

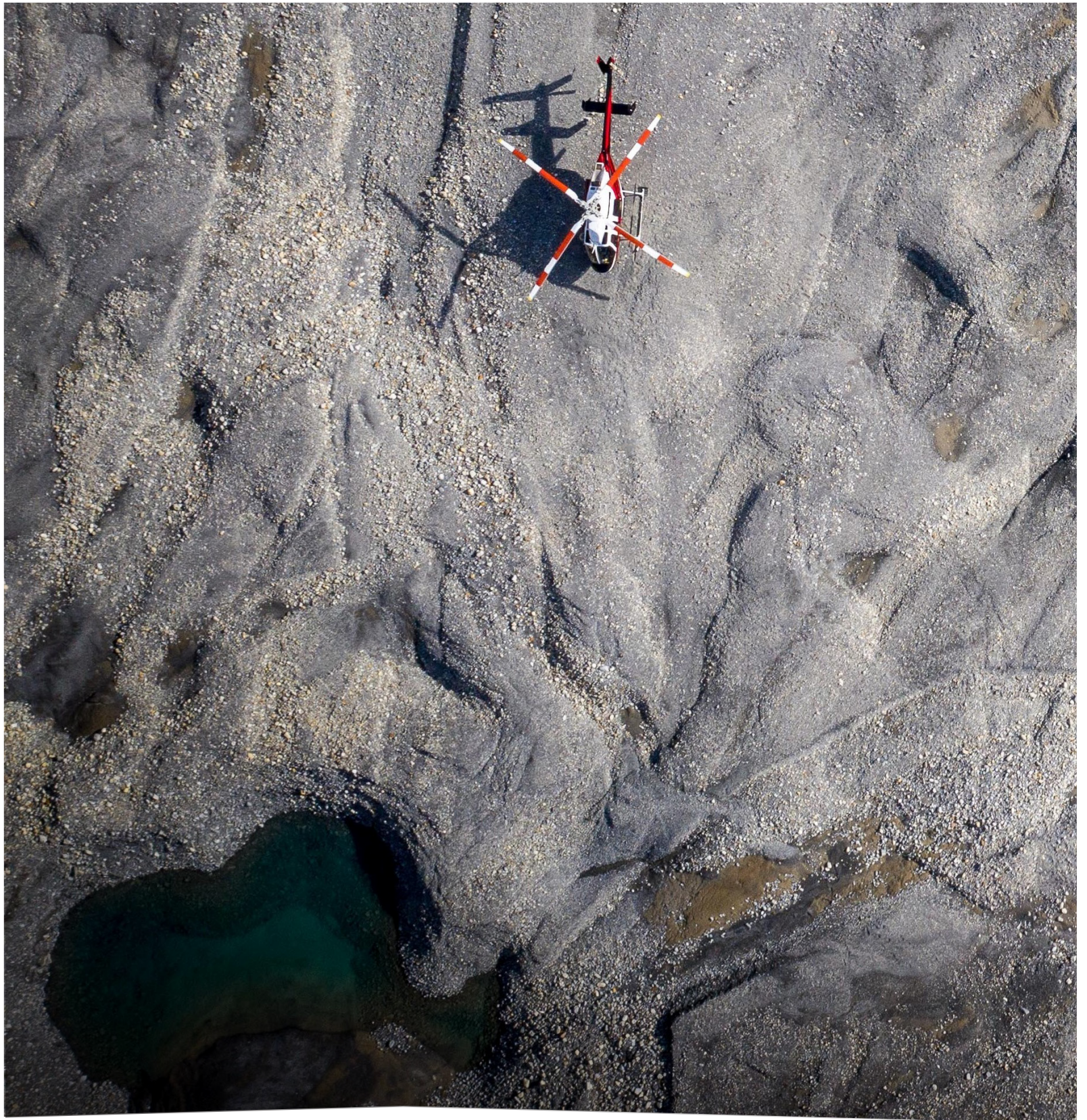
OCTOBER 9, 2020

Volume 28, Issue 2

## GOING GLOBAL

The University of Saskatchewan (USask) is world-renowned for its water and food research, involving scientists from all across campus and innovative initiatives spearheaded by the Global Institute for Water Security (GIWS) and the Global Institute for Food Security (GIFS). Led by national and international experts in GIWS and the Global Water Futures program, USask is ranked No.1 in Canada for water resources research and in the top 20 in the world. Meanwhile, GIFS researchers are also making their mark addressing the challenge of feeding an ever-growing world population, particularly in light of pandemic problems facing agriculture production worldwide and the effects of climate change. In this online edition of *On Campus News*, we take an in-depth look at the research success of both GIWS and GIFS. At right, this photo by Mark Ferguson offers an aerial view of the helicopter landing area for the GIWS Peyto Glacier research site in Alberta.

SEE PAGES 6-7 and 8-9



— 4 —

**MICROBUBBLES**

— 10 —

**METABOLISM**

— 13 —

**MAKING HEADLINES**

*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 feature stories about people and events of interest to the USask community.

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 Shewaga

**WRITERS**

Shannon Boklaschuk, Katie Brickman-Young, Megan Evans, Mark Ferguson, Kristen McEwen, Olufunke Okochi, Joanne Paulson, Inalie Portades, Chris Putnam, James Shewaga, Sarah Trefiak, Alyssa Wiebe.

**DESIGNER**

Pierre Wilkinson

ISSN: 1195-7654

PUBLICATIONS MAIL AGREEMENT NO. 40065156

Return undeliverable addresses to:

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

Email: [news@usask.ca](mailto:news@usask.ca)

# SENS researchers reaching out to Indigenous partners

MEGAN EVANS

Creating reciprocal relationships with Indigenous communities is an important focus for current and future research, according to a pair of internationally regarded professors in the School of Environment and Sustainability (SENS).

Dr. Maureen Reed (PhD) and Dr. James (Jim) Robson (PhD)—the United Nations Educational, Scientific and Cultural Organization (UNESCO) Co-Chairs in biocultural diversity, sustainability, reconciliation, and renewal, at the University of Saskatchewan (USask)—will soon publish a paper detailing an original knowledge mobilization

framework focused on engagement with Indigenous Peoples.

“We are no longer at a point where research is a one-way flow, from academics to community members. As researchers and academics, we cannot assume that our approach to a question is the only approach, or that the result will be useful simply because we provide detailed data analysis to a community partner,” Robson said. “Additionally, we must be cognizant of cultural context and existing community protocols. Co-production of research planning and knowledge will enhance the



SUBMITTED

**Dr. James (Jim) Robson (PhD) and Dr. Maureen Reed (PhD)—the United Nations Educational, Scientific and Cultural Organization Co-Chairs in biocultural diversity, sustainability, reconciliation, and renewal.**

relevance and employment of research results for our community partners.”

The project, a collaboration between Canada’s Social Sciences and Humanities Research Council and the Canadian Commission for

UNESCO (CCUNESCO), solicited proposals across the CCUNESCO network that would facilitate engagement with its network of UNESCO Chairs in Canada and tap

SEE RESPECTFUL, 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](http://news.usask.ca):

### Winter term plans

The University of Saskatchewan (USask) has decided on a continued hybrid approach to program delivery for winter term, which begins January 2021 through to at least the end of April 2021. Similar to fall term, the hybrid delivery model will combine primarily remote online learning, with limited clinical, laboratory and other physical instruction only where required to meet specific teaching goals and where circumstances permit, following public health guidelines. This direction aligns with other post-secondary sector partners in Saskatchewan, and is based on consultation with key stakeholders.

### CHASR launched

The university launched the Canadian Hub for Applied and Social Research (CHASR) on Sept. 16, offering a unique menu of research services within Canada, including gathering data on public opinion and human behaviour. Formerly the Social Sciences Research Laboratories (SSRL) based in the College of Arts and Science since opening back in 2011, CHASR will support clients—including academic researchers, governments, non-profit organizations and private companies—to advance research projects of all sizes. Last year, the SSRL supported more than 500 researchers with nearly 350 projects.

### Researcher awards

Internationally renowned USask researchers have been recognized by the Royal Society of Canada (RSC). Dr. Irena Creed (PhD), SENS professor and associate vice-president research, received RSC’s Bancroft Award, while Dr. Ajay Dalai (PhD), USask Canada Research Chair of Bio-energy and Environmentally Friendly Chemical Processing, earned the Miroslaw Romanowski Medal. Artist Alison Norlen and historian Dr. Valerie Korinek (PhD) were named Fellows of the RSC, and biologist Dr. Christy Morrissey (PhD) was named to the College of New Scholars, Artists and Scientists.

### Radomski elected

Dr. Marek Radomski (MD) of USask’s College of Medicine was elected as a 2020 Fellow of the Canadian Academy of Health Sciences on Sept. 17. Fellows of the Academy, one of Canada’s highest health science honours, are elected for their demonstrated leadership, creativity, distinctive competencies and commitment to advancing academic health sciences. Radomski, who is vice-dean, research, and professor, Department of Anatomy, Physiology and Pharmacology, is one of the world’s foremost experts in the pharmacology and physiology of platelet aggregation and a pioneer in the field of nanopharmacology.

