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THE CLASS OF 2020

While Spring Convocation ceremonies were postponed due to the global pandemic, this is still a special time for thousands of University of Saskatchewan students who are completing their degrees and graduating this spring. In this online edition of On Campus News, we take a look at a few of the students who have reached this milestone moment on their academic journey to becoming future health-care professionals, engineers, teachers and even opera singers. Pictured here is graduating international student Angela Gjurichanin, singing the national anthem at **USask Fall Convocation in** November of 2019.

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University of Saskatchewan

per year by University of Saskatchewan Marketing and Communications. It is distributed to all USask faculty, staff, graduate students and members of governing bodies, as well as to others in the university community, related organizations, some Saskatchewan government officials and news media. Subscriptions are available for \$24 per year. Story and photo ideas are welcome. Advertising rates are available online or on request.

On Campus News aims to provide a forum for the sharing of timely news, information and opinions about events and issues of interest to the USask community.

The views and opinions expressed by writers of letters to the editor and viewpoints do not necessarily reflect those of USask or *On Campus News*.

We acknowledge we are on Treaty 6 Territory and the Homeland of the Métis. We pay our respect to the First Nation and Métis ancestors of this place and reaffirm our relationship with one another.

EDITOR James Shev

WRITERS

Jacquie Berg, Shannon Boklaschuk, Megan Evans, John Grainger, Kylie Kelso, Ashlyn Ketterer, Colleen MacPherson, Inalie Portades, James Shewaga, Amanda Woroniuk.

DESIGNERS Brian Kachur Pierre Wilkinsor

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UNIVERSITY OF SASKATCHEWAN MARKETING AND COMMUNICATIONS G16 THORVALDSON BUILDING 110 SCIENCE PLACE SASKATOON, SK S7N 5C9

Email: news@usask.ca

VIDO-InterVac making progress on vaccine

🖉 JAMES SHEWAGA

There are some promising early signs as researchers at the University of Saskatchewan's (USask) Vaccine and Infectious Disease Organization-International Vaccine Centre (VIDO-InterVac) develop a vaccine for COVID-19.

"Early indications show that the vaccine induces an immune response, so that is positive," said Dr. Volker Gerdts (DVM), director of VIDO-InterVac. "But whether the vaccine will work, we don't know that yet. There is a lot of testing to be done."

Safety assessment of the vaccine in animal models is underway, with the animals having received two vaccinations, a first step in building immunity to SARS-CoV-2, the virus that causes COVID-19. Gerdts said the next step is exposure of the animals to the virus to determine if the vaccine provides protection, which should be known in the next week or two.

"We can detect antibodies in the ferrets, so we know that the vaccine is inducing an immune response, and we should hopefully know shortly if the vaccine is protective," said Gerdts.

Demonstrating the vaccine is safe is the first required step before researchers can move on to human test subjects in the fall. A major \$23-million boost in federal funding on April 23 has ensured that VIDO-InterVac has the support it needs to fast-track vaccine development and initiate clinical trials.

"The funding will help us to take our vaccine into clinical testing in humans in the fall," said Gerdts. "There is a Phase 1 testing, which looks at the safety of the vaccine, and a Phase 2 testing, which



VIDO-InterVac team members prep the first few thousand N95 masks from the Saskatchewan Health Authority for decontamination.

confirms whether the vaccine induces an immune response, and that is quite costly.

"What we are doing now is getting the prototype vaccine manufactured so that we can start with safety testing of the vaccine in animals, then we can start human testing in the fall."

VIDO-InterVac researchers have been at the forefront of the global fight against the novel coronavirus, and were the first lab in Canada to isolate it, using a



Dr. Volker Gerdts (DVM) is the director of VIDO-InterVac at USask.

clinical sample from Sunnybrook Health Sciences Centre in Toronto. VIDO-InterVac is one of the very few labs in the world to have developed

SEE VIDO, PAGE 15

IN CASE YOU MISSED IT

A lot happens at the USask during the weeks when *On Campus News* isn't published. Here are a few of the top stories from news.usask.ca:

Interim provost

Dr. Melissa Just (EdD) began her new role as interim provost and vice-president academic of the University of Saskatchewan (USask) on May 1. Just, the dean of the University Library, is now working with current provost and vice-president academic Dr. Tony Vannelli (PhD), and will assume full responsibility in the role after Vannelli officially steps down on June 30. Filling in for Just is Charlene Sorensen, who took over as acting dean of the University Library on May 1. An international search for USask's next provost is now underway.

New nursing chair

USask researcher Dr. Holly Graham (PhD) has been awarded an Indigenous Research Chair in Nursing by the Canadian Institutes of Health Research (CIHR) to build research capacity in Indigenous nursing and improve the health of Indigenous peoples. The new research chairthe first at the USask College of Nursing-will support and mentor Indigenous and non-Indigenous undergraduate and graduate student nurses to conduct research that will advance reconciliation in nursing practice, research, education, and administration.

USask ranks well

USask placed 96th overall in the world-and as high as fourth in a category-in the 2020 Times Higher Education University Impact Rankings, which measured the success of 859 universities from 89 countries around the world in advancing the United Nations' Sustainable Development Goals. Included is a fourth-place rank in measuring agriculture and food security, and 12th in good health and wellbeing. "This is an excellent achievement for USask in such globally critical areas," said USask President Peter Stoicheff.

USSU president

Autumn LaRose-Smith has become the first Indigenous woman elected president of the University of Saskatchewan Students' Union (USSU). No stranger to university politics, LaRose-Smith moved from her position as vice-president of student affairs to USSU president on May 1 after a close race for president, becoming not only the first Indigenous woman to serve as president of the USSU, but also the first female president in more than 10 years. LaRose-Smith is an education student in the Saskatchewan Urban Native Teachers Education Program.

FOR MORE UP-TO-THE-MINUTE NEWS, VISIT: news.usask.ca

ca 🖪 🕑 @usask

USask unites in the face of global pandemic

C UNIVERSITY COMMUNICATIONS

Since the first cases of COVID-19 were announced in the province, members of the University of Saskatchewan (USask) community have come together to support one another in these uncertain times. Here are a few of those stories of faculty, staff, students, and alumni:



Mental health help available

A USask psychology professor has signed up to provide free counselling to support front-line health providers in the province during the COVID-19 pandemic. Dr. Megan O'Connell (PhD), a registered doctoral psychologist, will provide counselling sessions. "Stressed health-care providers should have ready access to psychological services to help with coping," said O'Connell.

Health Sciences CLRC leads training

The Clinical Learning Resource Centre (CLRC) is providing personal protective equipment (PPE) training for health care professionals. "When it was evident that we would be experiencing the pandemic in Saskatchewan, the first thing the CLRC did was reach out to all USask health science programs and ask for approval to provide the Saskatchewan Health Authority with supplies, equipment, space, and staff assistance," said Mary Freeman, director of clinical learning services with USask Health Sciences.

Bioprocessing plant producing hand sanitizer

USask researchers and local companies are using a bioprocessing facility on campus to temporarily produce hand sanitizer. The USask Bioprocessing Pilot Plant was producing up to 400 bottles a day until Bioriginal Food & Science Corp., secured a licence to set up its own manufacturing facility. "It's not the role of the university to be a long-term manufacturer, but we're happy to help out in this emergency," said Dr. Angela Bedard-Haughn (PhD), associate dean of research in College of Agriculture and Bioresources.

