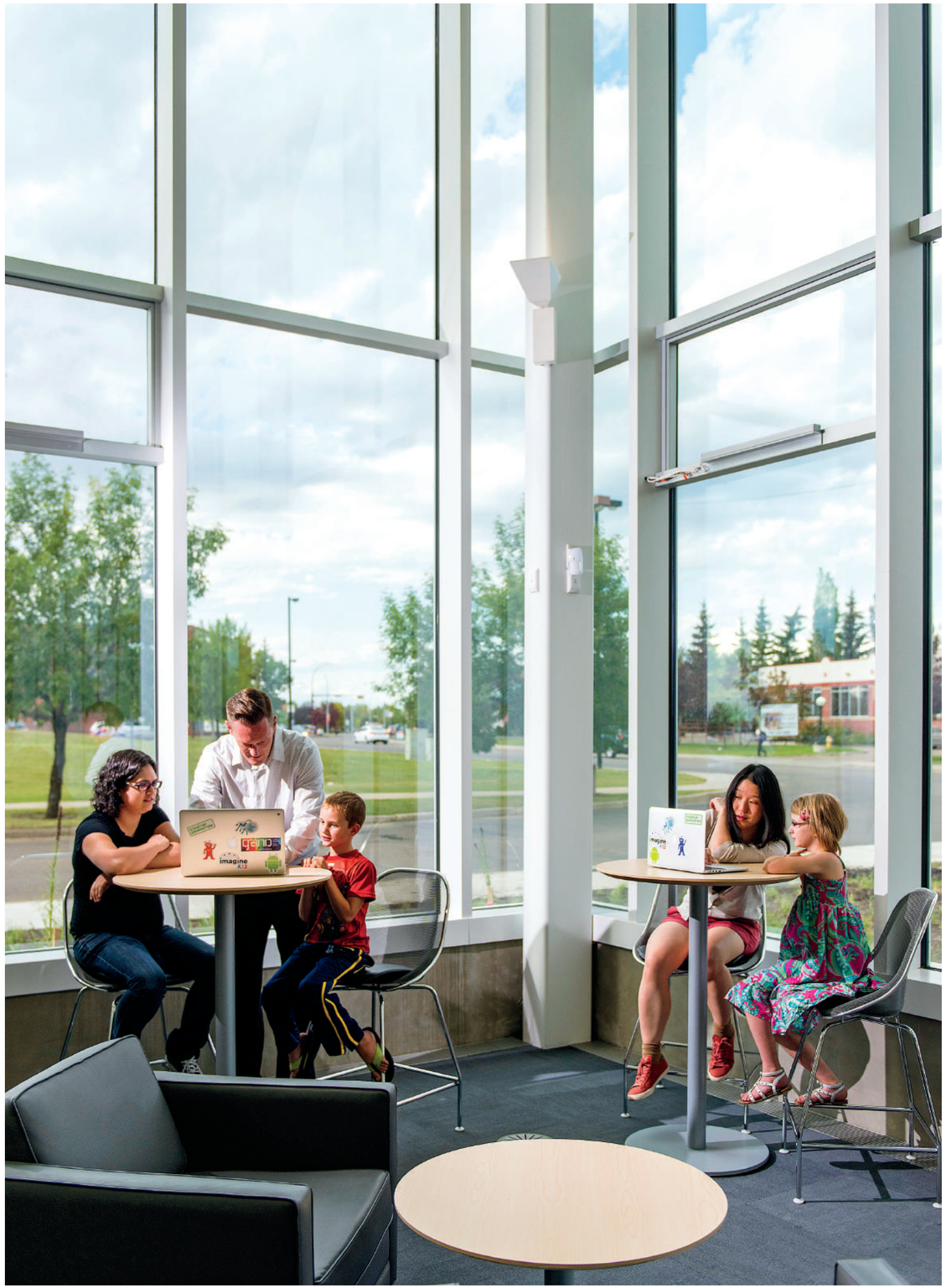
A "game-ified" writing app that encourages users to write a minimum amount, either freely or with topic and vocabulary prompts, COW is a slick program created by then-UAlberta computing science PhD students Kit Chen and Neesha Desai.

