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100 YEARS OF REMEMBRANCE

It's been a century since the First World War ended, on the 11th hour of the 11th day of the 11th month in 1918. In this issue of On Campus News, we take a look at the contribution of individuals from the University of Saskatchewan during the Great War, paying tribute to the 345 who served overseas and the 69 who never returned. The university is preparing for the Nov. 11 Remembrance Day ceremony at the Memorial Gates, which has been held annually since the monument was completed in 1928 (top photo).

SEE PAGES 8-9.









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Métis. We pay our respect to the First Nation and Métis ancestors of this

James Shewaga

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Collaborative research is the key to the LFCE

ALANA HAIGHT

The newest kid on the block for researchers at the University of Saskatchewan is a world-class facility that brings together under one roof all aspects of raising livestock in a sustainable and environmentally responsible manner.

The Livestock and Forage Centre of Excellence is a \$38-million world-class complex of field and science laboratories, operating three distinct research and teaching units. While each focuses on certain aspects of livestock production, they are fully integrated to encourage collaboration between scientists and students from a range of disciplines. Plant, soil and animal scientists from the College of Agriculture and Bioresources, veterinarians with expertise in infectious diseases as well as in animal behaviour from the Western College of Veterinary Medicine (WCVM), and environmental engineers from the College

of Engineering are leading research projects with considerable overlap, breaking down silos to work

"This research is so complex, we can no longer research one aspect in isolation. By combining the research, you can be more effective and you are using your dollars more wisely. Ultimately, you are also getting more insight into the answers that you want," said Kris Ringwall, who began working as the centre's director on Nov. 1.

"Plus, people talk to each other then. That's a big deal to get faculty and others to talk to one another, to communicate. It's important to not iust read our own books, but to read someone else's, too."

The mandate of the research centre includes providing livestock producers and consumers with solid, research-based information on emerging issues related to beef cattle



Students Michelle Streeter, Autumn Lawson and Grayson Ross burn a commemorative cattle brand into heritage wood from the former U of S research facility, under the watchful eye of cattle producer Murray McGillivray.

health, reproduction, nutrition, genetics, and public safety, as well as plant breeding for forage crops, grazing management, and the environment.

The Beef Cattle Research and Teaching Unit (BCRTU) and the Forage and Cow-Calf Research and Teaching Unit are located across the road from each other, south of Clavet. Two laboratories and sample preparation areas, equipped with a centrifuge, near-infrared spectroscopy machine, industrial drying

SEE RINGWALL, 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:

Called to the Hall

U of S Distinguished Research Chair Dr. Jim Dosman-the "father of agricultural medicine in Canada"is among six Canadians named to the Canadian Medical Hall of Fame for contributions to medicine and the health sciences that have led to extraordinary improvements in human health. Dosman will be inducted into the Hall of Fame at a ceremony in Montreal on May 2, 2019. Dosman's research into grain dust exposure spearheaded efforts to establish health-care standards for millions of farmers and agricultural workers worldwide.

National spotlight

Professor Karsten Liber, director of the Toxicology Centre and distinguished professor in the School of Environment and Sustainability. received the 2018 award for Outstanding Contributions to Canadian Ecotoxicology at the annual meeting of the Canadian Ecotoxicity Workshop in Vancouver. Liber was nominated based on his success in building the largest academic ecotoxicology program in Canada, as well as for his research and mentorship. The U of S Toxicology Program is widely recognized as the top program of its kind in Canada.

New NSERC grants

U of S researchers have been awarded more than \$8 million for projects ranging from designing video games that promote social bonding, to safeguarding Indigenous people from the northward spread of a nasty parasite, to reducing greenhouse gas emissions from the cattle industry. The awards to 45 faculty and 29 students were among the Discovery grants and graduate scholarships announced Oct. 9 in Windsor, Ont., by Science and Sport Minister Kirsty Duncan on behalf the Natural Sciences and Engineering Research Council (NSERC).

Climate research

U of S researchers are working with the Okanese First Nation in southern Saskatchewan to track and adapt to the effects of climate change on reserve lands. A climate monitoring station was installed on Okanese land, the first of four automated stations that will record and share data on local temperature, rainfall, humidity, air pressure and wind. The stations are part of a project called Kikawinaw Askiy: Reconciling with Indigenous Sacred Ecology, in partnership with the U of S and supported by \$125,000 in federal funding over three years.

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



Big on beef, passionate for poultry

Award-winning professors and partners in College of Agriculture and Bioresources

They are both passionate about animal welfare and about research advancements to improve the agriculture industry.

So, it should come as no surprise that being professors on campus and partners at home goes hand-in-hand for Karen Schwean-Lardner and Bart Lardner of the University of Saskatchewan.

"We both care about the welfare of the animals and birds and how important that is for producers," said Karen Schwean-Lardner, an assistant professor in the College of Agriculture and Bioresources who specializes in poultry production. "In this country, we have codes of practice for beef, for dairy, and for poultry, that are defined by science-informed groups. And we have a system in which every commercial farm in Canada is audited based on their welfare standards and based on their food safety standards, which is wonderful."

"Animal care and animal welfare is front and centre for producers, and as researchers it is important in everything we do," added Bart Lardner, a professor in the Department of Animal and Poultry Science, whose specialty is the science of beef production. "If the animal is sick, then that animal is of no value to the producer. So, producers are extremely concerned about animal care and animal welfare and proper handling techniques and it's in their best interest."

Whether it is beef or poultry, both are big proponents of the power-packed protein provided by both products, delivering desirable nutrients to help feed an evergrowing population. For their work, both earned international awards this year, with Karen receiving the



Bart Lardner and Karen Schwean-Lardner stand beside the old elevator on the university farm.

ISA HIPPE PHOTOGRAPHY

Poultry Science Association's Early Achievement Award for Research on July 26 in San Antonio, Texas, while Bart was honoured with the American Society of Animal Science's Western Section Extension Award on June 20 in Bend, Oregon.

For Karen, her poultry research is firmly focused on ethical and safe practices in egg production and raising chickens and turkeys for consumers.

"I am not an animal rights person, I am an animal welfare person, and those are two very different things," she said. "We find out what the animal needs to meet their biological requirements and their welfare requirements and those become the minimum standards for production across the country. So, the work that I do is centred on managing healthy birds in a way that we can provide food for people, always with the welfare of the birds in mind."

Her work has had worldwide impact, with her research into effective barn lighting for birds helping to establish international industry lighting standards, a project she began as a U of S PhD student.

"What we found is birds do need to sleep," she said. "Traditionally, producers would raise birds on 23 or 24 hours of light, thinking that if they can see all the time, they can eat whenever they want to eat. But our research found that they do actually need down time and they need it dark to sleep."

For his part, Bart has beefed up university research into everything from cattle nutrition to forage and pasture management. Like Karen, he also earned his bachelor's, master's and PhD at the U of S before becoming a faculty member, first as a leading researcher centred at the Western Beef Development Centre and now splitting his time between the U of S main campus and the

new Livestock and Forage Centre of Excellence at Clavet.

"This kind of research centre is not found anywhere else in Canada, or any other country, for that matter," he said. "We are bringing all these disciplines under one roof, from animal health to cow-calf and forage management, to feedlot and backgrounding management, as well as engineering and economics. So, I'm really looking forward to the future."

For the past 20 years, he has strived to bring new developments to the field, bridging the gap between researchers and ranchers, linking the lab to the land.

