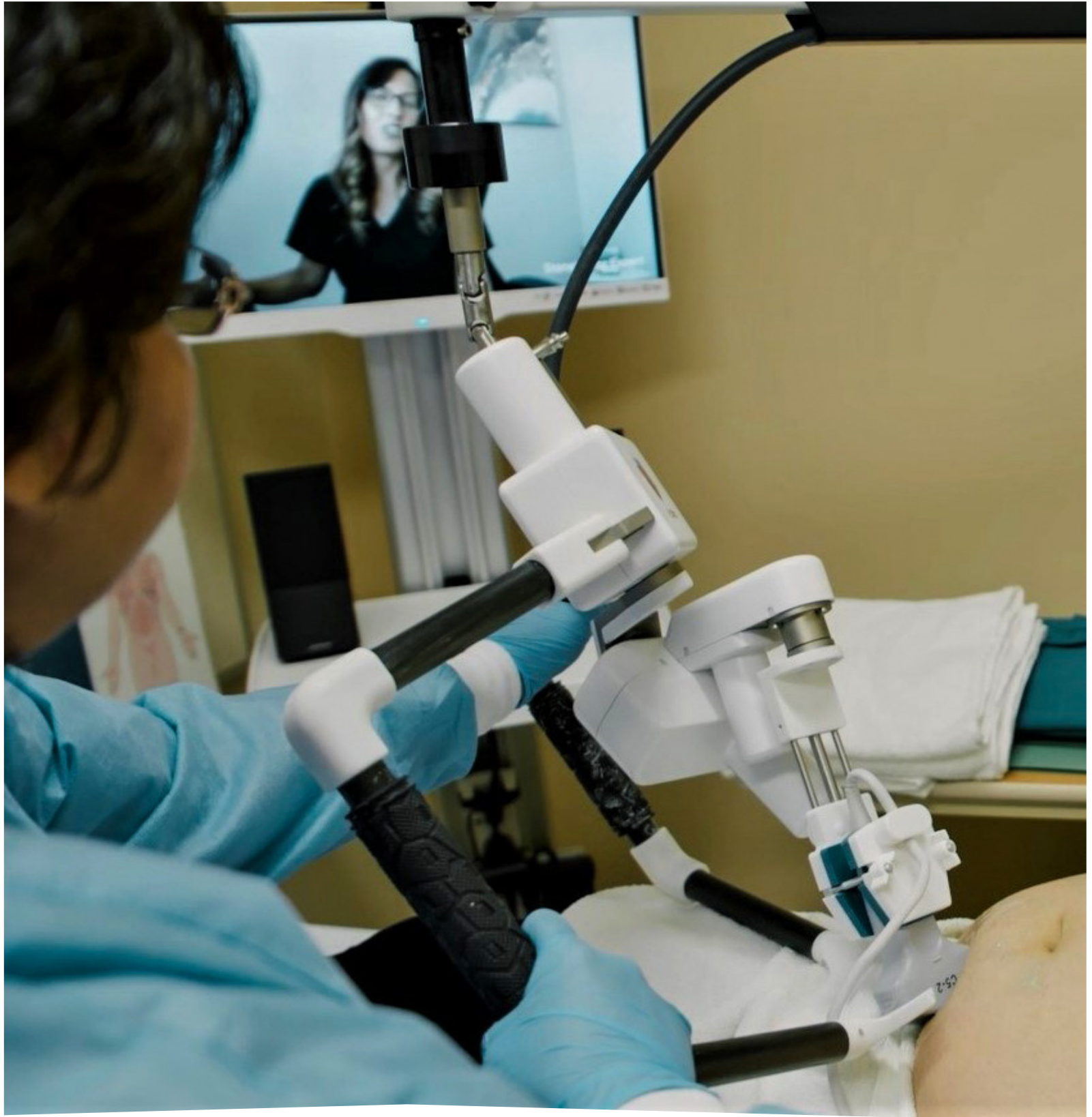


AUGUST 14, 2020
Volume 27, Issue 12

PROVIDING VIRTUAL CARE

University of Saskatchewan health researchers are using prenatal tele-robotic ultrasounds to examine expectant mothers in remote areas of the province, during the global pandemic. In this issue of *On Campus News*, we chat with USask researcher Dr. Ivar Mendez (MD) about the success and benefits of virtual care. We also have interviews with Dr. Nazeem Muhajarine (PhD) and fellow USask epidemiology researcher Dr. Cory Neudorf (MD) about their pandemic research projects and we examine College of Medicine COVID-19 therapeutics research. We also spotlight a successful online summer education course, donor student support during the pandemic, and we showcase USask's COVID-19 Community Archive project.

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THE THOMAIDIS TOUCH

On Campus News is published 12 times 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.

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ISSN: 1195-7654

PUBLICATIONS MAIL
AGREEMENT NO. 40065156

Return undeliverable addresses to:

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Researchers explore therapeutics to fight COVID-19

AMANDA WORONIUK

With COVID-19 ravaging the globe, the race is on to accelerate therapeutics research and find effective treatment options.

Two research teams in the College of Medicine at the University of Saskatchewan (USask) are hoping their work will do just that.

Dr. Kerry Lavender (PhD) and Dr. Joyce Wilson (PhD) are principal investigators of projects that received Canadian Institutes of Health Research (CIHR) rapid response funding. The funding initiative contributes to the national research response to the COVID-19 pandemic.

Lavender's project is rapidly evaluating some highly promising therapeutics against COVID-19, using a humanized mouse model.

"We normally make what we call a human immune system mouse. We do that all the time for our work with HIV," said Lavender. "But with COVID-19 coming along, we needed to be able to study that virus and our



Dr. Kerry Lavender (PhD)

normal model doesn't support that. So on top of the human immune system, we now also give the mouse a little human lung transplant."

By implanting human lung tissue into the mice, the team can study the effects of the virus and the human immune response to it inside of a mouse instead of patients.

Lavender said the team is



Dr. Joyce Wilson (PhD)

focused on end-stage therapeutics that could get into a clinic quickly.

"We are trying to get things done as fast as possible," said Lavender. "So we're going to the end stage therapeutics—things that either have already shown great promise in a lab or things that have already been used in the clinic for other diseases. Since we know

how it works, it could work for COVID-19 as well."

Meanwhile, Wilson is leading a team investigating the repurposing of currently approved drugs to treat COVID-19. The team is working with collaborators Drs. Franco Vizeacoumar (PhD) and Darryl Falzarano (PhD) from the Vaccine and Infectious Disease Organization-International Vaccine Centre (VIDO-InterVac).

"When viruses infect a cell, they go in and hijack things. They don't actually bring in a lot of their own machinery," said Wilson. "The virus borrows cellular factors that are often disrupted in other diseases, including cancer. That suggests that there actually may be drugs out there that have been developed and possibly used in humans, that in addition to treating whatever they were designed to do, they may also inhibit this virus."

SEE COLLABORATION, PAGE 12



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:

USask ranked No.1

The University of Saskatchewan (USask) is ranked first in Canada and 20th in the world for water resources research, according to the 2020 Academic Ranking of World Universities (ARWU). USask also placed in the top 100 universities in the world in three other research areas: environmental science/engineering (51-75th place), veterinary sciences (51-75th), and agricultural sciences (76-100th), according to the influential 2020 Shanghai Ranking Consultancy's ARWU measuring 1,800 universities. USask has been ranked Canada's top water resources university for the past four years.

Stakhanova named

A University of Saskatchewan (USask) professor has been named one of the top women in cybersecurity by IT World Canada. Dr. Natalia Stakhanova (PhD), a faculty member in the Department of Computer Science in USask's College of Arts and Science, was honoured in late July, alongside 19 fellow experts from the public and private sectors. "It is an incredible feeling to be recognized by your peers among very accomplished women in the field," she said. Stakhanova, a Canada Research Chair in Security and Privacy, joined the computer science department in 2018.

