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## PRESIDENT'S PRIORITIES

President Peter Stoicheff sits down with *On Campus News* to discuss the highlights of 2019 for the University of Saskatchewan and what he is looking forward to in 2020, as well as his plans and priorities for USask over the next five years following his re-appointment for a second term.

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*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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## UNITED NATIONS INTERNATIONAL YEAR OF PLANT HEALTH

# SENS specialist seeks food solutions the world needs

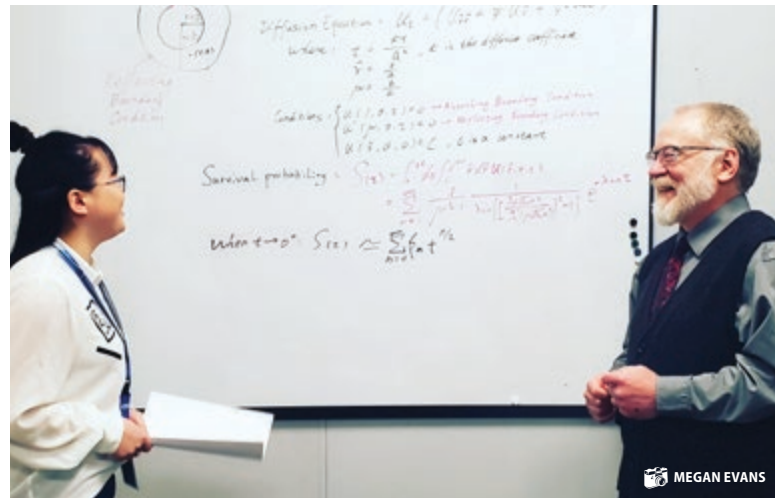
MEGAN EVANS

For University of Saskatchewan (USask) computational biologist Dave Schneider, plant health ultimately comes down to an issue of food and economic security.

“There is no computer algorithm that is going to feed the world,” Schneider emphasizes. “Only by people working together in teams can we solve these incredibly complex problems.”

Schneider, a professor in USask’s School of Environment and Sustainability (SENS) and the Global Institute for Food Security Research Chair in Digital and Computational Agriculture, is one of a growing number of researchers on campus dedicated to searching for solutions to providing food security for an ever-expanding global population, as a new year and decade begins.

The United Nations General



Professor Dave Schneider (right) of the School of Environment and Sustainability and student Yujie Pei, a Baxter Fellowship recipient.

Assembly has declared 2020 the International Year of Plant Health, with the purpose of raising global awareness on how protecting plant health has broad implications for

ending hunger, reducing poverty, and protecting the environment, as well as economic development.

As Schneider sees it, plant health optimization in agriculture

is critical for food security. As the human population increases, so does the need for food production. Without plants that are resilient to ever-changing environmental factors, Schneider said we can expect to see crops, and the farming operations that produce them, fail.

The stakes are high, but answering smaller questions related to plant health one at a time allows for the creation of a bigger picture and, ultimately, a vision for a sustainable future. Climate change means changes in temperature and temperature extremes, drought, pathogens, and new pests, among other threats. These evolving conditions force plants to adapt. But when plants fail to adapt quickly enough, crops fail—ultimately putting the global food supply and economic

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## 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):

### Pomeroy presents

University of Saskatchewan researcher Dr. John Pomeroy (PhD) reported to the United Nations Climate Change Conference in Madrid on Dec. 11 about the urgent need for action to stop the loss of snowpacks and glaciers that poses a serious threat to world water security. “It is disturbing to see world leaders struggling to find ways to hold warming to 1.5° Celsius, when 1.5° Celsius of further warming is too much for our snow and ice,” said Pomeroy, Canada Research Chair in Climate Change and Water Resources. Pomeroy presented as part of the Canadian delegation, as well as a UN observer and delegate for World Meteorological Organization.

### Water warning

A group of international scientists including University of Saskatchewan researcher Dr. Jay Famiglietti (PhD)—executive director of the Global Institute for Water Security—say we are not doing enough to protect and manage groundwater resources, which will have long-term effects on the planet’s drinking water, food production, and adaptation to a rapidly changing climate. The Global Groundwater Statement—A Call to Action, cites recent scientific breakthroughs that highlight the regional and international importance of the issue as well as global threats to groundwater, which makes up 99 per cent of Earth’s liquid freshwater.

### Excellent educator

USask College of Education lecturer and Saskatoon Marion M. Graham Collegiate teacher Nat Banting is the first instructor in Canada to receive the prestigious Rosenthal Prize for Innovation and Inspiration in Math Teaching for his lesson *Dice Auction: Putting Outcomes of the Dice Up for Sale*. In Banting’s lesson, students test their intuitive probabilistic reasoning of dice throws with a dynamic “outcomes auction.” He is the first Canadian to receive the award, designed to promote hands-on math teaching, and featuring a cash award of \$25,000 from the National Museum of Mathematics in New York.

### Toxic dust findings

Chemicals commonly used in smartphone, television, and computer displays were found to be potentially toxic and present in nearly half of dozens of samples of household dust collected by a team of toxicologists led by USask. The international research team, led by USask environmental toxicologist Dr. John Giesy (PhD), is sounding the alarm about liquid crystal monomers—the chemical building blocks of everything from flat screen TVs to solar panels—and the potential threat they pose to humans and the environment. Ninety per cent of the monomers tested had concerning chemical properties.

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

# Creed leads new sustainability strategic plan

JAMES SHEWAGA

Tasked with creating a comprehensive sustainability strategic plan for the University of Saskatchewan (USask), Dr. Irena Creed (PhD) wasted no time in getting started.

The former Canada Research Chair and former executive director of USask's School of Environment and Sustainability (SENS) was recently named by President Peter Stoicheff as special advisor to the president on sustainability. Creed quickly established a 16-member advisory circle as she began working to prepare the plan to present to University Council by Dec. 1, 2020.

"It is a very ambitious timeframe, but it is a necessary timeframe," said Creed, who also serves as associate vice-president of research at USask as well as a professor in SENS.

Sustainability is one of the four key principles in the university's *Mission, Vision and Values* document approved in 2016, as well as a pillar of the new strategic plan to be *The University The World Needs*, announced in 2018.

"When you consider the strategic plan of the university through to 2025, if we want to be authentic and have meaningful impact on the sustainability file, we need to move quickly," Creed said.

The President's Sustainability Council has evolved into the advisory circle to assist Creed in conducting a thorough review of sustainability initiatives underway on campus and to help formulate a new comprehensive plan for moving forward. While the university has been successful in many areas of sustainability, Creed said a more co-ordinated approach is required.

"We need to listen carefully to our stakeholders both on campus and beyond," said Creed. "We need



Dr. Irena Creed (PhD) was recently named special advisor to the president on sustainability at USask.

SUBMITTED

to engage in difficult conversations. For example, if we want to decarbonize the institution, there are going to be challenges and consequences. So, we have to be careful listeners on how to come up with a made-in-Saskatchewan plan that is respectful of the people in the province but still has meaningful impact in terms of moving forward on sustainability."

The university has had success in a number of areas, including earning a silver rating in 2017 in the Sustainability Tracking, Assessment and Rating System (STARS) that measures sustainability achievements at more than 600 post-secondary institutions across North America.

In addition to creating an Office of Sustainability, the univer-

sity established SENS in 2007 and the Sustainability Education Research Institute (SERI) in 2012. USask started the Sustainability Revolving Fund in 2014 to support projects across campus, and signed a memorandum of understanding with the USask Students' Union to fund student-led initiatives. The university has implemented water conservation, energy and recycling initiatives, turned waste into compost used for campus grounds, installed solar panels and solar-powered compactors, and established community gardens and a farmers' market.

"I think this institution is already engaged in a lot of positive activities towards achieving sustainability and, in particular, to meeting the sustainable devel-

opment goals as articulated by the United Nations," said Creed. "I think part of the issue is that it is not presented in a co-ordinated, cohesive statement. So, the first step is to benchmark where we are, by completing an inventory of past and ongoing sustainability initiatives on campus. The next step is to identify where we can take transformative action and become sustainability leaders."