FOR MORE UP-TO-THE-MINUTE NEWS, VISIT: [news.usask.ca](http://news.usask.ca) @usask

# USask researcher building new model for MS care

 JAMES SHEWAGA

As the search for a cause and a cure for multiple sclerosis (MS) continues around the world, Dr. Sarah Donkers (PhD) is exploring new ways to improve the lives of individuals living with the disease here in Saskatchewan.

The assistant professor in the School of School of Rehabilitation Science in the College of Medicine at the University of Saskatchewan (USask) is currently working on several MS research projects. Her latest is a three-year project to build a new physical rehabilitation neuro-recovery model of care for those living with MS in the province.

“Because of advances in research and advances in treatment, people are living longer and living better with MS,” said Donkers, who is also the co-head of the NeuroSask physiotherapy program delivering online physical therapy guidance for MS patients during the ongoing global pandemic. “If we can get people living with MS to be more active and stay active longer, that seems to have the biggest benefit. And as the disease progresses, we want to be able to provide intense

task-oriented training to most effectively promote neural recovery.”

Previous research conducted by USask’s Dr. Charity Evans (PhD) of the College of the Pharmacy and Nutrition and Dr. Katherine Knox (MD) of the College of Medicine confirmed that Saskatchewan has among the highest rates of MS in the world (315 cases per 100,000 people). Despite that, the province does not currently have MS-specific physical rehabilitation services, a missing piece of the health-care puzzle that Donkers is trying to complete.

As medical experts estimate 80 per cent of people living with the chronic degenerative neurological disease are not sufficiently active, Donkers aims to identify the most effective physical therapy methods and work with a team of clinicians and collaborators to create the most practical model to provide access to

treatment in the province.

“It’s a two-pronged approach,” said Donkers, who earned her PhD at USask before becoming a faculty member. “We want to focus on a way that we can deliver programs and support that will work with our current health-care system and the reality of our Saskatchewan landscape. We do not have MS hot spots, per se, in the province. We do have more cases in Saskatoon and Regina, due to population. But overall we have low population density and people living with MS spread across the entire province, so we need to provide services that can reach people wherever they are.”

Donkers and other researchers are also currently running two other studies exploring alternate methods of access and delivery, from in-person treatment at clinics and physiotherapists travelling to

homes, to virtual online programming and tele-help.

“This is really the critical piece to make this change in clinical practice and to get the momentum moving forward to put our new findings into practice,” she said.

Donkers said her three-year research project is beginning with building a network of MS researchers, clinicians and individuals living with the disease, as well as experts from the Saskatchewan Health Authority and other stakeholders and collaborators, all working together to design a new model for rehabilitation. The team will then move to implement the new model, which will be built on the best practices of clinicians and emerging evidence from researchers.

“There a lot of moving parts that we need to address,” she said. “We have to be realistic and know there will be compromises, but that is how you get to the point of implementing something that is sustain-

able, something that is meaningful and something that is relevant to the local health care context. We are going to choose what the biggest priority is, design a program, and implement it. We envision a multi-pronged approach that will be put into place in order to best serve people with MS, wherever they are throughout the province.”

So what drives Donkers’ determination to find new ways to improve the lives of those affected by MS?

“There are a number of people who have driven my passion for this field of research,” said Donkers. “The biggest thing was I worked clinically before I went into research and I specialized in neurological rehabilitation and I just wanted to be able to do more for my patients with MS, especially when they got to those progressive stages of the disease. I wanted to improve my own understanding of the disease and try to make a difference with my research.”



**Dr. Sarah Donkers (PhD) is an assistant professor in the School of Rehabilitation Science in the College of Medicine at the University of Saskatchewan (USask).**

# Imaging inflammatory bowel disease with ultrasound microbubbles

 KRISTEN MCEWEN

A University of Saskatchewan (USask) researcher is developing ultrasound microbubbles to create a non-invasive, painless, and fast way to identify inflammatory bowel disease (IBD).

Dr. Steven Machtaler (PhD), an

assistant professor in the Department of Medical Imaging in the College of Medicine, and his team recently received funding from the Canada Foundation for Innovation to explore this new imaging method for IBD.

“We’re trying to make targeted

microbubbles that are inexpensive enough to be used in the clinic,” he said. “Our main goal is to develop a contrast agent that we can give to people. Especially for patients with inflammatory bowel disease, we need tools to accurately monitor the amount of inflammation going on.”

By using microbubbles—an ultrasound contrast agent that can be modified to stick to markers of inflammation—that are about one-twentieth the width of a human hair, Machtaler and his team are able to track how immune cells navigate the network of blood vessels in our vascular system.

“For our work, we really focus on where the immune cells are going,” Machtaler explained. “We study the immune system and how immune cells use the vasculature as a highway to get around the body.”

Machtaler’s team highjacks the immune cells’ approach used to navigate blood vessel networks in our bodies to find areas of disease, and uses it as an imaging target, in this case for ultrasound scans.


If there is an area of inflammation on an individual’s arm, the inflamed cells cause the blood vessels in the area to start expressing proteins, which are designed to catch and recruit immune cells. These proteins essentially act like Velcro to catch immune cells, Machtaler explained.

“We add on antibodies to our contrast agent—our microbubbles—that stick to these Velcro proteins,” he said. “That allows us to image where immune cells are moving out of the vasculature into the tissues where there is inflammation. It gives us a really nice way to

measure the inflammation in tissues like in the bowel.”

The most common way to identify and treat IBD in patients is through endoscopy, a procedure that involves physically inserting a camera into the upper or lower gastrointestinal tract. However, endoscopy also can’t always access small regions of the bowel.

In Canada, the prevalence of IBD has been rising, affecting about one in every 150 Canadians. The number of pediatric patients diagnosed with IBD is also increasing over the years, Machtaler said.

Other approaches to image IBD include MRIs and CT scans, which are expensive and have limited access. 

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

## Pandemic Research at the University of Saskatchewan —Oct. 28th Online Talk

The Community Liaison Committee (CLC) of the Vaccine and Infectious Disease Organization-International Vaccine Centre (VIDO-InterVac) invites you to an online information session on COVID-19 vaccine development featuring VIDO-InterVac director Dr. Volker Gerdt.

A world leader in infectious disease research and vaccine development for humans and animals, VIDO-InterVac at the University of Saskatchewan (USask) is a state-of-the-art bio-containment facility where scientists are on the front lines of the global effort to develop a vaccine against COVID-19.

**WHEN: Wednesday, Oct. 28th, 7 p.m. CST**

**WHERE: FREE, virtual event. Register at [Eventbrite.ca](https://eventbrite.ca) for “VIDO-InterVac Community Liaison Public Meeting.” Participation is limited to those who register.**


Questions can be submitted prior to the event at [intervaccl@usask.ca](mailto:intervaccl@usask.ca) until end of day Oct. 26th, or by chat room during the event. A confirmation email will be sent upon registration, followed by login information on Monday, Oct. 26th.

The CLC was created by USask in 2007 to serve as an independent organization working to ensure full and open communication on safety issues related to VIDO-InterVac: <https://intervaccl.ca/>

VIDO-INTERVAC LIAISON COMMITTEE  
**COMMUNITY**



Dr. Steven Machtaler (PhD), assistant professor in the Department of Medical Imaging in the College of Medicine, is exploring ultrasound microbubbles technology.

 SUBMITTED

# ALUMNI SPOTLIGHT

Every month in *On Campus News*, we highlight an exceptional graduate of the University of Saskatchewan (USask) in our Alumni Spotlight series. In this issue, we profile Dr. Adeola Olubamiji (PhD'17), who now works for an American Fortune 500 company and has become a mentor for young STEM students. You can read the full story at: [greenandwhite.usask.ca](https://greenandwhite.usask.ca)

Dr. Adeola Olubamiji (PhD) earned her doctorate in biomedical engineering in 2017 at the University of Saskatchewan (USask) and now mentors young students through her nonprofit STEMHub Foundation.



## Dr. Olubamiji: helping STEM students reach their goals

✍️ JOANNE PAULSON

At a young age, Dr. Adeola Olubamiji (PhD'17) was regularly exhorted to view and revere her family members who became PhD candidates. It was always her mission to follow in their footprints.

As an adult, she has achieved that, and so much more.

Olubamiji completed her PhD at the University of Saskatchewan (USask) in biomedical engineering in 2017, the first Black person to do so. Today, she is employed at Cummins, an American Fortune 500 company that designs and manufactures engines and power generation products. The company is currently exploring 3D printing and technology for the manufacture of engine components.

When she graduated from USask, she didn't see this specific future for herself, but she did see something exciting and related to STEM (science, technology, engineering and mathematics): specifically, physics.