Harvey inducted

After a highly successful career as a barley breeder with USask's Crop Development Centre spanning almost four decades, Dr. Bryan Harvey (PhD) has been inducted into the Canadian Agricultural Hall of Fame. Harvey joined USask's College of Agriculture and Bioresources in 1966 and served as a professor, director, assistant dean and special advisor to the vice-president of research until retiring in 2005. Harvey received the Saskatchewan Order of Merit in 2005 and was inducted into the Saskatchewan Agriculture Hall of Fame in 2006. In 2007, Harvey was appointed to the Order of Canada.

Indigenous health

In a significant step for Indigenous health research in Saskatchewan and nationally, a new USask-led network dedicated to improving health and wellness in Indigenous communities will be moving into Station 20 West on Saskatoon's west side. Dr. Caroline Tait (PhD), a community-engaged researcher at the USask College of Medicine and member of the Métis Nation-Saskatchewan (MN-S), along with USask Indigenous studies professor Dr. Simon Lambert (PhD) will lead the national co-ordinating centre for the nine Network Environments for Indigenous Health Research across Canada.

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



“ We demonstrated we can provide an important diagnostic service in the middle of an area where COVID became an outbreak, and also provided the prenatal care that mothers need.

— Dr. Ivar Mendez (MD)

USask provides virtual care during pandemic

Dr. Ivar Mendez (MD) and his USask research team have pioneered the use of remote diagnostic technology to support health care in remote northern communities.

DAVID STOBBE

KRISTEN MCEWEN

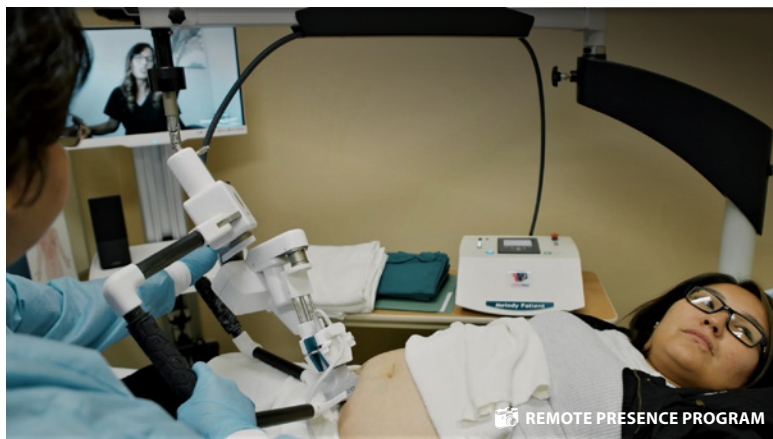
When an outbreak of COVID-19 caused travel restrictions to be instituted in northern Saskatchewan in May, residents' access to health care services were limited—especially for expectant mothers.

A University of Saskatchewan (USask) team found a way to utilize existing technology to provide prenatal care for pregnant women who were unable to leave the community of La Loche due to the lockdown.

“Virtual care has come to the forefront because patients can't see their physicians in person,” said provincial department head of surgery Dr. Ivar Mendez (MD) of USask's College of Medicine. “One of the issues we were confronted with was how to provide prenatal care to pregnant women who needed ultrasounds when there's no ultrasound system in La Loche.”

More than 30 women were in need of prenatal ultrasounds during the lockdown in La Loche, located nearly 600 kilometres northwest of Saskatoon.

Fortunately, Mendez and his team were able to quickly deploy a prenatal tele-robotic ultrasound



Trina Lobillard undergoes a prenatal tele-robotic ultrasound at the clinic in Stony Rapids, using remote diagnostic technology developed by USask researchers.

system to provide care for acutely ill patients, children and expectant mothers. The technology provided patients with the diagnostic services needed, without increasing their risk of exposure to COVID-19 by travelling to Saskatoon.

Mendez and the research team pioneered the use of this novel technology three years ago in a research project in Stony Rapids, Sask. They have been using this technology in northern remote Saskatchewan communities ever since. The multi-disciplinary team is composed

of Drs. Scott Adams (MD), Paul Babyn (MD) and Brent Burbridge (MD) from diagnostic imaging, ultrasound technologists Nadine Kanigan and Shawna Piche and Dr. Veronica McKinney (MD), director of Northern Medical Services.

When residents need an ultrasound, they go to their local clinic and a technician connects via video conference with a sonographer in Saskatoon who can manipulate the robotic ultrasound probe remotely.

In La Loche, some of the ultrasounds conducted were critical in

determining patients' treatment, and even saving pregnancies.

“The big risk was the women travelling individually to Saskatoon,” Mendez said. “They could have contracted COVID-19 because both mother and child were particularly vulnerable.”

From finding child care to travelling for hours, it was challenging for pregnant women to leave their community to receive the health services they needed, Mendez added.

“It was clear that it was a great advantage to our patients to not leave their community and have the ultrasound done in their own community,” he said.

In the midst of the pandemic, virtual care has become a necessity for patients in remote communities—especially in the case of prenatal care.

As a result of this experience, there are plans for ultrasound system health services to be available in several remote northern communities in the future, Mendez said.

“We demonstrated we can provide an important diagnostic service in the middle of an area

where COVID became an outbreak, and also provided the prenatal care that mothers need,” Mendez said.

Being able to use this technology as a viable way to provide diagnostic care during the pandemic to underserved and remote populations would not have been possible if the research program hadn't already been in place at USask, Mendez said.

The basic research that took place was necessary to develop the technology, supported by the Saskatchewan Centre for Patient-Oriented Research, and the Saskatchewan Health Research Foundation.

“Once this pandemic is over, whenever that's going to be, virtual care is going to be a mainstream way for us to provide health care to the population, not only in Saskatchewan, but the world,” Mendez said.

The Robotic Ultrasound equipment that was deployed in La Loche was financed by Leslie and Irene Dubé via the Royal University Hospital Foundation. ■

Kristen McEwen is a communications co-ordinator in USask's College of Medicine.

ALUMNI WEEK GOES VIRTUAL

✍ JOHN GRAINGER

Traditionally, Alumni Weekend is a time to get together and reconnect with old friends and reminisce about good times, visit old haunts and have a few laughs.

This year's University of Saskatchewan (USask) Alumni Week will still allow for that, but in a decidedly different fashion.

While we can't physically be together, USask still wants to connect with our 160,000 alumni worldwide.

Instead of bringing alumni

back to the campus, USask invites all alumni to take part in free online events and activities from Sept. 8-12. Visit alumni.usask.ca/alumni-week for complete information and registration for events, and a list of amazing prizes and contests.

Here's a sneak peek of what you can look forward to:



COVID-19 research update:

On Thursday, Sept. 10, Dr. Volker Gerdts (DVM), director and CEO of USask's Vaccine and Infectious Disease Organization—International Vaccine Centre (VIDO-InterVac), provides an inside look at the innovative COVID-19 research being done at VIDO-InterVac.

Gerdts and his trailblazing team are global leaders in research and are on the front lines in the race to secure a vaccine.

Do you have a burning question about COVID-19 you would like answered? Interested attendees are encouraged to send in questions prior to Gerdt's discussion to receive his response. Questions can be submitted by registering for the event. Visit alumni.usask.ca/alumni-week to register and for more information.

Any trivia buffs out there?

So, you think you remember your campus days, do you? We'll put your memory to the test in fun trivia contests each day of Alumni Week. You can send in your answers with a shot at winning some wonderful prizes. Do you have any old photos of yourself on campus? USask-branded clothing from way back when? We want to see it! Be sure to keep your eyes on our social media channels during the week and enter to win.

Alumni Week is the perfect occasion to reignite your love of USask from the comfort of your home. Make sure to visit our website alumni.usask.ca/alumni-week to register for these events and follow our social media accounts @usaskalumni for more information about these great opportunities.

Celebrating our Golden Grads:

A highlight of the week is the annual Golden Grads ceremony. Every year, the USask Alumni Association celebrates and honours alumni who graduated 50 or more years ago. Normally, our Golden Grads are given the opportunity to retrace their convocation steps and walk across the stage in Convocation Hall to receive a special parchment and pin from a senior USask leader.