Reducing the university's carbon footprint with funding for building retrofits and renewable energy projects remains a major priority, although addressing green-

house gas emissions is an ongoing challenge. In the latest emissions report released in November 2019, the university's total greenhouse gas emissions increased 7.8 per cent. However, emissions per square metre of building space decreased 13 per cent across campus despite expansion, due to the construction of more energy-efficient buildings and retrofits.

"One transformation action is to decarbonize our campus," said Creed, who wants to establish five- and 10-year goals moving forward. "We are committed to reducing our greenhouse gas emissions, and our approach is to explore a combination of proposed actions, including wind and solar, as well as other forms of renewable energy. This institution has already reduced our greenhouse gas emissions substantially. However, we are a growing campus, so while on a square-metre basis we are reducing, our emissions have gone up overall."

The comprehensive plan will be designed to bring all the initiatives together and bolster a culture of sustainability across campus, from teaching and research, to university operations, and governance, as well as community engagement.

"We want to make this an open and transparent process," she said.

While future financial investments have yet to be determined, Creed said the university is committed to doing what it takes to make a difference. "Because this is a priority for the university, we do know that we will have the resources moving forward." ■

Members of the campus community interested in engaging in or learning more about the university's sustainability efforts are invited to email: [sustainability@usask.ca](mailto:sustainability@usask.ca)



Geological Sciences Professor Dr. Matt Lindsay (PhD) at the Diavik Diamond Mine in the Northwest Territories in 2011.

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# New environmental geoscience program offered

SHANNON BOKLASCHUK

The University of Saskatchewan (USask) is set to offer a new undergraduate program in environmental geoscience, effective May 2020.

The Bachelor of Science degree, taught and administered through the College of Arts and Science, will position graduates to take on a number of growing job opportunities in areas such as responsible resource extraction and environmental stewardship, said Dr. Matt Lindsay (PhD), a professor in the college's Department of Geological Sciences.

Completing the program will also ensure graduates are eligible for registration with the Association of Professional Engineers and Geoscientists of Saskatchewan.

"There is need for this program

because there is a demand for people to work in this field," said Lindsay, who will serve as the program's faculty advisor. "It is a growing field of practice for geoscientists."

Geoscience is a diverse scientific field with sub-disciplines that include geochemistry, sedimentology, geomicrobiology, geophysics, mineralogy, paleontology and hydrogeology. Geoscientists integrate knowledge in these and other areas to improve understanding of the physical, chemical and biological aspects of the Earth system in the past, present and future.

The Department of Geological Sciences is already well-known for its undergraduate programs in geology, geophysics and palaeobiology. The

department was one of three that initiated the previous undergraduate environmental earth sciences program, which has been replaced with a new program in hydrology that will also begin accepting students in 2020.

The program revision and renaming presented an opportunity for the department to establish a distinct undergraduate environmental geoscience program, which will focus on geochemistry and integrate other related disciplines, said Lindsay.

USask's environmental geosci-



Lindsay

ence students will participate in a new field school, starting in the 2022/2023 academic year, which help them to meet the knowledge requirements necessary for registration as professional geoscientists. The new environmental geoscience program will also

represent two of USask's signature areas of research: energy and mineral resources, and water security.

"Contamination of water resources is often the environmental issue of most importance with the energy and minerals sectors," said

Lindsay. "For example, selenium contamination of rivers in south-eastern British Columbia is a direct result of coal mining operations in the region."

Geoscience is fundamental for addressing societal needs that include meeting growing demand for non-renewable and renewable resources and minimizing the environmental impacts of resource development. This includes working with the resource sector to remediate sites impacted by mining activities as well as working with industry partners and mining companies "to be proactive in managing their activities and minimizing environmental impacts," said Lindsay.

Canada is currently home to more than 10,000 abandoned mine sites and an even larger number of inactive oil and gas wells. Reclamation costs, which can reach into the tens of billions of dollars, are often borne by taxpayers. Graduates of USask's environmental geoscience program will be able to assist resource companies in enhancing their environmental stewardship practices, helping to reduce the need for major cleanups.

"Better practice now will help minimize environmental impacts and increase economic benefits," Lindsay said. "First of all, it will help reduce the environmental liabilities, which is good for the environment. Second, it will reduce the financial liabilities associated with environmental impacts—and those financial liabilities, in many cases, become the responsibility of taxpayers."

Lindsay said many traditional geoscience jobs, particularly those in exploration and extraction, are linked to economic cycles. That means the job market for those occupations tends to change with commodity price changes. With environmental geoscience, however, employment is often more stable because the jobs are less tied to commodity prices.

"I think the overall trend will be growth," Lindsay said.

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

# ALUMNI SPOTLIGHT

Every month in *On Campus News*, we highlight an exceptional graduate of the University of Saskatchewan in our Alumni Spotlight feature series. In this issue, we chat with USask distinguished professor emeritus Bill Waiser (MA'76, PhD'83, DLITT'10), who taught for more than 30 years in the Department of History.



Distinguished Professor Emeritus Dr. Bill Waiser (DLitt) spent more than 30 years teaching in the history department at the University of Saskatchewan.

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## Bill Waiser: Saskatchewan's historian

KATIE BRICKMAN-YOUNG

Dr. Bill Waiser (DLitt) has devoted his life and career to telling people's stories.

The University of Saskatchewan (USask) distinguished professor emeritus in the Department of History is a specialist in western and northern Canadian history, specifically Saskatchewan history.

For Waiser, people and their stories have always been at the forefront of his interest in how the province was shaped and why he went into history as a career.

"Everyone has a story. I like research and uncovering new things," he said. "History is about looking for stories inside the bigger story. I try and write history that way."

Waiser was born in Toronto, but visited his paternal grandparents' homestead in Manitoba every summer. He went to Trent University in Peterborough, Ont., where he studied with prominent Manitoba historian W.L. Morton, before coming to USask as a graduate

student in western history. From there, he went on to have a distinguished and decorated career in his field.

"I was always intrigued by western history, partly because of my family's past," Waiser said. "I was looking for a school to study prairie history and Saskatchewan seemed the best."

Waiser began his teaching career in 1980 at USask, instructing large introductory survey classes as well as small graduate seminars. Since then, more than 3,000 USask students have taken a course with Waiser and 41 graduate students completed their theses under his supervision. The impact is not lost on him.

"It is very gratifying to see where they all are and what they are doing with their history degrees," said Waiser, who retired from full-time teaching in 2014. "I hope I was able

to teach them how to read critically, think critically, and both speak and write critically."

**“I don't think you can do the work on Canadian history without talking about Indigenous-Non-Indigenous relations—it is essential to the story.”**

—Dr. Bill Waiser (DLitt)

Throughout his career, Waiser has published 18 books on Canadian history, with a focus on Saskatchewan and Indigenous-Non-Indigenous relations. It was through his writing that he earned some of the highest awards and honours.

In 2017, Waiser was named a member of the Order of Canada, the country's highest civilian honour. This recognition complemented his appointment to the Saskatchewan Order of Merit in 2006 and his election as a Fellow of the Royal

Society of Canada (RSC) in 2007.

"Winning the Order of Canada confirmed the work that I've been doing has been important work," he said.

In 2018, Waiser earned the RSC's J.B. Tyrell medal for outstanding work in Canadian history and the Governor General's History Award for Popular Media (The Pierre Berton Award), as well as the Governor General Literary Award for Non-Fiction in 2016 for his book, *A World We Have Lost*.

"That was probably the hardest book I've ever done," he said. "I learned a lot about my own understanding of Saskatchewan history and it was wonderful news when I won."

Over the course of the past three decades, much of Waiser's work has been focused on Indigenous-Non-In-

igenous history in Saskatchewan.

"I don't think you can do the work on Canadian history without talking about Indigenous-Non-Indigenous relations—it is essential to the story," Waiser said.

Waiser's research was used in the exoneration of Chief Poundmaker, more than 130 years after the Plains Cree chief's conviction for treason-felony.

