



A WORLD OF POSSIBILITY

From using satellite measurements to track freshwater availability and creating computer models to predict long-term changes in climate, to setting the groundwork to remediate contaminated soil and leading work in the School of Environment and Sustainability, the U of S is working to protect our world.

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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 U of S community.

The views and opinions expressed by writers of letters to the editor and viewpoints do not necessarily reflect those of the U of S 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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Student Iron Chef competition heats up

KYLIE ROBSON

Student Iron Chef—now in its fifth year of U of S students showing off their culinary chops in a series of cooking competitions—brought together teams from across campus vying for a spot in the March 21 finale.

Through a series of culinary competitions leading up to the finale, and the chance to cook for more than 600 attendees and claim the title of Student Iron Chef, teams collected points and votes to determine who would move on.

The first competition had teams create signature dishes for the judges, as Team Nachos—consisting of Jared Breiter and Reid George—won this competition with a plate of agnolotti carbonara featuring hand-made pasta.

Next, teams competed in Quick-Fire competitions that were short, timed contests—like baking a pizza in 12 minutes, icing a cake in 15 minutes, or whipping up a perfect meringue—that really put the pressure on, with the teams earning points towards a spot in the



Student Iron Chef winners: Team What's Our Name? (left to right): Raina Kim, Dylan Huynh, Angele Lalonde and Mark Tan

final.

“We tried out a new format this year and everyone seemed to really enjoy the quick-fire challenges that we organized,” said James McFarland, executive chef of Culinary Services, and one of four judges.

“I think the teams showed a

lot more of themselves during these quick-fire competitions,” said Sarah Crawford, dining co-ordinator with Culinary Services. “They had to really dig deep during some of them and rely on their skills and their teammates. It was great to see everyone working together to be successful while having some good

laughs, too.”

After points were tallied and the voter's choice announced, the top three teams earning a spot in the finale were: Team What's Our Name, consisting of Angele Lalonde, Dylan Huynh, Mark Tan, and Raina Kim; Team Nachos; and Team Cumin Get It, made up of Benjamin Roel Westh Jorgensen, Mackenzie Pudwell, Rose Wu, and Shiney Choudhary.

Ahmed Mohamed, Culinary Services executive sous chef, and fellow staff helped the teams prepare for the big finale and perfect their dish for 600 people. And the teams didn't disappoint.

Team Cumin Get It showed their take on a multicultural fusion dish with a delicious beetroot and lamb galette. Team Nachos created more hand-made pasta with a delectable agnolotti carbonara featuring truffle cream reduction and zucchini that showed their Italian cooking talent and flare. Lastly, Team What's Our Name put together all their

SEE STUDENT, PAGE 15



IN CASE YOU MISSED IT

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

Northern campus

As part of its emerging northern strategy, the U of S purchased the Forest Centre in the heart of Prince Albert to bring together the university's educational programming taking place across the city. Following renovations, the property is expected to be operational by fall 2020. During the 2017/2018 academic year, 324 students enrolled in arts and science, nursing, and medicine took U of S classes in Prince Albert.

Healthy funding

The U of S was awarded six project grants totalling \$4.45 million in fall 2017 competition of the Canadian Institutes of Health Research, nearly doubling its success rate to 15.4 per cent from spring 2016. The projects range from novel ways to treat breast and colon cancer, to assessing medically at-risk senior drivers, to investigating sleep disorders among Indigenous people, to developing a vaccine preventing camels from transmitting a deadly virus to humans.

Swine study

U of S researcher Yolande Seddon has been awarded a Natural Sciences and Engineering Research Council of Canada Industrial Research Chair in swine welfare, worth nearly \$2 million. During the five-year term of the chair, also supported by the swine industry, Seddon will work to develop robust and resilient pigs and improve their health and welfare. The program will involve up to 10 undergraduate students, five graduate students, and two post-doctoral fellows.

Student supports

On March 14, the U of S community came together in support of students facing financial crisis, raising \$46,436 for the Nasser Family Emergency Student Trust. Professor Emeritus Kay Nasser and his wife Dora matched all donations to the Nasser Family Emergency Student Trust, and also matched the additional \$5,345 donated to other U of S priorities on One Day for Students, bringing the total raised to \$103,695 from over 500 donors.

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

Borrowing program a hidden gem at the U of S

JAMES SHEWAGA

You can't cram an entire library of resources into the overhead bin on a flight to another university, but for University of Saskatchewan faculty, students and staff, packing a reciprocal borrowing card in your luggage might just be the next best thing.

As a result of borrowing agreements in effect with the majority of universities across Canada as well as a number of institutions south of the border, individuals from the U of S heading to another school for a semester of study or teaching, or perhaps for a conference or research project, can sign up in advance for free to access post-secondary library resources at facilities all across North America.

"It's a great program but it's underutilized," said Jen Murray, library systems analyst at the U of S. "We really want to get the message

out there about this hidden gem of a service. We want to promote this service to get people's attention and, hopefully, increase the number of campus community members taking advantage of this fabulous national agreement between academic libraries."

Taking advantage of the Canadian University Reciprocal Borrowing Agreement is as simple as signing up at one of the seven libraries on campus, prior to traveling. As long as you are a borrower in good standing (without unpaid late fees), the program provides individuals access to library resources at more than 70 institutions across Canada, as well as close to 100 universities in the United States.

In Saskatchewan, the provincial agreement covers the U of S, University of Regina and Saskatch-

ewan Polytechnic, allowing faculty, students and staff to borrow up to 25 items that can be returned to libraries at any of the three post-secondary institutions, meaning you can borrow a book in Regina and return it in Saskatoon.

Murray said there are approximately 15 researchers, students and staff from visiting institutions in Nova Scotia, Ontario, Manitoba, B.C. and Saskatchewan currently taking part in the program here at the U of S, with close to 300 having used the service in the past. U of S faculty and students also use the service annually, particularly off-campus distance education students living in other communities. Students taking U of S classes from afar can use this service to access resources at another campus that may be closer to home.

Murray said those who do sign



Jen Murray, library systems analyst at the U of S.

JAMES SHEWAGA

up for the program are pleased with the results.

"It's a great, robust program that gives you lots of access beyond U of S resources," said Murray, noting that our digital library resources are also always accessible online to U of S individuals when they are off campus.

And for Murray and her fellow staff members, that desire

to share library resources with as many people as possible is a guiding principal of everything they do.

"We want to get people recognizing that the libraries are there for them, for their research and for the sake of our communities," she said. "Libraries are all about sharing and about access to information. And the more information that we can get you, the happier we are." ■

Building a culture of safety on campus

ASHLEY DOPKO

With more than 7,000 faculty and staff, the university isn't your average workplace.

The U of S Saskatoon campus is home to a diverse set of work environments: an animal hospital, a museum, culinary facilities, a fitness centre, standard office space, and laboratories, to name just a few.

"Some of our employees are on a worksite, others in a classroom or a hospital," said Rick Davidge, incident management co-ordinator, Safety Resources. "We're all experts in our own fields, so it's easy to become entrenched in our daily habits and tasks and not see the danger in our jobs."