Food donated to Saskatoon Friendship Inn

Culinary Services at USask has donated nearly \$3,000 worth of fresh produce and food to the Saskatoon Friendship Inn, donations that will ultimately be used to help prepare meals for community members. George Foufas, director of consumer services, said that Executive Chef James McFarland and staff organized the donation. "We reached out to the Friendship Inn and they were happy to take them," said Foufas.

GIFS provides diagnostics

The Global Institute for Food Security (GIFS) at USask is providing research equipment to Royal University Hospital to support Saskatchewan Health Authority's (SHA) diagnostic testing for COVID-19. "We know how important testing is to understanding the spread and occurrence of COVID-19, and we wanted to do our part at GIFS to support the Saskatchewan Health Authority's efforts with this," said GIFS CEO Dr. Steven Webb (PhD). GIFS is also providing 3D printing materials to help engineering produce masks.



Merlis Belsher Place being prepped to serve as possible field hospital

USask has made Merlis Belsher Place available to the Saskatchewan Health Authority to serve as a potential pandemic field hospital. The 120,000-square-foot complex could house 250 coronavirus patients, if there is a surge in cases. "We talk about our commitment to be *The University the World Needs* and it's not lost on me that this is one of those times where the community has asked and we are working hard to deliver on that," said Wade Epp, associate vice-president of services.

Engineering makes masks

USask engineering students are using 3D printers to design reusable and sanitizable N95 respirator masks in the midst of a global shortage. The design is being tested at the Royal University Hospital. Once approved, as many as 60 per day could be manufactured using 3D printers. "We're trying to make the masks out of the most commonly available materials for 3D printing,



so anyone with a 3D printer should be able to produce this easily," said graduate student Erik Olson.

Therapy dogs online

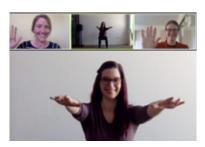
Students and other members of the community can now receive



comfort and support from St. John Ambulance therapy dogs while learning pandemic-specific mental health self-care tips as USask's PAWS Your Stress Therapy Dog program goes online. "We are all quickly learning that physical distancing doesn't have to mean we disconnect from supports in our lives, and this includes therapy dogs," said sociology professor Dr. Colleen Dell (PhD).

Virtual health hub

USask researchers in physiotherapy, rehabilitation science, and neurology are now providing a free online program entitled NeuroSask: Active and Connected, to people with neurological conditions. "The ultimate goal is to provide people who have Multiple Sclerosis (MS), Parkinson's disease, and spinal cord injuries with access to support and health experts while their in-person



exercise and support programs are closed," said physiotherapist Dr. Sarah Donkers (PhD).

Dentistry supports Saskatoon Open Door Society

The College of Dentistry has partnered with the Saskatoon Open Door Society (SODS) for The Face Mask Project to create 10,000 cloth face masks that will be sterilized by the college and distributed to grassroots community organizations in Saskatchewan. "The College of Dentistry is proud to be a part of this project and working together we will help ensure the safety and well-being of the Saskatchewan community," said dentistry dean Dr. Doug Brothwell (DDM).

College of Medicine hosts Indigenous language training

Se AMANDA WORONIUK

Cree is one of the most widely spoken Indigenous languages in the province. A new course offered by the College of Medicine at the University of Saskatchewan (USask) now gives participants the opportunity to learn the language.

"I've wanted to do this for a little while. I was thinking about the TRC Calls to Action and there is one that specifically talks about language revitalization," said Val Arnault-Pelletier, co-creator of the course, and co-ordinator of the college's Indigenous Admissions Program. "I started thinking about the work we're doing in medicine, and I thought maybe this would be a good opportunity to offer a Cree language class and see how it goes."

"From my perspective, I think for people to speak the language is important. And to speak the Plains Cree language in this area of the province and other languages would be important as well, in terms of patient interaction, interaction with community people, the work that we do as the college," she added.

Arnault-Pelletier turned to her colleague, Randy Morin, a Cree language expert and professor in the Department of Indigenous Languages (College of Arts and Science), to put together the classes. Morin holds a master's degree in Indigenous Language Revitalization and led the instruction, using a combination of the direct method (speaking only in Cree) and textbooks, including *Cree Medical Terminology*.

"We learned a variety of topics related to their field such as health and wellness, greeting, kinship, questions and answers, and many others," explained Morin. "Students were very comfortable as we sat in a circle each class and took turns speaking to one another. I assured students we were learning survival Cree and that space was the place to practice and make mistakes."

Each class followed a similar format: a meal, prayers from an Elder and language instruction. Held over the noon hour, the course accommodated work and learner schedules, and employed technology which allowed student participation from Regina. Due to the COVID-19 pandemic, the last class was held remotely using Zoom.

For medical students, the course provided a practical way to gain language skills and communicate with patients.

"The Cree language class offered through the College of Medicine was a wonderful oppor-



Val Arnault-Pelletier



Randy Morin



A couple of the Cree language textbooks used in the Indigenous language training in the College of Medicine.

tunity to supplement my medical

education. Learning words for

everyday life as well as words related

to health, wellbeing, and sickness

will be useful to create relationships

with patients," explained first-year

medical student Mackenzie Jardine.

SUBMITTED

"As a Métis woman with little exposure to Indigenous languages, I really enjoyed taking the class and finding new connections with my Indigenous ancestry," she added. Arnault-Pelletier said the ability to speak to a patient in their own language can't be underestimated, citing an example of an experience her father had.

"My father was living in the north, and one of the non-Indigenous nurses knew enough Cree to be able to say 'Hello, how are you?' to him," said Arnault-Pelletier. "For him, that was so meaningful she would take the time to learn—in our language—that basic greeting. And he mentioned it to me on more than one occasion."

Led by the Office of Indigenous Affairs in the college, the 10-week course introduces basic language knowledge and is open to staff, students and faculty. The course included more than a dozen participants, and honours traditional Indigenous languages and culture in an accessible way.

Based on the positive response, Arnault-Pelletier indicated plans are in the works to offer another Indigenous class in the near future. Her team is looking at the options to offer Cree again or branch out into a different Indigenous language.

"This is our pilot, so we do plan to offer it again. And I really do see this as part of curriculum. Part of what we need to do as a college, in terms of including cultural competency and inclusion of who Indigenous people are, in our curriculum."

> Amanda Woroniuk is a communications co-ordinator in the College of Medicine.

ALUMNI Spotlight

Every month in On Campus News, we highlight an exceptional graduate of the University of Saskatchewan in our Alumni Spotlight feature series. In this issue, we profile Dr. Michael Goldney (HOSADM'98, MD'02), one of the founders of Lucky Bastard Distillers, a local company now providing hand sanitizer to front-line health-care workers.

GORD WALDNER

USask alumnus Dr. Michael Goldney (MD), co-owner of Lucky Bastard Distillers, speaks during Alumni Relation's Educated Tastes event last December.

Dr. Michael Goldney: Making a difference

JOHN GRAINGER

One of the founders of Lucky Bastard Distillers said everyone should make the effort to regularly wash their hands with soap and water as the first line of defence against the COVID-19 virus. Consider it doctor's orders.

Dr. Michael Goldney (MD) said the use of soap and water remains the most effective method of warding off transmission of the novel coronavirus and should always be an integral part of everyone's day.