"Since I became a researcher, I've always set out to do work that the producer can integrate into their operation, which we call applied research," he said. "My other objective has been to disseminate the scientific findings down to the producer, and that is extension, or tech transfer. I

have always felt that I am an intermediary between the research community and the stakeholders and producers. So, I am really passionate about the research that I do."

Over the past 50 years, that transfer of technology and institute-industry partnership has provided a proven track record of success in the beef industry, combining better food safety and animal welfare practices with improved productivity and sustainability standards, making better use of the same amount of land.

"Our efficiencies in the beef industry have improved four-fold since the 1950s," Lardner said. "And why? Because we have better technology, we have proper grazing management and we know that producers are good stewards of their resources—the soil, the crops, the land. In fact, the majority of producers that I interact with, their objective is to leave those resources in better condition for their children and for the next generation."

And whether it's beef or poultry, the agriculture industry needs to produce more to feed a growing world population that is projected to double from four billion in 1974 to eight billion by 2023.

"We have two choices: plant protein or meat protein. But we need more of both, end of story," he said.

So, after 16 years of marriage, is it steak or chicken on the barbecue on a Saturday night?

"I have a standing joke that my wife is a poultry scientist and I'm a beef scientist, so we don't talk meat groups at home," Bart said with a chuckle. "But I still love a good barbecued steak."

"Everyone asks us the same question," Karen adds. "But I can serve chicken, or turkey or eggs and all he can do is bring a steak, so I have him beat, no problem!" ■

Driving healthy behaviour: From Nigeria to Canada

Using the powers of tech and e-commerce, University of Saskatchewan PhD student Ifeoma Adaji is on a mission to help drive healthy behaviours around the world, from North America to her home country

Most people don't realize it, but they are bombarded by personalized technologies, which, in combination with marketing techniques, can be used to hook people in to buy products. That's why large tech companies are eager to collect their data-to use it for targeted advertisements for their paying customers (usually advertising agencies). However, the same technologies can be used to target fake news on social media, which gives any entity the power to influence voters and sway the course of democracy.

But what if these technologies could be used to change people's behaviour through persuasion or social influence for the better, especially around health and lifestyle choices? That's what Adaji aims to change.

Working with persuasive technologies in the College of Arts and Science's Department of Computer Science, Adaji's research is helping



International PhD candidate Ifeoma Adaji (left) of Nigeria with her supervisor, Professor Julita Vassileva.

M CHRIS MORIN

to inform others to make healthier choices online.

Persuasive technology can be any form of information and communication technology that interacts with people to change their attitude and behaviours online. Adaji said it's about social benefits, namely getting consumers to adjust their lifestyle habits and start purchasing healthy foods via e-commerce sites.

"There's a lot of research on convincing people to lead active lives—there are many apps that are

used for exercise," said Adaji. "But there's not much for getting people to eat healthy. I know that this is a problem throughout the whole world, both here in Canada and in Nigeria."

A lot of factors can influence someone's decision to buy healthy foods. Eating healthy can be very expensive, but it doesn't need to be so. Understanding the demographics and preferences of the users of e-commerce food markets allows programmers to tailor the persuasive strategies that can influence purchases towards more healthy choices.

Having previously worked in data analysis and as a developer, Adaji has long been passionate about using technology as a force for good. Having completed her master's degree in e-commerce technology at the University of Aberdeen in Scotland, a Skype conversation with U of S professor Julita Vassileva led Adaji to Canada—a move that she considers life-changing.

"It felt like the right time to move," said Adaji, who is from the Anambra State in southeastern Nigeria. "I applied for my PhD and once I arrived at the U of S I felt relieved, like it was the perfect time to leave."

Now a member of the Multi-User Adaptive Distributed Mobile And Ubiquitous Computing Lab (MADMUC) on campus, Adaji's research, which has ties to marketing and social psychology, is only going to become more important as the general population becomes increasingly more reliant on social media for day-to-day life, Vassileva said.

"Using persuasive technologies for good, getting people to be more engaged with social causes or to achieve goals that they set for themselves, are noble goals," said Vassileva.

Adaji hopes her work will benefit the health of online shoppers, and she is happy to be conducting her research here at the U of S.

"For me, the experience has been excellent," she said. "I feel supported, and not just me, but all of the students here in this department. When I am asked about my experiences, I can tell stories about the support I am getting here. It's a very good time to be here." ■

International Blueprint key to U of S global impact

The new International Blueprint for Action 2025 charts a course over the next seven years that enables the University of Saskatchewan to signifi-

the university the world needs.

SARATH PEIRIS

The strategy is to co-ordinate and integrate the diverse breadth of U of S international activities in research, teaching and student experience. The blueprint fosters initiatives that will improve the quality and scope of international activities through collaborations with other universi-

cantly advance its mission to become

"This will extend our university's

reach and influence throughout the world, and allow us to address some of society's most pressing challenges such as climate change, poverty and international security on a global scale," said U of S Executive Director International Iim Lee.

All colleges and research centres will be engaged in advancing the blueprint, which is aligned with the new university plan's key objectives of discovery, Indigenization, community engagement, and teaching and learning through to the year 2025. The blueprint features four pillars:

Internationalizing learning experiences: Increase the proportion of U of S students who study abroad; enhance international cross-cultural perspectives in curriculum content; and optimize participation in co-curricular activities that foster intercultural understanding.

Diversifying the university community: Increase the number and diversity of international students at U of S, and support their well-being and success; and increase the ability and confidence of faculty and staff to support

international and intercultural engagement and activities.

Strengthening global impact through discovery: Enhance U of S success as a world leader in research; and showcase the university's research capabilities, discoveries and achievements.

Growing global citizenship and international community service: Use U of S expertise to address global challenges and support wellbeing of communities around the world; and engage in community service and outreach with international peoples and communities to support their welfare and quality of life. "This plan prepares our students and faculty to excel in the global knowledge economy, and foster international collaborations that are essential for impactful research today," said Lee. ■

For more on the International Blueprint for Action 2025, visit: International.usask.ca

> Sarath Peiris is the assistant director of Research Profile and Impact at the U of S.

ties, governments, and industry.

College of Law implementing innovative Indigenous initiatives

JAMES SHEWAGA

From graduating the first Indigenous lawyer to be called to the bar in Western Canada, to founding the country's first Native Law Centre, the U of S College of Law has long been a leader in supporting Indigenous students.

It's a foundation the college continues to build on with a plethora of new innovative initiatives, including implementing mandatory Indigenous law courses for all first-year students, and founding programs to teach Indigenous law students in Nunavut, as well as from Newfoundland and Labrador.

For College of Law Dean Martin Phillipson, it's the next evolution for a college committed to enrolling, educating and graduating more Indigenous law students.

"The college has a long history of a deep commitment to Indigenous legal education. It is part of the DNA of the school," said Phillipson. "It is part of our culture and part of what we do is making sure there is space for Indigenous students in law school, and hopefully in the legal profession. This is a logical extension of what we have always done and a reflection of a faculty that is deeply committed to Indigenous legal education."

The college has celebrated a number of firsts in a century-long history that dates back to becoming the first law school in Western Canada in 1912. The college graduated William Wuttunee, who became the first Indigenous lawyer in Western Canada in 1954, and established the country's first Native Law Centre Summer Program in 1973, a program that has trained more than 1,300 students including three out of every four Indigenous



Dean of the College of Law Martin Phillipson in the boardroom in Wiyasiwewin Mikiwahp Native Law Centre. iii DAVID STOBBE

lawyers practising in Canada.