Regardless of the work environment, the university is committed to



Rick Davidge, incident management co-ordinator

reducing all injuries, large and small. Mission:Zero, something the university adopted in 2010 in partnership with WorkSafe Saskatchewan, operates on the basis that all injuries

are predictable and preventable.

"Our campus is a community and for that community to excel we need safety to be a part of the culture," said Davidge, who, along

with the Safety Resources team, works with groups across campus to assess risks and reduce injuries.

Over the past year, Safety Resources has been connecting with colleges and units across campus to put greater emphasis on incident review and prevention. The face-to-face conversations amongst teams have the biggest impact.

With a 16 per cent decrease in incidents across campus over the past year, it's clear that their efforts are paying off. Davidge credits this with a campus-wide move from reacting to workplace injuries, to being more proactive. And while the decrease in injuries during the past year is certainly a positive signal, the work isn't finished.

"Our goal is to create an interdependent safety culture," said Davidge. "This shift would mean that it's not just Safety Resources looking out for people's safety on campus, but rather everybody recognizing that we need each other and watching out for the safety of others because they care about safety and want to make sure everyone is safe. We've got a great community here, and we're starting to see this already, and it's something we can all take pride in."

For more information on Safety Resources on campus, visit safetyresources.usask.ca. ■

Ashley Dopko is a communications specialist in the Office of the Vice-President Finance and Resources.

Clinical learning through community connections

The Clinical Learning Resource Centre (CLRC) is quickly becoming a critical hub for training students in health sciences at the U of S.

“Each year more than 1,000 students from the Colleges of Dentistry, Medicine, Nursing, Pharmacy and Nutrition, Veterinary Medicine, and the School of Physical Therapy, participate in simulation-based education,” said Debbie Briere, CLRC manager since 1997.

That number of students, Briere continued, experience immersive, real-life scenarios to develop skills in

patient and client communication, clinical techniques and teamwork, all in a safe learning environment.

“Studies have shown that simulation-based learning ultimately improves patient safety,” said Briere.

A key part of improving learning and patient outcomes at the CLRC are simulated patients (SPs).

SPs, Briere explained, are people trained to accurately and consistently portray the physical symptoms, emotions, concerns and personal history of a patient. Through role playing interactions,

SPs help students with learning and assessment skills.

Briere said the program has been so successful that it has grown from 50 SPs in 1997—managed by herself and one other colleague—to more than 300, with three full-time co-ordinators: Tamara Hominuke, Amanda Leddy and Lindsay Tarnowetzki.

The trio of co-ordinators works to meet the learning objectives and students’ needs by training and standardizing large numbers of SPs. The number of SPs isn’t the only area of growth for the program—from May to December last year, more than 2,000 simulated interactions took place.

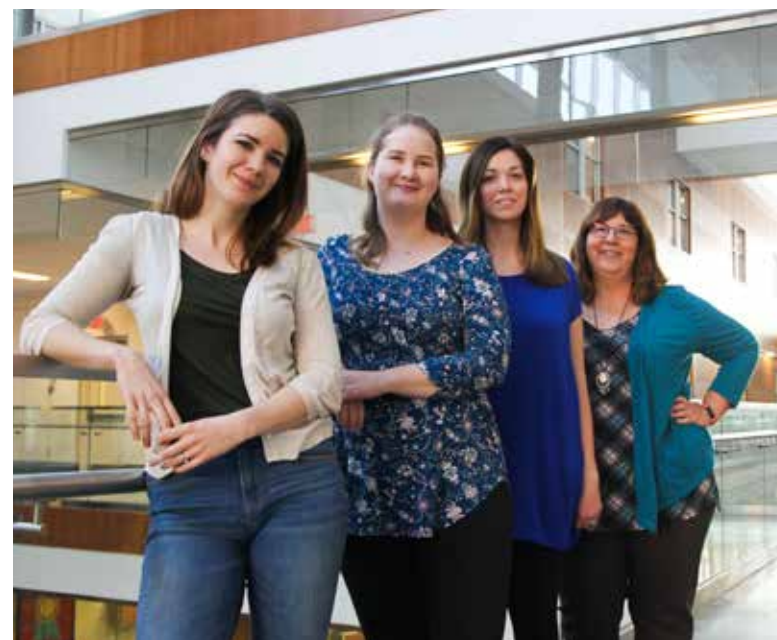
Those interactions range from students collecting patient history, conducting physical exams, communication sessions on breaking bad news, to participating in simulated real life emergency events. A select number are highly trained to teach students a patient-centred approach to sensitive physical exams of male and female genital and urinary systems.

James Komar, who has been with the CLRC since 2003 and has participated as an SP in everything from basic interviews to sensitive physical exams, has seen the program grow in complexity.

“I volunteered because I’m gay and I felt that besides the technological side of medicine, there’s the human side,” said the 85-year-old Komar. “I find it fulfilling that I’m able to give something back and I’ve also learned things. I’m fortunate that I’m in very good health—and I have an adventurous spirit.”

In addition to preparing SPs for a busy academic year of courses and exams, the co-ordinators look for partnerships with local organizations to reach out to community members who may be interested in working with students as an SP.

A particular focus, because of Saskatchewan’s growing diversity, is to have a cohort of SPs that reflects the diverse population in which



Debbie Briere, manager of the CLRC (far right), with simulated patient co-ordinators (from left) Amanda Leddy, Lindsay Tarnowetzki and Tamara Hominuke.

LESLEY PORTER

students will one day practice. This also allows students to see more simulations that incorporate a wide range of interactions, including the experiences and perspectives of those who are part of local Indigenous communities, LGBTQ2S+, and newcomers to Canada.

“Studies have shown that simulation-based learning ultimately improves patient safety.”

Debbie Briere

“It is important to us to partner with our Indigenous community members, create thoughtful and respectful dialogue, as well as include them in our process of recruiting and training Indigenous SPs,” said Hominuke. “Working collaboratively with Indigenous Peoples, focusing on health issues from their peoples’ perspective will prepare all our future health-care providers to more fully understand and work with our Indigenous

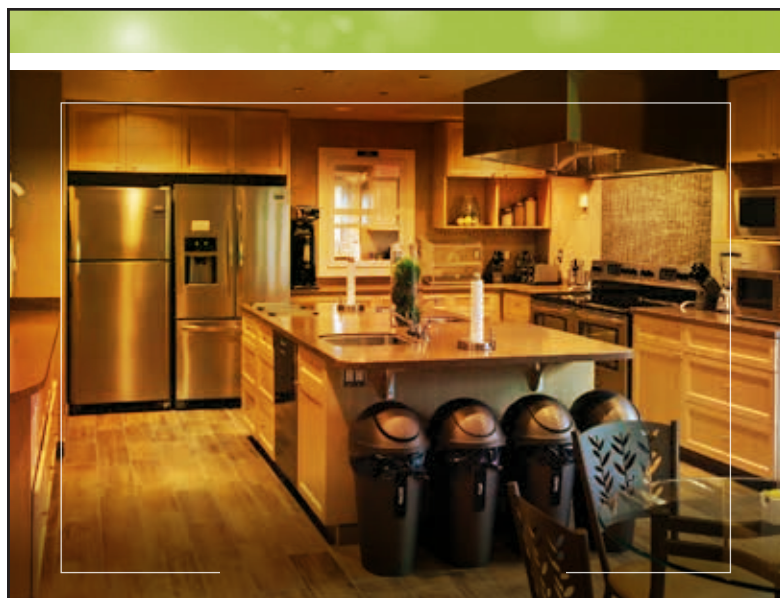
community members.”