This year, a special video and greeting to Golden Grads with USask Chancellor Grit McCreath (BEd'91) will be found online and on social media Wednesday, Sept. 9.

Are you a Golden Grad this year? Visit alumni.usask.ca/alumni-week to learn how you can receive your free commemorative parchment and pin.

Hometown happy hour:

As a former lawyer, alumnus Shawn Moen (LLB'05) took a leap of faith from professional practice into the craft beer game.

His successful local Saskatoon microbrewery, 9 Mile Legacy, is built on a sense of community and collaborating.

During the ongoing COVID-19 pandemic, Moen once again pivoted and shifted much of his business model by creating a virtual online taproom.

Alumni are invited to pre-register for a free LIVE online event on Friday, Sept. 11 to learn about Moen's remarkable transition from lawyer to craft beer entrepreneur. Visit alumni.usask.ca/alumni-week to register, or for more information.

Missing our USask campus?

Some of the best times on campus are in September as we ease into fall. The trees begin to change colours and there is electricity in the air with the buzz of new and returning students.

But just because we can't cruise our campus together doesn't mean we still can't experience everything it has to offer.

Alumni will have the chance to virtually visit a number of places through tours of the campus and revisit old hangouts and get up-close to newer buildings, such as the Gordon Oakes Red Bear Student Centre and Merlis Belsher Place. ♥

John Grainger is a communications officer in University Relations at USask.

ALUMNI SPOTLIGHT

Every month in *On Campus News*, we highlight an exceptional graduate of the University of Saskatchewan (USask) in our Alumni Spotlight feature series. In this issue, we profile USask alumnus Murad Al-Katib (BComm'94), who has taken his USask degree to the world stage, building a global food company that does business in more than 120 countries.



USask alumnus Murad Al-Katib is president and CEO of AGT Food and Ingredients, the Regina-based business he established in 2007.

 AGT FOOD AND INGREDIENTS

Murad Al-Katib: The sweet taste of success

 JOHN GRAINGER

You could say a billion-dollar global entity was built on candy and bubble gum.

When Murad Al-Katib (BComm'94) was a youngster and realized selling sweets to friends could be profitable, he knew he was destined to be an entrepreneur.

These days, the University of Saskatchewan (USask) alumnus is selling lentils, chick peas and other food staples to people around the world as president and CEO of AGT Food and Ingredients, a Regina-based business he pioneered in 2007.

But for him, his first foray into business was when he and his family would return home to Canada after spending holidays in his family's native country of Turkey. He found his buddies back in Davidson, Sask., couldn't get enough of the Turkish delights he would offer them—for a price. The entrepreneurial light went on in his brain. And it's never been switched off since.

These days, in addition to running his business, the 47-year-

old Al-Katib has other pressing matters to concern himself with, namely the fallout of COVID-19 on the Canadian economy.

In June, he and nine other Canadian titans of industry were named to the federally appointed Industry Strategy Council. The mandate for the group is essentially to provide advice to the government on how to position itself coming out of the pandemic.

"As a CEO of a leading Canadian company, it's my obligation to work with the government of the day and give some time to influence public policy," said Al-Katib. "I have a responsibility, if asked, to do so."

Being part of the esteemed group of business leaders is not lost on Al-Katib.

"I was quite honoured to be one of 10 Canadians that is going to advise the government on this very

historic period, post-pandemic."

Recognition and accolades have been steady for Al-Katib since his vision of a Saskatchewan-grown global pulse crop business exploded onto the world business stage.

Al-Katib was named the EY World Entrepreneur of the Year for 2017, the same year he won the Oslo Business for Peace Award for his efforts in helping to feed refugees in war-torn Syria.

His leap into the international business world was not an overnight success. Far from it.

"I finished at the College of Commerce in 1994 and it was a very tough job market at that point. The province was in a lot of trouble and agriculture was just starting to take its turn into diversification."

Al-Katib knew there was something out there for him, but knew his education needed to be

enhanced to reach his goal. So, after his USask graduation, he headed to the Arizona desert and the prestigious Thunderbird School of Global Management where he obtained his MBA.

Al-Katib was self-aware enough to know he needed to learn about policy development, so he made a cold-call pitch to then-premier Roy Romanow on how the province should look at international trade. It must have piqued the premier's interest because not long after that, Al-Katib got a call to meet with a government official and before he knew it, he landed a job with the ministry of trade.


In the back of his mind, however, Al-Katib still had the spirit of entrepreneurship burning brightly. He knew he had to follow his passion, so he quit his safe, secure and comfortable government job in Regina.

"Here I am, 28 years old, my wife Michelle (BComm'94) was six months pregnant with our twins, and I moved to the basement of our house and I started a company that became AGT."

The hunger and passion for business that he felt as a USask student provided him a direction. It became clear to him there was an untapped potential that was ripe for the picking. It was right under his nose. It was in the thousands of fields that decorate the Saskatchewan landscape. And it could be profitable.

"It was sitting on a silver platter," he said. "All I had to do was take it and run with it."

And run with it he has. AGT Foods now ships its products to more than 120 countries worldwide, with operations in Canada, the U.S., Turkey, Australia, South Africa and China.

Not bad for a kid who started out hawking candies to his buddies. 

John Grainger is a communications officer in University Relations at USask.

READ THE FULL STORY IN THIS MONTH'S *GREEN & WHITE*



Dr. Cory Neudorf (MD) is a professor in the Department of Community Health and Epidemiology in the College of Medicine at the University of Saskatchewan.

 SASKATCHEWAN HEALTH AUTHORITY

DR. CORY NEUDORF:

Tracking pandemic public health responses



 JAMES SHEWAGA

The rampant spread of COVID-19 south of the border and the increasing number of localized cluster outbreaks in areas of Saskatchewan are clear warning signs to researchers like Dr. Cory Neudorf (MD) that we must remain diligent in the face of the global pandemic.

“We are learning from what other countries are doing, and when we see a resurgence of cases, a lot of it is due to public behaviour,” said Neudorf, a leading researcher in the Department of Community Health and Epidemiology in the College of Medicine at the University of Saskatchewan (USask). “With contact tracing we find out

new information daily about how the virus is actually spreading in different types of scenarios and we need to adapt our responses as we learn more. We need to design a system that allows us to capture that type of information in order to do rapid research.”

The USask professor and medical director of surveillance and health status assessment/reporting for the Saskatchewan Health Authority is now leading a team of researchers who are the first in the world to track public health responses to an ongoing pandemic, using new World Health Organization (WHO) guidelines for tracking interventions. The goal of

the \$230,600 research project is to provide recommendations on how to best prepare for the next wave of COVID-19 and for future pandemics.

“In our response to COVID-19, we need to document what public health did and had to stop doing, in order to respond to the huge increase in cases,” said Neudorf, whose research was funded in June by the Canadian Institutes of Health Research and the Saskatchewan Health Research Foundation. “Did you have a drop in routine immunizations that resulted in other outbreaks? Were routine public health inspections of food facilities stopped? We need to determine

“ The university responded quickly, along with the rest of society, and there has been good consultation with the health system.

— Dr. Cory Neudorf (MD)

what types of responses were made at the local level and what impact those responses had.”

Neudorf’s team will document and analyze community health programs and policies established in response to COVID-19, documenting front-line perspectives from 200 local health organizations across the country. A key part of the research will be examining the cost of the new public health initiatives.

“People are quite aware of the reports that come out on the effectiveness of the Canadian health care system and how we use our physician and hospital resources, but the same thing doesn’t exist for public health programming,” he said. “We can’t really tell at this point how much we are spending on public health, and on what types of programs and services, in order to combat COVID-19.”

So what have we learned so far? Neudorf said international collaboration—led by the WHO—is helping fast-track research into vaccines and therapeutics, as well as providing perspective on which public health measures have proven successful and which have not.

“I think it has been unprecedented how much we have learned in a short amount of time, about the new virus causing this pandemic,” he said. “Partly this is learning from past pandemics. There have been good developments on the international front with the rapid sharing of information among scientists and clinicians that stem from agreements back before the H1N1 crisis (of 2009). Since then, sharing of information internationally to develop tests, vaccines and potential drugs has rapidly accelerated and that has been fantastic.”