"Maybe it's something about the medicinal smell of alcohol, that disinfectant smell, that people get comfort from," said Goldney, who left the life of a medical doctor to get into the alcohol business about a decade ago when he started LB Distillers in Saskatoon, along with Lacey Crocker and Cary Bowman (BA'99).

With news that the coronavirus was spreading globally, the three co-owners of Lucky Bastard witnessed people panic-buying

We will continue to produce hand sanitizer as long as it's needed. Hopefully, we can help people working on the front lines with a little less stress.

- Dr. Michael Goldney

hand sanitizer from store shelves and thought they could step in and provide support to those working on the front lines of the pandemic.

"We looked at what we could do to help," said Goldney. "I think it was Cary who found something from (the World Health Organization) that gave us a clearer direction of what we could do to help."

In concert with Stumbletown Distilling and with support from Saskatchewan Blue Cross, the Lucky Bastard crew got to work.

"(Making hand sanitizer) was

something we could do and do very quickly."

As the pandemic reached Canada, Goldney said people were often going online and finding misleading recipes to concoct their own batch of sanitizer.

"People think, 'Oh, this must be better, so I am going to try and make some myself," he said. "Those recipes could give people a false sense of security and cause more harm than good."

Since those early days in March, Lucky Bastard has sent hand sanitizer all across the province, from Stony Rapids to Weyburn.

The business had to get regulatory approval before it could ship anything to health-care workers on the front lines, so they quickly got the sign-off from Health Canada, Excise Canada and the Saskatchewan Liquor and Gaming Authority, although the latter took longer than expected. One of the issues the business faces now is getting needed supplies for production.

"Our biggest challenge right now is supply chain issues," said Goldney. "For instance, it's impossible to find 16-ounce bottles to put the sanitizer in."

Through all of this, Goldney has been able to lean on his MD training and medical knowledge.

"I guess I can say I didn't completely waste my education," he joked.

One spin-off benefit is the business has been able to retain some employees by just repurposing workloads.

"We will continue to produce hand sanitizer as long as it's needed," said Goldney. "Hopefully, we can help people working on the front lines with a little less stress."

Goldney and his co-owners never envisioned a world like this when they set up their initial distillery in a 3,000-square-foot operation in 2012. Their current location, on 47th Street East in Saskatoon's North Industrial area, is now roughly 14,000 square feet and includes production facilities, retail space, as well as an events space which can be rented out for private events.

"I always thought this would be a fun little hobby," said Goldney. "But it's been very satisfying for all three of us."

Community involvement is also at the heart of this business, as witnessed by the quick move to production of hand sanitizer, in addition to the spirits they produce.

"Honestly, it's been overwhelming. But it does feel good to help."

Once the pandemic is over, Goldney is looking forward to getting back to the basics and having fun.

"We're in a very fun business," he said. "If you're not having fun making booze, you're not doing it right." ■

> John Grainger is a communications specialist in Alumni Relations at USask.



Protecting migratory bird populations SENS professor Morrissey's research takes a bird's-eye view

MEGAN EVANS

May 11 is for the birds. Specifically, for migratory birds, as the United Nations declared May 11 World Migratory Bird Day to prompt awareness and actions that will protect these important contributors to local and global ecosystems.

Like the proverbial canary in the coal mine, the lack of thriving bird populations is a warning that the ecological system they call home is out of balance, though the reasons why will vary.

"There is a bird species (or several) specific to every ecosystem on the planet, from the Arctic to the tropics," said Dr. Christy Morrissey (PhD), a professor of biology in the College of Arts and Science and with the School of Environment and Sustainability (SENS) at the University of Saskatchewan (USask). "But pollution, climate change, pesticides, and habitat loss means that in North America and around the world, bird populations are declining at an alarming rate.

"For example, a tiny dose of a pesticide can cause migratory songbirds to lose weight and delay their migration, which could reduce their chances of survival and producing young."

In order for migratory bird populations to live and breed successfully, there is a high level of international co-operation required to protect the habitats of these birds, not only at the migratory journey end points, but on the paths in between. That is why the United Nations promotes World Migratory Bird Day instead of simply World Bird Day.

"Migratory birds are the heroes of the skies but many are facing enormous challenges as they cross international borders leading to population declines," said Morrissey.

One of the challenges Morrissey alludes to is that migratory birds depend on more than one ecological system, often in two or more countries, depending on how often the birds need to stop for food and rest. A bird like the white-throated sparrow (that sings the familiar song "Oh sweet Canada-Canada-Canada...") that makes its home in Saskatchewan boreal forest over the spring and summer, may be protected under provincial and Canadian environmental laws, but those same laws and protections will vary across other jurisdictions. Species that migrate into Central and South America may not be afforded the same kinds of protections in other geographical locations.

"Migratory birds play a vital role in healthy ecosystems, with critical links to human well-being that we are still working to understand," said Morrissey. "What is clear, however, is that we need to do more to protect birds and the



Dr. Christy Morrissey (PhD), Department of Biology and School of Environment and Sustainability, is one of Canada's leading migratory bird researchers.

ecosystems we both rely on."

While it may be tempting for humans to value economic activity over protection of birds and other wildlife—and adjust policies and actions accordingly—it is crucial to contemplate the underlying ecological and health implications attached to every decision made. As the COVID-19 pandemic has demonstrated, the closer people are to animals, the easier it is for the transmission of disease from animal to human population; a phenomenon known as zoonotic infection.

As human activity encroaches on previously unfrequented animal habitats, wild animals are forced into increasing proximity to human and domestic animal habitations. In the case of migratory bird populations, the risk is two-fold. Consider migratory duck populations which instead of occupying remote wetlands, are forced to use drainage ponds, water reservoirs, and dugouts near farms and domestic fowl such as chickens. The biological similarities between wild ducks and domestic fowl mean that infectious agents can easily pass between them, and from there, to the farmer's family and the wider human population.

Another factor is that those same migratory birds travel thousands of kilometres every year. In the context of world-wide habitat loss, these birds are encountering humans and domestic animal populations at multiple points along their migratory routes. The migration of these birds then provides a means for transporting disease across vast distances which can exponentially amplify the risks for spread within their own species and potentially allow devastating diseases to enter the human population.

"Canada has laws to protect migratory birds but there needs to be greater co-operation among countries as these birds 'belong' to many countries during their life cycle," Morrissey said. "Through partnerships, we need to act now to protect the thousands of bird species that are an indicator of the health of our planet." ■

Megan Evans is the communications specialist in the School of Environment and Sustainability.



The buzz about bees Protecting plant pollinators key to planet's food supply: Davis

SHANNON BOKLASCHUK

His fascination with bees started during adolescence.

As a teenager growing up on his family's small acreage in Ontario, Dr. Art Davis (PhD) began keeping bees—eventually expanding his hobby to include six hives.

"My dad wasn't too fussy about it at the beginning, but he relented. I think he could see that this was probably going to become sort of a career path for me, so he didn't want to get in the way of that," said Davis, who is now a biology professor in the College of Arts and Science at the University of Saskatchewan (USask).

Davis joined the Department of Biology as a faculty member in 1994. He currently teaches a plant sciences course devoted to honeybee biology and beekeeping and was honoured with a Provost's Teaching Award in 2018. He also conducts research on the production of nectar—the main attractant of pollinating insects to flowers, and the key source of honey.

"They're by far the most important vector of pollen," Davis said of bees. "Worldwide, there's just nothing that comes close to how important they are."