Waiser hopes that 2020 will bring further strides towards reconciliation in Saskatchewan and Canada.

"Reconciliation is a shared journey and we need to go down that road together," said Waiser. "It will be an uncomfortable journey and it isn't simply moving forward together ... We will have to recognize some hard truths about what happened and that will be difficult, but necessary."

**Katie Brickman-Young is a communications officer in Alumni Relations.**

# Health Sciences enhancing interprofessional training



NAOMI ZUREVINSKI

✍️ NAOMI ZUREVINSKI

A wave of collaboration is sweeping University of Saskatchewan (USask) Health Sciences, with an updated approach to InterProfessional-Based Learning (IPBL) sessions, giving students of all disciplines the

opportunity to improve practical skills such as communication and teamwork.

Although IPBL sessions have previously been a staple of USask health science disciplines, Dr. Sheryl

Mills (PhD), associate director, academic programs and interprofessional education, was brought on to the Health Sciences team in 2019 to improve interprofessional teaching and practice.

“Part of the Health Sciences’ focus is finding ways in which all of our colleges and programs can work together, and interprofessional education is one of those places,” Mills said. “It’s important because health-care teams are made up of professionals from all areas, depending on the needs of the patient, the pet, or the client.”

The format of the sessions has changed from students working in groups of eight to 11 with a tutor, to self-made groups of three to four in large rooms with a few facilitators. The sessions involve solving a case or completing a task and intentionally practicing the skills necessary for a high functioning team.

“The teamwork and skill development piece has included things like being present, truly listening, and working on how to speak up even though it’s awkward,” Mills said.

Additionally, an online platform and app called IPECT has been developed, to help students access session material, quizzes and resources and keep track of their skill development.

Ali Stobbe, a fourth-year student in the College of Pharmacy and Nutrition, helped develop the new session format. She said the change in group size allows students to build better relationships.

“Now that I’m in the field and interacting with others, I’m seeing first-hand how much everyone relies on each other,” Stobbe said. “Working together, problem solving and conflict resolution are hard



Dr. Sheryl Mills (PhD) leads a refreshed approach to Inter-Professional-Based Learning in Health Sciences at USask.

NAOMI ZUREVINSKI

## 3RD ANNUAL PEOPLE AROUND THE WORLD (PAW) CONFERENCE

SUSTAINABILITY THE WORLD NEEDS: DEVELOPMENT IN ACTION



UNIVERSITY OF SASKATCHEWAN

February 6 & 7, 2020

Marquis Event Centre, University of Saskatchewan

Learn about and be inspired by innovative, international research happening at the University of Saskatchewan (USask) with partners around the world. An initiative of the International Blueprint for Action 2025, this conference aims to advance the university’s internationalization efforts in the areas of global research and sustainable partnerships.

### CONFERENCE KEYNOTE SPEAKERS INCLUDE:

**NIKHIL SETH**, *United Nations Assistant Secretary-General, and Executive Director of the U.N. Institute for Training and Research (UNITAR)*

**JON BEALE**, *Manager of the Sustainable Development Solutions Network (SDSN) of Canada*

**JOHN POMEROY** and **CORINNE SCHUSTER-WALLACE**, *USask Global Institute for Water Security, Global Water Futures, and College of Arts and Science*

PAW 2020 will focus on the U.N.’s 17 Sustainable Development Goals (SDGs) and address the university’s commitment to achieve these global goals by 2030. The SDGs are the blueprint to achieve a better and more sustainable future for all.

Join us at PAW 2020! View the conference program and register at: [internationaloffice.usask.ca/paw-2020.php](http://internationaloffice.usask.ca/paw-2020.php)



to do, but if you can’t work with someone else, you’re not going to be good at your job, no matter what area you’re in.”

Mikayla Laube, a second-year student in the College of Medicine, was also involved in developing the sessions. She said groups are now pushed to take initiative.

“The new format fosters independence and role assignment within the groups, which better reflects a true interprofessional team,” she said. “The value of a team-based approach to health care is becoming more recognized, and every change in our curriculum that reflects this will contribute to the creation of high-functioning health-care professionals.”

Dr. Steven Jones (PhD), associate provost, health, said that strong interprofessional skills are a gateway to better patient outcomes.

“When everybody in health care sees themselves as part of a team

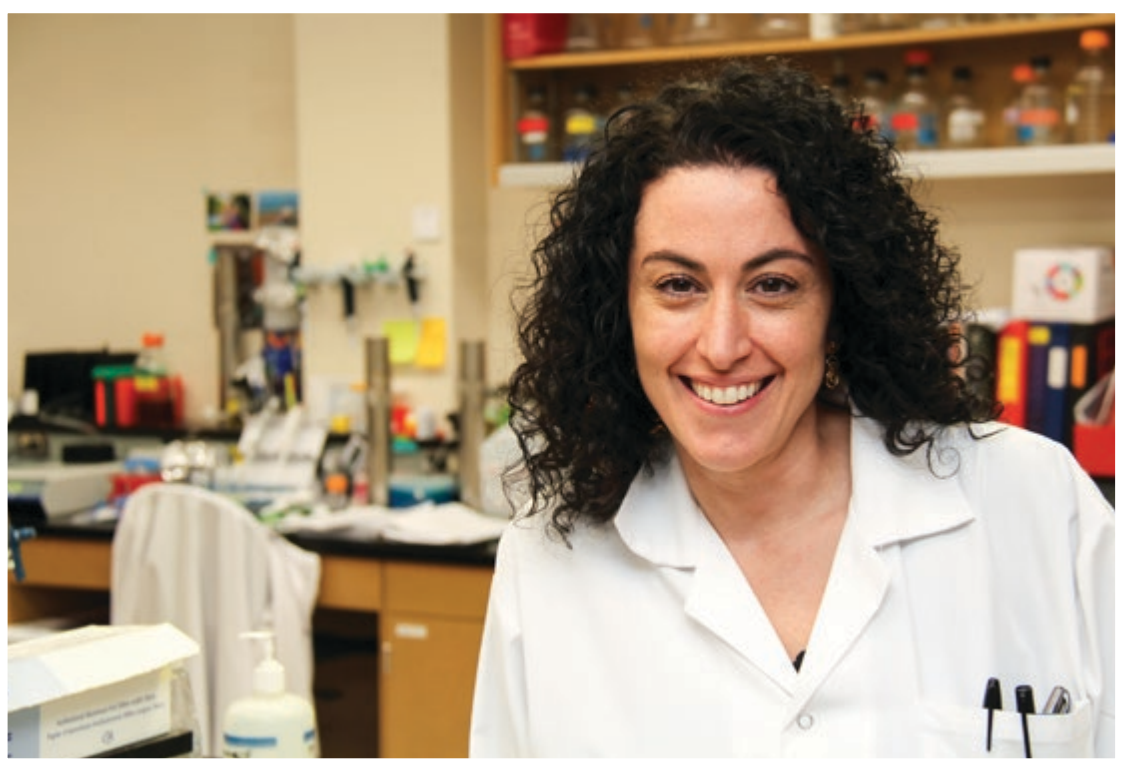
and feels empowered to contribute, patients have better outcomes,” he said, adding that Health Sciences is excited to continue building more content into programs.

For Mills, the newly renovated Health Sciences Building and heightened approach to interprofessional education is a natural intersection to improve interdisciplinary teaching and research.

“Ultimately, the new building was created with the goal of increasing the health and wellness of our population,” she said. “Whether you’re solving a patient case, working with a pet, or solving a complex public health problem, the ability to work as a team member transcends all content matter. What we’re doing here is intentional work to create great team members.”

Naomi Zurevinski is a USask graduate and a freelance writer from Saskatoon.

# Chelico looking for answers at molecular level



USask's Dr. Linda Chelico (PhD) is currently working on research projects funded by the Canadian Institutes of Health Research.