However, Neudorf cautions that until a vaccine is successfully

developed, the province and the country’s vulnerability will depend upon following basic public health measures.

“If we aren’t wearing masks, physical distancing and practicing good hand hygiene, cases could mushroom again very quickly,” he said.

Neudorf noted another serious threat comes from our southern neighbour and major trading partner. With the pandemic still spreading out of control in parts of the United States, keeping the border closed remains critical.

“It certainly is a concern,” he said. “As you look at potential areas from where COVID could be re-introduced in a larger way into Canada, travel from areas where it’s endemic, like the United States, certainly is high on the list. The travel restrictions that we have and the relative closing of the border has really helped us until now, so how long that stays in place is a big issue.”

Closer to home, Neudorf said the university has done an excellent job of limiting risk on campus, with the majority of courses continuing remote delivery for the fall semester as most USask students, staff and faculty work and study from home.

“The university responded quickly, along with the rest of society, and there has been good consultation with the health system,” said Neudorf. “The key over the next few months is going to be monitoring the impact of re-opening guidelines, whether that be businesses or schools.

“Our peak campus activities in the fall and winter are going to coincide with when the virus can most efficiently spread indoors. But if we find a vaccine that is available by winter and we are able to get that out in mass clinics, we can begin to get back to normal.”

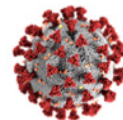


Dr. Nazeem Muhajarine (PhD) is a professor in the Department of Community Health and Epidemiology in the College of Medicine at the University of Saskatchewan.

KRISTEN MCEWEN

DR. NAZEEM MUHAJARINE:

Data drives decisions to contain COVID-19



JAMES SHEWAGA

After finally emerging from months of working and sheltering at home, with the majority of the population following pandemic prevention measures, Dr. Nazeem Muhajarine (PhD) knows the last thing people want to think about right now is a potential second wave.

But the University of Saskatchewan (USask) professor in the Department of Community Health and Epidemiology in the College of Medicine said public adherence to health guidelines moving forward will be crucial to keeping COVID-19 in check until vaccines or therapeutics are developed and distributed.

“We will be very lucky if we

don't have a second wave happening at some point in the next two to three months,” said Muhajarine. “And I don't think we should rely on luck—we should do everything we can to prevent it happening. What this means is a combination of public health measures—testing, tracing contacts, and isolating cases—and personal behaviours—physically distancing, hand hygiene, wearing a mask indoors, and limiting the number of people you interact with. And all of this has to be backed up by data to help make the best decisions.”

In one of the first studies of its kind on the global pandemic,

Muhajarine's team in the Saskatchewan Population Health and Evaluation Research Unit (SPHERU) is surveying provincial residents each month in the Social Contours and COVID-19 research project, sharing results of public perceptions of pandemic policies and how many people are following prevention measures.

Muhajarine said federal and provincial health authorities have largely passed the test in response to the initial wave of the pandemic, but noted that the general public would receive some mixed grades, with room for improvement.

“Our survey found most

people—about three out of four—are satisfied with the measures that have been taken on behalf of them by the government, and we haven't seen protests happening about not reopening soon enough,” said Muhajarine, who gives USask leadership top marks for the quick and comprehensive response to the pandemic and the move to remote delivery of the majority of courses.

“People in Saskatchewan have actually complied with the public health directives fairly well. But about one-third of people who are responding to our surveys are taking risks that will put them in harm's way, in terms of contracting the virus. So that is concerning.”

Muhajarine said the more we learn about the new coronavirus, the more it reinforces the importance and effectiveness of the three key prevention measures: physical distancing, regular hand-washing, and wearing a mask.

“Studies are showing that if 70 to 80 per cent of the population were to wear a mask in public and especially indoors, this virus can be contained, so I really do think that mask wearing should be mandatory,” he said, noting that close to 60 per cent of provincial residents who responded to the surveys are wearing masks at least part of the time.

“There are two sides to transmission: The risk of getting it and the risk of passing it on. The virus is stealthy. You can be healthy and be an asymptomatic carrier without knowing that you are carrying it, and you can infect other people who end up becoming really sick or even dying. So, I agree that it is selfish to not take steps to minimize the risk of passing it on to others. Wearing a mask and social distancing really helps.”

“ We need data and that is where our social contours study comes in. We are gaining more understanding about what people are doing before they contract the virus, and what they are doing to prevent it.

— Dr. Nazeem Muhajarine (PhD)

As the province prepares for the return to schools in the fall after reopening businesses and public facilities in phases this summer, infection rates have risen, often driven by outbreaks in specific regions, such as colony communities in the southwest. Muhajarine said in most cases, targeted localized shutdowns are effective and don't require province-wide changes. In all cases, he said the focus must be on data driving decisions.

“If we have a second wave, it is more likely to happen in specific places with flare-ups,” he said. “So in order to contain them, rather than having the hammer come down again with widespread closures—which I think would kill our economy—in certain places there can be re-introduction of more stringent public health measures to deal with those localized outbreaks.

“But for this to work, we need to closely monitor situations. We need data and that is where our social contours study comes in. We are gaining more understanding about what people are doing before they contract the virus, and what they are doing to prevent it.”

In all cases, Muhajarine said constant communication with the public is crucial, as is dispelling dangerous conspiracy theories and trumped-up toxic treatment tips.

“Stories about ingesting disinfectants, that kind of thing, that is not helpful. That is the Donald Trump approach,” said Muhajarine. “Understanding what this virus is, and what its characteristics are, is helpful. That way you don't have an unnecessary fear of it. It is important to stick to the science: Limit the number of people you have close contact with, and wear a mask when you're out in public.”

Move online positive for principals' course

MEAGAN HINTHER

When Dr. Michelle Prytula (PhD) was considering options for the format of this summer's annual Saskatchewan Principals' Short Course amid the upheaval posed by the coronavirus pandemic, she turned to school superintendents from across the province for advice.

"Those I spoke with said the course provides a valuable service by preparing teachers to take on leadership roles, and it was worth having a virtual course," said Prytula, the dean of the College of Education at the University of Saskatchewan (USask). "They suggested cutting back the number of daily sessions from seven to five and making sure each session offered provided high impact to participants. We are all very aware of the risks of online fatigue."

Run by the Department of Educational Administration's Saskatchewan Educational Leadership Unit, the four-day course has

a 56-year history of engaging with current, new and aspiring administrators around the theoretical and practical concepts of instructional leadership and helping participants build and refine their skills.

"We had 12 outstanding superintendents and directors from across provincial and First Nations education authorities agree to participate as small group facilitators in this revised format," said Prytula.

Prytula worked closely with Kevin Sharp, the college's IT co-ordinator and the brains behind the successful move online, to develop the course format using WebEx technology. To control the quality of the online experience for participants and avoid technical disruptions, presenters and facilitators streamed to participants from the Education Building.

"We had an incredibly talented College of Education team working



Dr. Michelle Prytula (PhD) is the dean of the College of Education at the University of Saskatchewan.

SUBMITTED

behind the scenes to re-envision the course," explained Prytula. "We received approval from the USask Pandemic Response Team to administer the event from campus while following safety protocols."

With the move to an online format, the course became accessible for educators across the province and beyond who would not have

otherwise been able to make the time and travel commitments required.

"Over a third of the 148 participants were educators from northern and First Nations communities province-wide and we received excellent feedback regarding the online experience," said Prytula.

Tammy Robinson, superintendent of schools for Lac La Ronge

Indian Band (LLRIB), joined the course as a participant, along with enrolling eight administrators from LLRIB.

"The sessions focus on real issues and what we're dealing with on a day-to-day basis in our schools," said Robinson.

SEE TIMELY, PAGE 14



Custodial staff Miguel Gonzales, Edgard Gilo and Vipeth Sisouvang in the Education Building at the University of Saskatchewan.