The Open Door Society, Global Gathering Place and OUT Saskatoon are also involved in the program. Clients of these organizations have responded enthusiastically to the CLRC’s outreach, said Tarnowetzki.

“I’ve gotten a lot of responses from the community because they feel very strongly about their health and receiving culturally sensitive health care, which has historically been a challenge,” said Tarnowetzki about LGBTQ2S+. “It’s also valuable for students to meet people from diverse communities even if the simulation isn’t specifically focused on their backgrounds or identities.”

Lyle Weber, an SP who discovered the CLRC by way of OUT Saskatoon, said making a non-visible minority more visible was a big motivation for him to join the program.

“But that doesn’t play into it, most of the time I’m just another patient,” Weber said, adding that he’s found this experience to be educational and enlightening. “It’s amazing how light-hearted, kind and caring the students are, despite the pressures of school. It’s a blast.” ■



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Spotlight on pharmacy PhD student

Al-Dulaymi's gene therapy research earning awards and accolades

 JAMES SHEWAGA

Mays Al-Dulaymi was working as a pharmacist overseas in Jordan when she soon realized that she wanted to do more to help patients.

"I was really touched by the personal stories of patients struggling with cancer specifically and moved by their frustration with the available treatment options," said Al-Dulaymi, who also spent time volunteering at a cancer treatment centre while finishing her pharmacy degree in the Jordanian capital of Amman. "As an energetic fresh graduate witnessing the financial burden of chemotherapy on both patients as well as the health-care system, I wanted to learn more about alternative treatment options and explore innovative approaches to tackle the problem."

Al-Dulaymi quickly set her sights on returning to school to conduct research abroad, a plan that came to fruition when she met a visiting lecturer from the University of Toronto (U of T) at a conference in Jordan. Leaving family and friends behind, Al-Dulaymi headed to U of T for a one-year stint working as a research assistant before applying and being accepted to do graduate studies in the College of Pharmacy and Nutrition at the University of Saskatchewan.

"Growing up, I always loved the idea of going to Canada, but when I was in Iraq or Jordan, I didn't really know about the University of Saskatchewan," she said. "But then when I came to Toronto, an opportunity presented itself at the U of S and I had heard good things about the university, that it was a research-intensive university with state-of-the-art facilities such as the synchrotron and the core mass spectrometry facility, which I utilized in my project."

That project has already



“ I wanted to learn more about alternative treatment options and explore innovative approaches to tackle the problem.

Mays Al-Dulaymi

Award-winning pharmacy PhD student Mays Al-Dulaymi in the E Wing of the Health Sciences Building.

 JAMES SHEWAGA

drawn the attention of the research community. While there is plenty of work still ahead, Al-Dulaymi's gene therapy research is proving promising, with her method significantly improving upon current lipid-based gene delivery systems, with a potential to treat genetic disorders such as skin cancer.

"My research is in trying to find a better way to deliver genetic materials, it's as simple as that," said Al-Dulaymi, whose work is supervised by pharmacy professors Ildiko Badea and Anas El-Aneed. "Compared to the previous generation of compounds, the compound

that I tested is now eight times better than previous generations. So that's good, that's really good. With research, things could take a long time before it reaches the market, but what we are seeing is really promising."

It was the promise of a new research opportunity that first drew Al-Dulaymi to the U of S in September of 2012, and she soon felt right at home on campus and in the community. Adjusting to the weather, however, was a work in progress.

"Honestly, the biggest adjustment was the weather," she said,

with a smile. "I grew up in Iraq, so going from plus 40 to minus 40 is quite the change. But other than that, I didn't face that much difficulty. People were really welcoming and helpful in Saskatoon. There is a real sense of community here."

On campus, Al-Dulaymi quickly established herself as one of the college's brightest young researchers by earning the major Apotex Graduate Award in Pharmacy in 2013, one of more than a dozen scholarships and awards that she has earned during her time at the U of S.

"When I first came here, I

didn't have any (graduate scholarships), I just took the risk to come here," she said. "And then I proved myself."

Indeed. This past year, Al-Dulaymi drew national and international attention for her gene delivery research, earning the prestigious Gattefossé Canada/CSPS Award in Lipid-Based Drug Delivery at the annual Canadian Society for Pharmaceutical Sciences conference in Montreal in May. Al-Dulaymi then garnered global recognition by being awarded the American Association of Pharmaceutical Scientists (AAPS) Graduate Student Research Award in Drug Discovery and Development at the annual meeting in San Diego in November.

"Mays is an outstanding graduate student leader in our college," said Kishor Wasan, dean of the College of Pharmacy and Nutrition. "Not only has she won national and international awards—the first graduate student at the U of S to win an American Association of Pharmaceutical Scientists award—but she was also instrumental in setting up our AAPS graduate student chapter, which has received international acclaim."

Al-Dulaymi has also become a leader in the campus community, serving as a representative on University Council's Research, Scholarly and Artistic Work Committee, as well as the Pharmacy and Nutrition graduate affairs committee, while also co-founding the U of S Arab Students Association that raised \$1,300 for the Saskatoon Lighthouse Assisted Living facility during Ramadan last spring.

Meanwhile, Al-Dulaymi's findings on improving treatment for skin cancer through gene therapy

SEE IMPROVING, PAGE 15



Finding the world's water

World-leading water scientist recruited to U of S

The U of S has recruited NASA Jet Propulsion Laboratory senior water scientist Jay Famiglietti as Canada 150 Research Chair in Hydrology and Remote Sensing, building on the university's excellence in water science and bringing top international talent to the country.

Famiglietti, based at the NASA lab at the California Institute of Technology in Pasadena, was one of 24 appointments announced March 29 as part of the Canada 150 Research Chair program, created to bring top-tier, internationally based researchers to Canada. A total of \$7 million will be awarded for Famiglietti's seven-year chair.

In addition to the Canada 150 Chair, Famiglietti will become executive director of the U of S Global Institute for Water Security effective July 1, and will also hold a joint faculty appointment between the School of Environment and Sustainability and with the Department of Geography and Planning. His appointment is part of the university's contribution to the U of S-led Global Water Futures program, funded by the Canada First Research Excellence Fund, which has more than 200 partners including 15 Canadian universities and is the world's largest university-led freshwater research program.

"With a warming climate, changing extremes of flooding and drought, and increased food production demands, the world's freshwater resources are under unprecedented levels of stress," said Famiglietti, who has been published in *Science* and *Nature*, and is in the top one per cent for academic citations in the fields of geosciences and environment/ecology.

"Without technological advances and new approaches to water management, I see a future in which we will be very challenged to produce the food that we need for this growing world population. I am excited to be joining the outstanding team at the U of S, which is

helping to address this critically important global challenge," he said.