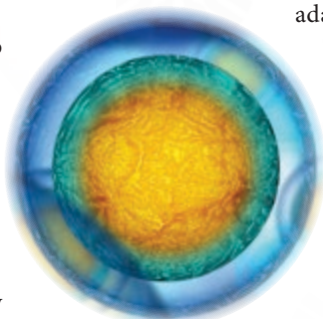
KRISTEN MCEWEN

KRISTEN MCEWEN

Much of Dr. Linda Chelico's (PhD) success in her career as a biochemist at the University of Saskatchewan (USask) comes from having an eye for detail.

"You have to have something that really drives you and interests you," Chelico said of her work, which largely focuses on studying cellular mechanisms and functions. "I think it's always important in science to also appreciate that larger picture."

In 2019, Chelico was awarded more than \$1.6 million for two separate Canadian Institutes of Health Research (CIHR) projects. Her team is investigating how a family of 11 proteins, called APOBEC enzymes, interact with the human immunodeficiency virus (HIV) and contribute to cancer when not regulated properly.



Saskatchewan has one of the highest levels of HIV in the country. The HIV virus attacks the body's immune system, leaving it more vulnerable to infection. According to the Canadian Cancer Society, one in two Canadians will develop cancer and one in four will die of the disease.

"In humans, the immune system can change the DNA in certain immune cells to adapt to new pathogens that we encounter in our lifetime," Chelico said.

When left unchecked the enzymes can alter the DNA of a human cell, causing mutations and cancerous cells.

Chelico has always been interested in the mechanisms that change DNA at the molecular level, whether it's been from the perspective of medicine or agriculture.

As a USask microbiology student, Chelico decided to venture into agricultural microbiology in what is now the Department of Food and Bioproduct Sciences. There, she obtained her Bachelor of Science in Agriculture and PhD.

"I really was fascinated by the role micro-organisms have in the environment," Chelico said. "They make up the majority of the biomass of soil. They can change so many things, including our water system."

From there she received a post-doctoral fellowship at the University of Southern California, Los Angeles. It was a major move for someone who was raised in small-town Saskatchewan.

"It was a big thing to go from Melfort to Saskatoon to there," Chelico said. "I had wanted to move to a bigger city for my PhD, but my mom didn't want me to go that far."

But, she could not resist the job offer from Dr. Myron Goodman (PhD), who has done pioneering work in the field of enzymatic

causes of DNA mutations. While in L.A., Chelico found her passion for studying the APOBEC enzymes, and their impact on human DNA. While she enjoyed the work in agriculture, she was more interested in medical research.

"In medical research there's more room to do basic science, discovery of information," Chelico said. "There's lots of fields that we don't know, we don't have enough information to translate it into something."

After she completed her fellowship she returned to USask in 2009 for a faculty position in the College of Medicine and to be closer to her family. Chelico wanted to find her own research path and noticed there was a gap in HIV research from a molecular studies perspective.

She received her first Tri-Agency funding in 2010 from the Natural Sciences and Engineering Research Council of Canada (NSERC) and CIHR to characterize APOBEC enzymes and study how

they interact with HIV.

Chelico recognizes the challenges that come with applying for funding to help get research projects off the ground. For individuals starting a career in research, it is essential to establish a good publication record, or collaborate with others to create one.

She also recommends using internal resources in the university to help with applying for funding, such as utilizing research facilitators and attending seminars.

And if an idea for a project is rejected, it's important to understand constructive criticism.

"It's hard sometimes if someone has an idea and it doesn't get funded," Chelico said. "It's difficult, but divorce yourself from your ideas ... It's important to listen to people." ♥

Kristen McEwen is a communications co-ordinator in the College of Medicine.

# Innovation the inspiration for USask president's second term

JAMES SHEWAGA

University of Saskatchewan President Peter Stoicheff delivers his annual Spring Convocation address at Merlis Belsher Place on campus in June. 2019 was the first year that convocation ceremonies returned to

## University of Saskatchewan (USask) President Peter Stoicheff will have the chance to finish what he started.

The driving force behind USask's new seven-year plan unveiled in the fall of 2018 to be *The University The World Needs*, Stoicheff will see it through to completion in 2025 after receiving unanimous support from the Board of Governors to serve a second five-year term as president beginning July 1, 2020. As the university begins the new year and a new decade, Stoicheff is firmly focused on the future of innovation at USask.

"This university has a huge potential to contribute to a provincial and a national innovation agenda and my focus in a second term will be on that," said Stoicheff, who was installed as the 11th president and vice-chancellor of USask back on Oct. 24, 2015.

"The research that we do here and the graduates that we produce here have an enormous impact on the region and far beyond it. The expertise that comes out of this university contributes to innovation

and I would like to focus on making that more deliberate and strategic. We have all the pieces in place to be a driver of innovation and I want to build on the work that we are already doing here."

Stoicheff wants USask to build on a successful 2019 that included record enrolment, an innovative new branding strategy, and campus-wide implementation of the university plan. USask researchers were at the forefront of climate change analysis and food security discoveries, including helping international teams crack the code to sequence durum wheat and pea genomes. The university also strengthened its community connections through a series of innovative new memorandums

of understanding (MOUs) signed throughout the province.

"It has been a very successful year again for the university and there are many research accomplishments that I point to, many faculty accomplishments that I point to, and community initiatives that I point to, that were all extremely important for the university," said Stoicheff. "We have a strong research agenda here that is engaged with issues that have an impact locally and internationally."

Enrolment is on the rise for the fifth straight year, bolstered by increases in the number of Indigenous students (up 6.1 per cent) and international students (up 5.5 per cent) that have put the university on pace to reach a record 26,000

students by the end of the 2019/20 academic year.

"I think having record enrolment again is an accomplishment on everybody's part because it tells us that people are confident in the university and that they want to study here, parents want their children to study here and graduate students from around the world want to undertake research here," said Stoicheff. "Everybody at the university should take pride in the fact that our enrolments are going up, because they are not going up at every university across the country."

Stoicheff said the continued increase in enrolment is an indicator that the university's reputation is also on the rise, bolstered by a rebranding initiative designed





the USask campus, after 50 years at Saskatoon's TCU Place.

DAVID STOBBE

to better tell the USask story to a wider audience.

“There are so many terrific things going on here and so many people who are working so effectively in their disciplines in the teaching and learning space, in the research and discovery space, and in the community outreach space,” said Stoicheff. “And branding is one way of ensuring that people beyond the university know at least something about the wonderful things that are going on here.”

The university’s brand is driven by the commitment to be *The University The World Needs*, a plan that Stoicheff said is being implemented across campus.

“We are making a lot of progress on the plan,” he said.

“There is a large amount of activity in our 17 colleges and schools and many examples of how they are each moving forward on the plan. So, it is extremely exciting to see. We are only one year into a seven-year plan and as we progress through future years, we will be able to refine our assessment and it will be important to identify not only those areas that we are moving well in, but also to identify those areas where we need to move more, faster, or differently in.”

The university announced a number of research initiatives in 2019, from areas of Indigenous health, cancer, climate change and cybersecurity, to renewable and northern energy, while also receiving renewed funding for

USask’s world-class research facilities—the Fedoruk Centre, VIDO-InterVac, and the Canadian Light Source. The university also basked in the international spotlight in 2019 in its signature areas of research in water and food security, with USask scientists front and centre in global genome research breakthroughs.

“Mapping the pea genome, mapping the durum wheat genome, those were great research accomplishments in the year,” Stoicheff said. “And some of the work that the Protein Industries Canada supercluster is doing now involves USask researchers, so I think that is terrific, too.”

In addition to focusing on finding local solutions to global

“ The research that we do here and the graduates that we produce here have an enormous impact on the region and far beyond it. The expertise that comes out of this university contributes to innovation and I would like to focus on making that more deliberate and strategic.

— President Peter Stoicheff

issues, Stoicheff said the university is increasing its commitment to community throughout the province, signing MOUs to work on new initiatives with the City of Saskatoon and the Saskatoon Tribal Council, as well as with Métis Nation of Saskatchewan, Prince Albert Grand Council, Cumberland House Cree Nation, and the Northern Lights School Division.