Davis was reflecting on the significance of bees to the global food supply in advance of World Bee Day. In 2017, the United Nations (UN) General Assembly unanimously proclaimed May 20 as World Bee Day, resulting in the first observance in 2018.

The purpose of the annual event is to draw attention to the essential role that bees play in keeping people and the planet healthy. The day also provides an opportunity for governments, organizations and citizens to promote actions that will protect pollinators and their habitats. By carrying pollen from one flower to another, bees serve to facilitate and improve food production around the globe.

The UN notes that caring for bees and other pollinators—such as butterflies, birds and bats—is part of the fight against world hunger. Ninety per cent of all wild flowering plants depend, to some extent, on animal pollination, and pollinators affect 35 per cent of global agricultural land.

Davis' lab is particularly interested in the pollination of plants found in Saskatchewan, with past projects examining Echinacea, caraway, borage, canola, sundews, purple loosestrife, asters, goldenrod and the prairie lily.

Interestingly, some species of bees are particularly adept at pollinating specific plants, Davis said. Bumblebees, for example, are much better pollinators of garden tomatoes than honeybees. That's because tomato flowers don't produce nectar, which is what attracts honeybees.



Dr. Art Davis (PhD) wears a beekeeper's standard personal equipment in this picture with his puppy, Nala, taken in his backyard in March. The photo was taken for online teaching purposes during the COVID-19 pandemic.

Davis said bumblebees are also "the bee of choice" for blueberries and haskap plants, a relatively new Saskatchewan crop.

It's also common to see shelters for alfalfa leafcutter bees—a type of solitary bee—in Saskatchewan's alfalfa fields in mid-summer, Davis noted. "In those domiciles there will be thousands of individual nests—each nest looked after by a single female leafcutter bee," he said. "It's quite a successful industry in Saskatchewan and other parts of the Prairies for alfalfa seed production. In fact, on alfalfa, that bee does a much better pollinating job than your average honeybee does."

Davis said the current nemesis for beekeepers in Saskatchewan is the Varroa mite, a parasitic organism that attacks adult honeybees and their brood—the term for their eggs, larvae and pupae. The destructive mite, which reproduces in the brood cells, is found across the globe.

"On the world scene, it's kind of public enemy No. 1," said Davis, whose lab studies the insect's behavioural traits and is also interested in exploring non-chemical means of combating the Varroa mite.

Davis noted that Saskatchewan is a significant honey-producing province, with Saskatchewan, Alberta and Manitoba contributing about 75 per cent of Canada's annual honey supply. Saskatchewan also has about 1,100 beekeepers.

"We are in the honey belt, so to speak," he said.

Ultimately, bees are "very intelligent creatures" that are key to the world's food supply and planetary biodiversity, said Davis. He's pleased that World Bee Day offers people an opportunity to talk about bees and the importance of protecting them.

"If we lose bees, we lose a very dependable source of pollination— and that's dangerous," he said. ■

Shannon Boklaschuk is a communications officer in the College of Arts and Science.



From overseas to music degree for soprano



Angela Gjurichanin, graduating with a Bachelor of Music (Honours) degree, performs the national anthem at 2019 Fall Convocation at Merlis Belsher Place.

🖉 JAMES SHEWAGA

Five years ago, Angela Gjurichanin made a life-changing move from Macedonia to Canada with her family, without a firm grasp of English and without truly knowing what to expect.

However, one thing that she was sure of was following her dream of becoming an opera singer. This spring, she is graduating with a Bachelor of Music (Honours) degree from the University of Saskatchewan (USask), with memories to last a lifetime and with a world of opportunity ahead of her.

"I have to say that it has been much better than I could have ever imagined, because walking into the university for the first time, everything seemed so much bigger than I expected," she said. "It was this huge campus and the buildings were like castles. But, being in the Department of Music, everyone was so supportive of me and it felt like family. Everything just felt right, like I was where I was meant to be." Gjurichanin has flourished at USask, quickly learning the language and adjusting to the climate, culture, city and campus. From singing at convocation and the President's Residence to performing in the Saskatoon Music Festival and with the Saskatoon Opera, Gjurichanin has developed into a confident performer and a splendid soprano, according to music department head Dr. Gregory Marion (PhD).

Marion first met Gjurichanin at an open house for prospective USask students in fall of 2015, less than two weeks after she had arrived in Saskatoon from overseas.

"I remember that open house rather vividly," said Marion. "She was there with her mother and they were both sitting quietly and did not seem to be engaging with anybody, so it was natural for me to go up and talk with them. I went on to have a couple of meetings with Angela where we talked about the program in great detail and even from that early stage, I was quite struck by her musical knowledge and her sense of focus. Right from the start, Angela seemed to have an incredible drive."

Gjurichanin is grateful to have studied under the direction of voice professor Dr. Garry Gable (DMA) and sessional lecturer Kathleen Lohrenz Gable during her four years at USask, and will be forever indebted to Marion for his warm welcome and his guidance.

"I had just moved here and 10 days later I was there at the university at the open house, not knowing much English, but Dr. Marion was very helpful," Gjurichanin said. "He was the first person that talked to me, even though I did not speak English very well at that time. He told me all about the program and introduced me to Dr. Gable, and it was surreal that it all happened so quickly."

Gjurichanin began her studies in 2016 and this spring graduates as one of the top students in her class, a former dean's honour roll member with an 85 per cent academic average this year. While she may not have the opportunity to walk across the stage to receive her degree in person—with Spring Convocation postponed due to the COVID-19 pandemic—she is thankful that she was able to experience convocation on previous occasions.

"I am grateful that I had the chance to sing *O Canada* a couple of times at convocation, so maybe I did not get to experience convocation myself, but at least I was there to sing and support other students for their convocation," she said. "I am happy that I had the chance to perform for them."

Marion is quick to sing the praises of the talented young singer, and believes the sky is the limit for her.

"As with many of our students—all of our students in fact—I see a very bright future for Angela," said Marion. "The work ethic is certainly there to enhance the innate ability that she has and the learned abilities that she has attained over these past four years. Angela has matured a lot, and that is recognizing the fact that she came here not lacking in terms of musical ability. It has been nice to see how all of that has blossomed."

Gjurichanin currently has permanent resident status, but is applying for citizenship to officially make Canada her new home, along with her mother, father, brother, sister-in-law and husband. Now 23, the next step is moving on to take her master's, after being accepted into Western University in London, Ont. However, there is no doubt where her heart lies now, and the indelible mark the city and the campus have left on her.

"I loved my time at the university and for me Saskatoon feels like my new hometown," she said. "It was the people who made me feel that I belong here. And I will always look for the opportunity to come back home here."



The Town of La Ronge is one of the University of Saskatchewan's distributed learning sites to study nursing.

📸 KYLIE KELSO

USask program opens doors for nursing student



June Natomagan earned her Bachelor of Science in Nursing degree this year while studying at home in La Ronge.

SUBMITTED

RYLIE KELSO

June Natomagan will be forever grateful for the opportunity that the University of Saskatchewan's (USask) College of Nursing provided her.

"If the nursing program wasn't offered in La Ronge, I wouldn't have just completed my degree and be only weeks away from becoming a registered nurse," said Natomagan, a fourth-year USask student set to graduate this spring from the Bachelor of Science in Nursing (BSN) program.