"(I) knew there would be new areas of science that we could get into just as my uncle got into the nuclear physics area. As I was just navigating my career I kept looking at where is

the future going? What's new? What are people talking about now?"

Before her time as a USask student, armed with an undergraduate degree from Nigeria, Olubamiji went to Finland to complete her master's in physics, which included work in materials science. Then it was time to seek the next university for her doctorate, which is when she came to USask.

With the support of her USask mentors, she dove into 3D printing for biomedical applications, exploring its use for cartilage replacement.

"The concept of 3D printing is the same, whether I use it for aerospace or automotive or biomedical applications. Once you have that background, you can transition successfully."

The first transition after graduation took Olubamiji to a Canadian aerospace company using 3D applications, until she was called to Cummins to do the same work for automotive applications.

"I would be their first additive manufacturing specialist. It was going to be challenging, but I felt there was an opportunity there to

**Dr. Adeola Olubamiji's academic contributions have yielded several scientific publications, conference presentations, TEDx Talks on 3D-printing, and contributions on several high-profile panels.**

**Her recent awards and accolades include:**

- 2020 STEP Ahead Award by the Manufacturing Institute**
- 2020 RBC Top 25 Canadian Immigrants Award**
- 2019 Influential Women in Manufacturing Award by Putman Media**
- 2019 L'Oreal Paris Canadian Women of Worth Honouree**

trail blaze," she said.

Just as Olubamiji was inspired and motivated by her family, she is now hoping to inspire and assist a new generation of Black youth, academically and otherwise. The actual vehicle of inspiration came about somewhat accidentally when, one day in 2017, she posted her story on social media. Deciding to leverage her overnight internet success into something positive, she used the attention to build her nonprofit organization, STEMHub Foundation.

The foundation started small, by offering to visit communities and do STEM activities on Saturdays with kids in Ontario. Equipped with her 3D printer, Olubamiji would spark

the imaginations of children and give them a chance to learn more about the fascinating world of STEM.

"We started having community centres reach out to us and saying 'Hey, come and do programs with our youth.' Also, we got a lot of requests and still do from Black and female community centres. We've been doing that in Canada, making sure that those young people can see us. If they cannot see us, they cannot become us."

STEMHub has since added mentorship programs for university students, helping them navigate systems and understand which courses they should take to be more competitive in the job market. The foundation also helps students with

university applications.

"The goal is to increase Black representation in STEM and ensure Black youths coming out of universities are not unable to get jobs because they didn't know what they were supposed to do in college," she said.

Thus far, STEMHub has reached about 5,000 students, mostly in Eastern Canada, and Olubamiji is trying to take the program to Nigeria as well.

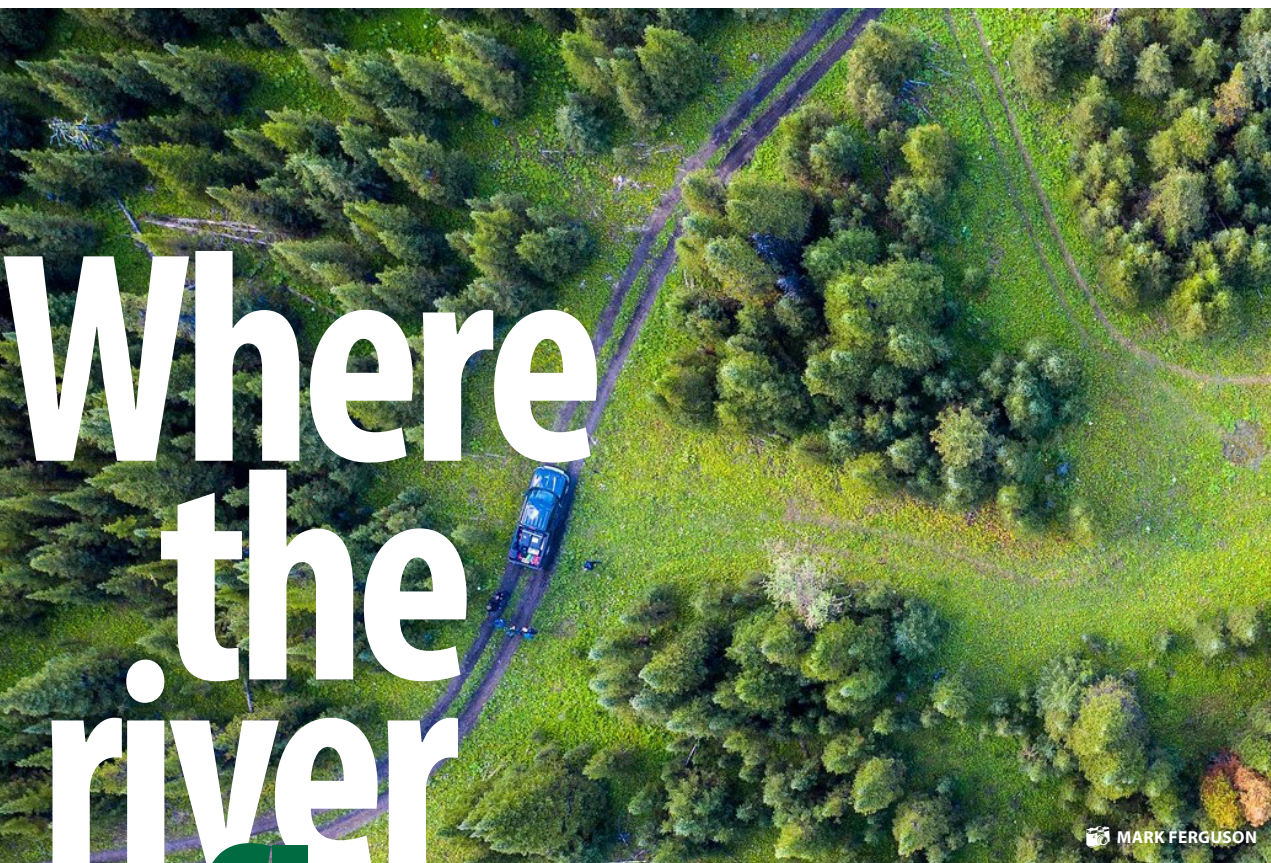
Olubamiji is passionate about supporting the Black community and other people from foreign countries in Canada and the United States, where it is still clear that discrimination and under-representation exist. Her mission for creating an inclusive society does not stop with her work with STEMHub. She notes universities and other organizations everywhere can play a role in supporting foreign students.

"I lived in Saskatchewan for almost five years and I would really like to give back to the community that raised me," she said. ♥

**Joanne Paulson is a Saskatoon freelancer writer who earned her BA degree at USask in 1982.**

# Where the river flows:

## How a proud history of water research led USask to be ranked No.1 in Canada



Aerial view of the GIWS Fortress Mountain research site.



A GIWS unmanned aerial vehicle image of a farm irrigation system near Clavet.

 USASK RESEARCH PROFILE AND IMPACT AND MARK FERGUSON

With a stellar reputation that attracts top talent and partners from around the world, the University of Saskatchewan (USask) has been ranked number one in Canada for water resources research and one of the top 20 in the world for three years in a row, according to the Academic Ranking of World Universities (ARWU).

“It’s a tremendous testament to everyone involved to have established such excellence here, and I’m very proud to be a part of it,” said Dr. Jay Famiglietti (PhD) who came to USask in 2018 as the Canada 150 Chair in Hydrology and Remote Sensing and executive director of

the USask Global Institute for Water Security (GIWS).

The rise to the top has been an inspiring story of building on a strong foundation of water science excellence, leadership at many levels, and recruitment of top talent.

While USask officially named water security as one of its signature areas of research a decade ago, the university’s focus on hydrology as a discipline dates back to the 1960s. Under the leadership of GIWS, USask water research now spans the entire university, with more than 90 faculty members and their students and post-doctoral fellows

### GLOBAL INSTITUTE FOR WATER SECURITY:

from 21 different academic units—ranging from aquatic ecology to toxicology.

Over the past eight years, GIWS has trained more than 715 graduate students, 180 post-doctoral fellows, and 630 research associates, assistants, and technicians.

A pivotal event for USask water research was the recruitment in 2010 of internationally renowned U.K. hydrologist Dr. Howard Wheater (PhD) as Canada Excellence Research Chair (CERC) in Water Security and founding

director of GIWS. Wheater, an international advisor

on water issues such as run-off modelling for developing countries, strengthened USask’s strong connections to international water research programs, including with UNESCO and the World Climate Research Programme.

The vision for the seven-year, \$30-million CERC program was to develop new transdisciplinary water science to help manage increasingly stressed water resources in the face of climate change. Wheater made the Saskatchewan River Basin a large-scale “observatory” for modelling

climate change impacts, including effects on local communities.

“I realized on my first visit here in 2012 that the federal government had invested heavily in water research and placed a huge emphasis on solving national and global water-related problems,” recalled Famiglietti, who was recruited from the U.S. where he had been the senior water scientist with NASA’s Jet Propulsion Laboratory.