“They are more than just words on a page,” Stoicheff said of the MOUs. “These are public commitments signed in a very public way to build these relationships, so they are extremely important. You can’t imagine a university like this one, that is deliberately outward-facing, not engaging in partnerships. This shows how deliberate we are being in our desire to be *The University The World Needs*.”

Among major appointments and awards in 2019 was the installation of Grit McCreath as the university’s new chancellor, Dr. Jane Alcorn (PhD) named dean of the College of Pharmacy and Nutrition, Dave Hardy hired as chief athletics officer of Huskie Athletics, and Dr. Chelsea Willness (PhD) announced as university secretary and chief governance officer.

Meanwhile, Dr. John Pomeroy (PhD) and Dr. Irena Creed (PhD) were honoured by the Royal Society of Canada, while Dr. Maud Ferrari (PhD) earned the prestigious Steacie Fellowship, one of a number of major research awards received by USask scientists last year.

“All of these things speak to the terrific research that is going on here that is being recognized

far, far beyond the university,” said Stoicheff.

In 2020, Stoicheff is looking forward to this fall’s official grand opening of the new Prince Albert campus, reaffirming the university’s commitment to northern and Indigenous education.

“It is a real indication of the positive impact that we can have and I’m very gratified that we can extend our reach northward and that we can have a strong and sustainable and coherent presence in the great city of Prince Albert,” he said.

Funding USask’s major plan priorities while balancing the budget remains an ongoing challenge, as the university awaits this year’s provincial education funding while the government grapples with a sluggish economy. However, Stoicheff is optimistic about the province’s new plan for growth, an innovation-driven agenda that aligns perfectly with the university’s focus moving forward.

“I am encouraged by what I see in the province’s new plan for growth because a lot of it is about innovation and the government knows that we can help drive a provincial innovation agenda,” said Stoicheff. “I see ourselves in that plan for growth in many encouraging ways. We are in a province that recognizes the value that we add, particularly on the research and innovation side, and many other sides as well. While I can’t predict what the next provincial budget will look like, I can say that we are valued by our government because of the nature of the work that we do.”

# Epp's team committed to serving students

ASHLEY DOPKO

When Wade Epp first stepped onto campus in 2000 as a commerce student, he couldn't have anticipated that he would still be here almost 20 years later.

The son of a pilot and business owner, Epp gained insight into the customer and employee experience early on in life. He went on to spend his summers as a student working in a fishing lodge in Northern Saskatchewan, and wasted little time in establishing his career at the University of Saskatchewan (USask), transitioning from student to chartered human resources professional after earning his Bachelor of Commerce in 2004.

"I went from writing my last final to starting my job almost immediately after," Epp said.

Now, serving as USask's associate vice-president, services, within the Finance and Resources portfolio, Epp has had his share

of experiences on campus and his passion and understanding of the student experience continues to grow.

"So many of my memories as a student were shaped by the people I met, the places we stayed and the food we ate," said Epp, adding those experiences are something that he and his team take into consideration every day.

With a team of more than 600 people, services unit employees work to enhance the student experience, some working directly with students daily, with others lending their expertise and enthusiasm behind the scenes.

"It's fascinating to see how things have changed since I was a student," said Epp. "Something as simple as the tunnel is a great example. When I was a student it was this huge collecting point where everyone would hang out

and people-watch. The university is sort of a living organism that continues to evolve with the needs of our students. It wasn't the same place when my mom was studying here, and who knows where the focal points on campus will be for my two kids."

Things change all the time on and off campus, and that's something Epp and his team are keeping pace with. In 2000, the food options on campus were limited to Marquis Hall and the Arts, Agriculture and the now-defunct Education Buffeterias. Today's campus offers students, staff and faculty a wide variety of options, including a Starbucks and multiple Tim Hortons locations.

"It's not just that we've got more options," said Epp. "We've also got award-winning chef James McFarland, who has created a nutritious and often locally sourced menu for Marquis Culinary Centre."

The broad range of talents within services lends the portfolio to a number of unique and creative connections. Whether its culinary services partnering with grounds to compost food waste, or ConnectionPoint—a leader in North America for shared services—Epp and his team are always looking to break down silos and establish meaningful and efficient partnerships on campus.

"Anyone who knows me knows that I can't sit still, I'm always looking for change," said Epp. "I'm sure no one on campus feels that more than my team, but they are always up for the challenge. Many of our team members have a long history with USask and they are always looking to improve the experience on campus, whether it's for students, faculty or staff. My role is really about helping to make sure that they have the tools and support



Wade Epp is the associate vice-president of services in the Finance and Resources portfolio at USask.

JAMES SHEWAGA

to move ahead."

Becoming *The University the World Needs* is something that Epp and his team take seriously. Whether they're housing students,

possible," said Epp.

While that is evident every day at the university, it was especially clear the night of the campus power outage on Oct. 21, 2019 when a team of experts managed the emergency power to ensure that critical research projects were secure through the night.

"I'm not in a lab doing groundbreaking research, or in front of students in a classroom, but I know that the work our team does helps everyone on campus do theirs," said Epp. "It's a privilege to be part of the

university. Where else can you work and know that what you're doing every day, in some small or large part, is helping to change the world?"

**“The work that our team does ensures that our faculty have the time, the space, and supports that make world-class research possible.”**

—Wade Epp

doing emergency repairs, or handling travel reimbursements, the services team is doing its part to support the university.

"The work that our team does ensures that our faculty have the time, the space, and supports that make world-class research

Ashley Dopko is a communications specialist in University Relations.

Learn more about how the services team is supporting students, staff and faculty at: [news.usask.ca](https://news.usask.ca).

USask researcher Dr. Jaris Swidrovich (PharmD) was recently published in the journal *Currents in Pharmacy Teaching and Learning*.

KIERAN KOBITZ



# Indigenizing pharmacy education

KIERAN KOBITZ

An article by Dr. Jaris Swidrovich (PharmD) recently published in the journal *Currents in Pharmacy Teaching and Learning* assessed the current state of research and the number of peer-reviewed publications on Indigenizing pharmacy education.

The College of Pharmacy and Nutrition professor at the University of Saskatchewan (USask) conducted a literature review with the intention of collating any and all publications on Indigenous engagement in pharmacy education, but found that there were no scholarly, peer-reviewed publications specifically on Indigenous education in pharmacy.

Swidrovich then broadened his search to the other health sciences and discovered some education literature in areas such as nursing and

speech pathology.

The research to Indigenize these programs was minimal, but did provide some guidance which could help inform recommendations for pharmacy education.

“It was unfortunate, but not surprising, to verify that minimal research and publishing has been done on Indigenizing pharmacy education and the health sciences education in general,” said Swidrovich.

Looking at the available material, Swidrovich developed a number of recommendations for Indigenizing pharmacy curriculum.

With Indigenization a priority at both the university and college levels, Swidrovich has been working to share his findings and recommendations with colleagues and to implement new initiatives in

the classroom.

In USask’s PharmD program, he takes the lead on four hours of Indigenous content during the annual orientation week, while also teaching on Indigenous topics throughout each year of the program.

There is also strong interest at all 10 pharmacy schools in Canada to develop Indigenous elements in pharmacy education, which has led Swidrovich to advocate for and share his findings through the Association of Faculties of Pharmacy of Canada (AFPC).

Swidrovich created the Truth and Reconciliation Special Interest Group (SIG) through AFPC, which has representation from every pharmacy school in the country. SIG members collaborate through an online portal and teleconferences to

share resources, discuss what they’re working on and provide feedback to each other on how to implement new initiatives.

The discussions in the SIG go beyond pharmacy education and include how non-Indigenous people can be allies and how to create procedures to help support Indigenization across all aspects of a post-secondary institution.

Additionally, a symposium was held after the annual AFPC Conference last June, which was attended by representatives from each pharmacy school and included topics on the various areas required to Indigenize pharmacy education.

Swidrovich spoke about evidence-based medicine through an Indigenous lens and the college’s Dr. Yvonne Shevchuk (PharmD) spoke

about her experience with the Buffalo Circle, which recognizes non-Indigenous senior leadership, staff and faculty as outstanding allies, and nominates them to be part of the circle by Indigenous staff and faculty.