"The exciting work that Prof. Famiglietti will lead at the U of S will have impact around the world," said Karen Chad, U of S vice-president research, noting that just last year the U of S was named as the top research institution in Canada and one of the top universities in the world in water resources by the Shanghai Academic Ranking of World Universities.

"He and his research team will use satellite measurements and develop next-generation computer models and other new ways to track how freshwater availability is changing around the world," said Chad. "This work will have important implications, in an era of unprecedented climate change, for food and energy security, water policy, and trans-boundary water issues."

A graduate of Princeton University, Famiglietti is widely considered to be the most important hydrologist of his generation working at large scales of observation with remote sensing technologies. He pioneered the use of NASA's Gravity Recovery and Climate Experiment satellites to identify and quantify global groundwater depletion from the world's major aquifers, work that has been cited around the world. He has been a leader in the modelling and measurement of water availability, storage, movement and transformations over scales ranging from centimetres to continents.

His work at the U of S is expected to shed light on how climate change affects human water use and management. Through the use of a wide range of remote sensing and computer modelling technologies including airborne sensors, satellite data assimilation, and high-performance computing, he will develop the simulation tools needed to explore science-based strategies for adapting to a changing climate. ■



STEVE ANDERSON



“ All of us want to have a positive impact in society. And the transdisciplinary approach allows us a greater chance to make positive change...

Irena Creed

World-renowned researcher plants roots at SENS

CHRIS MORIN

MARK FERGUSON

Although her work has taken her to multiple countries across four continents, Irena Creed has found a place to call home amongst like-minded researchers at the University of Saskatchewan.

Having worked extensively across the world, including a decade serving as a Canada Research Chair in Watershed Sciences at Western University, Creed joined the campus community in September 2017 as the new executive director of the School of Environment and Sustainability (SENS).

While her experience working as director of the Africa Institute at Western helped prepare her for the move to SENS, it was an accumulation of knowledge in environmental issues that ultimately drew her to the province.

“My previous work was already transdisciplinary, but essentially done off the side of my desk,” said Creed, who began her term after taking over from Toddi Steelman, who completed a five-year term as executive director in 2017. “But my current position allows me to place

the transdisciplinary work front and centre. That’s what attracted me to the U of S. Many of the people here look at problems in a multi-dimensional way.

“I felt like I was amongst friends and family coming here.”

Creed’s transition into executive director comes at an exciting time for the school. Having celebrated its 10th anniversary in 2017 with a gala event, SENS now has 180 alumni who have graduated from its two professional master degree programs, two thesis-based programs, in addition to 34 students who have earned an undergraduate certificate in sustainability.

Creed, who was previously invited to campus as a guest speaker in the Global Institute for Water Security’s Distinguished Lecture Series in 2013, said she hopes to continue to build on the progress of a school that has become known

for problem-oriented, use-inspired research and experience-based learning.

“All of us want to have a positive impact in society. And the transdisciplinary approach allows us a greater chance to make positive change because we are all working together in a participatory approach to identify solutions and implement them,” said Creed.

While SENS has proven to be a good fit for Creed, she hopes to continue the work she began overseas while also building on the progress of the school.

“My work in Africa started with a taxi cab driver who was driving a professor from one of my former institutions to the airport,” said Creed. “The driver was from Rwanda and he expressed a desire for academics from other countries to help improve the livelihoods and health and well-being of Africans. That one conversation in the taxi eventually snowballed into a government-funded project with the International Development Research

Centre of Canada. And as this project progressed, when we talked to the people, they expressed great concern with access to clean water supplies. And this initiated the next 10 years of my work, where I looked at algal blooms and toxins in water, which is a defining part of my work in Africa and in Canada, and also a major concern for researchers here at the U of S.”

While Creed hopes to draw on the strengths of her past work, she is already looking strategically at the next 10 years of SENS. And she has wasted little time in getting to work on bringing global initiatives to the school.

In her first month as executive director, she applied to and was ultimately successful in receiving funding with the Canadian Queen Elizabeth II Diamond Jubilee Scholarships program to look at training in planetary health with a focus on Canadian and African Indigenous communities-at-risk. This scholarship program will enable Canadian and African students to partici-

pate in exchanges and internships, learning from one another.

She has also been working closely with the senior leaders of the School of Public Health and School of Public Policy, with the eventual goal of starting a planetary health initiative at the U of S that would have strong linkages to the developing world.

“The work here and overseas will continue, wherever communities are at risk due to issues such as climate change and a lack of access to safe and reliable food, energy and water sources.

“At SENS we have creative minds open to change. Undisciplinary thinking—which embraces the fusion of different disciplines—can lead to transformative changes in society. At SENS, we’re embracing interdisciplinary thinking and seeking to work closely with other units on campus to work on some of the most challenging problems facing society,” she said. “To achieve positive change, this is something we need to work on. Together.” ■



Weathering the storm

U of S researcher explores extreme precipitation events

 JAMES SHEWAGA

In massive data downloads digested by state-of-the-art supercomputers, the mountain of evidence of the effects of climate change is making the scientific case for a troubling conclusion.

“We are at the tipping point, so

it is a critical time,” said University of Saskatchewan climate change researcher Yanping Li. “What we are going to do now will have great significance.”

With greenhouse gases causing global temperatures to rise and

polar ice caps, mountain glaciers and permafrost to melt, rapid climate change is resulting in more extreme weather events, including increasingly damaging floods and droughts, creating the tinderbox fuel for wildfires. Li is part of the

large team of U of S researchers who are studying the effects of climate change on Canada’s water security in the Global Water Futures (GWF) project, the world’s largest university-led water research program.

“Water is life,” said Li, an

assistant professor in the School of Environment and Sustainability who is based out of the National Hydrology Research Centre on campus. “Clean freshwater is the most important, irreplaceable resource for the economy and envi-



“We are studying what has happened in the past 15 years and we use climate models to project what is going to happen until the end of the century in 2100 and we compare them to see the differences,” said Li. “We can’t tell you that a specific (weather) event is going to happen, but we can tell you the trend in general and what the possibilities are.”

Li said the data confirms how climate change is altering Prairie precipitation patterns, with storms becoming more severe as they are fueled by a warmer atmosphere that traps more water vapour. While supersized hurricanes and destructive tornados get most of the attention, violent downpours and flash floods are also causing costly damage to crops and infrastructure and threatening water security for farms, cities and communities.

“Recent studies have found that storms are becoming larger, moving slower and lasting longer,” said Li, who received a \$298,000 federal grant for her three-year study. “All these factors combined together lead to more water volume (rain) falling to the ground per hour. This significantly increases the possibility of flash flooding affecting creeks and rivers, homes and streets ... So, either it is going to rain a lot in a short period of time, or it’s not going to rain for a long time and we will have drought.”

That is already happening more frequently across the Prairies, with damages in the billions from recent flooding, particularly in 2013 in Calgary and across southern Alberta. At the other extreme, drought conditions have helped spark wildfires ranging from the 2016 devastation of the city of Fort McMurray to the 2015 mass evacuations of northern communities like La Ronge. In the south, drought conditions are affecting the agriculture economy, with parts of Saskatchewan classified in 2017 by Agriculture and Agri-Food Canada as facing exceptional drought, which occurs only once every 50 years.