COVID-19 cleaning of Education Building key component of summer course success

University of Saskatchewan facilities staff have been hard at work ensuring buildings are safe for the limited few employees on campus.

To prepare the College of Education building for the Saskatchewan Principals' Short Course, Viren Vaghela, the assistant manager of preventative and custodial operations, worked with staff members Vipeth Sisouvang, Miguel Gonzales and Edgard Gilo for weeks to prepare

for the event. Over a dozen classrooms and washrooms throughout the first, second and third floors were given a deep clean. Floors were swept, cleaned and buffed, carpets vacuumed, and entrance windows washed. The ventilation system was also turned up three days prior to the four-day course.

During the event, only one entrance to the building was open, in order to manage traffic. Hand sanitizing stations were placed

at the entrance, the main floor lounge where individual lunches were served, and throughout the rooms used. During the course, washrooms, high-touch surfaces and floors were cleaned throughout the day. Hallways in the building were wide enough to avoid the use of directional signage, and staff and presenters were able to adhere to physical distancing guidelines to ensure the course was completed safely. 🍀

Dr. Marie Battiste: Excellence in education

SHANNON COSSETTE

In May 2019, Dr. Marie Battiste (EdD) was attending a conference when she received a phone call from the Governor General's office. She was both surprised and pleased to learn that she had been selected to be an Officer of the Order of Canada.

On June 27, 2019 a public announcement was posted on the

Governor General's website of the awardees, and Battiste received her official pin by mail. A more lavish affair, originally scheduled for February 2020, has been postponed to a later date due to the COVID-19 pandemic. With or without a ceremony, Battiste is proud to have been selected, as she concludes a distinguished 27-year career as a professor in the College of Education at the University of Saskatchewan (USask).

"Being among the very few Indigenous men and women in Canada to have received this honour, I feel deeply honoured to be among these greats," she said. "Only one other Mi'kmaq has received this, Rita Joe of Eskasoni, the late great poet whose life is lived still in her writings and poetry about her years in residential school. My life has been enriched by hers and others as notable as Leroy Littlebear, Blackfoot scholar, Elder and statesman, and Cindy Black-

stock, leader and activist. So to reach this level, I am humbled by the recognition of my writing, my talks, and activism to change systems and structures to honour, respect and include Indigenous knowledge, languages and peoples in their systems."

After earning her bachelor's at the University of Maine, her master's at Harvard and doctorate at Stanford, Battiste returned with her family to Nova Scotia and worked from 1983-93 with Mi'kmaq schools in Potlotek First Nation and then Eskasoni First Nation.

"I am a federally recognized citizen of Mi'kmaq First Nations in Canada and a federally recognized citizen of the Aroostook Band of Micmacs in Maine," she said. "My status as to whether I was a Canadian citizen defined which of the statuses I received, honorary or regular. I am a First Nations member of Potlotek First Nation and a treaty signatory of the Queen, though technically, I am a USA-born citizen."

Battiste began her journey at USask in the early 1990s, in what was then known as the Indian and Northern Education Program in the College of Education.

Battiste's scholarship began taking root in decolonization and language education, working to advance education of social and cognitive justice. Her extensive work teaching, supervising graduate students, committee work on and off campus, grants, research, publications, and international speaking led to multiple awards and four honorary degrees. Among major honours, Battiste was named a fellow of the Royal Society of Canada in 2013, received a National Aboriginal Achievement Award in 2008 and earned USask's Distinguished Researcher Award in 2005.

After 27 years, Battiste retired from the university this year and is reflecting on her time spent at USask, and some of the changes that she has seen.

"Indeed, there have been several significant changes in the university and I feel proud to have been part of many of them," she said.

Battiste points to the 1996 Social Sciences and Humanities Research Council (SSHRC) Summer Institutes—Cultural Restoration of Oppressed Indigenous Peoples—which led the start of reclamation of Indigenous knowledges that has inspired change not just in Canada, but internationally, as well as the development of an Indigenous student space on campus that eventually led to building the Gordon Oakes Red Bear Student Centre.

Battiste said the wahkohtowin conference in 2014 was significant to celebrate the changes at USask, from including Indigenization in all areas of the university, and later establishing the position of Vice-Provost Indigenous Engagement held by Dr. Jacqueline Ottmann (PhD), to the development of new standards for promotion and tenure for Indigenous faculty working in and with Indigenous knowledges.

"The development of a research centre, the Aboriginal Education Research Centre (AERC) for which I was the first research director, has had a significant impact in education through the development of the Aboriginal Learning Knowledge Centre," Battiste said. "That was a multimillion-dollar national project and the beginning of an international land-based education project under Dr. Alex Wilson (PhD), the next research director of AERC, completed with a master's and a PhD in land-based education."

While she has retired, rest and relaxation do not seem to be in Battiste's immediate plans.

"My projects seem to keep on growing, though relaxing would be nice," she said. "At the moment, I am in the first year of a seven-year SSHRC partnership project on Thinking Historically, which is to assess history education across Canada and in particular for my purposes, to assess how and what Indigenous knowledges and histories are being taught in K-12 schools across Canada ...

"As a Pierre Elliott Trudeau Foundation Fellow, I am involved in mentoring new scholars in the foundation through shared mentorship, guidance and knowledge mobilization. My committee work continues with the Royal Society of Canada to decolonize its knowledges, diversify its membership, and address its systemic discrimination. Finally, my partner Sakej and I are also working on the next edition of our book, *Protecting Indigenous Knowledge and Heritage*, in the coming year." ▀

Shannon Cossette is the communications officer in the Office of the Vice-Provost Indigenous Engagement.

READ THE FULL STORY ONLINE at indigenous.usask.ca

Dr. Marie Battiste (EdD) earned multiple major awards during her 27 years in the University of Saskatchewan's College of Education, including being appointed an Officer of the Order of Canada.

ALOYS NEIL MARK FLEISCHMANN

New vice-dean Indigenous ready to redefine the role

✍ SHANNON BOKLASCHUK

It wasn't the typical way to start a new job.

When Dr. Angela Jaime (PhD) began working at the University of Saskatchewan (USask) last month, she had just moved from the U.S. to Canada with her two sons, amid the global COVID-19 pandemic.

The family self-isolated at their Saskatoon home for 14 days upon arrival, meaning they couldn't go out to immediately explore their new city. And, with the continued closure of the USask campus due to the coronavirus, Jaime had to

become acquainted with her USask colleagues through online, rather than face-to-face, meetings.

"Moving to another country during COVID-19 was a challenge. USask does a wonderful job of supporting its immigrant families with legal and relocation specialists. While the process was overwhelming, I had great support," said Jaime, who officially began her five-year term as vice-dean Indigenous in USask's College of

Arts and Science on July 1.

"Working remotely, while necessary, has considerable challenges. It's difficult to feel as connected to my new colleagues when we are all in different locations. Working from home does offer me the opportunity to help my sons make the transition a bit better and settle into our new home."

A member of the Pit River and Valley Maidu Tribes of northern California, Jaime earned her Master of Arts degree at San Francisco State University and her PhD at Purdue University. Prior to coming to USask, she was a professor in the School of

Culture, Gender and Social Justice at the University of Wyoming.

When asked what attracted her to USask, Jaime noted that the university and Canada "have some amazing initiatives happening with Indigenous people."

"The vice-dean Indigenous role is not a position you find in the States," she said. "The opportunity to be a part of Truth and Reconciliation for Indigenous people in an academic situation was a major draw to the job posting."

Jaime took over the position of vice-dean Indigenous from Dr. Dirk de Boer (PhD), a faculty member in the Department of Geography and Planning, who had served in the role in an interim capacity since 2018. Jaime will now be responsible for all matters relating to Indigenous engagement within the college, including the implementation of Indigenous-related strategies outlined in the college's plan to 2025.

One of the goals in the plan is to establish a Centre for Indigenous Scholarship—something Jaime is particularly interested in. The research centre, driven by community input, will support all aspects of Indigenizing research, scholarly and artistic work in the college. Other goals are connected to Indigenizing and decolonizing the college, Indigenous student success, faculty and staff recruitment and success, and strengthening partnerships with the community.