Forty-five years later, the centre is now known as the Wiyasiwewin Mikiwahp Native Law Centre after adopting the Cree words for "law lodge" during a special ceremony with Indigenous Elders on May 18, 2018. That served as more than just a symbolic renaming, said Larry Chartrand, the centre's academic director.

"When a name is gifted to a person or a place or an organization like the Native Law Centre, the name is like a living entity," said Chartrand. "That entails a commitment to ensure that the integrity of the name is maintained. So, we took the gift of the name very seriously, and it was part of the launch of the new strategic plan for the centre."

Chartrand also helped establish the new mandatory course in Indigenous law and history that all 127 first-year students are taking this year for the first time, while upper-



Chartrand

year students also have to complete a second course related to Indigenous legal issues.

"The bottom line is this: If you are going to be a lawyer in Canada in the 21st century, whether you are Indigenous or not, you need to have a good understanding of Indigenous issues and perspectives, from Gladue factors analysis to pipeline debates," said Phillipson.

The new Indigenous law curric-

ulum supports the Truth and Reconciliation Commission of Canada Calls to Action, and received unanimous faculty support.

"It's been a long time coming and something that I have been trying to promote for my entire legal career," said Chartrand. "And having full support from faculty was wonderful."

U of S faculty also supported the college's new northern initiative in Nunavut, where 24 students—including 18 who are Inuit—began classes in September of 2017 and are on pace to graduate with U of S law degrees in 2021. It's the first law program offered in Nunavut in more than a decade.

"The importance of that program is it is taking the law school to the north and filling a need," said Phillipson. "It's important that Indigenous populations in remote and rural areas have access to legal education, and we're delighted to

run the program."

The college is also finalizing a new program for 2019 to enrol two Indigenous students each year from Newfoundland and Labrador, another area of the country without its own law school. The partnership with the region's Indigenous chiefs and the Government of Newfoundland and Labrador was announced June 8, 2018, continuing a long tradition of the U of S welcoming law students from the province.

"I think the key point of that program is that once they have finished their degree here, they will have articling positions reserved for them with the Government of Newfoundland and Labrador," said Phillipson. "So, it's a complete cycle, from working with the chiefs to select students who meet our admission standards, to us educating them, to them having guaranteed employment at the end."

Overall, the college's Indigenous enrolment continues to rise, now making up over 15 per cent of the first-year class, compared to 12 per cent of the total student body on campus in the 2017/18 academic year. With the province's Indigenous population on pace to surpass 20 per cent in the next 20 years, Phillipson said it's imperative the college reflect that demographic shift.

"We are now recruiting, admitting and graduating more Indigenous students, and the next step is making sure they are hired," he said. "That's the next piece of the puzzle; having qualified Indigenous students become lawyers and judges. That's when you will see real changes in the legal system, when more Indigenous people are participants at all levels of the system." ■

2018 FALL CONVOCATION

Historian honoured with New Researcher Award

₹ SHANNON BOKLASCHUK

One of the most significant moments of Professor Kathryn Labelle's life came in 2017, when she was given an honour name in recognition of the work she has done with the Wendat people.

The honour name— Yari:mema?/She Carries the Story Along—was approved by a body of faith keepers of the North American Wendat Confederacy before it was bestowed on Labelle during a private ceremony in Michigan.

"That was pretty incredible," she said.

Another professional highlight

for Labelle came even more recently-on Oct. 27, 2018-when she received the New Researcher Award at the University of Saskatchewan's Fall Convocation ceremonies.

"It doesn't seem real," Labelle said of being chosen for the award.

"I actually Googled it a bunch of times on the university website when I first heard, because I was like, 'This can't be right," she said with a laugh. "All of the other people who have received this award before are like awesome rock stars, so it is exciting but also sort of overwhelmingbecause you feel like there's a lot of responsibility with that."

Since joining the Department of History in the College of Arts and Science in 2012, Labelle has earned an international reputation for her work in Indigenous history, with a focus on the Wendat (Wyandot) communities in Quebec, Ontario, Michigan, Kansas and Oklahoma. The Wendat people, also referred to as the Huron by the French, are known in high school history books as having had contact with Samuel de Champlain when the French explorer came to Turtle Island (Canada).

Labelle's acclaimed book Dispersed But Not Destroyed: A History of the Seventeenth-Century Wendat People received the 2014 John C. Ewers Award from the Western History Association. It was also shortlisted for the Canadian Historical Association's Sir John A. Macdonald Prize (rebranded as the CHA Prize for Best Scholarly Book in Canadian History). In the book, Labelle demonstrated that the Wendat people did not disappear, as many historians had claimed, but were instead dispersed in the wake of attacks from the Iroquois.

As an undergraduate history student at the University of Ottawa,



New Researcher Award recipient Kathryn Labelle is an associate professor in the Department of History at the University of Saskatchewan.

Sioui also encouraged Labelle to

pursue her master's degree, which

she received in Ottawa before

earning a PhD in history at Ohio

alongside and build relationships

with the Wendat people. Her next

book will focus on seven Wendat

women spanning a large timeframe

from the 1650s to 2006, and she has

sought input from a group of Wendat

women chosen by their communi-

ties to serve as her advisory council.

be told; they want them to be

published," said Labelle. "They want

"They want their stories to

Labelle continues to work

State University.

Labelle took classes from P rofessor people to know that they exist, so that was sort of the impetus for the Georges Sioui, a Wendat community member who introduced her to first book." people from the Wendat nations.

The New Researcher Award recognizes the outstanding research achievements of a faculty member who is within 10 years of completing their PhD. Considered one of the leading ethnohistorians in Canada, Labelle already has an impressive publication history. It includes an award-winning single-authored monograph, a co-edited book, a dozen book chapters or peer-reviewed articles, and co-editing a special issue of a journal-all within seven years of earning her doctorate.

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





University of Saskatchewan Professor Jeff McDonnell receives the Distinguished Researcher Award from Karen Chad, Vice-President Research, at Fall Convocation on Oct. 27 at TCU Place.

M DAVID STOBBE

SENS/GIWS hydrologist earns Distinguished Researcher Award

World-leading field hydrologist Jeff McDonnell received the University of Saskatchewan Distinguished Researcher Award at Fall Convocation on Oct. 27.

McDonnell arrived at the U of S in 2012 as a professor of hydrology in the School of Environment and Sustainability (SENS) and is the associate director of the Global Institute for Water Security (GIWS). Today, the U of S is the top-rated water research institute in Canada and one of the best in the world. Not only is McDonnell a renowned scholar, but a dedicated mentor to young researchers.

GIWS communications specialist Mark Ferguson asked McDonnell about his career, his award, and his continuing dedication to inspire.

MF: When did you realize that you wanted to dedicate your life to hydrologic research?

JM: My "ta-da" moment came in June, 1981, when I was 40 feet up a tree, escaping a grizzly bear in the Yukon. At the time, I was studying geophysics at the University of Toronto. I was employed as a summer student stationed near Faro, in a three-man "fly-in camp." After a summer of many such grizzly bear encounters, I returned to Toronto in the fall, changed my major to physical geography and focused on hydrology as a kinder, gentler and less remote subject matter. Growing

up in Ontario doing canoe trips and camping adventures, I thought that I was an outdoorsman; working in the Yukon showed me I had a lot to learn. This too affected why I chose to do my PhD in New Zealand—a country where the only native mammal is a harmless bat!

MF: You are highly regarded for your efforts to motivate and educate voung professionals and researchers. Why is this so important to you?