Around the world, the drought in California—a significant source of fruits and vegetables for Canada—has dragged on for years, while Cape



University of Saskatchewan climate change researcher Yanping Li.

“Recent studies have found that storms are becoming larger, moving slower and lasting longer. All these factors combined together lead to more water volume (rain) falling to the ground per hour.

Yanping Li

Town in South Africa is on the verge of becoming the planet’s first major city to run out of water. In light of the global picture, preserving and managing Canada’s precious water resources has taken on increased importance and urgency.

Li’s work analyzing rapidly changing precipitation patterns to predict future climate models will support other experts exploring water and land management strategies in research initiatives at the U of S, which was ranked first in the country for water resources research in the 2017 Academic Ranking of World Universities.

“We know the future is going to be like this and we should be prepared and start to change our habits,” said Li, who is originally from China and came to the U of S to join the Global Institute for Water Security in 2013, after earning a PhD at Yale University and working for the United States National Centre for Atmospheric Research. “For example, we could start to grow crops which do not consume a lot of water. And other hydrologists in our institute are working on water management in dams, to better manage the water that we do have.”

And with or without the support of the United States—the only country to reject the Paris climate accord—Li said Canada and the rest of world can take concrete steps to reduce the amount of carbon dioxide in the atmosphere to keep the planet from passing the tipping point of a two-degree Celsius rise in temperature by 2050, which climate change researchers believe could be catastrophic. Incorporating more renewable energy is one solution to reducing CO₂ that also provides the promise of economic benefits.

“The price of wind and solar power is decreasing by the day, so as technology advances, renewable energy becomes more competitive and efficient,” said Li. “Switching to renewable energy makes great sense for the environment and for the economy. The renewable energy sector provides millions of new job opportunities.”

Li’s work is one of 33 projects underway across Canada supported by \$170 million in funding for GWF, which is led by director John Pomeroy of the U of S and features a network of 388 Canadian researchers, 15 universities, and 172 partners around the world. ■

ronment. The apparent abundance of water and the water cycle often give the false impression that we have an unlimited source of water. However, the availability of fresh-water for a semi-arid region such as the Prairies, in a changing climate,

is highly variable and uncertain.”

Li’s latest study—Short-Term Extreme Precipitation in Future Climate—is one of the 21 new GWF research projects that were part of a \$10-million funding announcement on Dec. 11.



Innovation in soil remediation

U of S training the next generation of soil scientists

JAMES SHEWAGA



Steven Siciliano (right) is developing improved and more cost-effective solutions to remediate contaminated fuel and fertilizer sites.

With only hundreds of boarded-up former gas station sites being cleaned up every year, at the current pace it would take centuries to deal with the more than 30,000 contaminated locations across the country.

Soil science and toxicology professor Steven Siciliano believes there has to be a better way.

With little financial incentive—or penalties—motivating most companies to deal with this massive and largely urban environmental problem, Siciliano and his fellow researchers at the University of

Saskatchewan are developing improved and more cost-effective solutions to remediate contaminated fuel and fertilizer sites from coast-to-coast.

“Some people think that you can’t benefit the environment and benefit the economy at the same time, but that is simply not the case,” said Siciliano, who has become a national leader in soil remediation over two decades of research on campus. “We are working on new ways to remediate these sites that are more cost effective and make both

environmental and economic sense. We are working on methods of soil remediation that can save billions of dollars for industry.”

Simply put, it is cheaper for companies to pay minimal property taxes while keeping the sites boarded up, than it is to pay for costly cleanups. That makes dealing with these contaminated sites one of the most pressing issues facing communities across the country, with environmental, economic, social and health issues at stake.

“In urban centres where we

have these sites, the contamination is not readily apparent when it is happening underground, but it is our groundwater that is being contaminated and that is a major environmental issue and health issue for all of us,” said Siciliano.

“There are four intertwined issues: The first has to do with economic development, the second has to do with social justice, the third has to do with the health of the environment, and the fourth has to do with the health of humans. We try to make these sites cheaper and

easier to clean because it’s easy to say it should be done automatically. But realistically, there’s too many sites and it’s too expensive, so we need to make it an easy situation that improves the economics of these businesses, while also helping the environment.”

SEE SICILIANO, PAGE 15

Images of Research

Almost 100 images were submitted for the fourth annual Images of Research competition. U of S faculty, staff, students and alumni submitted their best photos of research in an array of categories for consideration. Winning images will be on display in Place Riel from April 16-20. Here are this year's winners.



Grand Prize:

A SQUIRREL IN THE HAND IS WORTH THE WHOLE WORLD

ANDREA WISHART, doctoral student in biology

One person keeps their eyes on the nest while the other starts to climb the tree. It is a race that pits human against mother squirrel in a vertical obstacle course race to reach the precious nest contents. We last saw this same baby North American red squirrel "pup" 25 days ago, after tracking mom's pregnancy and finding her pups within a day of being born. Back then, we weighed, sexed, and marked them, all in anticipation of today: ear tag day! Both of these dates are critical to our long-term squirrel monitoring project (the first because the day a mother squirrel gives birth is under natural selection and can give her babies an edge in certain years; the second, because giving each individual unique tags allows us to track their key life moments from birth to death). This squirrel, newly tagged, is being hand delivered back home, to snuggle into the natal nest with mom.



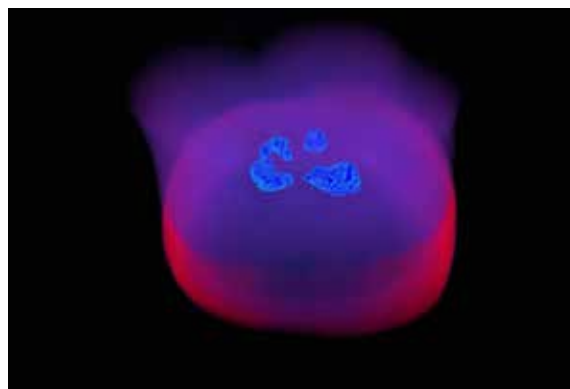
FROM THE FIELD: THE GREAT THAW

MARK FERGUSON, communications specialist for the Global Institute for Water Security