In 2016, under the leadership of Vice-President Research Dr. Karen Chad (PhD), USask was awarded its largest grant ever—

SEE GIWS, PAGE 7

# GIWS, GWF program a hub for hydrology

FROM PAGE 6

\$77.8 million from the federal Canada First Research Excellence Fund (CFREF) to lead the prestigious Global Water Futures (GWF) program at GIWS. The program features more than 380 Canadian university researchers at 18 universities and currently more than 460 partners, collaborators and users in government, communities, and industry worldwide.

“No institution nationally or internationally has assembled such a large-scale and multi-disciplinary water research initiative of this kind,” Wheeler said at the time.

Now halfway through its seven-year mandate, the GWF program, led by Dr. John Pomeroy (PhD), is positioning Canada as a global leader in cold regions water science, with particular focus on developing

ways to predict, prepare for, and manage water-related threats—such as devastating floods, droughts and degraded water quality. The program provides governments, businesses and communities with risk management tools to tackle threats to Canada’s water supply and quality.

For instance, in a unique approach bringing together western science and Indigenous knowledge, GWF has six projects co-created and co-led by Indigenous peoples across Canada to address urgent and growing water quality issues for Indigenous communities.

GWF has also put particular focus on specialized training for early career researchers and women.

USask’s water science success was built on a strong foundation of research excellence dating back to the university’s earliest days of agricultural research, underscoring

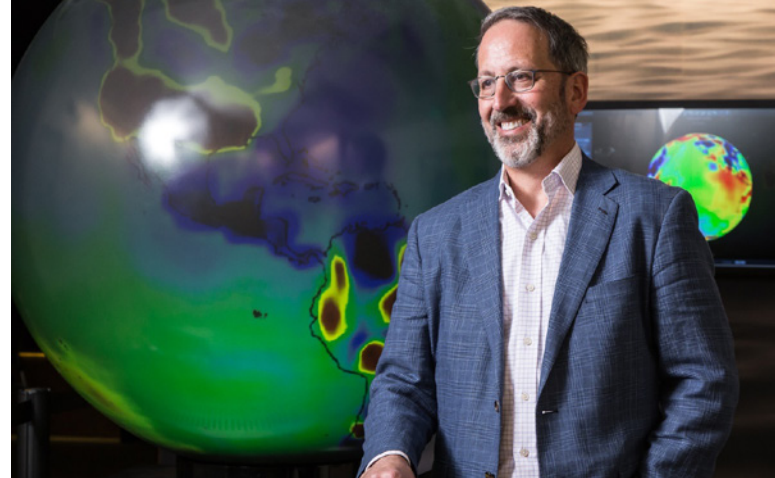
that food and water research are intertwined.

The creation in 1964 of USask’s division of hydrology, then housed in the College of Engineering and led by Dr. Don Gray (PhD)—the “father of Canadian hydrology”—established hydrology as a discipline, both on campus and in Canada.

In 1986, the university attracted the hydrology arm of Environment and Climate Change Canada—the National Hydrology Research Centre—to the newly created Innovation Place. In 2004, the USask Centre for Hydrology, one of the world’s most advanced hydrology centres, was established by Pomeroy, who was recruited from the U.K. to become Canada Research Chair in Water Resources and Climate Change. The centre now includes a laboratory in the Rockies near Canmore, Alta.

Major USask contributions to advancing the science of water have been recognized by the Royal Society of Canada in naming Pomeroy, Wheeler, Dr. John Giesy (PhD), Dr. Jeff McDonnell (PhD), Dr. Ingrid Pickering (PhD), and Dr. Irena Creed (PhD) as Fellows.

“The continued commitment to water research excellence at USask has brought us to the forefront in Canada and now the world,” Pomeroy said, citing GWF’s leadership at the World Meteorological Organization on high




Jay Famiglietti is the Canada 150 Research Chair in Hydrology and Remote Sensing and executive director of GIWS.  STEVE ANDERSON



GWF director Dr. John Pomeroy (PhD) and Swedish climate activist Greta Thunberg on the Athabasca Glacier in 2019.  MARK FERGUSON

GIWS graduate student Michelle Wauchope-Thompson collects sediment cores from Regina’s Wascana Lake. Below: Cam Hoggarth records data while Stephanie Witham collects samples at the St. Denis National Research Area.




 KATY NUGENT

mountain and polar issues.

Famiglietti noted that being the top Canadian university for water research is a huge opportunity, but one that comes with great expectations.

“The rankings are important, and we are proud to be number one.

But that only matters if you can continue to do the right things and make a difference for communities, governments and industries. I think we are doing just that,” he said. 

Mark Ferguson is a communications specialist in GIWS at USask.



 KATY NUGENT





GLOBAL INSTITUTE FOR FOOD SECURITY:

# Innovation to feed a post-pandemic world

OPAL research technicians Rick Goertzen (left) and Zhijian Chai of GIFS discuss data in the lab.

DAVID CONLIN

OLUFUNKE OKOCHI

World Food Day on October 16 is traditionally a time to shine the spotlight on global hunger and poverty and inspire innovative solutions for world change.

It's a challenge the Global Institute for Food Security (GIFS) at the University of Saskatchewan (USask) was designed to meet.

With the world still dealing with the effects of a global pandemic that has disrupted many food systems—including processing plant shutdowns that led to an over-

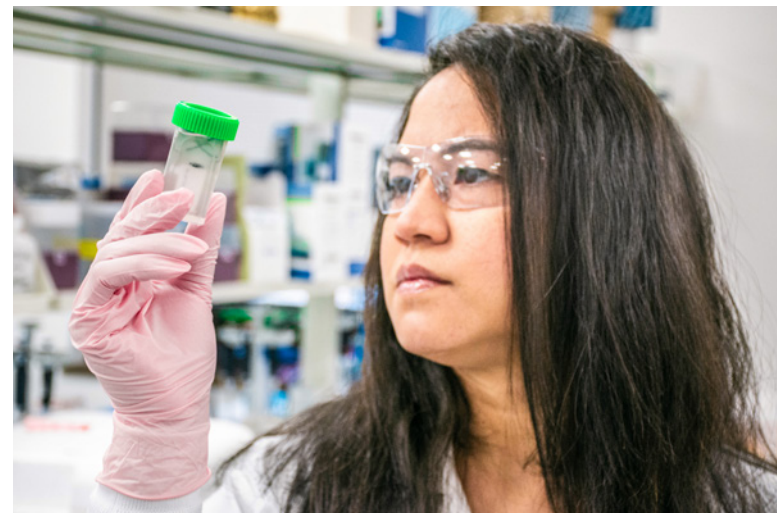
supply of livestock on farms and meat shortages in grocery stores—GIFS researchers are committed to international collaboration and innovation to address the challenges facing agriculture production worldwide.

“At GIFS, our vision is a world where everyone has access to safe and

nutritious food,” said Dr. Steven Webb (PhD), GIFS’ chief executive officer. “It’s a bold vision, but we’re guided by our mission to work with partners to discover, develop and deliver innovative solutions for the production of globally sustainable food.”

This year’s World Food Day—featuring the theme Grow, Nourish, Sustain, Together—marks the 75th anniversary of the Food and Agriculture Organization of the United Nations (FAO), an organization committed to finding new ways to feed a growing global population.

The FAO notes that “preserving



Peta-Gaye Burnett, the OPAL Platform Leader at GIFS, examines a plant specimen in the lab.

DAVID CONLIN

access to safe and nutritious food is and will continue to be an essential part of the response to the COVID-19 pandemic.” The international body also highlights the need for innovative solutions to help countries recover and make food systems more resilient and resistant to shocks.

This call for innovative

solutions aligns directly with GIFS’ mission and USask’s signature area of research. Founded in 2012, GIFS is committed to using innovation to address challenges facing agriculture production.

While the global population is expected to reach almost 10 billion

SEE SUPPORTING, PAGE 9



# Supporting sustainable systems

FROM PAGE 8

by 2050, simply producing more food isn't enough to feed a growing world. According to the FAO, more than enough food is produced to feed everyone; however, the imbalance with food systems and challenges such as COVID-19, climate change, and limited water, land and other resources, need to be addressed.

"We need a resourceful food production system that's sustainable—that can thrive in different economic, environmental and social conditions," said Webb. "This sustainability isn't possible without innovation and new agricultural technologies."

Saskatchewan has an agricultural technology (agtech) advantage, as it is home to about 30 per cent of this industry in Canada. The USask campus offers one of the world's largest clusters for agri-food and bioscience—including the Crop Development Centre, the College of Agriculture and Bioresources, the Global Institute for Water Security (GIWS), and many more. The university also ranks first in water resources research in Canada, and is a global leader in sustainability and in agriculture and food security.

GIFS collaborates with diverse partners including industry, government, producers and

researchers, on innovative agtech to accelerate plant breeding, enhance digital agriculture, increase quality crop yield, and build plant resilience to climate change.