JM: My greatest career joys come from mentoring young researchers and helping launch their careers. I appreciate how lucky I am to contin-

ually work with young, sharp minds. All of my students and post-docs have been willing to follow me on my long-term journey to answer three research questions: Where does water go when it rains? What flow path does water take to the stream? And how old is the water in the channel? As a thank you for their willingness to make my questions their own, I feel that I owe them my utmost help to launch their careers. I'm so darn proud of all of them-many of whom are now leaders in our field, in Canada and around the world.

MF: Does the university environment look/feel different to you now than when you began your career?

JM: My first academic position was as a tenure-track assistant professorship at Utah State University. I remember my first several years as a frenetic ride of teaching, research, service to the university and to outside professional organizations. Everything was fun and exciting. I worked most nights and weekends. Luckily, as the years wore on, I found a way to work less and increase family time as kids came along. I think that my early experience is still common today among young faculty. Perhaps the thing that has changed is the competition to get onto the tenure track. The ratio of the number of PhDs awarded to number of tenuretrack assistant professors continues to worsen. As a result, the number of papers needed to get a job and the number of post-doc years seem to increase along with it. Young scientists today need luck on their side and, what Beveridge (1950, The Art of Scientific Investigation) calls 'a spirit of indomitable perseverance'. This latter quality is what has characterized nearly all successful scientists, then and now.

MF: Are there recent accomplishments you feel have led to you receivina this award?

JM: All accomplishments related to this award are squarely linked to my students, post-docs and technicians in my lab. We've had a few good years

since my arrival at U of S, learning new things about how water is stored, mixed and released in catchments.

MF: What were some of the significant milestones in your life (academically or personally)?

JM: Returning to Canada and joining the Global Institute for Water Security and the School of Environment and Sustainability was the defining moment of my academic career. My kids had both gone off to university by then and my wife and I were free to travel. I've spent about six months a year since then away from Canada being a water ambassador for the U of S, striving to create linkages at universities around the world. Returning to the Canadian academic culture has increased my time to think, unlike the United States where professors are on nine-month contracts and expected to bring in summer salary with a multitude of grants. Canadian professors enjoy much more time for science. We're lucky to be in Canada.

MF: Where are we at as a university/ institute/program in terms of water research, and where do we need to go?

JM: There is a very long history of excellence in water resources research at the U of S going back to people like Don Gray, Vit Klemes and others. Senior water leaders like Howard Wheater, John Pomeroy, Lee Barbour, Jim Hendry, Garth Vanderkamp, Al Pietroniro and others have helped push the university ahead and our dozen or so new water hires in the past 10 years have helped us achieve the No.1 ranking in Canada in Water Resources, No.9 in North America and No.18 worldwide. But, we have potential to be No.1 in the world within the next 10 years. To do this, we will need co-ordinated efforts led by our terrific new director of the Global Institute for Water Security, Jay Famiglietti (together with senior leadership at the U of S) to make several new, strategic appointments, forge new international partner-

SEE MCDONNELL, PAGE 15

A century of remembrance at the U of S

JAMES SHEWAGA

It's been 100 years since the end of the First World War, a conflict that altered the course of history and had a profound effect on the University of Saskatchewan.

A total of 345 students, staff and faculty from the U of S served in the Great War from 1914-1918, with 69 making the ultimate sacrifice, a mortality rate of nearly double that of the Canadian Forces overall. Considering there were only 490 students and faculty on campus at the beginning of the war-just five years after the first university classes were held—the U of S contribution to the war effort was impressive, with the resulting losses devastating.

"The biggest tragedy was the number of people who were killed and wounded," said Patrick Hayes of University Archives and Special Collections. "The campus was small at the time, so the casualties had a huge effect on the university. And many of those who returned had lost limbs, been gassed or suffered shellshock, so the effects were long-lasting.

"The long-term impact on the university was that a lot of the research that we do now started during the war. The funding for farm research and genetics research that we do today, started back then. So, the university also changed direction research-wise, because of the war."

Called upon to help feed and fuel the war effort, university research efforts included developing wheat hybrids that were resistant to the wheat rust outbreak of 1916. With so many leaving for the war, the College of Engineering temporarily closed in 1916, with that year also signalling the establishment of the Western University Battalion, which was disbanded overseas and used to reinforce decimated existing units.

Most of the U of S enlistees joined the ill-fated 46th Canadian Battalion, which suffered devas-



Reginald Bateman, the first U of S English professor, was killed in 1918.

tating losses in some of the bloodiest battles of the war, from Vimy Ridge to Passchendaele. As documented in the U of S Great War Commemoration Committee database, 4,917 of the 5,374 members of that Saskatchewan-based battalion were either killed or wounded, a shocking 91 per cent casualty rate.

"Almost everybody in Canadian society lost a relative or someone on their street, and the university was no different," said Hayes. "The war had a deep and profound impact on the university."

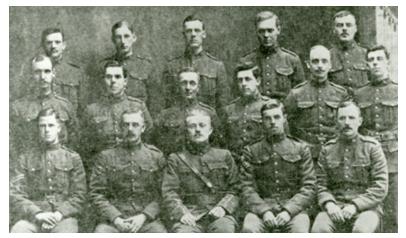
Leading the charge overseas was the university's first English professor, Reginald Bateman, a charismatic leader who rose to the rank of major. As documented in the Great War database, Bateman spoke of patriotic duty and the romantic notion of the glory of fighting for King and Country.

"It is comparatively seldom in the world's history that a man gets a chance to die splendidly," Bateman said while awaiting his third tour of duty during the war.

Bateman requested a reduction in rank from major to lieutenant to return to the front one more time. He was killed on Sept. 3, 1918, just two months before the end of the war.

"He was very popular and a good officer," said Hayes. "The university was so tiny at the time and he was the first professor of English, so everyone knew him. He was kind of the star of the campus. He rose through the ranks and chose to go back to the front and was killed in action. So, it was definitely felt on campus."

Bateman was one of the last university casualties of the war. The deadliest day for the U of S was June 2, 1916 when the Germans launched a fierce assault on the Canadian



Reginald Bateman (bottom right) and members of the 28th Battalion.

position at Sanctuary Wood in the Flanders Fields area of Belgium. That day, six U of S students died in the fighting: Henry Egar, Robwwert Carlton Grant, Lawrence Homer, Franklin Mager Keffer, Percy Dennington Kisbey and Joseph Lees Nicholls. Ranging in age from 20 to 25, they had all enlisted at the end of the school year in 1915.

U of S students and faculty also fought at Vimy Ridge, where Captain Edmund Oliver—the first history professor at the U of Screated an impromptu university on the Western Front. The Great War database tells the tale of how Oliver established the "University of Vimy Ridge" in December 1917. Between battles, nearly 4,000 students took part in classes and 6,000 attended lectures, as Oliver led efforts to bring a little hope to the front and help prepare soldiers for returning to society one day.

The end of the war marked the beginning of healing on campus, with the university paying tribute to the 345 who had served—including Claire Rees, who volunteered as a nurse and was the only woman from the U of S to serve overseas. Thirty-three soldiers from the U of S were awarded medals of valour, 69 died, and more than 100 were wounded.

university painted memorial ribbons in the old College Building (now Peter MacKinnon Building) featuring the names of those who served, constructed the Memorial Gates in 1927—engraved with the names of the 69 who perished—and dedicated a stone monument honouring the 46th Battalion in 1933. A Remembrance Day service has been held every year at the Memorial Gates ever since.