COMMUNITY AND IMPACT: CITIZEN SCIENTISTS, GLOBAL STEWARDSHIP

STEVEN MAMET, post-doctoral fellow in soil science



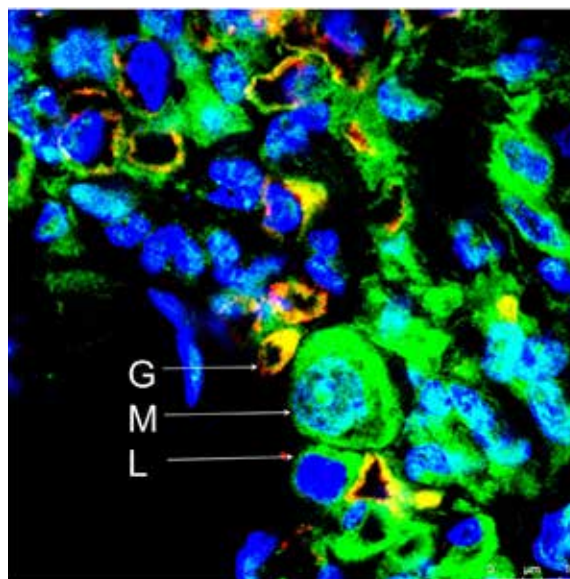
MORE THAN MEETS THE EYE: THE STONES

LINDSAY ASPEN, student in dentistry



RESEARCH IN ACTION: LITTLE BIRD IN A BIG WORLD

KATELYN LUFF, master's student in biology



VIEWER'S CHOICE: CELL PARTY IN ASTHMATIC LUNG

NGUYEN PHUONG KHANH LE, doctoral student in veterinary biomedical sciences



BEST DESCRIPTION: GENDER EQUITY IN BASIC EDUCATION: A REALITY OR AN ILLUSION

ZITA A. SESHIE, PhD candidate in sociology

My mother could not complete her basic education in the 1960s in Ghana due to scarce family resources and the cultural expectation that a woman's contribution is in the domestic sphere. As the highly educated daughter of an African woman that could not complete the grade 6 level, I was inspired to focus my doctoral research on Gender Equity and Education Policy in Ghana. In spite of Ghana's Free Compulsory Universal Basic Education policy, girls continue to have lower completion rates compared to boys. I took this picture during my fieldwork because it is a reminder that we must continue to explore why girls have lower educational attainment globally.

Keeping the campus faith

Faith Leaders' Council supports spiritual wellness of community

EMILY MOONEY

The University of Saskatchewan has formalized its relationship with communities of faith by forming a Faith Leaders' Council and developing a soon-to-be-signed memorandum of understanding between the university and many local religious groups.

The leaders on the council represent Baptist, Ecumenical Christian (Anglican, Presbyterian and United), Hindu, Jewish, Lutheran, Mennonite, Ahmadiyya Muslim, Sunni Muslim, Redeemed Christian Church of God, Roman Catholic, Sikh, Ukrainian Catholic and Unitarian communities.

Meera Kachroo, research associate with the Office of the Vice-Provost Teaching, Learning and Student Experience, said the council was formed in order to foster connections between the university, its students and local religious

communities, as well as to show support for inter-faith respect and understanding.

"The establishment of the Faith Leaders' Council represents an investment in the spiritual wellness of our university community," said Kachroo. "In the past, this work has been referred to as chaplaincy, but we wanted to mark a movement away from this Christo-centric language to something more inclusive and representative of the work and qualifications of the diverse faith traditions in our local community."

Asit Sarkar, professor emeritus at the Edwards School of Business and vice-president of the Hindu Society of Saskatchewan, was pleased to see the U of S recognize the need to update the spiritual resources on campus.

"The student community has become a lot more diverse now in terms of faith and culture,"



Sahtout

said Sarkar. "Once you have diversity, I think there are a lot of misunderstandings that arise simply because of lack of awareness. So, the university thought that this might be a good initiative to respond to the diversity."

Sarkar is representing the Hindu community on the council, which also includes student representatives from the U of S Students' Union and the Graduate Students' Association (GSA). His goal is to create greater awareness of faith diversity and to promote how council leaders can be helpful to students' learning experience.

Sarkar said the council has met twice this academic year and is in the process of finding ways to foster communication and inclusivity between the faith communities.

"Every member of the council is trying to find some common grounds among all faiths," said Sarkar. "I think faith is something that, if you really look at the basics, is the same everywhere. People want to find a source where you can find some mental peace."

Naheda Sahtout is the graduate student representative on the council. She is a PhD student in the Department of Chemistry, the GSA's vice-president external, and part of the Muslim community. Like Sarkar,



Kachroo

Sahtout recognizes the efforts of the Faith Leaders' Council as a means to bring different groups together.

"By having this Faith Leaders' Council, you see the leaders of each faith being in the same room together, democratically speaking about something, and hosting events together," said Sahtout. "So that sets the tone for the younger generation. Being able to participate in these events is a great opportunity for students to ask questions, to meet other people of different religions and different faiths and to just be able to understand how other people's faiths influence them."

"The faith leaders are not trying to promote their religion, they're trying to be there for students who might value religion and want that opportunity to have someone to discuss it with," continued Sahtout.

Both Sarkar and Sahtout emphasize the council's focus on student needs.

"I think we all share the same view, that in whatever we do it's not for us as faith group leaders, it is for the students," said Sarkar. "Any activity that we do needs to be student-need driven and hopefully student led with our support and help."

Sarkar cited many examples

of how the different faiths on the council are encouraging a sense of community on campus, and encouraging awareness, comfort and friendship. This will play an important role in the university's Wellness Strategy, which focuses on three elements: healthy mind, healthy body, and healthy life. Spirituality is a key component of healthy mind, body and life.

"In a particular period of troubling times, people think that all students of Hindu faith would go to the Temple or all Muslim students would go to the Mosque," said Sarkar. "It doesn't necessarily happen. They immediately look for some solace among their peers."

Sahtout said sometimes people are hesitant to talk about their mental health issues and that some students find it reassuring to know there are faith leaders that they can talk to in confidence. That is why it is important for students to be aware of the resources on campus such as the faith leaders.

"Having that support system is definitely important with a lot of students, especially those that are religious and coming from international backgrounds," said Sahtout.

Sarkar said that the university recognizes the connection between faith leaders and mental and spiritual health, and he enjoys the close association that has developed between faith leaders and Peer Health Support.

The Faith Leaders' Council is located in the refurbished space on the main floor of Marquis Hall, near the University Bookstore. ■

Emily Mooney is a student intern with the Office of the Vice-Provost Teaching, Learning and Student Experience.



SPRING SALE AND JURIED EXHIBITION

PLEASE NOTE: THE JURIED EXHIBITION WILL CLOSE SUNDAY AT 3 PM



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Visit wellness.usask.ca/faithleaders to learn more about university faith leaders.



From left: Professor Natalia Khanenko-Friesen and students Matthew Selinger, Oksana Dubasov, Alicja Rutkowski, Jamie LaFleur, Tiana Kirstein, Kaitlyn Bletskey, and administrator Iryna Kozina in the St. Thomas More College atrium.

JAMES SHEWAGA

Tracing the family tree overseas

Trip to Ukraine a journey of self-discovery for U of S student

JAMES SHEWAGA

Ninety-five years after his great-grandparents emigrated from Ukraine to Canada, University of Saskatchewan student Matthew Selinger will have a chance to follow his family tree back to where they came from.

Selinger is one of six U of S students preparing to head overseas in May to take part in the Spring Session in Ukraine, a six-week intensive language and cultural program offered through St. Thomas More College (STM) in partnership with Ukraine's Ternopil National Pedagogical University. For Selinger, what began as a chance to immerse himself in the language has evolved into a once-in-a-lifetime opportunity to trace his ancestry.

"Initially with this trip, I wasn't looking at the research aspect of it, but the more I thought about

being able to go to the homeland of my ancestors, it became more important," said Selinger, a fourth-year modern languages student in the College of Arts and Science. "In fact, the town that my ancestors were from, called Lanivtsi, is an hour away from Ternopil where I will be studying. So, it's a great opportunity for me to travel there and walk the streets of my ancestors. That will be pretty special."