"Some of my initial goals and aspirations for this role are what attracted me to this position," said Jaime. "I am excited about the creation of the Centre for Indige-

nous Scholarship and the discussions around recruitment and retention of Indigenous students, staff and faculty."

In addition to her role as vice-dean Indigenous, Jaime has an academic appointment in the Department of Indigenous Studies. To date, her research and scholarship has focused on stereotypes and generalizations of race, culture, and gender within education.

"Indigenous studies is an interdisciplinary field; this is one of the many virtues that attracted me as a student. I enjoy the flexibility to include aspects of many fields into the context of my research," said Jaime.

"My most recent work focuses on the experience and story of our Indigenous people. I work with autoethnography and narrative inquiry in relation to the experience of Indigenous women who are mothers, academics, and community members. I have a lot to learn about the Indigenous communities here in Saskatchewan and Canada. I intend to listen to the Elders and community and let them help direct where my research might go next.

"I want to encourage people in the Indigenous community and key stakeholders to feel comfortable reaching out to me to help me understand how I can support them and those they serve."

Jaime and her sons are now settling into their new home and have had the opportunity to explore the city, including tasting some local cuisine. She describes Saskatoon, which is situated on Treaty Six Territory and the Homeland of the Métis, as "a beautiful place."

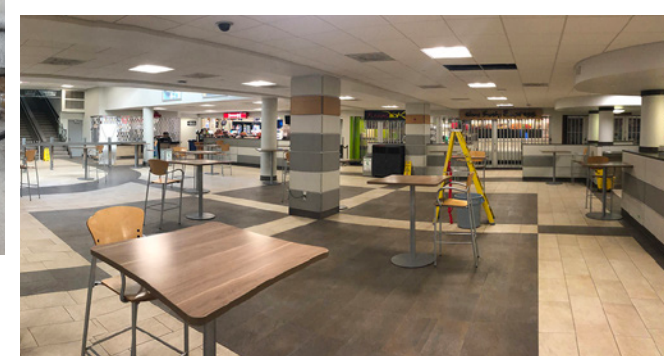
"There are a lot more amenities here than where we lived in Wyoming. The river and rolling grasslands are gorgeous," Jaime said.

"I am impressed and thankful for the warm welcome by those I have met and who have reached out to me since my boys and I arrived. I have had several meetings with colleagues and feel encouraged and excited about redefining this position for the college and myself." ♥

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



Dr. Angela Jaime (PhD) began her five-year term as vice-dean Indigenous in the College of Arts and Science on July 1.



A look at some of the digital images that members of the public have submitted to the university's COVID-19 Community Archive collection.

USask preserving the provincial pandemic experience

SEAN CONROY

In a year unlike any in our lifetime, we all have observed countless signifiers that reinforce the gravity of life during the COVID-19 global pandemic.

Whether it's a photo of an empty downtown core, a playground closed to the public, signs that encourage physical distancing, or expressions of solidarity and staying safe, there have been many unique and surreal sights that we have absorbed during this unique time.

The COVID-19 Community Archive was launched in May at the University of Saskatchewan (USask) to document this momentous period in history and serve as a source of these snapshots.

The project is a partnership between the Digital Research Centre (DRC), University Archives and Special Collections (UASC) in the University Library, and faculty in the Department of History in the College of Arts and Science.

As a community-driven initiative, the digital archive includes submissions from residents that chronicle individual or collective

experiences. While many of the submissions have included photographs, content such as social media posts, videos, creative projects, email, blog entries, journals, and personal reflections are also encouraged to be submitted.

Contributions to the COVID-19 Community Archive provide valuable source material for researchers studying how the pandemic has transformed our community.

Dr. Erika Dyck (PhD), a professor in the Department of History, and Canada Research Chair in the History of Medicine, highlights the importance of establishing the archive as a historical record.

"We know that moments like this pandemic are rare but have also shaped generations and often resulted in changing our cultural and political priorities," she said. "We see that today in the social justice movements around the globe that are drawing attention to the

“ We know that moments like this pandemic are rare but have also shaped generations and often resulted in changing our cultural and political priorities.

—Dr. Erika Dyck (PhD)

plight of under-served communities, or racialized prejudice that has created systematic barriers to justice or health care.

"Historically, these kinds of reactions are not uncommon, but what we do about them and how we choose to remember these moments will become a testament to how our society is remembered by future generations."

Craig Harkema, co-director of the DRC, encourages the USask community to contribute to the archive and notes that no submission is too small in scale.

"Capturing tiny expressions of what is happening in their work and personal lives adds up to create a more accurate picture of what effect the pandemic is having on the community," he said.

Through web archiving, interviews and other initiatives, the project team will also gather documentation such as news releases, policy changes, essential services declarations, and the research contributions from the Vaccine and Infectious Disease Organization-International Vaccine Centre (VIDO-InterVac) at USask.

As of Aug. 1, the COVID-19 Community Archive has received and documented approximately 100 submissions from the public. The project team has also archived 800 gigabytes of web archive data from sites chronicling news and documentations of the pandemic. Interviews with members of the public are also being conducted to record their experiences.

While many have already submitted content to the archive, Harkema sees the great reach the project can continue to have and the magnitude of the story it can tell future generations.

"We hope this work is a proactive means to collecting and preserving the diverse responses to the situation," he said. "The pandemic is undeniably massive in terms of scope and complexity. At the very least, if we manage to engage people and capture a piece of what they are experiencing, then it's time well spent." ▀

Sean Conroy is the communications officer in the University Library.

To view the COVID-19 Community Archive or submit your content, visit: covid19archive.usask.ca.

Student support: A helping hand in time of need

✍ INALIE PORTADES

For more than 100 years, the Kiwanis Club of Saskatoon has been a vital service group in the community, providing music scholarships and character awards to high school students and youth leadership training such as the Builder's Club program—which was temporarily postponed due to the COVID-19 pandemic.

Although this year has been quite different, the Kiwanis Club continues to help the community by supporting university students who were affected by the pandemic. The club has raised \$4,300 towards the University of Saskatchewan's Nasser Family Emergency Student Trust and is near to reaching their fundraising goal of \$5,000.

"I knew we needed to do something here at home," said Jim McClements, a retired USask College of Kinesiology professor and an active volunteer for the Kiwanis Club. As the winter term concluded, McClements had noticed the impact of the pandemic on students' lives and recommended the club initiate the fundraising drive.

"Most students had gone home or had to find alternative housing to finish their classes," McClements said. "Some students also lost their internships and faced unemployment, especially those who work in the service industry and on campus. Those people suddenly lost their regular streams of income."

Donating funds to the Nasser Family Emergency Student Trust had become the goal of the Kiwanis Club to stay proactive and support students in need because of the COVID-19 pandemic. This emergency fund set up by Dr. Kay

Nasser (PhD) and Dora Nasser provides financial assistance to students experiencing a crisis.

Fundraising for these students became the club's priority as two of their volunteers were USask international students who had been affected by the pandemic.

"When I spoke with one of our international student members, they had already applied and received the grant from the crisis fund. When the university shut down, they lost their research assistant jobs. They had first-hand knowledge of it being an important fund for student support," said Keith McLean, president of the Kiwanis Club.

In March, the university made the announcement that the delivery of classes would move online. One of the Kiwanis Club's international students remained in Saskatoon and continued to live in USask's residence, despite the challenges of being far from home during the pandemic.

"I would love to go home but



Retired USask College of Kinesiology professor and Kiwanis Club volunteer Jim McClements (right) stands beside Kiwanis Club president Keith McLean (left) in front of the Kiwanis Band Shell, as they look forward to continuing their service to the community through their fundraiser for the Nasser Family Emergency Student Trust.

because I'm a visa student, it's difficult for me to begin my preparatory course overseas this summer that is required for my graduate degree. So, I never had any plans to go home because I still had work and classes to finish," the student said.