An example of this collaboration is the Omics and Precision Agriculture Laboratory (OPAL) managed by GIFS. OPAL was founded by Agriculture and Agri-Food Canada, the National Research Council of Canada and USask, with a strategic investment from Western Economic Diversification Canada.

The first of its kind in Canada, OPAL combines the digital data analyses of plant genes and traits with the latest precision agtech to improve crop yield, profitability and sustainability in the agri-food sector.

"OPAL is a one-stop-shop for plant analyses at the molecular level, and we're excited to have these high-tech services right here at USask, supporting Saskatchewan's rich biotechnology ecosystem," said Peta-Gaye Burnett, OPAL platform leader at GIFS. "Through OPAL, Saskatchewan's agri-industry now has proximity to Canada's most integrated omics and precision agriculture facility to analyze crop data."

Using some of the latest in agtech, OPAL combines global positioning systems, remote aerial

imaging, unmanned aerial vehicles and in-field environmental monitoring—with digital DNA sequence information—to provide a complete profile of plant samples. The versatile equipment can also analyze animal and human samples.

"OPAL's detailed plant analyses will help farmers target their crops with the right amounts of water, fertilizers and pesticides, rather than uniformly spraying these products across their fields," said Burnett, a USask alumnus. "This precision in agriculture means a more efficient use of resources and reduced environmental impact, leading to accelerated crop breeding, less waste, and increased efficiency for breeders, agronomists, producers and other stakeholders."

Though its hard launch isn't until January 2021, OPAL is already operational, providing bioinformatics and long- and short-read genetic sequencing services to clients.

"We're open for business and eager to provide unparalleled satisfaction serving clients within and outside our campus community," said Burnett.

GIFS is part of another agtech collaboration, a new \$26.2 million Protein Industries Canada (PIC) partnership that's developing tech-




Many combines now feature the latest in advanced agtech.  OLUFUNKE OKOCHI

nology to help lower pesticide use across Canada. The project involves using artificial intelligence (AI) to detect weeds and other crop pests, so they can be targeted directly with pesticides. The AI technology is estimated to reduce pesticide use by up to 95 per cent while maintaining crop yield, saving farmers about \$52 per acre per growing season.

Roughly 120 Canadian jobs are expected to be created as a result of this project led by Precision.ai Inc., Sure Growth Solutions Inc., Exceed Grain Marketing, and GIFS. The partners are together investing \$13.4 million in the project, with PIC investing the remaining \$12.8 million.


"At GIFS, we believe that with collaboration and commitment,

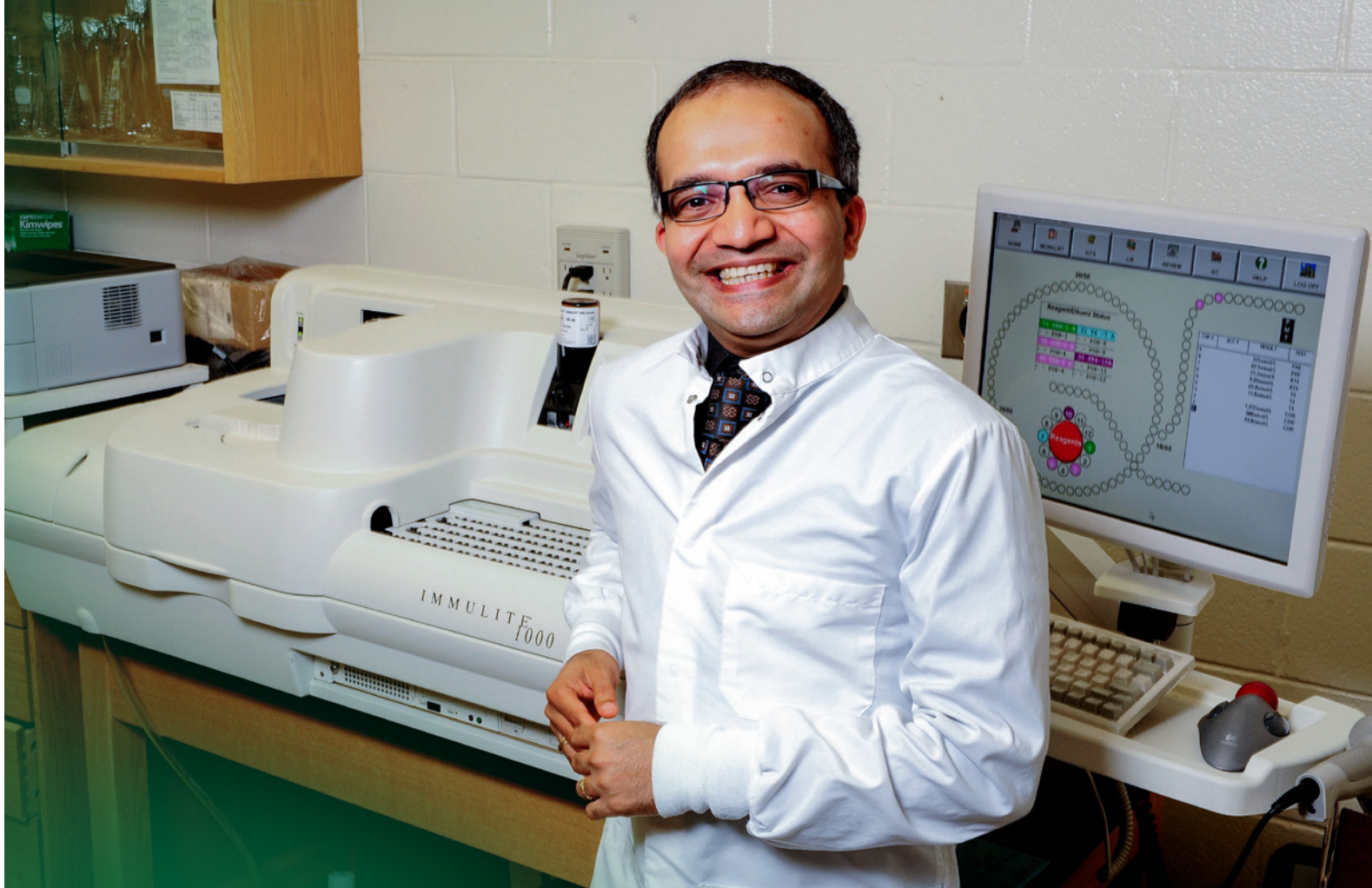
innovative agtech can help build sustainable food security. However, there needs to be structure to guide the extensive validation of the technologies before they can be successfully deployed as innovative agriculture solutions," said Webb.

"By working together with diverse stakeholders and continued investments in research and development, we can advance and accelerate agtech's use as a valuable tool that enables sustainable access to safe and nutritious food in Saskatchewan, across Canada and everywhere in the world where the technologies are deployed." 

**Olufunke Okochi is the director of communications for the Global Institute for Food Security at USask.**

Combining during harvest on the Saskatchewan farm of Alanna Koch and Gerry Hertz, an autumn tradition in a province regarded as a world leader in agriculture production.

 OLUFUNKE OKOCHI



Dr. Suraj Unniappan (PhD) is the Centennial Enhancement Chair in Comparative Endocrinology at the University of Saskatchewan.

DEBRA MARSHALL

# WCVM team researching hormones for better health

KATIE BRICKMAN-YOUNG

A high school biology class sparked a lifelong passion for University of Saskatchewan (USask) scientist Dr. Suraj Unniappan (PhD).

“Those basic concepts that my Grade 10 teacher taught are still the basic concepts we use every day. That’s what is most fascinating for me—to apply those concepts in our research today,” said Unniappan, whose research and teaching focuses on the endocrine system.

This collection of hormone-producing glands regulates metabolism, growth and development, reproduc-

tion, sleep and mood in mammals.

“The endocrine system releases chemicals that regulate many processes in the organism,” explained Unniappan. “In the hierarchy of systems in all animals, hormones regulate and integrate all functions.”

As the university’s Centennial Enhancement Chair in Comparative Endocrinology, Unniappan and his

research team are helping to make those connections between animal health and public health.

With billions of dollars spent on treating diseases worldwide, Unniappan’s research team aims to use their research findings as the basis for new diagnostic tools or treatment plans for illnesses such as diabetes and obesity.

“Our research is showing that the mechanism in disease is similar in humans and animals. The value in that is when you understand the mechanisms are the same in animals, we can develop a treatment or diagnostic tool for a particular

disease,” said Unniappan.

“The foundational principle of how comparative endocrinology could help a One Health team is because of the nature of hormones and the role in regulating physiological processes.”

Unniappan’s Laboratory of Integrative Neuroendocrinology is based in the Western College of Veterinary Medicine (WCVM), where he’s a professor in the Department of Veterinary Biomedical Sciences.

“I named my lab this way because it integrates everything,” he said. “Neurology and endocrinology work hand in hand. In the hierarchy

of systems in animals, hormones regulate and integrate all functions. We are interested in how hormones integrate with feeding, metabolism, growth and reproduction.”