Selinger will be taking part in the 15th year of the STM Spring Session in Ukraine, following a five-year renewal of the agreement signed on Jan. 23 by U of S provost

Tony Vannelli, STM dean Arul Kumaran and Ternopil University representatives. Students take language classes offered by Ternopil instructors, as well as a cultural course—Anthropological Perspectives on Contemporary Ukraine—taught by STM professor Natalia Khanenko-Friesen, who travels overseas with the students.

"Everyone lives with a host family and is immersed in the language and culture, so it's a very popular program," said Khanenko-Friesen, who first came to Canada from Ukraine in 1992 for graduate studies prior to being hired as a U of S professor in 2001 when she helped start the Ukrainian study abroad program. "Ukrainian-Canadians take great pride in their heritage and this idea of going home has become a really instrumental

aspect of modern identity, a rite of passage if you will, to go back to where our roots come from. So anthropologically speaking, it's a very important element of personal identity and cultural identity."

The study abroad session has enhanced Ukrainian programming offered on campus and is strongly supported by STM, which is home to the Prairie Centre for the Study of Ukrainian Heritage, established in 1998. The centre leads research into everything from the history of Ukrainian immigration in the west, the First World War internment of Ukrainian-Canadians from 1914-1920, the Holodomor genocide that killed five million Ukrainians from 1932-33, the devastation of the Second World War, Ukrainian independence in 1991 after the fall of the Soviet Union, to Russia's

annexation of the Ukrainian territory of Crimea in 2014.

"This cohort of students will be studying what matters to modern Ukrainians," said Khanenko-Friesen. "When it comes to our student participants, they come from a variety of disciplines and they are motivated by different interests. Some are interested in the Eastern Europe experience and in pursuing the language. And others, like Matthew, are also interested in exploring their heritage."

For Selinger, learning about his Ukrainian and Jewish heritage has long been a personal passion. He has written university papers on Ukrainian victims of the Holocaust, as well as the 125th anniversary of the first Ukrainians in Saskatchewan. His family history includes a Ukrainian great-grandfather who could read, write and speak 11 languages, serving as an interpreter in the First World War overseas and in the Second World War for Canada.

"I looked at the document when my mother's grandparents immigrated to Canada and this year is 95 years since they left Ukraine and now I'll be going there," said Selinger. "To be able to study in Ukraine and immerse myself in the language and culture and learn about the post-World (War) II history and all the things that happened, all of that is significant to me."

Like his great-grandfather, Selinger would also like to serve his country. Proficient in French, and with some understanding of German and Russian—his father's heritage—Selinger hopes improving his Ukrainian language skills will also help him serve in Canadian military intelligence, foreign affairs or international relations.

"I am very interested in history and politics and I want to pursue public service, whether it is in the military or government," said Selinger, who plans to pursue a political studies degree next year at the U of S, after he completes his bachelor's in modern languages. "So, this trip will be a great opportunity and I'm excited about it." ■



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- Attract leaders and create public awareness for your field of expertise.
- Assist in creating jobs in the region through direct and indirect services.

HOW How Tourism Saskatoon supports Local Ambassadors: (FREE OF CHARGE)

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- Assist in preparing a comprehensive bid document including letters of support.
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- Contact hotels and venues regarding price and availability.
- Provide funding for administration support if required.
- Fund and coordinate site visits for key decision makers.
- Assist with introductions to Professional Conference Organisers (PCOs).
- Provide guidance for funding options to help support your conference.

Marketing support

- Provide promotional materials and support towards the marketing of your conference.
- Attend the prior year conference to generate delegate interest.

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COMING EVENTS

COURSES/WORKSHOPS

Edwards School of Business, Executive Education

Call 306-966-8686, email execed@edwards.usask.ca or visit edwards.usask.ca/exceed Registration open for upcoming programs:

- April 16-18, The Project Management Course – Saskatoon
- April 24-May 22, The Leadership Development Program – Saskatoon
- The Operational Excellence Certificate:
 - April 23-24, Master Clinic on Solving Tough Problems – Saskatoon
 - April 25-26, Process Metrics, Measurement and Controls – Saskatoon
 - April 30–May 1, Developing a Coaching Mindset – Saskatoon
 - May 1–2, Technical Writing – Saskatoon
 - May 2–3, Networking—The Art of Building Relationships – Saskatoon
- May 14–16, The Project Management Course – Regina
- May 23–25, Digital & Social Media Program: Metrics, Measurement & Analytics – Saskatoon
- May 25–June 1, Effective Executive Leadership Program – Waskesiu Lake
- June 5–6: Innovation Acceleration Process – Saskatoon

No such thing as a “perfect parent” workshop

April 24, 1:30–2:30 pm, Admin C280. In an effort to be perfect, new parents will

frequently try too hard to protect their child from any adverse experiences or go to great lengths in an attempt to please their children. This type of well-intended “perfect parenting” can lead to unanticipated problems. This workshop will address these problems and suggest ways to let go of perfection and seek a balanced parenting approach. To register, visit usask-perfect-parenting.eventbrite.ca. For more information contact wellnessresources@usask.ca or call 306-966-4580.

The Working Mind: workplace mental health and wellness

This education-based program is designed to address and promote mental health and change behaviours and attitudes towards people living with mental illness, helping to ensure people are treated fairly and as full citizens with opportunities to contribute to society like anyone else. Launched by Mental Health Commission of Canada in 2013, the Working Mind was developed by clinicians and peers and based on scientific research and best-practices.

- May 16, 8:30 am–4:30 pm, Admin C280, session for people leaders. Register at working-mind-people-leaders.eventbrite.ca.
- May 23, 1:30–4:30 pm, Admin C280, session for faculty and staff. Register at usask-the-working-mind.eventbrite.ca.

Celebration Week (session for instructors)

April 24–27. Enhance and celebrate your teaching practice by attending sessions during Celebration Week. The week is put

on by the Gwenna Moss Centre for Teaching and Learning and includes the Celebration of Teaching event, innovative teaching showcases, interactive workshops, and gatherings tailored to specific groups or interests. View the sessions and sign-up online at teaching.usask.ca/teaching-support/courses-workshops/spring-celebration-week.php

MISCELLANY

Joint Convocation of the Saskatoon Theological Union

May 4, 7 pm, St. John's Cathedral, 816 Spadina Crescent East. The College of Emmanuel and St. Chad, Lutheran Theological Seminary and St. Andrew's College will hold the seventeenth Joint Convocation of the Saskatoon Theological Union. Honorary Degrees will also be given out this evening. All are welcome and it is free to attend.

An Evening with Tom Jackson

May 16, 5:30–10 pm, German Cultural Centre. Join us for St. Andrew's College annual fundraiser with featured entertainer will be Tom Jackson, who will bring his unique gift of story and song to make the evening unforgettable. The dinner will also serve as the farewell celebration honouring the contributions of Lorne Calvert, who concludes his tenure at the end of June.

**Next OCN: Friday, May 11
Deadline: Monday, April 30**

Hall of Fame welcomes Huskies coach

University of Saskatchewan Huskies football coach Scott Flory will be inducted into the Canadian Football Hall of Fame this year.