Natomagan, who had just had a baby when she applied to the USask nursing program, is one of the latest in a growing list of nursing students who have made the most of a program tailor-made for their needs.

"Without the offering in northern Saskatchewan, I would have never been able to become a nurse, as the location was the deciding factor for me."

USask's College of Nursing was aware of the growing concern

surrounding a shortage of registered nurses in rural and remote areas throughout Saskatchewan. As a solution, the college started offering its BSN program in both La Ronge and Île-à-la-Crosse in 2012 and in Yorkton in 2014. Since then, 38 students have completed their program in northern Saskatchewan and 29 in Yorkton. That's 67 students in those communities who may not have had the ability to pursue nursing as a career if the distributed education program didn't exist.

"The College of Nursing strongly believes that post-secondary education should not be restricted by geography," said former interim dean Dr. Lois Berry (PhD). "If we only offer our program in Saskatoon, Regina and Prince Albert, then we are missing out on educating highly talented individuals who, if given a chance to take nursing, can and will make a huge difference in the health-care system in all regions of the province. If we offer our program

in rural and remote locations, such as La Ronge, Île-à-la-Crosse and Yorkton, the probability of the graduates staying and working as registered nurses in those rural and remote locations is very high."

The distributed nursing education program in La Ronge is dependent upon a strong partnership with Northlands College. Natomagan credits her ability to complete the program to the people at both USask College of Nursing and Northlands College.

"I truly owe my success to the staff and my nursing classmates at Northlands," Natomagan said. "Without their continued support and encouragement, I would not have completed the program. I would like to thank the faculty who went above and beyond to help shape me into the best nurse I could possibly be. I will carry their wise words of wisdom wherever I go."

"As a new mother and someone just starting nursing school, I

needed my family around for support," Natomagan said. "What I didn't know is that my classmates would also become like family. The best part of taking nursing in La Ronge was the small class size. I was fortunate to have been part of a family and not identified as just another one of many students. I had access to lots of resources and an abundance of support. If I had taken my program somewhere other than La Ronge, I don't believe I would have succeeded."

"The nursing program was highly recommended from my family and friends. I'm not going to lie, this program was hard! But if you have the passion to be a nurse and the commitment, drive and dedication, then I absolutely recommend the USask BSN program in La Ronge."

The COVID-19 global pandemic has put the dedication and need for nurses in the spotlight now more than ever, as Canada celebrates National Nursing Week

May 11-17 and International Nurses Day on May 12.

For her part, Natomagan can't wait to join the front lines of health care.

"I have always been a caring, compassionate person and was taught from a young age to treat others with respect," she said. "I wanted a profession that would give me the opportunity to demonstrate these characteristics. One day I found myself in a situation where I felt an overwhelming need to give back to my community and the next day, I literally woke up and said, 'I'm going to be a nurse!' If it wasn't for the University of Saskatchewan College of Nursing program in La Ronge, I wouldn't be starting on the career path best-suited for me. I can't wait to be become a registered nurse." **U**

> Kylie Kelso is the communications officer in USask's College of Nursing.



Ahlstrom a champion on and off the court

INALIE PORTADES

Thanks to donor support, Megan Ahlstrom is a two-time U Sports national champion in her first and final years of Huskie basketball, and now on her way to become a physiotherapist.

Being a student-athlete is not easy lifestyle, challenged to an perform exceptionally both on, and off the court. However, the fifth-year Huskie understands the rewards that come with staying determined. As a recipient of scholarship support through the Sylvia Fedoruk Award, Ahlstrom is thankful that she had the opportunity to attend the University of Saskatchewan (USask) to study in the College of Kinesiology and play for the Huskies.

Ahlstrom is graduating this spring, and despite not being able to walk across the stage to accept her degree, with convocation ceremonies postponed due to the COVID-19 pandemic, Ahlstrom is excited to now start her master's in physiotherapy here at USask.

"I want to continue my passion for physical activity and be able to work with athletes," she said. "The physios who work with us student-athletes are what I aspire to be because I think it would be great to stay involved in university sports. It would also be a full circle for me because I did have a lot of injuries where the physios kept me on the court and encouraged me to stay

optimistic. That's what I would love to do for other university athletes."

After winning the 2016 U Sports women's basketball national championship in her rookie season with the Huskies, Ahlstrom was determined to bring the trophy back to the Prairies one more time. Four years later, Ahlstrom and the Huskies team earned the national title this spring for the second time in program history.

"It was really special to see the things that have to go right to win a national championship. Now, I got to show what I learned and have a bit of a bigger role," she said.

Off the court, Ahlstrom is recognized for being a role model for



Ahlstrom's physical activity and community was recognized at the Canada West conference awards this spring, when she received the Sylvia Sweeney Award. Huskie Athletics also awarded her the Valerie Girsberger Trophy for being the top all-around female athlete.

"It's fulfilling to see younger kids look up to me and want to be like us on the court. Being a positive role model in their life is really

"I wouldn't have been able to excel in sports, school, and volunteering in the community without the support that I received," she added.

Ahlstrom noted that the funding that she received from donors helped ease her transition in moving to Saskatchewan.

"I don't think I can put enough words into how thankful I am receiving the scholarship. It relieved a lot of financial stress that comes with attending post-secondary and having to move away from home. This scholarship is also the reason I got to play basketball and have all these memories and championships these past five years," said Ahlstrom. "I hope to give back the same way that donors have helped me because I would love to be able to make someone else's university experience as good as I had." ■

> Inalie Portades is a development communications co-ordinator at USask.

Vulnerable students in crisis given lifeline

JESSICA ELFAR

Job loss, changes to living situations, and the sudden transition to distance learning left many USask students facing additional and overwhelming stressors due to the COVID-19 pandemic, far beyond what they would typically face at the end of a school year.

However, thanks to \$305,888 in donations from 742 alumni, faculty, staff and other donors, 216 students have received emergency financial assistance over the last month to help ensure their education goals

were not disrupted.

Autumn LaRose-Smith, newly elected president of the USSU, said students are especially vulnerable, so this critical donor support means the difference between thriving and surviving.

"Students rely on part-time jobs that may have been cut, with uncertain housing situations, and hoping landlords can defer their rent payments," LaRose-Smith said. "Students who had summer employment lined up might be losing those

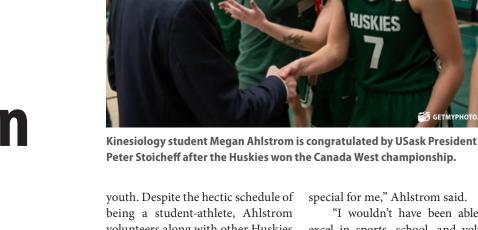
opportunities, and then they might not be able to come back to school in the fall. Right now, we should be focusing on thriving, preparing for the next term. A lot of students won't even be able to conceive of their next term right now."

To support students in need of crisis funding, donate to the Nasser Family Emergency Student Trust at donate.usask.ca/crisis.

Jessica Elfar is a development communications specialist at USask.



Dora and Dr. Kay Nasser (PhD) donated \$100,000 to lead the fundraising campaign for students in need due to the COVID-19 pandemic.



dedication to



Huskies graduates waiting to kick off their CFL careers

Spring

outbreak.

of my life for camp."

While there are no

ceremonies to attend,

due to the COVID-19

Convocation

Machi-

JAMES SHEWAGA

Machibroda Evan Ben Whiting and were supposed to be preparing to take part in CFL training camps next week.