Swidrovich plans to continue with his research and advocacy at the university and collaborating with other pharmacy schools.

One of the next steps at the university will be to hold a student recruitment event for the college, which will incorporate Indigenous culture and methods to engage with potential applicants to the pharmacy program. ▀

Kieran Kobitz is a communications and alumni relations specialist in the College of Pharmacy and Nutrition.

# Hub supports Kinesiology, Huskies student success

ALYSSA WIEBE

The College of Kinesiology and Huskie Athletics have partnered to open an inclusive and safe space, putting student success and support at the forefront.

The Student Support Hub opened in the fall of 2019 in the Physical Activity Complex (PAC) at the University of Saskatchewan (USask), giving kinesiology and Huskie student-athletes access to immediate support. Whether they are looking for academic advice, tutoring, mental health support, or sport-life balance, there are qualified professionals on-site dedicated to supporting them.

“As we considered the increasing need for a holistic approach to student and student-athlete support, the vision was to create a one-stop centre that provides students the supports they need in an accessible way,” said Dr.

Chad London (PhD), dean of the College of Kinesiology and vice-chair of the Huskie Athletics Board of Trustees. “We renovated an under-utilized space in the PAC to construct the hub, and the team of staff supporting students are now housed there as the go-to place for assistance.”

“It is very important to us that our students are supported in every

way,” said Keeran Wagner, manager of undergraduate student academic services in the College of Kinesiology. “By providing all of these supports in one central location, we allow students to have a supportive, personal experience.”

The college has experienced a 10.2 per cent growth in enrolment in the last year. As part of its 2025 Strategic Plan, that growth rate will continue year-to-year, opening an

**“ It is important that our students know they are valued and supported by the college. We want them to have a safe space to go to, regardless if it’s for personal, mental health, wellness, or academic support.**

— Keeran Wagner

extra 50 seats annually. By 2025, the college expects its undergraduate program to be educating more than 800 students.

“It is important that our students know they are valued and supported by the college,” said Wagner. “We want them to have a safe space to go to, regardless if it’s for personal, mental health, wellness, or academic support.”

With three full-time staff currently overseeing the student support hub, they are a one-stop shop for students. As the college continues to grow, so will the student support team. With plans to hire another part-time academic advisor in spring 2020, it will allow for more support to help students reach their full potential in the classroom and beyond.

One unique part of the hub is access to mental health and wellness services.

“Student success depends on having the right balance of supports available,” explained Chandra LePoudre, student support co-ordinator for the College of Kinesiology and Huskie Athletics. “The hub provides a safe, confidential space where students can drop in and access resources on various campus activities, events, and initiatives, in addition to getting academic advice and mental health support. There is a level of anonymity in coming to the space that is removed from both the Dean’s Office and the faculty offices.”

A priority in the college’s 2025 Strategic Plan is to enhance the undergraduate and graduate student experience by providing support services that enhance



Keeran Wagner (left) is the manager of undergraduate student academic services in the College of Kinesiology.

ALYSSA WIEBE



Chandra LePoudre (right) is the student support co-ordinator in the College of Kinesiology and Huskie Athletics.

ALYSSA WIEBE

mental health, well-being and academic success. The hub is accessible for all kinesiology students in both undergraduate and graduate programs, as well as all Huskie student-athletes.

“Student-athletes have many additional and unique pressures to juggle, which can make their university experience much more stressful and challenging,” said LePoudre. “In addition to the demands of their academic program, they are keeping up intensive training schedules, travelling regularly for competition, managing expecta-

tions from coaches, teammates, and themselves in relation to their sport performance and coping with the emotional ups and downs that come with the winning and losing in sports, both as individuals and as a team.”

At the end of the day, the goal is to ensure students receive as much support as possible to aid in their academic success. ♥

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

## HUSKIES AT HOME:

FRIDAY, JANUARY 10

Track and Field: Sanderson Classic, at Saskatoon Field House.

Basketball: vs. Victoria at the PAC, Women's: 6 pm. Men's: 8 pm.

Women's Hockey: vs. Lethbridge, at Merlis Belsher Place, 7 pm.

SATURDAY, JANUARY 11

Track and Field: Sanderson Classic, at Saskatoon Field House.

Basketball: vs. Victoria at the PAC, Women's: 5 pm. Men's: 7 pm.

Women's Hockey: vs. Lethbridge, at Merlis Belsher Place, 7 pm.

FRIDAY, JANUARY 17

Volleyball: vs. Winnipeg at the PAC, Women's: 6 pm. Men's: 8 pm.

Women's Hockey: vs. Calgary, at Merlis Belsher Place, 7 pm.

SATURDAY, JANUARY 18

Volleyball: vs. Winnipeg at the PAC, Women's: 3 pm. Men's: 5 pm.

Women's Hockey: vs. Calgary, at Merlis Belsher Place, 7 pm.

FRIDAY, JANUARY 24

Basketball: vs. Calgary at the PAC, Women's: 6 pm. Men's: 8 pm.

Men's Hockey: vs. UBC, at Merlis Belsher Place, 7 pm.

SATURDAY, JANUARY 25

Basketball: vs. Calgary at the PAC, Women's: 5 pm. Men's: 7 pm.

Men's Hockey: vs. UBC, at Merlis Belsher Place, 7 pm.

FRIDAY, JANUARY 31

Basketball: vs. UBC Okanagan at the PAC, Women's: 6 pm. Men's: 8 pm.

Women's Hockey: vs. Manitoba, at Merlis Belsher Place, 7 pm.

Track and Field: K of C Games at Saskatoon Field House.

SATURDAY, FEBRUARY 1

Basketball: vs. UBC Okanagan at the PAC, Women's: 5 pm. Men's: 7 pm.

Women's Hockey: vs. Manitoba, at Merlis Belsher Place, 5 pm.

Track and Field: K of C Games, at Saskatoon Field House

# Huskie hurdler Harrison holds Olympic hopes

JAMES SHEWAGA

Michelle Harrison has one more major hurdle to overcome in her quest to compete in the 2020 Summer Olympics.

The reigning U Sports 60-metre hurdles national champion and pride of the Huskie Athletics track and field team is looking to finish her fifth and final year with a flourish by successfully defending her Canada West conference and Canadian university championship titles on her way to qualifying for the Olympic Games in Tokyo, from July 31 to August 9.

"It would be a great way to end my career as a Huskie if I can repeat at both the Canada West and U Sports championships this year," said Harrison, a Bachelor of Science student at the University of Saskatchewan (USask). "The Olympics is my No.1 goal for this year and I am hoping to use the university season as a stepping stone towards achieving that."

Just how close is Harrison to becoming an Olympian? She needs to trim less than three-tenths of a second off of her best time of 13.13 seconds in the 100m hurdles to automatically qualify for the Summer Games, and be ranked in the top three in the country (she is currently fourth) or the top 40 in the world (currently 51st). Huskies head coach Jason Reindl is confident Harrison can do just that.

"She was third at the (2019 Athletics Canada) national championships in the summer and she was able to beat two of the athletes who are currently ranked just ahead of her, so she is right there," said Reindl.

Harrison has overcome a few hurdles in the past, but is now back



Huskie Athletics track and field star Michelle Harrison is the current U Sports national champion in the 60-metre women's hurdles.

on track as she finishes the final semester of her bachelor's degree and completes her Huskies career. A former national under-18 and Canada Summer Games 100m hurdles champion, Harrison accepted a full-ride scholarship to Rice University out of high school, but battled injuries and illness and returned to Saskatoon to come to USask and has never looked back.

"Coming back, I have had a way more positive experience here and I am way happier here," said Harrison, a 27-year-old from Saskatoon. "This is my home base and the support of my Huskies teammates and my coach is just great. I would never

have been able to get to where I am today without them."

Harrison studied nursing before choosing to major in health studies. Along the way, she learned how to successfully balance academics and athletics, earning Academic All-Canadian status in 2019 for averaging 85 per cent while taking a full course load.