While living on campus with little source of income, the student was able to make ends meet and afford necessities such as groceries—thanks to the Nasser Family Emergency Student Trust.

"Receiving the emergency fund definitely took some of the pressure off while living independently during this pandemic," the student said. "The staff were also very

helpful. They definitely ensured that I had the right details on my application and received assistance."

The student was thankful for the generous support from the USask community and donors to the fund, such as the Kiwanis Club.

"Many students right now have only limited options for support; whatever you give, it will be very much appreciated and put for good use."

McLean said he is pleased the

Kiwanis Club can assist USask students.

"They're a very important part of our community and our culture," he said. "We hope that the pandemic won't affect them all too drastically and everybody will get on with their lives and continue with their education." ♥

Inaliev Portades is a development communications co-ordinator in University Relations.

If you would like to make a gift to the Nasser Family Emergency Student Trust and support students in crisis, visit: donate.usask.ca/crisis

Collaboration key to COVID-19 research

FROM PAGE 2

Wilson's lab will be making a reporter virus to screen the drugs. This process duplicates how the actual virus works, but without infectious particles.

"The reporter virus is a rapid screening tool to analyze drugs to see if they are inhibitors of the virus," explained Wilson.

"We actually insert a gene and engineer the virus to not only

express all the stuff the virus needs, but it also expresses a protein that we can measure really easily. We can then design a very rapid assay where we infect cells and can rapidly assess how that drug is affecting the virus."

Once they figure out what the virus is using, the team will use a genetic tool known as a CRISPR screen to narrow down the list of potential drugs, which will be done

by Vizeacoumar's lab.

According to Wilson, this "combines virology with cancer research in a cool way." When the team is ready to test the drugs against the actual virus, they will work with Falzarano's team.

Wilson appreciates the collaboration amongst USask researchers on COVID-19.

"I think it shows the strength

of the research at the University of Saskatchewan these days, and the College of Medicine," said Wilson. "We have the skills that we can put together in fairly complex projects to solve problems that need to be solved." ♥

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

Playing the waiting game

Thomaidis turns focus to 2021 for Huskies and Summer Olympics

✍️ JAMES SHEWAGA

In a pre-pandemic perfect world, Lisa Thomaidis would now be celebrating coaching Canada to its first ever Olympic women's basketball medal, and looking forward to defending the University of Saskatchewan Huskies' 2020 national championship title.

But coronavirus changed all that, causing the postponement of the Tokyo Summer Olympics (originally scheduled for July 31-Aug. 9, 2020) until 2021, and delaying—possibly cancelling—the 2020/21 university basketball season.

“Certainly it was disappointing when (the Olympics) were postponed, since we had built a lot of momentum and we had a great run through the Olympic qualifying and we were looking forward to going to Tokyo and capitalizing on that,” said Thomaidis, who helped guide Canada's recent rise in the rankings up to fourth in the world.

“Now, we have to change course and focus on 2021 and our players and staff are going to have to be flexible and innovative to continue to grow and improve, even if we can't be on the court together face-to-face. So we are focusing on doing some things virtually. Like everyone, we are having Zoom meetings, doing what we can to be prepared for next year.”

While the Olympics are on hold until next summer, whether or not there will be condensed Canada West university basketball, volleyball and hockey seasons remains unclear, with a decision expected before Oct. 8. However, with fall sports already cancelled and no two-term sports scheduled to start until January at the earliest, the 2020/21 season with certainly be unlike any other for Huskie student-athletes.

“I think it will feel quite a bit different once we approach the fall,” said Thomaidis, who has guided



Head coach Lisa Thomaidis cuts down the net after the Huskies women's basketball team captured the Canada West championship on Feb. 28 at the University of Saskatchewan.

GETMYPHOTO.CA

the Huskies to two national titles and four conference championships in the past five years. “What student-athletes would normally be doing with their schedules and routines and day-to-day life is going to feel quite a bit different, so we will have to settle into a new normal.”

What has been normal for Thomaidis over the past eight years has been pulling double duty as Huskies and national team head coach, successfully juggling the demands of both roles to lead both teams to new heights. Thomaidis took over as Huskies head coach

back in 1998 at the age of 26 and has turned what was once a struggling program into a national powerhouse. She also joined the national team as an assistant in 2002 before adding head coaching duties to her Huskies' role in 2013.

“It has been difficult, but it has been my normal for so many years that it is kind of what you do: you finish off the Huskies season and get a month break and then you get ready to head into national team season,” said Thomaidis, who has also had to deal with losing both of her parents to cancer, her father in October and

her mother in February just weeks before the Huskies captured the U Sports national championship.

The pandemic-postponement of the Olympics gave Thomaidis a rare summer off to reconnect with family and friends, and time to grieve and reflect, following the emotional extremes she experienced in 2019/20.

“In a strange way, the change of pace has helped me on a personal level, to be able to be close to family and friends and have a pause mentally and psychologically,” she said. “It has been good for me to take

a step back and to do some things that I haven't had the opportunity to do for so many years.”

Now, as she turns her focus on the future, Thomaidis is hoping her Huskies will have the chance to defend their national title next spring.

“We have a strong returning core and they certainly want to be able to compete again for that championship and everything changed course with this new reality,” said Thomaidis, whose team has graduated Megan Ahlstrom, Vera Crooks and Sabine Dukate, the MVP of the national championship game. “We want what is going to be best for them in their academic pursuits and as athletes, even playing a shortened season.

“So we are committed to bringing our athletes back this fall and we want to provide as normal of an environment as possible for them to be here around their teammates—socially distanced of course—and provide what we can in terms of training. Whether that is just strength and conditioning, or if they can get in the gym and shoot on their own, or if we progress to being able to have small group workouts, we will see.”

While there is a moratorium on in-person recruiting, Thomaidis has received commitments from three talented young rookies in junior national team prospect Tea DeMong of Alberta and Saskatchewan provincial team standouts Gage Grassick and Courtney Primeau, whose mother played for the Huskies.

For now, Huskie players and coaches are patiently waiting to see if the shortened season will go ahead.

“Like everyone, Canada West is just waiting as long as we can to make a decision,” said Thomaidis. “No one is going to put the health of student-athletes at risk, so it's a waiting game right now.”



Griffiths turf replacement project off and running

UNIVERSITY COMMUNICATIONS

Work has started on the University of Saskatchewan's (USask) turf replacement project at Griffiths Stadium in Nutrien Park.

On July 17, USask announced it received \$3.14 million in funding from the Government of Saskatch-

ewan for the project to replace the artificial turf and expansion and upgrade of the facility.

"The current surface has seen about 13 years of use, so we are extremely grateful for the support from the provincial government to upgrade our most heavily-used

outdoor athletics facility," said USask President Peter Stoicheff.

In addition to replacing the turf, the project includes:

- field expansion to accommodate regulation-sized football and soccer events;
- improving shock absorption to

lessen the chance of injury;

- updating the lighting, resulting in reduced power consumption.

"This investment will generate lasting benefits for Saskatoon's local sports community, the city of Saskatoon, the University of Saskatchewan and our province," said Advanced Education Minister Tina Beaudry-Mellor. "By expanding the field, upgrading the lighting and creating a safer playing surface for athletes and community users, we are helping transform Griffiths Stadium into a world-class university sports facility."

Griffiths Stadium in Nutrien Park is central to the USask student

experience and is highly utilized by Saskatoon residents for their community sports and outdoor activities.

Once completed, the stadium will be well positioned to host major events such as U Sports championships.

"At USask, our connection to the broader community is always a priority, and this upgraded state-of-the-art field will benefit the city," said Stoicheff. "It also represents a big step toward making Huskie Athletics the top athletics program in Canada."

The project is expected to be completed in October. 🍀

CFI awards \$77.5M to support major USask science facilities

USASK RESEARCH PROFILE AND IMPACT

Two of Canada's top science facilities at the University of Saskatchewan (USask) have been awarded a total of more than \$77.5 million in funding by the federal government.

USask received a third of the total \$230 million announced July 21 by Canada's Minister of Innovation, Science and Industry Navdeep Bains, for 14 research facilities across Canada.