Instead, with the CFL season delayed due to the coronavirus pandemic, the two

graduating members of the University of Saskatchewan Huskies football team are patiently playing the waiting game in Saskatoon before kicking off their pro careers.

"It's a strange situation, but you just have to wait and try to prepare the best that you can," said Machibroda, a dominant defensive lineman and 2019 Edmonton Eskimos draft pick who completed his fifth and final season with the Huskies by being named a U Sports All-Canadian and honoured as the most outstanding lineman in the Canada West conference. "No one could have predicted the shutdown of all professional sports, so I'm just waiting on that call to tell me when training camp starts."

"All you can do is stay ready and stay prepared," said Whiting, one of the top linebackers in the league this season and a draft pick of the Montreal Alouettes last year. "All you can do is to stay ready and stay prepared, so I am definitely going to use the extra time to get my body right and be in the best shape



Evan Machibroda

broda and Whiting are both celebrating earning their bachelor's degrees, after

finishing their final online exams. A two-time All-Canadian who could have turned pro last year, the 6-foot-3, 280-pound Machibroda made a point of returning to USask to complete his engineering degree

while playing his fifth and final season with the Huskies and leading the Canada West conference in quarterback sacks with five in eight games.

"My final semester was pretty good," said Machibroda, who second-team earned Huskie All-Academic

status in 2019 for posting an average of better than 75 per cent while completing a full course load of 24 credit units. "I loaded up on classes at the front end of my academic career, so it's been a little easier than most engineering students in my final semester.

"But like everyone else, we had to prepare for those online exams this year, so that was a little

bit different. I am happy to have finished my degree. That was the plan coming back. You can't play football all of your life, so it's good to have that backup plan."

Machibroda signed his first CFL contract with the Eskimos in January, a two-year deal plus an option, while Whiting signed with the Alouettes last spring and attended training camp before being returned for his final year of eligibility with the Huskies. The 6-foot-3, 225-pound Whiting excelled on the field-finishing sixth in the league in tackles with 50

> in eight games—as well as in the classroom, earning Academic All-Canadian honours in 2019 for averaging better than 80 per cent in his education courses while taking a full 24 credit units.

Whiting was actually completing his student-

Saskatoon when the pandemic hit.

"I was teaching at Walter Murray (Collegiate) when all of this happened and the schools were closed," he said. "As soon as students were sent home, the university sent home all of the field placement practicums too, so I just finished up the final paperwork on that and then had one final exam online.



All-Canadian Huskies defensive lineman Evan Machibroda is graduating with a degree in mechanical engineering.





GETMYPHOTO.CA Huskies linebacker Ben Whiting, who finished sixth in the league in tackles, is graduating with an education degree.

HUSKIE HIGHLIGHTS:

workouts, in preparation for their

to getting back on the field, so

whenever this is over, it's just going

to make me want it and appreciate

it more," said Machibroda, who was

recently named Huskie Athletics

all-around male athlete of the year

for 2019/20. "It was great to play

five seasons with the Huskies and

I am just looking forward to better

things to come."

"I am just looking forward

first seasons in the CFL.

"So it's nice to finish my education degree and it's the summation of all of the work that you have done over the past five years. I have my degree and I am debt free, so I am definitely in a very fortunate position and now I can just concentrate on playing football for as long as I can."

Of course, when that begins is still up in the air. In the meantime, both Whiting and Machibroda are working hard in home-based

teaching practicum in

It was a huge night for Huskie football on April 30 as five USask players were selected in the CFL draft. All-Canadian offensive lineman Matt Riley of Melfort led the way, picked in the first round (seventh overall) by the Saskatchewan Roughriders, followed by defensive end Nicholas Dheilly of Regina (fifth round, Winnipeg Blue Bombers), receiver Sam Baker of Esterhazy (sixth round, Toronto Argos), offensive lineman Nick Summach of Saskatoon (seventh round, Edmonton Eskimos), and slotback Colton Klassen of Saskatoon (eighth round, Montreal Alouettes).



Ben Whiting

Celebration of Teaching Awards

Here are the winners of the Celebration of Teaching Awards for the 2019/2020 academic year, hosted by the Gwenna Moss Centre for Teaching and Learning at the University of Saskatchewan (USask).

MASTER TEACHER AWARD DR. TOM YATES (PHD)

DEPARTMENT OF SOIL SCIENCE, COLLEGE OF AGRICULTURE AND BIORESOURCES





GRANT WOOD DEPARTMENT OF PLANT SCIENCE, COLLEGE OF AGRICULTURE AND BIORESOURCES



DR. ALAN HEINRICHS (DMD) COLLEGE OF DENTISTRY



DR. SARAH OOSMAN (PHD) COLLEGE OF MEDICINE, SCHOOL OF REHABILITATION SCIENCE



PROVOST'S COLLEGE AWARDS FOR OUTSTANDING TEACHING

DR. MARJORIE DELBAERE (PHD) DEPARTMENT OF MANAGEMENT AND MARKETING, EDWARDS SCHOOL OF BUSINESS



DR. SHELLEY PEACOCK (PHD) COLLEGE OF NURSING



DR. SEAN MAW (PHD) GRAHAM SCHOOL OF PROFESSIONAL DEVELOPMENT, COLLEGE OF ENGINEERING



DR. DEREK JORGENSON (PHARMD) COLLEGE OF PHARMACY AND NUTRITION



ALYNN BOMOK COLLEGE OF KINESIOLOGY



DR. CINDY SHMON (DVM) DEPARTMENT OF SMALL ANIMAL CLINICAL SCIENCES, WESTERN COLLEGE OF VETERINARY MEDICINE



DR. BARBARA VON TIGERSTROM (PHD)

COLLEGE OF LAW

Outstanding Teacher Award

DR. MARK ERAMIAN (PHD) DEPARTMENT OF COMPUTER SCIENCE,COLLEGE OF ARTS AND SCIENCE





Outstanding Teacher Award

(Themes of Indigenization, sustainability, inclusivity, internationalization, interdisciplinary teaching, innovation, and collaboration):

DR. TIM JARDINE (PHD)

SCHOOL OF ENVIRONMENT AND SUSTAINABILITY



Outstanding New Teacher Award

(Themes of Indigenization, innovation and collaboration):

DR. KATHERINE STEWART (PHD)

DEPARTMENT OF SOIL SCIENCE, COLLEGE OF AGRICULTURE AND BIORESOURCES



Graduate Student Teacher Award

JASON MAILLET SCHOOL OF ENVIRONMENT AND SUSTAINABILITY



Sylvia Wallace Sessional Lecturer Award

DR. MARGO ADAM (PHD) COLLEGE OF KINESIOLOGY

Fowler faces new challenge in campus career

S JAMES SHEWAGA

With more than 25 years of experience on campus, Greg Fowler has witnessed everything from major facility expansion to budget cuts to a campus-closing winter storm, but he's never dealt with anything like this before.

"I didn't take pandemic training in my business degrees, so this is new to everyone and we are all adjusting to the new normal," said Fowler, vice-president of finance and resources at the University of Saskatchewan (USask). "This crisis is by far one of the most significant situations facing the university in its history and definitely in this generation. Our priorities are the health and wellness of our community, and I expect this will forever fundamentally change the university."