"The First World War was such a traumatic thing and people felt they had to do something to honour those who served," said Hayes. "And the establishment of the Memorial Gates was the first major fundraising campaign in the history of the university. And the second major fundraising campaign was a memorial as well, and that was the Memorial Union Building."

While it took years for the university and the returning troops to heal, the U of S played a key role in the transition back to civilian life, with nearly 1,000 veterans graduating following the war.

"The university was affected the same as every part of Canadian society," said Hayes. "I think the most important part of the First World War is that it changed the world completely. You have a world of empires and kings before it, and then you had the modern world after it." ■



David Henley (right) and Nadine Sandercock hold the medals and insignias of great-uncle Thomas Caldwell, one of 69 individuals from the U of S who died in the First World War.



Remembering **Thomas Caldwell**

ℳ JAMES SHEWAGA

A little over a century ago, Thomas Caldwell left the University of Saskatchewan to serve his country overseas in the First World War and never returned.

In all, 345 U of S students, staff and faculty served in the Great War from 1914-1918, with Caldwell one of the 69 who gave their lives and whose names are engraved and forever immortalized in the Memorial Gates monument on campus.

On November 11, relatives of Caldwell will be at the Memorial Gates to honour his sacrifice during the university's annual Remembrance Day ceremony, on the 100th anniversary of the end of the First

For Caldwell's great-nephew David Henley and his wife Nadine Sandercock, it was important to travel all the way from Ottawa for this historic Remembrance Day service, which has been held at the Memorial Gates every year since being completed in 1928 to honour the members of the U of S who made the ultimate sacrifice a century ago.

"We've been fortunate enough to be to Vimy Ridge to visit his gravesite and another great-uncle of mine who was from Manitoba and was also killed at Vimy. So, it will be quite something to be there (at the Memorial Gates) on this occasion,"



said Henley, who will be invited to lay a wreath at the Memorial Gates during the service. "I think it will be pretty special. And it's not just my great-uncle, but the more than 60,000 other Canadians who gave their lives. So, in that sense, it's very moving and it's quite gratifying that the university is still honouring them to this day."

Caldwell grew up in Yorkton and came to the U of S in 1912 to study agriculture, before enlisting along with many of his schoolmates in 1915. He rose to the rank of corporal a month before his unit fought in the historic Battle of Vimy Ridge in France from April 9-12, 1917. Serving in the Princess Patricia's Canadian Light Infantry, Caldwell was a member of the Saskatchewan-led 5th Battalion that was in the thick of the battle, with the two forward companies losing 200 of their 300 men in the first 40 minutes alone.

"Interestingly, his tombstone at Vimy Ridge says he died April 9-10, 1917, so nobody really knows precisely which day," said Henley. "We were lucky enough to be there at Vimy Ridge in November of 2016 when they were commemorating 100 years since the First World War. So, it was important for us to be at Vimy then, and it's important for us to be in Saskatoon now."

Henley, who has kept his great-uncle's medals and insignias to this day, is a graduate of the University of Regina, while his wife studied law at the U of S. For Sandercock, it is an honour to return to her alma mater for this historic service and to pay tribute to all who have served our country for more than a century.

"These were young men and women who had the potential to live a long life," she said. "Instead they left Canada to respond to the call. It is not a matter of pride in remembering their actions as much as it is that we have the responsibility to remember them for when they walked amongst us. It reminds

Remembrance Day service on Nov. 11

The University of Saskatchewan will host its annual Remembrance Day ceremony on campus on Sunday, Nov. 11 at 1:30 p.m. Memorial Gates, located at the corner of College Drive and Hospital Drive, honouring those who have served in the Canadian Armed Forces. All members of the campus community and general public are encouraged to attend.

us of our duty to care for the men and women today who give of their lives and health to serve us in the name of Canada.

"So, we are both proud to be part of this act of remembrance on this historic occasion. And it's important that this tradition has continued at the U of S for the past 90 years."

The university's annual Nov. 11 Remembrance Day service will be held at the Memorial Gates at 1:30 pm. ■



SuperDARN Canada and the next 25 years



A picturesque sky over the Saskatoon SuperDARN radar site.

SUPERDARN CANADA

There is probably no other lead scientist of a national research facility who can make the claim Kathryn McWilliams can make: she built this place with her own two hands.

"It's kind of embarrassing, but yes," said McWilliams, principal investigator of SuperDARN Canada and a professor in the College of Arts and Science's Department of Physics and Engineering Physics.

McWilliams' handprint can still be found embedded in one of the concrete tower bases at the Saskatoon SuperDARN site—proof of the summer she spent in 1992 "digging holes and pounding rebar into the dirt" for what would become the first SuperDARN Canada radar.

This fall marked 25 years since that radar was switched on and the international SuperDARN (Super Dual Auroral Radar Network) project launched. The University of Saskatchewan is headquarters to the Canadian contribution—one of three original partners in a collaboration that now includes 11 countries and three dozen radar sites around the globe.

McWilliams was a secondvear U of S student when she and a few other physics and engineering physics undergraduates were hired by Professor George Sofko, the original principal investigator of SuperDARN Canada, to help



McWilliams

construct the radar. She had no idea it would be the start of a career.

"I really enjoyed the work and found the research interesting, and kind of fell into the stream and ended up here," she said.

McWilliams went on to do a master's degree under Sofko's supervision, completed her PhD at the University of Leicester working with a SuperDARN team in the U.K., and eventually took over from her mentor as lead of SuperDARN Canada.

She found herself involved in an exciting field of space research. For 25 years, SuperDARN has been at the forefront of the study of space weather, using radar to monitor conditions in the upper reaches of Earth's atmosphere. Through more than 800 journal articles associated with the project, our understanding of the flow of charged particles high above our heads has been advanced.

The next 25 years should be just as interesting. The massive dataset built by SuperDARN has opened new doors for understanding space weather events.

"The more data we have, the more we can really dig into understanding the system, the physics and the chemistry behind what we observe," said McWilliams.

Creating a forecasting model that can predict space weather events—especially severe magnetic storms that can damage infrastructure and threaten safety-remains the ultimate goal.

"We're not in the forecasting



Sofko

business" just yet, said McWilliams. Currently, scientists can only predict space activity in the very short term, similar to Earth weather forecasting in the 1950s and '60s.

A weekly space weather forecast isn't likely anytime soon, but McWilliams said she expects the length and quality of forecasting to improve steadily in the coming years. "We're building on it. We're always seeing improvements."

Some of that progress will be helped by new technology.

SuperDARN Canada has plans to upgrade the electronics of its five radars in the next couple of years, drastically boosting the number of scans of the sky that can be done each minute.

"We're trying to really improve the quality and quantity of our data," said McWilliams.

SuperDARN researchers will explore other horizons as well. Space weather and Earth weather have mostly been studied separately in the past, said McWilliams, but there is increasing evidence of correlations between the two. Scientists at the U of S and elsewhere are exploring how solar and space activity might influence weather on Earth, potentially adding new layers to our understanding of weather and climate.

"There are some tantalizing connections that we don't totally understand," said McWilliams. ■

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

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SENS leads international renewable energy network

VICTORIA SCHRAMM

of Saskatchewan University professor Greg Poelzer will lead a new international renewable energy network.

The Council of the University of the Arctic (UArctic)—a co-operative network of close to 200 northern universities, colleges, and institutes dedicated to education and research about the North—recently approved the creation of the UArctic Thematic Network on Renewable Energy.