The Canadian Football Hall of Fame has announced that Flory will be one of this year's seven inductees into the hallowed hall, following a fantastic 15-year career in the CFL. A three-time Grey Cup champion, nine-time CFL all-star and the league's most outstanding lineman in 2008 and 2009, Flory will officially be inducted into the Hall of Fame on Sept. 14 in Hamilton.

Flory, who is entering his second season as Huskies head coach, grew up in Regina and moved north to Saskatoon to play five seasons for the U of S Huskies, helping the team capture the 1996 and 1998 Vanier Cup. A third-round pick



University of Saskatchewan Huskies football coach Scott Flory.

(15th overall) in the 1998 CFL draft by the Montreal Alouettes, he only missed one game during a span of 12 consecutive seasons before suffering a career-ending injury in 2013.

Flory retired in 2014 and took over as president of the CFL Players' Association prior to rejoining

the Huskies as an assistant coach and offensive co-ordinator under former coach Brian Towriss, who was also inducted into the Hall of Fame last year. Flory, who earned an engineering degree at the U of S, was named head coach of the Huskies in 2017. ■

Siciliano passionate about his profession

FROM PAGE 10

Finding better ways to protect the environment is not only Siciliano's profession, it's his passion. Hearing former U.S. President Ronald Reagan blame acid rain on trees in the 1980s helped crystalize Siciliano's commitment and career path as he began his university studies.

"Reagan famously said that Canadian trees were the problem and that's what was causing the toxicity and that was incorrect," said Siciliano who earned his PhD in toxicology in 1998 at the U of S before becoming a professor in the College of Agriculture and Biore-sources.

"My honours thesis as an undergrad was on that topic and it made me realize that most people don't understand what's causing environmental issues. So, then I came to the University of Saskatchewan where there were professors like Jim Germida, who was working on that. And we developed plant-based systems to clean up contaminated soils, kick-starting a whole new industry called phytoremediation."

Over the years, Siciliano and his fellow researchers have refined the process and developed new techniques to break down hydrocarbons from polluted sites, using everything from naturally occurring bacteria and fungi, to converted biowaste from cattle processing plants, to biochar derived from heating biological ingredients such as wood. Siciliano said the array of unique facilities available to U of S researchers has been critical in developing soil science solutions.

"The U of S is certainly acknowledged as a national leader in soil science, and internationally I think we can claim to be one of the centres

of excellence of soil science in the world," he said. "We are developing the expertise in what is being called the 'Tron City' with the phytotron, the cyclotron and the synchrotron. Those three are all nationally unique facilities, so we are well-situated to lead the way."

Backed by federal funding from the likes of the National Sciences and Engineering Research



Siciliano

Council of Canada (NSERC) and companies like Saskatoon-based Federated Co-operatives Limited (FCL), Siciliano said current U of S research is leading to more effective and more economically-feasible solutions to deal with contaminated soil.

"The technique that we are using now, called In Situ Remediation, is very promising," said Siciliano, the NSERC/FCL Industrial Research Chair in In Situ Remediation and Risk Assessment at the U of S. "I think with the application of the cyclotron and the synchrotron, myself and my collaborators such as Derek Peak here at the University of Saskatchewan and Aram Teymura-

zyan from the University of Regina, we are going to be able to turn In Situ Remediation into a reliable and effective technology."

Siciliano said the new techniques need to be combined with a new governmental approach to provide financial incentives for companies to remediate the soil, protect the environment and make sites safe for development into homes, businesses and parks.

"The single largest change that we could make to improve the environment in Canadian cities is to improve how we deal with asset retirement obligations to incentivise companies to deal with these environmental issues," he said. "It's not even tax breaks. If accounting standards were updated to help environmental management, the responsible companies would actually gain a competitive advantage by doing the right thing."

In the meantime, Siciliano continues to develop new techniques while also preparing the next generation of soil scientists and environmental leaders.

"As university professors, I think our role is to help people achieve their life dreams, and that should be our primary passion," he said. "If a student wants to get a good job in industry where they can do something to benefit the environment, I can help make that happen. If a student wants to pursue an academic career, we can also help make that happen."

"Our role is to provide Canada with a happy and highly qualified workforce that can address tomorrow's problems. Because the students we train today will be the decision makers of tomorrow, tackling the challenges that Canada will be facing in 2040 and beyond." ■

Student chefs defend title

FROM PAGE 2

favorite components to create a visually stunning dish of porchetta with caramelized orange yogurt, roasted pear and parsnip puree, fennel and onion pickle.

It was a tough deliberation for the judges, but they gave a slight edge to Team What's Our Name, winners for the second year in a row and recipients of a \$1,000 gift card from Shop usask.

"Over the past six years we've seen this event grow and evolve and

this was definitely one of the best Student Iron Chef competitions to date. Every year I'm impressed with the creativity as well as some of the passion for food and cooking that this event brings out in our students," said Mcfarland.

Watch the Student Iron Chef episodes at usask.ca/culinaryservices. ■

Kylie Robson is a marketing co-ordinator with Consumer Services.

Improving cancer treatment

FROM PAGE 5

have already been published in a peer-reviewed journal as she finalizes her PhD thesis this year.

"I am interested in all genetic disorders, but skin cancer is my main focus since it affects the lives of so many people, imposing a huge burden on the health-care system worldwide," said Al-Dulaymi, who has also served as a teaching assistant and lecturer at the U of S since 2014. "Melanoma is just one type of cancer, but according to Canadian Cancer Statistics, in 2017 there were more than one thousand deaths from this cancer. So, my gene

delivery approach eventually targets melanoma, trying to find better treatment options."

As she prepares to graduate, the 29-year-old Al-Dulaymi would like to apply for citizenship and remain in Canada to continue her research to help improve the country's health-care system.

"I would like to stay and continue my work here," she said. "I was fortunate enough to receive several scholarships during my studies that were made possible by the taxpayer money. So, I would like to give back to Canada." ■



ON TIME TRAVEL . . .

Pack your bags and set your sights on memory lane, because this year's *On Campus News* back page features landmark moments and events from our storied 110-year history.

Have a particular event you'd like to see featured? Let us know about it at news@usask.ca.

With files from University Archives and Special Collections.

UNIVERSITY CENTENNIAL CELEBRATING 100 YEARS

On April 3, 2007, the University of Saskatchewan celebrated its 100th birthday—it was on that day in 1907 that the University Act received royal assent.

While the atrium in the Agriculture Building was filled with balloons, cake and speeches on April 3 for the birthday event, centennial celebrations officially kicked off on January 12 at a ceremony in Convocation Hall where a Canada Post-designed U of S stamp was unveiled to commemorate the anniversary.

green colours. The University of Saskatchewan Asiatic Lily is registered with the Royal Horticultural Society in London, England.

Throughout the year, a variety of events and celebrations took place, including recognizing 100 alumni of influence, hosting Congress 2007 (Canada's largest academic gathering) and alumni homecoming.

See you in 2107 for the bicentennial!



In addition to the stamp, a "centennial lily" was bred to feature U of S white, gold and