A member of USask's senior leadership team, Fowler has been a central figure in planning campus coronavirus pandemic priorities and is encouraged by the commitment of faculty and staff working from home, in support of students who had to finish classes and final exams online after USask buildings closed.

"We have a really strong leadership team, from the vice-presidents, associate vice-presidents and deans, to the provost and vice-provosts, and we have a great leader in President Peter Stoicheff who has really helped us through this crisis," said Fowler. "I have a great team (finance and resources leaders Janelle Hutchinson, Cheryl Carver, Wade Epp, and Shari Baraniuk) and we approach problems openly and discuss them and are capable of making difficult decisions. I have confidence that we are making the right decisions for the university."

For 25 years, Fowler has done just that, working for the university that has become his second home. Introduced to USask at an early age, Fowler came to campus for everything from engineering open

This crisis is by far one of the most significant situations facing the university in its history and definitely in this generation. Our priorities are the health and wellness of our community, and I expect this will forever fundamentally change the university.



DAVID STOBBE Greg Fowler is a member of USask's senior leadership, serving as vice-president of Finance and Resources.

houses to swimming lessons and went on to earn a bachelor's degree in 1988 and Master of Business Administration in 1992. Fowler was the second of four children (two sisters, two brothers) who were encouraged by their mother to get a good education and all went on to graduate from USask.

"I grew up in Saskatoon and the university was a major part of my life growing up as a place for learning and activities, so I knew a bit about the impact of the university from an early age," said Fowler, who met his wife Cindy at a social gathering hosted by a member of the Saskatoon Group Homes board

that he was serving on. They will celebrate their 24th wedding anniversary this summer.

Fowler worked in the private sector before returning to campus in 1994 as controller at St. Thomas More College, and points to former STM President Dr. John Thompson (PhD) as one of his mentors. After helping to improve STM's financial position, Fowler become director of operations in the College of Nursing in 2006 and director of consumer services in 2007, leading a transition in food services and the addition of 1,100 new student residence beds. He accepted the vice-president position in 2013 and led a major

reorganization to improve service to the university.

Like the majority of USask employees, Fowler has had to adjust to working from home, a challenge on his acreage outside of the city where he shares online access with his three children all attending USask.

"They have all been incredibly busy during this period, finishing classes and exams online," said Fowler. "It has been good in some ways that I am at home and see them a little more, but we were carpooling before quite a bit, anyways. One thing I am trying to make sure is that I am not interfering with their work, so I have been using cell

service as much as I can, rather than using bandwidth because they are always working online."

Fowler and his wife, sons Matthew (computer science and English) and Jordan (civil engineering) and daughter Brooke (agriculture and bioresources) are making the best of the situation, playing cards in the evening and taking long walks with their three dogs. Interestingly, the Fowlers have three children, three horses, three cats and three dogs, including Charlie, who Fowler point outs "actually runs the acreage."

Family comes first for Fowler, who enjoys golfing, the occasional Boston Bruins game, spending time in his garden and woodwork shop on his acreage, and socializing with family and friends, once social distancing rules are relaxed. Fowler is also committed to community, serving on board of directors of the Saskatchewan Regional Economic Development Authority, Canadian Light Source, and Sylvia Fedoruk Canadian Centre for Nuclear Innovation, as well as previously volunteering on numerous non-profit boards.

While campus leaders are actively working through the financial impact of the pandemic and expect it to be significant, Fowler is heartened by the commitment of staff and dedication of health-care workers in the community during this challenging time. For Fowler and all senior leaders, the health and well-being of students, faculty and staff comes first.

"The heroes are the health-care personnel," he said. "And I would also like to acknowledge our core and critical staff who have to come to campus, and our ICT team for their work in keeping the campus going while most of us are off campus. Everyone at the university has really pulled together."

Communication breakdown results in early pregnancy loss

ASHLYN KETTERER

Even before birth, extensive communication occurs between an infant mammal and its mother—not through speech or body language, but through chemical interaction inside the uterus.

The maternal recognition of pregnancy (MRP), one of the earliest communications that occurs during pregnancy between the embryo and the mother, is the signal produced by the embryo alerting the mother's body of the pregnancy.

Although the MRP signal is clearly understood in other domestic species, it remains a mystery in horses—a mystery that veterinary researchers at the University of Saskatchewan (USask) are hoping to solve.

"As a clinical doctor, I encounter mares regularly who fail to recognize that the pregnancy is there and the embryo is lost," said Dr. Claire Card (DVM, PhD), a professor of theriogenology (animal reproduction) at the Western College of Veterinary Medicine (WCVM).

These pregnancy failures cause the equine industry to lose money as well as valuable genetics "because we don't have a lot of the answers to these questions," said Card.

"We would like to solve that so we could figure out treatments or ways to prevent that from



At right, WCVM researcher Dr. Claire Card (DVM), along with students Mikayla Swirski (left) and Ashlyn Ketterer (centre), prepare to work with mares in their reproduction study.

happening. It's a big problem for us."

Card is collaborating with WCVM graduate student Dr. Mariana Diel de Amorim (DVM) and resident Dr. Maria Lopez (DVM) to investigate the MRP process in mares—a communication that they both consider key to a successful pregnancy.

Early pregnancy in horses is unique from other domestic species in several ways. First, the embryo must be fertilized and needs to secrete a molecule called prostaglandin E to descend into the uterus from the uterine tubes. Once inside, the equine embryo migrates throughout the uterus. It's during this migration that the MRP signal most likely takes place.

"I would describe it as the time interval in which the embryo secretes a communication to the endometrium (lining of the uterus) and from the endometrium to the ovary in which the embryo is telling the mare, 'I'm here—I'm here and please don't destroy me,'" said Lopez.

The researchers are investi-

gating the role of these prostaglandins, a family of compounds that are involved in many of the body's processes and likely play a role in the MRP signal. Considerations such as when these prostaglandins turn on and off, how much of them are secreted, how the secretion is directed—all of these factors play a role in regulating biological processes.

Other scientists suggest that small quantities of two compounds—prostaglandin E and prostaglandin F—are combining and causing the mobility of the embryo through the whole uterus. But so far, that theory hasn't been proven.

Since Card and Lopez suspect that the MRP signal relies on a change in the balance between prostaglandin E and prostaglandin F2 alpha, they are administering prostglandin E into the uterus of research mares—a process that alters the balance between the two compounds.

By observing the impact of that change on the MRP signal, they hope to gain a greater insight into the MRP process.

"The horse is probably quite distinct in the way that they recognize pregnancy, and it's probably got its own special things that it does," said Card. "We have some insight into what those are, but ... it takes a big team to do this kind of work and it's expensive."

Card and her team's research work is supported by a five-year, \$140,000 research grant from Natural Sciences and Engineering Research Council of Canada.

Ashlyn Ketterer is a WCVM veterinary student who was part of the college's Interprovincial Undergraduate Student Summer Research Program in 2019.

Keeping the faith: STM ministering remotely during pandemic

JACQUIE BERG

This spring, the world is facing a new enemy: COVID-19. The life-threatening pandemic brought people together with communal resolve, seeking strength and support from family, friends, community, and their faith.

St. Thomas More College (STM), the Catholic college at the University of Saskatchewan (USask), erected its stone chapel 70 years ago. It has served as a gathering place for students, faculty, staff, and the worshipping community, in prayer, liturgical celebrations, concerts and lectures. However, in a historic decision on March 15, the chapel doors at STM were closed for the first time, ending daily mass and weekly youth group gatherings and prayer sessions, while adhering to provincial guidelines to restrict the spread of the COVID-19 virus.