Originally from India, Unniappan came to Canada in 1999 and attended the University of Alberta, where he studied hormones and how they regulate feeding and metabolism in fish. He completed his PhD in 2004 before taking post-doctoral training at the University of British Columbia.

In 2006, he became a faculty member at York University in Toronto and set up his comparative endocrinology research program using both fish and rodent models to compare the structure and function of hormones.

In 2012, he joined the WCVM as an endocrinology researcher and the faculty member in charge of the endocrine research lab, with the aim of enhancing the college’s research program. Since then, Unniappan’s research team has accomplished a great deal—especially in research focusing on new peptides (short chains of amino acids) such as nesfatin-1 and phoenixin-20.

“The research we are doing at the college is unmatched because we have all the facilities, and we have talented collaborators who are supportive,” said Unniappan.

“We hope to translate some of these results in diagnosis and treatments over the next four years. That is an ambitious plan, but also pushes us to the next level. Our research is all over the map, but that is the goal. You can’t compartmentalize endocrinology.”

Another sign of success is publishing. In 2020, Unniappan and his team have had 11 research articles published in international, peer-reviewed journals — including several papers in the prestigious *Scientific Reports* and *the Journal of Cell Physiology*, a high-impact journal in the field. As well, Unniappan is the author of an e-book that will be available later this year. 🍀

**Katie Brickman-Young**  
is a communications co-ordinator  
in the Western College of  
Veterinary Medicine at USask.



Dr. Simon Lambert (PhD) is a faculty member in USask's Department of Indigenous Studies.

ALLISON PICHE

# Lambert provides expertise on disaster risk reduction for Indigenous communities

SHANNON BOKLASCHUK

When Dr. Simon Lambert (PhD) arrived in Canada in February 2017, he wasn't used to enduring such cold weather.

Lambert, Indigenous to New Zealand, moved to Saskatoon with his family to take a faculty position at the University of Saskatchewan (USask). He joined the College of Arts and Science's Department of Indigenous Studies in the middle of a frigid prairie winter, and hopes to one day host other international citizens so they too can experience a

true Saskatchewan cold snap.

"Here's -40. Here's us driving on snow and ice, and here's us visiting a community where you can't make many mistakes at that temperature," he said. "You have to be equipped in your car; you have to have a plan. You've got to be thoughtful—even walking from one building to another on campus."

Over the past three years, Lambert has acclimated to the Saskatchewan weather and is thriving at USask. Surviving the

cold is of particular interest to Lambert, a renowned expert in disaster risk reduction for Indigenous communities. He works with colleagues throughout Canada and around the world in that research area—including promoting Indigenous voices at the UN Global Forum on Disaster Risk Reduction.

As the world continues to grapple with the COVID-19 pandemic, Lambert—who has a PhD in economic geography from New Zealand's Lincoln

University—is examining various responses to the global health crisis, which has highlighted racial and socioeconomic disparities in Canada and far beyond.

Lambert said the risk of contracting and spreading the coronavirus is greater in Indigenous communities that already face issues such as poverty, overcrowding, and inadequate housing. He also noted that people living with co-morbidities, such as diabetes or heart conditions, may face poorer health outcomes if they contract COVID-19 or other viruses.

"We know that we have this greater vulnerability," said Lambert, a member of the Tuhoe and Ngati Ruapani tribes in Aotearoa, New Zealand. "How can we bring in leaders, Elders, first responders, community voices, and people with experience in the health sector? How can we reduce the risk of COVID for these communities?"

Lambert points to the positive outcomes that were achieved in northern Saskatchewan earlier this year after COVID-19 outbreaks occurred in that part of the province. Health officials and community members worked together to limit entry to, and exit from, affected communities—thus minimizing further exposure to the coronavirus and additional illness and loss of life.

"Generally, I think, Indigenous communities here have done a really good job of minimizing the risks and being very proactive in getting the message out to protect Elders and to be very careful with hand-washing, social distancing, masks, and so on," Lambert said.

Disaster risk reduction for Indigenous communities, with a particular focus on urban Indigenous groups, became Lambert's research focus nearly a decade ago following the deadly 2011 earthquake in Christchurch, N.Z. He sees Indigenous knowledge as playing an important role in mitigating the impacts of disasters.

"Indigenous communities have found themselves responding to multiple disasters over considerable periods of time—some which Indigenous knowledges certainly give

insight," said Lambert.

"We have Indigenous knowledge and traditional knowledge on drought, on flooding, on wildfires—these are all for Elders and for community leaders to help with the response and the recovery. We'd also like to think those same voices have a role in reducing future risks. Disaster risk reduction is all about a strategic approach to hazards."

With his expertise in Indigenous health and disaster risk reduction, and with his international connections, Lambert was the perfect fit for another new role at USask. Along with College of Medicine researcher Dr. Caroline Tait (PhD), he now leads the new national co-ordinating centre for the nine Network Environments for Indigenous Health Research (NEIHR) centres across Canada, funded by the Canadian Institutes of Health Research (CIHR).

In the coming months, Lambert—who has been appointed executive director for the national NEIHR co-ordinating centre—will join other USask researchers in moving to Station 20 West in Saskatoon's core area, enabling Indigenous-led health research to take place in the community.

Lambert is excited about the new challenge, and notes that working in Canada reminds him of working in his home country. He has found it relatively easy to get to know other scholars here as well as to connect with Indigenous communities and leaders.

"Canada is physically very big, but the networks are still very small," said Lambert. "You end up meeting a dozen experts in your area, and it's like New Zealand where . . . it's easier to become known in a network compared to, say, the U.S.—which is just so massive and you just get (overwhelmed) sometimes. Canada is a little bit like Australia, too, where it's physically big but the networks are tight. You actually get known and you get to know people, and I find it very reassuring." 🍓

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

# Safely offering campus recreation opportunities

ALYSSA WIEBE

Recreation on campus has always been a positive component of the student experience at the University of Saskatchewan (USask).

Whether students are staying active in the Fit Centre, participating in Campus Rec activities, or taking advantage of lane swims in the pools, recreation has many positive benefits for our overall well-being.

In March, like most of campus, USask Rec was required to close the doors to the Physical Activity Complex (PAC) due to the global pandemic. The COVID-19 closures left many on and off campus community members without their regular facilities to remain physically active, with USask Rec offering home workout tips and regimens to help members remain active.

“At the onset of COVID-19, it was extremely challenging having our fitness opportunities taken away from us, whether the biggest loss was losing our workout buddy, fitness facility or just our regular routine, it created change,” said Gray Ferguson, program and client services co-ordinator.

“We wanted to provide some specific exercise routines for our community to give some fresh exercise ideas and establish a new at-home routine so our patrons could still receive the same mental and physical benefits as working out at a fitness facility. We made the programs with minimal equipment or explained how to adapt regular household items to get a similar workout as being in the gym.”

As the pandemic continued, the university made the decision to deliver fall and winter programming remotely, with the majority of buildings on campus remaining closed. USask Rec continued to work on plans to offer virtual recreation programming and has now opened in-person outdoor fitness classes and campus recreation sports leagues, incorporating public health guidelines.



A USask Rec student employee prepares the Fit Centre in the PAC for physically distanced re-opening, by labelling some fitness equipment unavailable for use.

“Campus recreation programs have always helped create a sense of community and studies have shown it improves student success,” explained Cary Primeau, USask’s campus recreation co-ordinator. “By allowing students the opportunity for physical and mental well-being options, we are able to provide them of a sense of normalcy during a very uncertain time in their academic lives.”

The outdoor fitness classes

have been well received, and the outdoor intramural leagues filled quickly, but as the days get shorter and temperatures continue to drop, the demand for indoor fitness and recreation has increased. USask Rec was approved to open the Fit Centre and indoor fitness classes in the PAC for USask student access on October 5, with strict COVID-19 precautions in place.

There are several reopening protocols in place for individuals

accessing the PAC, to ensure health and safety. The capacity is limited to 25 individuals per hour in the Fit Centre, while fitness classes vary between 10-15 people. Students are limited to one hour of fitness access per day and must register to secure their spot online. Fitness machines and weights will also be limited to accommodate physical distancing protocols, while access to locker rooms, water fountains, towel service, and equipment rentals remain unavailable.

Masks are mandatory on campus, including accessing the PAC, but are not mandatory while exercising.

For those who are not comfortable coming back to campus for recreation, all members will be able to access online virtual fitness classes this fall. A daily schedule will be posted online, and members will be able to log into their accounts and register for each virtual fitness class, granting them access to a video link to take part.

“While providing in-person recreation is still very much at the heart of our recreation programming, USask Rec understands that

virtual programming has also become an important avenue to reach our wide range of participants,” said Paul Rogal, director of USask Rec. “With many of our students not on campus, or even in the city, this new type of programming will become an integral part of what we do. While challenging to initiate, we are excited about the possibilities available through virtual programming.”

USask Rec also plans to offer virtual learning programming throughout the semester.