Poelzer, a world-renowned expert from the School of Environment and Sustainability (SENS) at the U of S, was selected to head the new network, which was approved unanimously-an international endorsement of the thematic network to lead the circumpolar world in renewable energy.

"We will lead the globe for research and applied research on renewable energy for northern, remote, and Indigenous communities," Poelzer said. "This endorsement is extremely important because governments, universities, and corporations will now know that we are the go-to research team for when they have questions about renewable energy."

While most thematic networks

are built almost exclusively around universities and colleges, this collaboration will be multi-sectoral with partners from Indigenous communities, research institutions, industry, and utility companies.

"This multi-sectoral approach will be really effective because it is like we have everyone in the same boat, rowing together in the same direction," Poelzer said. "We will work together to bring greater energy security to Arctic and sub-Arctic communities and to move towards a carbon-zero future."

People in northern communities from Canada to Russia are currently facing massive challenges in energy security. The network will help make a difference in the lives of those in northern and Indigenous communities.

"As an example, in southern Saskatchewan we can flick a switch and have stable access to energy. In the North, you could have a sunny day without a cloud in the sky, but if there is a storm 400 kilometres away, then the power will be down for everyone in the North," said Poelzer.

A lack of energy can be a serious health and security risk in cold northern climates.



Poelzer

"Energy insecurity can lead to life or death situations," Poelzer said. "Even in Canada."

This SENS-led research network is full of international leaders in energy security who will work to ensure equal access to energy. Vice-lead for the network is Gwen Holdmann of the University of Alaska Fairbanks, the world leader in microgrids and renewable energy, while the second vice-lead is Yngve Birkelund of the Arctic Renewable Energy Centre at the University of Tromsø in Norway.

Numerous U of S professors are also involved with the network, including Bram Noble, Department

of Geography and Planning; Tony Chung, College of Engineering; Ken Belcher, College of Agriculture and Bioresources; and Bonita Beatty, Department of Indigenous Studies.

"Most northern communities today rely on electricity for their homes, schools and health clinics. The costs are high and power outages are common," said Beatty. "Northerners want mitho-pimatisiwin (a good life) for their families and communities and if renewable energy can contribute to cleaner energy, a safer environment and lower costs, it will be a big help for community people."

"With limited resources, we can make sure we get the appropriate renewable energy to northern communities to help make their lives better," added Poelzer. "In Canada alone, this network can help save the nation hundreds of millions of dollars, by not repeating the mistakes that other regions have made."

The network will help northern communities develop renewable energy sources including microgrids, biomass, wind, and solar power.

"People wouldn't have to rely

on undependable power grids

SUBMITTED

The renewable energy initiatives that the network will undertake could address not only energy security, but also other issues such as food security, health, and education.

anymore," Poelzer said.

"In Alaska, people used locally produced energy like biomass to build greenhouses," Poelzer said. "The kids are helping to run the greenhouses, grow healthy food locally, and are learning the science behind it. There is a positive snowball effect."

Education is also a key factor in energy security. SENS currently offers graduate degrees for individuals like master's student Jarrett Merasty to focus on renewable energy to help their communities.

"The Peter Ballantyne Cree Nation has given a lot to my family," said Merasty. "By studying at SENS, I hope to be able to give back to my community, and other Indigenous communities, and help them to achieve energy independence." ■

> Victoria Schramm is a communications specialist in the School of Environment and Sustainability.

Merlis Belsher Place connected to the community

ℳ HENRYTYE GLAZEBROOK

While it's easy to see Merlis Belsher Place as a new home for the University of Saskatchewan Huskie teams, the multi-sport facility is already serving to connect the campus to the community in Saskatoon and the province.

If you ask Chad London, the dean of the College of Kinesiology, that's precisely what Merlis Belsher Place was always intended to be.

"It's going to be one of the most common ways in which people from the community in Saskatoon and beyond engage with the campus," said London, adding that the space brings with it the opportunity to host activities outside of athletics, including concerts, trade shows and the return of U of S convocation ceremonies to the main campus in June, 2019. "To me, it's an open door to the community."

That sense of community was integral to the design of Merlis Belsher Place, from concept to

Lead donor and alumnus Merlis Belsher and U of S President Peter Stoicheff drop the puck for Huskies captain Jesse Forsberg (right) and Tristan Frei (left) of the Regina Cougars at the ceremonial opening faceoff at Merlis Belsher Place on Oct. 26.

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completion, both from the perspective of U of S leadership and from the primary donors. Merlis Belsher's donation of \$12.25 million kickstarted the \$51-million twin-ice surface project with the largest individual donation in the history of the U of S, while Ron and Jane Graham contributed \$6-million to add two basketball courts and establish the Ron and Jane Graham Sport Science and Health Centre.

Merlis Belsher Place opened the doors on Oct. 1 with local minor hockey teams taking to the ice, along with U of S Campus Recre-



ation hockey teams playing the first official games in the facility, as the popular intramural league (featuring more than 50 teams and 900 students) settled into its new home. The first Huskie hockey game was played Oct. 5, with the grand opening celebrations taking place on Oct. 26-27.

The City of Saskatoon, which donated \$4-million to the project, is one of the big beneficiaries of the new facility, with the two new hockey rinks providing muchneeded ice time for local teams.

"In towns across Saskatchewan, the rink is a gathering place for the entire community, and this rings true in Saskatoon as well with this new facility serving this important need," said Saskatoon Mayor Charlie Clark, who thanked all the donors who helped to usher the project to completion. "As the first new ice pads in our city in 20 years, this new arena is an investment in our entire community and it is a small glimpse into what is possible when the city and university partner and work together."

The Saskatoon Minor Hockey Association (SMHA) is one of the major community groups benefitting from the access to Merlis Belsher Place, which will provide an additional 1,500 hours of ice time each year for the more than 5,000 boys and girls making up the 310 minor hockey teams in the city.

"Just that sense of newness and pride and the all-around awesomeness of this new facility is going to be such a thrill," said Kelly Boes, executive director of the SMHA. "I was there on the first night that we had our minor league hockey out there, and those kids, their jaws hit the ground when they walked in and saw what they were going to be playing on."

Boes emphasized the sheer excitement over the new available ice for SMHA members, who banded together to raise \$250,000 toward the campaign for Merlis Belsher Place.

"Everybody likes something shiny or new, whether or not it's Christmas morning, and I think it's been a long time since any minor hockey kids in this city have had that pleasure," said Boes.

Meanwhile, London points to the soon-to-to-completed Ron and Jane Graham Sport Science and Health Centre-a state-of-the-art research lab and athlete health clinic located inside Merlis Belsher Place—as another key component of the facility that will help draw interest from well beyond campus.

"We see an opportunity with this space to bring community in, and it can be athletes from all levels across Saskatchewan who come into this sports health centre, as part of a research project perhaps, or athlete testing or even athlete health," he said.

Among other events, Merlis Belsher Place is hosting figure skating and sledge hockey, and will also be the site of world-calibre curling when the Pinty's Grand Slam of Curling comes to campus April 23-28, 2019. ■

> HenryTye Glazebrook is a freelance writer and former communications specialist in **University Relations.**



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Huskies balance classes and passes

They compete in national-level sports, but Danielle Nogier and Daulton Sinoski know their most important work is completed in the classroom.

Nogier and Sinoski are two of the hundreds of University of Saskatchewan Huskie student-athletes who successfully balance academics and athletics, earning national recognition for their efforts.