While COVID-19 restrictions resulted in suspending gathering in physical spaces, new doors have opened with creativity and resourcefulness, to redefine the ways the faithful can safely maintain community and facilitate gatherings in a virtual space.



The chapel in St. Thomas More College at USask was closed on March 15 due to the coronavirus pandemic.

Dr. Gertrude Rompré (EdD), director of mission and ministry for STM, finds hope and positivity have risen from these dark times.

"We've come to see each other as community in a new way," Rompré said. "The strength of our relationships has been revealed. We also have developed new skills to connect, strengthened our resiliency, and been witness to numerous

examples of compassionate service to others in need."

STM's Campus Ministry Team is adapting their roles to this new normal by providing resources, checking in and caring for each other—functioning as a community, although not physically present.

"We have a sense of still being connected as a community, although we're not in the same space," said Rompré. "Our team continues to reflect on new ways to help students, build community and deepen faith, as well as engaging with students in acts of justice, service and charity, while maintaining physical distancing. Physical distancing does not have to mean social or spiritual distancing. Indeed, this is a time to strengthen our social and spiritual connections."

Technology today has enabled numerous opportunities to gather and minister remotely. Beyond email and texting, a reliance on remote learning, virtual team meetings, social media and videos are now normal communication and socialization vehicles. Mass and daily liturgical activities are now functioning in a remote setup.

"We are trying to incorporate video and use the actual chapel to remind how we would gather or use that space," said Rompré.

Leading up to Easter, STM campus ministers shared videos from within the chapel, reflecting changes in the altar, linens and symbols, along with accompanying recorded reflections and song. STM's worshipping community is provided with an electronic bulletin and links to other parishes in the diocese that are live-streaming mass. Providing inspiration and spiritual leadership, the college shared Easter reflections from Fr. Ron Griffin, CSB, past STM faculty member and current college chaplain.

With a focus on pastoral care, some of the varied initiatives the team has developed to remain

engaged and supportive include maintaining Share Lent initiatives; video and meditation techniques for centering prayer to reduce anxiety; sending out weekly inspiring messages; an interfaith virtual prayer service, along with prayer and reflections. STM Campus Ministry also offered an online Lenten retreat, which attracted more than 90 participants.

Mandated social distancing adds to anxiety during what is already a very stressful time in the academic year and there are still limits to virtual community. Not all students and community members have access to the same level of technology, and many struggle without personal contact. Rompré worries about those isolated.

"We don't know who is being missed," he said. "If we don't have a way to connect, we may not know they are in need."

As social distancing restrictions extended into Easter, Rompré draws a comparison of freedoms lost due to pandemic restrictions to a type of 'fasting' from liturgical life—missing it makes it more precious to us.

"In this moment, in a most profound way, we are living out the mystery that we celebrate each Easter: the darkness of Good Friday that gives way to hope and new life on Easter morning."

Jacquie Berg is the director of communications, marketing and student recruitment for St. Thomas More College at USask.

VIDO-InterVac testing vaccine, antivirals and therapeutics

FROM PAGE 2

a candidate vaccine, based on the centre's previous success in developing vaccines for other coronaviruses.

"This major federal investment will accelerate VIDO-InterVac's efforts to develop a Canadian vaccine against COVID-19, critical work that will help protect the health and safety of all Canadians and people around the world," said USask President Peter Stoicheff. "This funding is a credit to the outstanding VIDO-InterVac team that is working tirelessly at the forefront of COVID-19 research, in collaboration with the World Health Organization, the Public Health Agency of Canada and researchers across Canada and around the world."

Gerdts said VIDO-InterVac researchers are working with groups nationally and internationally on alternative vaccine candidates, antivirals and the rapeutics at the same time.

"In addition to our vaccine development, we are also doing a lot of contract research for other organizations around the world, testing antivirals, testing therapeutics and testing vaccine," said Gerdts. "There are multiple trials being completed."

Gerdts said it is important for Canada to develop its own vaccine and manufacturing capacity.

"There is always a concern that

some countries will have more access to certain vaccines than others, so I think it is important that we have vaccines that Canadians have access to," said Gerdts, who emphasized there is still many months of research ahead. "Realistically, it will likely still be next spring before we have a vaccine ready (for widespread use)."

Meanwhile, VIDO-InterVac is now working with the Saskatchewan Health Authority (SHA) to safely decontaminate N95 respirator masks that are normally discarded after use. VIDO-InterVac received a first batch of masks on April 22 and decontaminated them to provide an emergency N95 backup supply for the SHA, if required.

"The SHA are collecting the masks in the hospitals and are sending them over here. We have members of our team who have volunteered to help decontaminate them," said Gerdts. "It is working really well and we can do thousands of masks per week, so we're happy to help the Saskatchewan Health Authority whenever they need us." ■



THE SYNCHROTRON: THE BRIGHTEST LIGHT IN CANADA

COLLEEN MACPHERSON

In the 20 years since its launch, the Canadian Light Source (CLS) synchrotron at the University of Saskatchewan (USask) has earned a well-deserved reputation for discovery and innovation by shining a light on possible solutions to many of the world's great scientific questions.

Whether it's the quest for a cure for malaria or for a better battery, the unique synchrotron light capabilities at the CLS have been key to advances that positively affect the world and people who live in it, said Chief Executive Officer Dr. Robert Lamb (PhD).

"To mark the recent 20th anniversary of our ground-breaking, we celebrated those advances and acknowledged the scientists who have helped us become a global leader in synchrotron science," he said.

The result of unprecedented co-operation among various levels of government, universities and industry partners across the country, the CLS is Canada's largest science project. Construction of the facility on the USask campus began in 1999 and the official opening took place Oct. 22, 2004.

As Canada's only synchrotron, it offers access for researchers from across the country to conduct experiments they would otherwise have to travel far afield to conduct. But it is not a Canadian-only facility; more than 4,000 scientists and students from 37 countries have used the CLS for experiments in disciplines in physics, chemistry, biology, animal and human health, agriculture, engineering, archaeology, geology and paleontology, resulting in more than 5,000 scientific publications and 67,000 citations to date.



The synchrotron in the Canadian Light Source facility at the University of Saskatchewan is the only one of its kind in Canada. 🛍 SUBMITTED

As Lamb articulated, each discovery from the thousands of experiments run at the CLS since the start of beamline operations creates a stepping stone toward an ultimate goal.

"If you're looking for a new drug, or a more nutritious grain variety or a better way to treat mine tailings, the work begins at the molecular level, which is where we operate," he said. "Nothing can advance without a base of knowledge, an understanding of the actions and interactions of every compound, material and tissue that is part of the solution. Nothing provides that insight like synchrotron light."

Over its 20-year history, the CLS has built expertise in a number of research areas including health, the environment,

advanced materials and, most recently, agriculture. For Lamb, making soil and plant science, food processing and animal feed a strategic priority reflects a connection to the facility's location "on the campus of a renowned agriculture university and in the middle of this country's finest crop-producing region."

In all research sectors, Lamb said the role of the CLS is to listen to users and respond with beamline and technique upgrades the help scientists answer questions. "And," he added, "the possibilities are endless."

Colleen MacPherson is a freelance writer and former editor of OCN.