Many facilities and areas of recreation remain closed on campus, but USask Rec continues to work on reopening plans for areas within the PAC. Although in-person access to limited recreation programming is only open to USask students at this time, capacity numbers will be monitored and evaluated in the event that public health guidelines allow the Fit Centre and fitness classes to accommodate more members in the fall semester. ▀

Alyssa Wiebe is the communications and alumni relations officer in the College of Kinesiology.

For up-to date information regarding recreation on campus, visit: [rec.usask.ca](https://rec.usask.ca).

## USask to host upcoming sustainability events

The University of Saskatchewan (USask) is celebrating campus sustainability with a variety of virtual initiatives this fall.

USask’s Office of Sustainability is hosting this year’s Global Conference on Sustainability in Higher Education, Oct. 20-22. The virtual event is designed to explore, re-examine and re-envision sustainability initiatives and goals in higher education. USask students,

staff and faculty can register for free to take part in the three-day event, featuring live online events and networking. For more information, email [matt.wolsfeld@usask.ca](mailto:matt.wolsfeld@usask.ca) or call 306-281-5797.

The Office of Sustainability will also host EcoHack 2020 online Nov. 9-15. The annual event brings together participants to address the city’s environmental problems in a rapid-design focused, collabora-

tive online setting. A community partner will pitch an open-ended challenge to participants to create solutions from a variety approaches (entrepreneurship, marketing, mechanical, policy innovation, etc.).

Groups will develop a pitch centred on their work and create a five-minute video to highlight their innovative solutions. Submis-

sions will be shortlisted by a panel of judges and publicized via USask and City of Saskatoon social media for a public vote. Participants will also be able to take part in professional development webinars covering marketing/communications, project management, legal/policy questions, and design thinking/ideation. ▀

Visit the website [usask.ca/ecohack](https://usask.ca/ecohack) to register.

Emmarae Dale competed nationally as a member of the Huskie Athletics track and field team.

GETMYPHOTO.CA

# Dale's tale: From deadlines to headlines for former Huskie



Emmarae Dale (45) played for the Saskatoon Valkyries before joining the Saskatoon Hilltops.

LOUIS CHRIST

JAMES SHEWAGA

**Graduate with a kinesiology degree? Check.**

**Be a role model for aspiring young football players? Double check.**

While 2020 will be forever remembered for the global pandemic, it has still been quite the year for Emmarae Dale, a former Huskie Athletics track and field student-athlete who celebrated the completion of her Bachelor of Science in Kinesiology degree in June's University of Saskatchewan (USask) virtual convocation. Now, the USask alumna has gone from class deadlines to making headlines by joining the national champion Saskatoon Hilltops, believed to be the first female player ever in the Canadian Junior Football League.

"It is pretty overwhelming just knowing the impact that it is having because I did not really expect it at all," said Dale, who joined the Hilltops when practices resumed in September. "I just felt like another kid wanting to play football and then it turned into this huge thing, so it is starting to sink in now. It is cool

knowing that this may be creating opportunities for young girls everywhere, so it is pretty surreal."

While attending USask and competing for the Huskies, Dale helped lead the Saskatoon Valkyries to a pair of Western Women's Canadian Football League championship titles in 2016 and 2019. Moving up to Canada's premier junior football league—and playing the linebacker position no less—is a whole new ball game.

"Going from women to men it is definitely more physical, and the physicality aspect was something I was mentally preparing for," said Dale. "As a kinesiology graduate, I am not unaware of the differences in strength and especially at linebacker, I knew I would have to buckle down on every play. It is kind of the same in both men's and women's football, you are always going to have to be physical as a linebacker, but it is definitely an adjustment."

Dale has found her training regimen as a Huskie student-athlete helped set the stage for tackling this new challenge.

"It is obviously a completely different sport than football, but in terms of training, that is something that definitely helped set me up for

success," said Dale, who closed out her Huskies career by competing in weight throw and shot put at the Canada West championships in Saskatoon in February and U Sports nationals in Edmonton in March.

"I was lifting (weights) close to five times a week and it was pretty similar to football training in terms of being a power athlete and there is definitely a correlation there," said

Dale, who also learned a thing or two watching her older brother Donovan earn All-Canadian honours while playing Huskie football.

"He has been very supportive throughout the whole thing and just wants me to keep my head on straight and he understands what it takes to be a really good defensive player, so he has definitely helped me. Just watching him play

## USask beginning the search for a new Huskies CAO

UNIVERSITY COMMUNICATIONS

The University of Saskatchewan (USask) is launching a nationwide search after announcing Dave Hardy will be stepping down as chief athletics officer (CAO) after a successful run with Huskie Athletics.

"The world has changed due to the COVID-19 pandemic and university athletics was by no means spared," said Hardy, a USask alum and former Huskie men's basketball player who took on the role of CAO in August of 2019 for a term of up to two years and has committed to staying on until his replacement is hired. "The road to recovery is going to be a long one and I feel it is in the best interest of

Huskie Athletics to have long-term leadership in place."

Debra Pozega Osburn, vice-president University Relations, and a member of the Huskie Athletics Board of Trustees, said Hardy has served the university well during his tenure with Huskie Athletics.

"We are grateful for the leadership, experience and passion that Dave has brought to the Huskie Athletics program," Pozega Osburn said. "He has built both success for the program and momentum for the future. His commitment to excellence has made a difference."

Chad London, dean of the College of Kinesiology and vice-

throughout the years, I have learned a lot about what it takes to be a great football player."

Emmarae, whose brother Fabian played Huskie men's soccer, now works at Ignite Athletics fitness and personal training facility in Saskatoon, after completing her bachelor's degree in June.

"It was definitely a pretty proud moment just knowing that all the blood, sweat and tears with studying and training, it all kind of came together in the end," she said. "Looking back at my time in university, I definitely would do it all over again. I earned my degree and I have three Canada West team titles under my belt, so I am proud to have been a part of the legacy of the Huskies track team and looking forward to what the future holds." ▀

chair of the Huskie board, noted that Hardy's leadership has been particularly important during the COVID-19 pandemic.

"The global pandemic has affected all universities and all athletic departments across the country, and we have been thankful to have had Dave's steady hand leading the department through this extraordinary period in the university's history," London said.

**DECISION DELAYED:** The Canada West conference will now announce no later than Nov. 2 whether second-term sports will go ahead. The announcement was originally scheduled for Oct. 8. ▀

# Law lecture series focused on re-envisioning policing

 SARAH TREFIAK

As the fall edition of the McKercher Lecture Series at the University of Saskatchewan (USask) College of Law moves online, the speakers committee has decided to view this shift in operations as a new opportunity.

“We’ve always envisioned this community as extending beyond our hallways, including our students, faculty, alumni, and others from the broader academic community and members of the public. Planning the

2020-21 year meant creating a new vision for how to have these conversations,” said Professor Michaela Keet, chair of the College of Law speakers committee.

The committee is hoping it will be easier for law students (who are currently situated across the country), alumni and the general public to participate in these live events without barriers such as parking and time to travel to campus.

Typically, each lecture covers a different topic, but this fall the McKercher Lecture Series will also feature a spotlight series that will allow for a deeper look at the issue of “Re-Envisioning Policing in Canada.”

“Issues of police-citizen relations have long been of interest to the law, whether in relation to the criminal law or the legal authority of the police, oversight of policing, or the tensions between ‘law and order’ and citizens’ basic liberties,” explained Professor Brent Cotter, a recent appointee to the Senate of Canada. “So, it’s a natural subject for the law school to explore.”

Recent conflicts and tensions between police and Indigenous people, or people from racial minority communities, were indeed reasons the committee decided to focus on this topic.

“The need to understand the police-citizen relationship better, and imagine ways forward toward greater reconciliation, has become even more urgent,” added Cotter.

The committee has invited a slate of experts to give the audience a better picture of the challenges between police and citizens, as well as offer insights into the ways in which policing can be re-envisioned and improved, and the ways in which we might all contribute to those improvements.


“We’ve designed the series to hear from experts on various aspects of the topic,” said Cotter.

Gerry McNeilly, former independent police review director in Ontario, will provide a perspective on policing and the issues faced by citizens from minority communities; Harold Johnson, a Cree author



Professor Michaela Keet is the chair of the College of Law speakers committee.

and lawyer, will examine issues faced by people of Indigenous ancestry; Senator Gwen Boniface, former commissioner of the Ontario Provincial Police, will speak to the challenges that police face and the potential for change; and Professor Kent Roach of the University of Toronto, whose insights have been sought by the legal community, academia and by those who provide police leadership and oversight, will close the series.

“With a bit more flexibility and creativity, we are moving into our 2020-21 lecture series with some renewed excitement,” said Keet. 

Sarah Trefiak is the communications officer in USask’s College of Law.