The Canadian Light Source (CLS) synchrotron and SuperDARN (Super Dual Auroral Radar Network) Canada were awarded the funding through the Canada Foundation for Innovation's (CFI) Major Science Initiatives Fund, which ensures Canada's national research facilities have the support needed to operate and stay on the leading edge of research.

Earlier this spring, the federal government announced \$11.3 million from the same round of CFI funding for USask's Vaccine and Infectious Disease Organiza-



The CLS at USask is home to Canada's only synchrotron.

SUBMITTED

tion—International Vaccine Centre (VIDO-InterVac), a world leader in developing vaccines and technologies against infectious diseases. Both VIDO-InterVac and the CLS are undertaking critically important research to combat the COVID-19 global pandemic.

"This major federal investment will prove critical to Canada's continued role at the cutting edge of global research and innovation," said USask President Peter Stoicheff. "The CFI's funding commitment for these outstanding USask research

facilities enables us to address some of the biggest global challenges such as food security, climate change, and infectious diseases including coronavirus, aligning with our goal to be the university the world needs."

The CLS received \$76.9 million in federal funding for operations and maintenance to the end of the 2023 fiscal year. SuperDARN, a global network of scientific radars monitoring conditions in the near-Earth space environment, received \$549,782 in funding to the end of the 2023 fiscal year. 🍀

Timely sessions popular

FROM PAGE 8

"A few of our participants probably wouldn't have been able to make it, had it not been offered online."

Kevin Cameron, a North American expert on trauma-informed school leadership, delivered a session highlighting strategies to implement as the province prepares for re-opening schools during the ongoing global pandemic. Timely sessions included anti-racist and anti-oppressive approaches to education, as well as supporting technology in instruction.

"Adrienne Schenk, with the Sask Rivers School Division, spoke to the importance of supporting sexually and gender diverse students," said Prytula. "She deliberately included the intersectionality of race and

gender in those discussions and how leaders can hold space for students to explore their multi-faceted identities. This session was critically important and timely given the Black and Indigenous Lives Matter movements."

As for next year, Prytula said it is unlikely that the program will return to its pre-pandemic format.

"Although it was initially quite intimidating, we learned so much about the benefits of going online, especially regarding participant access. While I don't know what the format will be next year, we will keep elements of remote learning in order to reach as many school leaders as possible." 🍀

Meagan Hincer is the manager of communications and external relations in the College of Education.



Cancer therapies connect dogs and humans

CHRISTINA WEESE



Velina Milkova is a third-year student in the Western College of Veterinary Medicine at USask.

CHRISTINA WEESE



Dr. Behzad Toosi (DVM) is a researcher in the Western College of Veterinary Medicine at USask.

CHRISTINA WEESE

VELINA MILKOVA

Dogs may hold the key to uncovering novel cancer therapy targets and treatments that will benefit domestic animals and their owners, as well as human cancer patients.

“Testing of new therapies in animals with naturally occurring tumours that are similar to those of humans has the capacity to reduce the time for clinical development of new pharmaceutical agents for human cancer therapy,” said Dr. Behzad Toosi (DVM), an assistant professor in the Department of Small Animal Clinical Sciences at the Western College of Veterinary Medicine (WCVN).

“At the same time, this provides an opportunity to bring the novel and advanced diagnostics and therapeutics from human drug discovery research to veterinary medicine.”

Research has shown that dogs develop similar cancers to people

in terms of appearance, genetics and response to treatment. Since cancers in dogs and humans arise in similar environmental conditions, researchers can use canine cancer tumours to better understand human tumour progression.

These findings support the emergence of comparative oncology, which integrates human and veterinary medicine by studying canine tumours as models for human cancers.

As part of the University of Saskatchewan’s (USask) Comparative Oncology Research Group, Toosi’s research team is investigating a molecular similarity that could exist in canine and human cancers of the bone, mammary gland, lymphocytes and blood cells.

Researchers have previously shown that a group of cell surface proteins, called Eph receptor

tyrosine kinases, are involved in multiple human cancers—making them potential targets for therapy.

“Protein kinases such as Eph receptor tyrosine kinases are important molecules in the context of cancer research as they drive various cancer properties,” said Toosi, who also holds the WCVN’s Allard Research Chair in Oncology.

“We strongly hope that [our research] goals will facilitate development of more effective cancer therapies that could be used for both companion animals and humans.”

Although these receptors have been studied in human cancers, no other research lab has evaluated their involvement in canine malignancies. In addition, existing research has targeted only a few of the many Eph receptor subtypes that are naturally found in non-cancerous cells.

Toosi is hopeful their research will reveal that these unexplored targets are similarly expressed in canine tumours—a finding that would open the door to developing new anti-cancer drugs that could be used to treat canine patients.

Developing and testing drugs and novel therapies on canine models before adapting them to human medicine has many advantages. Primarily, it helps to accelerate drug testing and approval. While human medicine has strict guidelines on clinical trials, veterinary medicine has a much faster approval process that still adheres to ethical guidelines.

Since dogs’ life cycles are shorter than those of people and their cancers progress more quickly, results from clinical drug trials are also accessible more quickly than they would be in human trials. Both

animal and human patients benefit from the wider array of treatments and drugs that can be made available in this shorter time frame.

Given the multitude of similarities between canine and human malignancies, the best approach for cancer research is comparative oncology—a field that combines the efforts of veterinary and human medical professionals to bridge the gap between human and animal health.

Oncology research conducted by Toosi’s team has received financial support from the Allard Research Chair, WCVN, and the Saskatchewan Health Research Foundation. ♥

Velina Milkova of Victoria is a third-year veterinary student at the Western College of Veterinary Medicine (WCVN).



COW TILT TABLE A UNIQUELY USASK TEACHING TOOL

 JAMES SHEWAGA

It is a marvel of engineering, designed to safely hoist a cow or bull weighing as much as a small car.

In a truly made-in-Saskatchewan story that began back to the 1970s, the University of Saskatchewan (USask) became the first veterinary school in the country to install a custom-made hydraulic lift system that safely elevates cattle for examination and treatment in the Western College of Veterinary Medicine (WCVN). Refurbished and re-installed in 2014 in the WCVN's Veterinary Medical Centre large animal clinic, the bovine tilt table remains a uniquely USask teaching tool.


"It is 100 per cent unique in every way, really," said Dr. Chris Clark (MVetSc), an associate professor and associate dean at WCVN. "We definitely were the first to have one. I believe there was kind of a prototype, which was very different, that is still in existence at the Foam Lake Vet Clinic in Saskatchewan, but otherwise it is a one-of-a-kind."

Clark, who first came to USask as a student in 1996 and joined the faculty in 2002, is a regular user of the tilt table, upgraded six years ago in collaboration with Saskatchewan company RMD Engineering. The original device was developed 46 years ago by Humboldt engineering consultant Arnie Brockman along with former veterinary student Dr. Jim Sawatsky (DVM), who went on to practice in the province.

"It is a Saskatchewan story: A university, a veterinary student, and a really resourceful engineer from rural Saskatchewan got together and designed something that no one else had ever thought of," said Clark. "In my opinion, it's priceless."

Officially labelled a surgical air suspension hoist, the tilt table is perfect for trimming and treating cattle hooves, and providing safe and easy access to the underside of the animals for examination and other procedures.

"Because the animal is so well restrained and gives us access to all four feet, we can actually have four students trimming feet at the same time, so it is perfect for student teaching," said Clark, a former Master Teacher Award winner who earned his master's and PhD at USask.

"One of the things that really sets it apart is the combination of safety and comfort for the animals. The entire thing is lined with massive air bags, so we can lift an animal up, and they are relaxed and they don't need to be sedated. You can just walk the animal in, lift it up, and do what you need to do and flip it back down and the animal literally walks out of it. It's fantastic piece of equipment." 



Dr. Lyall Petrie (PhD) of the Western College of Veterinary Medicine trims the hooves of a dairy cow as it lies on the refurbished bovine tilt table.

 CHRISTINA WEESE