"It was definitely something I was proud of, just knowing that all the work and the hours that I put into both track and school pays off," said Harrison. "I definitely think I have grown a lot as a student over the years."

Harrison's efforts in class and

in competition have made her an excellent example to follow for her younger Huskie teammates, according to her coach.

"Any time you get an individual who can combine all the pieces of being a student-athlete, they are definitely a role model for the new athletes on the team," said Reindl. "It really resonates with the reality of what we are trying to do as a program."

Having another Huskie become an Olympian would also be a major accomplishment for the program. Harrison has until June 29 to qualify for the Olympics, culminating in this year's Canadian championships and Olympic team trials from June 25-28 in Montreal. But first, she is determined to go out as a champion to close out her university career, with the Huskies scheduled to host the Canada West championships on Feb. 21-22 in Saskatoon, before nationals in Edmonton from March 5-7.

"It will be really nice to compete at home," said Harrison. "And both our men's and women's teams are defending champions for Canada West, so it would be nice to repeat that this year in front of a home crowd."

Harrison is hoping a memorable final season with the Huskies helps set her up for her run to the Olympics, as she chases a dream that she has held since the first time she stepped onto the track.

"It would mean everything," said Harrison. "For all my hard work to pay off and get where I have been aiming for all these years and to be able to represent Canada and support my community and country, that would be pretty special." ■



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# Community members bolster Board of Trustees for Huskies


UNIVERSITY COMMUNICATIONS

Committed to creating the best student-athlete experience in the country, the University of Saskatchewan (USask) has appointed new members to its Huskie Athletics Board of Trustees.

The new members include a legendary Canadian hockey coach, one of the country's most successful Paralympians, a former president and CEO of the Saskatchewan Roughriders, as well as influential and committed community leaders and former Huskie athletes.

"Our new Huskie Athletics board members bring a wealth of experience, knowledge and passion for sport and the University of Saskatchewan that will support our student-athletes in the classroom and in their sports," said USask President Peter Stoicheff. "The broad experience of this group—including its seven community members



Former NHL and Canadian Olympic team coach Dave King is one of the new members of the Huskie Athletics Board of Trustees.  DAVID STOBBE

and four USask senior leaders—will provide insight and advice on everything from student-athlete development and merchandising, to resource management, program

planning, and community and corporate engagement."

Stoicheff noted that each of the new board members has close ties to Saskatchewan.

"As proud supporters of Huskie Athletics, they will enhance our connection to the community while helping Huskie student-athletes achieve at a high national level," Stoicheff said.

The newly appointed community members on the Board of Trustees are:

- Scott Banda, CEO of Federated Co-operatives Limited, and a leader in the Canadian co-operative sector.
- Colette Bourgonje, former Olympic athlete, winner of 10 medals at Winter and Summer Paralympic Games, and a member of Canada's Sports Hall of Fame.
- Bob Fawcett, past-president of the Saskatoon Minor Hockey association, prominent local volunteer, and member of the Saskatoon Sports Hall of Fame.
- Catherine Gryba, former senior executive for the City of Saskatoon, and committed community builder.
- Jim Hopson, member of the Canadian Football Hall of Fame, former president and CEO of the CFL's Saskatchewan Roughriders, and long-time educator.
- Dave King, Order of Canada and Canadian Olympic Hall of Fame

member, head coach of the 1983 national champion men's Huskie hockey team, and former NHL and Canadian Olympic team coach.

- Peter Spafford, former Huskie hockey captain, Saskatoon surgeon and USask clinical professor, and community donor and supporter.

The USask board representatives are: Debra Pozega Osburn, vice-president of university relations, Chad London, dean of the College of Kinesiology, Peta Bonham-Smith, dean of the College of Arts and Science, and Wade Epp, associate vice-president, services.

Stoicheff said Huskie Athletics is an integral part of the campus culture and creates countless connections in the community as mentors, volunteers and ambassadors for the university.

"We have more than 400 student-athletes working as hard in the classroom as they work in their sport," said Stoicheff. "We are proud of the contributions they make to our university and the difference they make in our community. We want them to have the best experience we can offer, and our Board of Trustees will be very important in that regard."

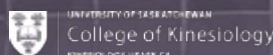
The new board will first meet in February. 

## FEBRUARY BREAK CHILDREN'S ACTIVITY CAMPS

February 18 - 21, 2020

Sports "R" Fun & Wall Climbing, How the Body Moves, Basketball, and Sports & Water Mania!

Ages 5 - 8 and 8 - 12



Register online at [rec.usask.ca](http://rec.usask.ca)



# COMING EVENTS

## SEMINARS / LECTURES

### Philosophy in the Community

7–9 pm, The Refinery, Emmanuel Anglican Church basement, 609 Dufferin Ave. This community lecture and discussion series is organized by the Department of Philosophy to share the rewards and pleasures of philosophical reflection. Free and open to the public. For more information, visit: [usask.ca/philosophy/community](http://usask.ca/philosophy/community)

- Jan. 10, *Is the World Getting Better or Worse?* By Dwayne Moore.
- Feb. 14, *What is Socialism? The Past and the Future of an Ideal.* By Pierre-Francois Noppen.

### Literature Matters

7:30 pm, Grace-Westminster United Church social hall, 505 10 St. E. Reading, studying and talking about literary works helps us to make sense of the world. In this series of community talks, members of the Department of English explore diverse literary topics.

- Jan. 15, *The Greatest Irish Writer You've Probably Never Heard Of: Introducing Máirtín Ó Cadhain.* Presented by Jerry White

### Psychology's Colloquium Series

3–4 pm, Arts Building Room 153. The Department of Psychology at USask presents monthly lectures that are open to the university community and the general public.

- Jan. 23, Professor Carie Buchanan of St. Thomas More College presents: *Changing campus culture: Evaluating sexual violence prevention programming on campus.*
- Feb. 27, Clinical Psychology PhD candidate Jake Ursenbach of Department of Psychology presents: *Measurement Invariance: What is it and why does it matter?*

### 51st annual Sorokin Lecture

Feb. 6, 7–9 pm, Shannon Library, St. Thomas More College. Dr. David Lyon, Queen's Research Chair in Surveillance Studies and Director of the Surveillance Studies Centre presents *Surveillance: Yesterday, today and tomorrow: from occasional encounters to constant immersion.* For more information, visit: [artsandscience.usask.ca/sociology/Sorokin-lecture.php](http://artsandscience.usask.ca/sociology/Sorokin-lecture.php)

### Let the river flow again: European approach to urban river corridors

Feb. 7, 11:30 am–12:30 pm, Thorvaldson Building 205A. Our urban river has plenty of potential as an important urban design feature all year round. Paul Van Pul, land surveyor, author and expert in the history of hydraulic engineering, discusses the European approach to urban river's inherent blue role in the city's fabric. For

more information, visit: [homepage.usask.ca/~akkerman](http://homepage.usask.ca/~akkerman).

### Public River Transport and Saskatoon's undervalued thoroughfare

Feb. 14, 9:30–10:30 am, Thorvaldson Building 129. Our urban river has plenty of potential, but has been underappreciated—even neglected—for its public urban transportation capacity. Paul Van Pul, land surveyor, author and expert in the history of hydraulic engineering, lays out a practical concept to restore the river's urban transportation potential. For more information, visit: [homepage.usask.ca/~akkerman](http://homepage.usask.ca/~akkerman).