In 2013, the pair co-founded Alieo Games, an educational technology startup, following a conversation with Chris McMahen, a retired K-12 teacher, children's book author, former librarian and Chen's friend. McMahen had seen children in his classes struggle with writing fluency even more than with spelling and grammar. (Writing fluency is the ability to express your ideas in words.) In his work, McMahen used non-computerized activities to motivate children to write. By observing variations in sentence structure and assessing to what extent the content appealed to the senses, he was able to assess his students' writing fluency.

Chen paired up with classmate Desai to build a program that would involve the same sort of prompts, challenges and assessment criteria as McMahen's activities but as a web-based application. With the help of graphic designer Joel Koop, the COW app was born.

Under Desai and Chen's leadership, the Alieo team has set out to make an impact on education in general. "We want to motivate kids to be lifelong learners, to be persistent through failure, to gain confidence through practice, to dream big and work hard," says Chen.

Fifteen minutes after riffing off COW's prompt "The hockey game ended when … ," my daughter produced an amazing story. A "science corporation" shows up at the rink and, from a test tube, a genie emerges, announcing its plans to grant the sweaty, stinky hockey players' wishes. Except the genie is erratic: it disappears into its



glass container just as it has drawn everyone's attention. After a pregnant pause, it emerges again with a tortoise shell on its back, shrieking, *"Arriba!"* Suddenly parsimonious, the genie grants one hockey player a wish before disappearing, leaving behind only a cryptic business card.

I submitted my daughter's story for COW's calculation, which observed that she had appealed to multiple senses, used adverbs and adjectives, and had an appropriate amount of variation in sentence construction. As a parent, I was impressed — both with my daughter and the app.

Educators, too, appreciate the app's ease of use — for instance, distributing tailored vocabulary and writing exercises to students' actual grade level — and its automatic statistics on writing complexity. K-12 students, for their part, warm to the game-like interface and the way that feedback from a computer, as Desai points out, "is somehow less judgmental" than similarly corrective feedback from a teacher. Kids, especially those who play video games, are already familiar with computer feedback and can use it to self-correct. "They might not generate something worth reading on any given day but neither do the most experienced and celebrated writers," says Chen. "The point is that in practising, [kids] increase the likelihood of having a few really standout pieces to share with their classmates and their communities."

Although COW has made big gains in the past two years — it has been in alpha testing in classrooms across Alberta and, because of one enthusiastic American educator who discovered it online, in the state of Georgia, as well — Chen and Desai have had to juggle their work as entrepreneurs with schoolwork. Thanks to awards such as the $50,000 Ross and Verna Tate Science Entrepreneurship Award, however, Chen (who is taking time off from her studies) and Desai (who graduated this past spring) will now devote full-time energies to the project.

Encouraged by the support, the pair's next big goal is to change the way writing is taught in K-12 schools. And, like the ethos of the COW program, the idea is that practice makes perfect. "We try every day to build a better COW," says Chen, "in the hopes that kids will use it to express their stories, their opinions, their ideas and, ultimately, their voice with others."

Rereading my daughter's COW assignment, I laughed at the soaring *arriba*. Sure, the typography veered into the, um, perplexing, but the backbone of the story left me in awe. (The comedic timing!) It amazed me that this computer game could bring out this aspect of her — that there was this capacity for crazy and meaningful storytelling within her that I had never had the chance to see before. Proud parent that I was, I asked her permission and then emailed it off to the family.

Through the Entrepreneurship@UAlberta cross-faculty initiative, the Ross and Verna Tate Science Entrepreneurship Award is awarded to a science-related startup company to further the development of a product or service. Successful startup companies are also given the opportunity to meet with venture capital funders in California. To learn how you can help student entrepreneurs realize the potential of their great ideas, *turn to page 44.*

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