"We're student-athletes, not athlete-students," said Nogier, a third-year forward on the Huskie women's hockey team who posted a remarkable 95 per cent average in physiology and pharmacology in 2017/18. "Education has always been my priority because in the end that is what I am going to be doing in my life, and being able to play hockey is a big bonus. I take a lot of pride in being able to succeed in both."

"We know we are here to be students first and athletes second," added Sinoski, a fourth-year member of the Huskie men's volleyball team, who posted an 80 per cent average in his education classes to join Nogier in being named U Sports Academic All-Canadians this year. "I am blessed to have a really good support system—with my mom and my aunts-to be academically focused. It's a big workload, so it's rewarding to be named an Academic All-Canadian."

A total of 175 U of S student-athletes, trainers and managers (43 per cent of all members of the program) have earned Huskie Athletics All-Academic Team status for posting grades of better than 74.5 per cent while completing full course loads of 24 credit units. Both Sinoski and Nogier took it a



Fourth-year Huskie men's volleyball player Daulton Sinoski is in the ITEP education program at the U of S.



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Third-year Huskie women's hockey

player Danielle Nogier studies physi-

ology and pharmacology.

ТОВ GETMYPHOTO.CA

step further by also being named national Academic All-Canadians, for averaging at least 80 per cent.

In addition to full-time classes, Huskie student-athletes put in just as much time training each week, with daily practices, video sessions, weight-room workouts, road trips and games. Huskie student-athletes must also meet minimum academic standards to remain eligible to compete, making them among the most dedicated students on campus.

"It is important that we have the opportunity to take a step back from the playing field and truly appreciate and acknowledge the amount of time, work and dedication that is put in by these athletes to achieve excellence in their studies, alongside athletics," said Chief Athletics Officer Shawn Burt.

For Nogier, who plans to pursue optometry after completing her undergraduate degree, posting an elite grade point average while playing university hockey requires mastering the art of multi-tasking.

"I take a full course load with labs, so I put in 12 hours at school every day with classes and practices, and then another couple of hours at home to get homework done," said Nogier, whose father Patrick played for the Huskie men's hockey team while her brother Nelson is a draft pick of the NHL's Winnipeg Jets. "Time management is a huge thing to be successful in both academics and athletics and I am proud to be a role model for the rookie players and show them that you can do it if you have the right mindset and motivation."

Like Nogier, Sinoski spends plenty of time doing homework on team road trips, with study hall sessions also set up by new coach Nathan Bennett.

"Nathan has really emphasized that we are students first and athletes second, so we have set a goal this year to maintain an 80 average overall as a team and we are determined to do it," said the 6-foot-8 Sinoski, who also received top marks as a player last season by leading the team in blocks and aces.

While he hopes to play professional volleyball after earning his education degree, Sinoski is focused long-term on returning home to work as a teacher in Prince Albert. A Métis student, Sinoski is following in his family footsteps by studying in the Saskatchewan Urban Native Teacher Education Program (SUNTEP).

"My mom and two of my aunties are graduates, so I have a lot of teachers in my family and SUNTEP is a really prestigious program," said Sinoski, whose aunt Heather Stalwick is a former member of the Huskie women's basketball team. "I think being a male Métis educator is important. I want to teach in the school system in P.A. and be a positive male role model for students." ■



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Education establishes Active Learning Classroom

Innovative and interactive, the Grit and Scott McCreath Active Learning Classroom will enrich concepts of teaching and learning in the University of Saskatchewan's College of Education.

The classroom features integrated media and technology, including interconnected digital displays, as well as moveable, flexible and accessible furniture. The setup of the classroom encourages a more interconnected relationship not only between student and teacher, but between students. Construction of the classroom—funded through a donation from the McCreaths. both alumni of the U of S-was announced Oct. 29.

"Research on student engagement and research in the scholarship of teaching and learning, identify that in order to maximize learning, students should be motivated to learn," said Educational Administration Assistant Professor Vicki Squires. "The opportunity to engage in collaborative exploration of topics and to use a variety of tools and media to assist in problem-solving and inquiry-based learning should promote motivation and reflexive, deeper learning."

So how exactly is an active learning classroom different from other classrooms? In an active learning classroom, students have increased access to technology allowing for investigation of ideas through the internet, using document sharing tools and interacting with technology. Moveable furniture allows for reconfiguration of the space to suit the specific learning activity, while multiple screens help students function individually or in a group.

In addition, the concept of a classroom having a front and a back does not exist, allowing each student equal access to their instructor and teaching resources. The students will also learn how to teach in this type of classroom.

"I'm most excited about the



Grit McCreath (left) and Dean of the College of Education Michelle Prytula unveil plans for the Grit and Scott McCreath Active Learning Classroom.

impact the space will have on our students," said Associate Professor Jay Wilson, head of the Department of Curriculum Studies. "They will learn differently and take the innovation into their classrooms in the future. It will also give me a chance to experiment with new instructional approaches."

Educational Administration graduate student Olga Ifaka took an interest in the project from the beginning. Conceptualized in 2017, the college held meetings to gain input from students, faculty and staff, with Ifaka one of those who took part. She believes the classroom will allow students to express creativity, participate in new ways of learning and sharing, and

make the process of teaching and learning more engaging for faculty and students.

"I always like to know about the new ideas and innovations, so that is why I decided to attend the presentation," said Ifaka. "The technologies are always developing and I feel it is great to make use of them. These ideas may be a great way to involve and engage students in the learning process, especially (younger) students who are great with new technologies. It will be a very comfortable and motivating place to study for them."

Wilson agrees that students should be excited about the changes in the student-teacher dynamic.

"The classroom will allow for

more student-centred learning, where groups of students can connect and socialize their learning," said Wilson. "It will allow students to take control of lectures, seamlessly levelling the power balance that sometimes exists in post-secondary classrooms."

Squires sees new teaching opportunities in the classroom, including inquiry-based projects and incorporating media into lessons and learning. She said faculty can now work to provide feedback to one group at a time or several groups, while the rest of the class works independently.

"Faculty and instructors can facilitate the learning by posing questions, identifying problems, and situating the content of the course within an inquiry-based model of exploration and discovery," said Squires. "Although faculty and instructors have used the tools and information available to engage students in material previously, the physical layout of the classroom and the technology that is incorporated allow for more interdependent and more collaborative learning."

The Active Learning Classroom is scheduled to be completed in January. The McCreaths will also be honoured for their ongoing support of the university Nov. 15 on National Philanthropy Day. ■

> Nicole Betker is a communications officer in the College of Education.



SEMINARS/LECTURES

Philosophy in the Community

7-9 pm, The Refinery, Emmanuel Anglican Church Basement. 609 Dufferin Ave. For more information, visit usask.ca/philosophy/

Nov. 9, Valery Chikov, Department of Psychology, will discuss psychological applications of the Stoic recipes for developing inner resilience, internal peace and establishing harmonious lives. It will start with a brief history of the Stoic philosophy and then focus on the prescriptions for the art of living provided by Epictetus, with some additions from Seneca and Marcus Aurelius. The discussion will cover the Stoic ontology of the universe, divine, and human mind, followed by the primary ethical and behavioral principles that rational and virtuous persons should follow in order to find balance and harmony in their lives.

Dec. 14, Leslie Howe, Department of Philosophy, will give a talk entitled Role Models: a really bad (faith) idea. Many people, particularly athletes, are encouraged or even required to be role models. Often a misdeed by a prominent athlete is decried as especially wrong just because of their place in the public eye, even though the same action by a private person might pass without comment. Do athletes, because of their celebrity, have an obligation to be better than the rest of us? Should anyone strive to be a role model to others? Should anyone have a role model whom they seek to emulate? This presentation will argue that the conventional understanding of a role model is not very coherent, and that either having or being a role model in the usual sense is an exercise in bad faith that is morally problematic for the admirer and frequently destructive for the role model.