## COURSES / WORKSHOPS

### Multi-lingual Conversational Language Classes

Registration is open for winter session conversational language classes in French, Spanish, Cree, German, Italian, Portuguese and Japanese. Classes start the week of January 20 and are limited to 16 people. Call 306-966-5539 or 306-966-4355, or register online at [artsandscience.usask.ca/noncredit/languages/language-schedule.php](http://artsandscience.usask.ca/noncredit/languages/language-schedule.php)

## THE ARTS

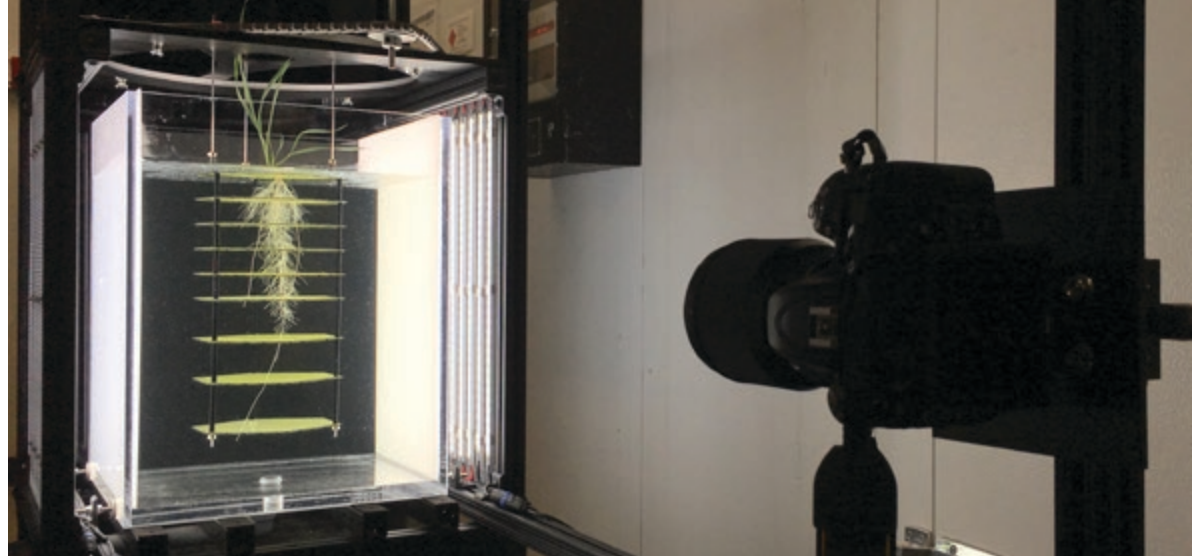
### Duo Cellissimo

Jan. 26, 2:30–4pm, Convocation Hall, Peter MacKinnon Building. Artists Philip Hansen, principal cellist of the Orquestra Filarmônica de Minas Gerais, Belo Horizonte, Brazil, and Kathleen Solose, pianist and USask professor, present a recital of Bach, Grieg and The Grand Tango by Piazzolla. The concert will feature the prized Amati cello, one of the quartet of exquisite Amati instruments. Tickets \$15–25 available on Eventbrite: <https://www.eventbrite.ca/e/duo-cellissimo-tickets-85255143429>

### Greystone Theatre presents: The Secret in the Wings

Feb. 4–8, 8 pm, Greystone Theatre, John Mitchell Building, 118 Science Place. Directed by Treena Stubel. Mary Zimmerman's *The Secret in the Wings* adapts a group of lesser-known fairy tales to create a theatrical work that sets their dark mystery against her signature wit and humor. The framing story concerns a child and the frightening babysitter with whom her parents leave her. As the babysitter reads from a book, the characters in each of the tales materialize, with each tale breaking off just at its bleakest moment before giving way to the next one. Tickets go on sale two weeks before each show, available by calling 306-966-5188 or go on-line at: <https://artsandscience.usask.ca/drama/greystone/greystone-theatre.php>

**NEXT OCN: Feb. 14, 2020  
DEADLINE: Jan. 31, 2020**



Imaging a hydroponically grown wheat plant at USask to obtain a 3D reconstruction of the root system.

PIERRE-LUC PRADIER

# Developing adaptive plants

FROM PAGE 2

livelihoods at risk.

“Plants can't run away, so how do they respond to these threats? Answering this question is fundamental to building a sustainable agro ecosystem for the future,” Schneider said. “We need to develop quickly adaptive plants to handle rapidly changing environments.”

Answering the question of plant responses to biological threats is not a simple process. While biology used to be a data-poor science, technological advancements mean the days of measuring plants and roots with yard sticks is long gone. Interdisciplinary work (in this case the interface between biology, engineering and mathematics) is required to tackle challenges such as developing plants that can adapt quickly to environmental factors.

In his research, Schneider writes his own computer software to translate huge quantities of biological and genomic data into useful insight.

Like the plant adaptations he studies, Schneider's area of expertise evolved out of necessity.

“I couldn't get a job as a chemist when I left grad school, and so I took a job at IBM as a computer scientist,” he said. “Working in the space between biology and computer science is my specialty. Just as we see the border between the prairie and the forest is rich in species diversity, the interdisciplinary space is rich in intellectual

diversity. The problems that exist in this space are the most interesting ones to solve.”

The problems, as they relate to plant health, are complex. However, some simple solutions, according to Schneider, may be found by crunching the numbers and delving into the data.

“We have to look at issues, like a crop that is high yielding versus something with a smaller yield

but that is drought-tolerant, for example,” he said. “What properties does the drought-tolerant plant have that the drought-intolerant plant does not, and can we get the drought-intolerant plant to express drought-tolerant traits? I look at this problem using mathematical and computational science tools.”

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



## CALL FOR NOMINATIONS UNIVERSITY COUNCIL

An election of college faculty members and members-at-large to the University Council will be held to replace those members whose terms on Council expire on June 30, 2020 and any other vacancies that have arisen this term. University Council is responsible for overseeing and directing the university's academic affairs. Your participation by standing for election is essential to the continuing good governance of the university.

If you wish to stand as a candidate for election to University Council or if you would like further information, contact the Office of the University Secretary at 306-966-6253 or visit the Council website at: <https://secretariat.usask.ca/council/elections.php>

**The deadline for submitting your nomination to stand for University Council is Monday, February 3, 2020.**



# RARE GRAVITY METER A CORNERSTONE OF THE GEOPHYSICS PROGRAM

CHRIS PUTNAM

The scratched and faded surface of a metal cube stored in the Department of Geological Sciences is a hint at the item's rugged history.

Virtually every graduate of the University of Saskatchewan (USask) geophysics program has laid hands on the instrument, a rare Lacoste and Romberg Model G gravity meter. For 50 years, it has helped make the geophysics field school in the College of Arts and Science one of the most comprehensive in North America.

The instrument is "basically a spring scale of the kind used to weigh fish," except much more intricate and sensitive, said geological sciences professor Dr. Jim Merriam (PhD).

By measuring tiny differences in the pull of gravity, the meter gives geophysicists clues about the makeup of the ground below. More sophisticated gravity meters have since been invented, but this vintage box continues to get the job done.

"It will measure changes in gravity as small as one part in 100 million. I can't think of another purely mechanical field instrument that can manage that sensitivity," said Merriam.

The hand-assembled gravity meter was specially ordered by the department in 1970 at the request of Dr. Don Gendzwill (PhD), now a professor emeritus.

"They're not made like TVs. There's only a few manufactured every year," said Gendzwill.

As a new faculty member in the early 1970s,

Gendzwill helped design the original USask geophysics program, including establishing one of Canada's first field courses in geophysics. The gravity meter was used for Gendzwill's research programs and brought out each summer to train students at the field school.

Generations of students have since been entrusted with the delicate instrument, which had a \$50,000 price tag in 1970.

"We supervised very closely," Gendzwill said, chuckling.

Although gravity measurements are a fundamental technique in geophysics, most universities don't own their own gravity meters due to the cost, noted Merriam. Students at the USask field school can tackle bigger projects than at other schools that rely on rented equipment, including a gravity survey of the eight-kilometre-wide impact crater near Elbow, Sask., at the most recent field school in August 2019.

Since the 1980s, the gravity meter has occasionally been loaned out to commercial geophysics companies. In return, those companies have brought their own state-of-the-art equipment to the field school each year and helped train students.

Thanks to these partnerships, said Merriam, "I think we expose our students to more techniques than any other field school." 🍀



(Above) The Lacoste and Romberg gravity meter has been used as a teaching tool in USask's Department of Geological Sciences for 50 years, since 1970.

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(Left) A USask student takes a gravity reading during a geophysics field school at the Elbow crater in August, 2019.

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