**“ We’ve always envisioned this community as extending beyond our hallways, including our students, faculty, alumni, and others from the broader academic community and members of the public.**

— Professor Michaela Keet

**EACH OF THESE FREE PUBLIC LECTURES will be available at [law.usask.ca](http://law.usask.ca) on Mondays at noon beginning in October. Afterwards, they can be viewed on the College of Law’s YouTube channel at [youtube.com/CollegeOfLawUsask](https://youtube.com/CollegeOfLawUsask).**



**SPECIAL SERIES:  
RE-ENVISIONING POLICING IN CANADA**



**EPISODE 1**  
Gerry McNeilly, former Ontario Independent Police Review Director  
Oct. 5, 2020 | 12pm | Available at [law.usask.ca](http://law.usask.ca)



**EPISODE 2**  
Harold R. Johnson, Cree Author and Lawyer  
Oct. 13, 2020 | 12pm | Available at [law.usask.ca](http://law.usask.ca)



**EPISODE 3**  
Senator Gwen Boniface, former Commissioner of the Ontario Provincial Police  
Oct. 19, 2020 | 12pm | Available at [law.usask.ca](http://law.usask.ca)



**EPISODE 4**  
Kent Roach, Professor and Prichard Wilson Chair in Law and Public Policy, Faculty of Law, University of Toronto  
Oct. 26, 2020 | 12pm | Available at [law.usask.ca](http://law.usask.ca)

\*Speakers and dates subject to change




College of Law Professor Brent Cotter was recently appointed to the Senate of Canada.

# Dr. Irene Evans: Helping students in need succeed

✍ INALIE PORTADES

Raised on a family grain farm near Humboldt with her 13 siblings, Dr. Irene Evans (MD) saw first-hand the importance of hard work and dedication in order to be successful.

Evans left school at the end of Grade 8 to study business courses and began working at an office to save money for university. Ultimately, she completed her high school diploma at Regina College and later pursued post-secondary education at the University of Saskatchewan (USask).

Evans' nephew, Eric Wesling, said he has many memories of his hard-working and compassionate aunt.

"My aunt always helped on the family farm as much as she could, hauling grain and combining," he said. "Despite the long hours, she made time to visit my brother and I and read us stories. Then, she would hop back in the truck, get the grain that was harvested from the combines, and continue to help out."

Thanks to her hard work, determination, and with the help of scholarships and loans, Evans received her medical degree at USask in 1963.

Throughout her studies, there were constant financial struggles to overcome. Despite these challenges, her family encouraged her to not give up.

"When she started going to school, she didn't have a lot of money. For her to continue her education, she would work on days she wasn't going to school and apply for scholarships and bursaries. That's how Aunt Irene

was able to finance her way through her education," said Wesling.

Upon graduation, Evans accepted an internship at Vancouver General Hospital where she worked 18-hour days. She didn't mind the long hours, however, because she wasn't doing it for the money.

Her courage and tenacity were evident throughout her internship and Evans went on to become the first female doctor hired at Vancouver General Hospital. She went on to work for more than 25 years in a successful medical practice in Richmond, B.C., with her husband, Dr. Gwilym Evans (MD).

Her determination didn't stop there, and during retirement she volunteered at numerous hospitals and retirement homes in Vancouver and area.

In 2017, Evans moved to Kelowna to be closer to Wesling, who she looked on as a son. Wesling would visit her daily and was familiar with her friends and the staff at her residence. He fondly recalled one Halloween when he paid a visit dressed as a doctor with his aunt's stethoscope and a medical bag full of chocolate, and became known to everyone as "Dr. Chocolate".

"The one thing I asked from Aunt Irene was for her medical bag, because I've always been fascinated by old movies where medical doctors carry their black medical bags. Ever since that Halloween, it became a tradition for me to hand out chocolates from a medical bag and bring joy to those around my



Dr. Irene Evans (MD) graduated from USask in 1963.

aunt," said Wesling.

Through her humble beginnings, Evans understood the value of attaining higher education and the financial expenses that come with being a student. Receiving

donor-funded scholarships were meaningful during Evans' medical studies, inspiring her to establish a generous gift in her will to support future medical students at USask.

Evans passed away in October

If you are interested in learning more about making a gift in your will to support University of Saskatchewan students please contact Ashala Jacobson and the university's gift planning team at 306-381-5909 or 1-800-699-1907 (toll-free), or visit the website at [usask.ca/giftplanning](http://usask.ca/giftplanning).

## Respectful research relationships

FROM PAGE 2

into their experience, reflections, and observations regarding the future of knowledge mobilization.

"This type of collaborative, respectful research can be a powerful tool for reconciliation with Indigenous peoples," said Sébastien Goupil, secretary general of the Canadian Commission for UNESCO. "Working for and with communities presents amazing opportunities to engage with voices and types of knowledge that are not always heard by the wider research community or the public at large. The Canadian UNESCO Chairs network are leaders in this type of innovative, collaborative research that benefits multiple stakeholders and society as a whole."

Reed and Robson's paper, *Foundational Principles for Inter-*

*cultural and International Research with Indigenous and Rural Peoples: Connecting Principles to Knowledge Mobilization*, is a collaboration involving the co-chairs from SENS and professors from other institutions across Canada, Argentina, Bolivia, Mexico, and South Africa as well as Indigenous and rural community partners from these countries, and several graduate students.

Reed said the framework prioritizes relationships among all stakeholders as the lynchpin for every aspect of research including design, implementation, and data management. Building and nurturing relationships honours the lived experiences of community members and embeds their participation in the success of any outcome. The emphasis

is on researchers and communities co-creating the research agenda, addressing how and why research is conducted, and for whom.

Additionally, the UNESCO Chair encourages funders to support research that applies similar types of principles, including support for follow-up funding.

"Fundors can become more creative in their support of community-engaged research once they realize that strong research relationships don't end once the data are analyzed," Robson said. "That's the intersection where analysis gets translated into action."

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

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



## PRINTS BY PICASSO PART OF THE USASK STORY

CHRIS PUTNAM

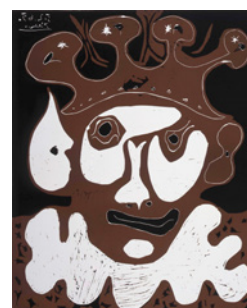
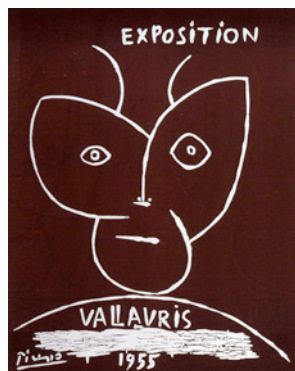
The permanent art collection of the University of Saskatchewan (USask) holds works by great artists from countless cultures and art movements, but none are quite as iconic as the artist behind six large prints hanging in the President's Residence.

"You can recognize the work pretty much immediately. And given that it is a very simple graphic process, it's very interesting to think that this person that's characterized as a modern master is immediately recognizable in these marks," said Jake Moore, director of the USask Art Galleries and Collection and a faculty member in the Department of Art and Art History.

The linocut prints were created by Pablo Picasso in France between 1952 and 1965. They were donated to USask by Dr. Frederick Mulder (PhD) in 2012.

Although Picasso is best known for his paintings, he became an accomplished printmaker later in life. The six linocuts in the USask collection capture moments spanning his printmaking career.

By the time Picasso was making prints, "He's kind of entered into a period of repose. He's changed his subject matter—at that point it's no



Linocut prints by Pablo Picasso donated by USask alumnus Frederick Mulder to the University of Saskatchewan Art Galleries and Collection in 2012. Top row, left to right: Exposition Vallauris (1952); Exposition Vallauris (1955); Exposition de Vallauris (1955). Bottom row, left to right: Avant la Pique. II (1959); Nature Morte au Casse-Croûte. II (1962); Tête de Bouffon. Carnaval (1965).

longer political work," said Moore.

The prints include posters made by Picasso to advertise local events in Vallauris, France, the town where he settled in 1948. The posters are notable for showing how the artist "was

invested in the community" and for reflecting a period when "advertising and art were becoming more and more well-aligned," said Moore.

Linocuts are not reproductions, but original

pieces of art created through the direct work of an artist. To make his linocuts, Picasso carved images into blocks of linoleum and used them to apply ink to paper.

Hundreds of impressions were created from some of the blocks, but the vast majority have been lost. The prints are rare enough that, until Saskatoon's Remai Modern acquired the world's most complete collection of Picasso prints from Mulder later in 2012, the six pieces at USask were the largest institutional collection of Picasso linocuts in Canada.

The prints at USask are made far more meaningful by their connection to Mulder—a USask alumnus, honorary Doctor of Laws recipient and one of the world's foremost dealers and experts in Picasso prints—Moore said.

The years Picasso was making the prints in France were the same years Mulder spent growing up in Saskatchewan and completing his Bachelor of Arts in the College of Arts and Science. Mulder donated the linocuts in honour of six people at USask who had influenced and inspired him.

"It (shows) the kind of story-making that can come out of not only art-making, but art collection. It connects communities together," said Moore. ■

Chris Putnam is a communications officer in the College of Arts and Science.