A Presentation by the Treaty **Commissioner of Saskatchewan:**

The Whispers That Define; Impacts of Misogyny & Lateral Violence on Women in Governance

Nov. 13, 4 pm, Gordon Oakes Red Bear Student Centre. Presentation by Mary Culbertson, Treaty Commissioner of Saskatchewan, hosted by the Office of the Vice-Provost, Indigenous Engagement. Culbertson is a member of the Keeseekoose First Nation and received her law degree from the U of S. The event is free and open to the public. To register, visit: http://culbertson-usask.eventbrite.ca/

Food and Bioproduct Sciences Research Day

Nov. 14, 9 am, College of Agriculture and Bioresources. Presentations on topics related to food and bioproduct sciences, by graduate students and post-doctoral fellows. Special presentations by invited guests Drs. Michael Rogers and Leon Zhou. This event is free to attend but space is limited. RSVP to phyllis.shand@usask.ca

Seven nights of historical villainy

Nov. 21, 6 pm, Hose and Hydrant Brewing Company. U of S historians examine villains throughout history in this monthly lecture series. Professor Keith Carlson discusses Joseph Trutch and Richard Moody: Canada's pacific coast villains who destroyed Indigenous societies. Questions and discussion are encouraged. Admission is free. For more, visit artsandscience.usask.ca/news/events.php

Literature Matters

Nov. 28, 7:30 pm, Grace-Westminster United Church social hall, 505 10 St. E. Professor Yin Liu discusses how to find your way around a medieval book, the latest in a series of community talks as members of the Department of English explore diverse literary topics.

Department of Psychology's monthly colloquium series

Nov. 29, 3 pm, Arts 153. Layla Gould will give a presentation entitled Clinical and Experimental Neuroimaging for Presurgical Mapping and Stroke Rehabilitation Research. The clinical neuroimaging team at Royal University Hospital uses fMRI to localize functional brain regions near the surgi cal resection in patients undergoing surgery for various conditions, including temporal lobe epilepsy, tumours, cortical and vascular malformations, and other lesions in order to avoid disrupting cognitive processes as much as possible. This talk will also describe how functional MRI and tractography can be used to assess the neural mechanisms associated with change in motor functioning in stroke patients. Everyone is welcome to attend this free presentation. For more information, call Peter Grant at 306-966-6695 or email: peter.grant@usask.ca

COURSES/WORKSHOPS

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Call 306-966-8686, email execed@edwards. usask.ca or visit edwards.usask.ca/execed Registration is open to the public and university employees for upcoming programs:

- · November 14: Women of Influence Breakfast Presentation - Saskatoon
- November 15-16: Business Writing and Grammar Workout - Saskatoon
- November 20-22: Business Analyst -
- · November 21-23: Digital & Social Media: Communication, Engagement & Advertising Saskatoon
- November 26-30: Certified Coach Training
- · November 26, 2018-May 3, 2019: Empowering Women Leaders – Saskatoon

Next OCN: Dec. 14, 2018 **Deadline: Nov. 30, 2018**

COMING EVENTS McDonnell thrilled to be at the U of S

ships and create research networks that can overcome our isolated geography. It is terrifically exciting to help play a small role in all this.

MF: Anyone you would like to thank?

JM: Beyond my students, post-docs and technicians, all my thanks go to my family. I had the great good fortune of ridiculously supportive parents. While I was the first in my family to attend university, my dad valued poetry, was the world's best speller and could complete a New York Times crossword puzzle in minutes flat. He finished school at age 12 and went to sea at 16 years old as a merchant seaman after the Second World War. He instilled in me the value of adventure and hard work. My mother grew up on a small farm in central Ontario. She pushed me in music and, despite my early

interests in everything but scholastics, she was a never-ending font of support. She instilled in me the value of achievement. I have found this combination of values instilled by my parents to be an unending source of motivation. Of course, I must also thank my wife and children for their tolerance of my research passions and travel schedule. Luckily, family travel associated with my work has been a hallmark of my career, when the kids were young and now, as my wife and I work internationally to promote the Global Institute for Water Security abroad. She's as much a cheerleader for U of S and Saskatoon as I am.

MF: Words of wisdom: a quote from an author or poet that you would like to share?

JM: Jimmy Buffett has been my spiritual guide since the 1970s. His songs resonate with my sense of

adventure, my love of sailing and generally the goal of sucking the marrow out of life. A key element of his music and my life philosophy is knowing the shortness of life and that life's best moments are often small, unmarked and uncelebrated. These realizations help keep any science success (or awards!) in perspective, knowing that the real joys in life lie with family and friends. And together, wandering and following Jimmy Buffett's La Vie Dansante.

MF: Anything you'd like to add?

JM: Nothing, other than what a privilege it is to be a university professor and to have friends all around the world. The University of Saskatchewan is an incredible place where deans, vice-presidents and the president all "get" water and support us in ways unimaginable at other universities. Eau Canada! ■



Ringwall heads state-of-the-art research centre

FROM PAGE 2

ovens and sample grinders, are located at the BCRTU and will be used by researchers at both units.

The beef cattle unit is a 1,500head feedlot and houses a stateof-the-art metabolism barn with 24 stalls. Researchers will collect data on individual animals as each stall has its own manger and water bowl. Animal comfort and care were top-of-mind when the facility was designed. Each stall has a waterbed mat and the animals will access an outdoor exercise pen daily.

The forage and cow-calf unit will house a herd of 300 breeding females. In addition to outdoor cattle pens, the unit has a calving barn and a cattle handling area where animals will be weighed regularly and treated as needed.

The third unit is the Goodale Research Farm. It will remain at its present location, southeast of Saskatoon, and will be upgraded starting in May, 2019. In addition to 165 breeding females, the Goodale farm houses horses, bison and deer for research.

"The University of Saskatchewan should be proud of this centre. This is a major thing in the world of international agriculture. It is something that we can toot our horn about," said Ringwall, who had been the director of the North Dakota State University's (NDSU) Dickinson Extension Centre since

Ringwall, who moved from NDSU to take on this new role at the U of S, reports to the deans of both the College of Agriculture and Bioresources, and the WCVM.

Funding for the Livestock and Forage Centre of Excellence was provided by the U of S, the federal and provincial governments, as well as several organizations, corporations and individuals. ■

> Lana Haight is an outreach and engagement specialist with the U of S Livestock Forage Centre of Excellence.

TIME TRAVE

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.



A crowd of people stand beside the University of Saskatchewan's new linear accelerator during the open house at the official opening of the facility on campus back in 1964.

A-8643

NOVEMBER 1964

ACCELERATOR LAB OPENS

The official opening of the University of Saskatchewan's Accelerator Laboratory on Nov. 6, 1964 was a lot more than just a ribbon-cutting ceremony and speeches.

The event drew 75 visiting scientists from around the world to campus to present papers and offer lectures, while four eminent physicists were granted honorary degrees during U of S Fall Convocation. The public open house to celebrate the unveiling of the linear accelerator also attracted hundreds of interested individuals.

The addition of the linear accelerator built upon decades of experimentation and innovation in the Department of Physics, including the 1948 installation on campus of Canada's first betatron used in cancer treatment, and the opening of the world's first

commercial Cobalt-60 therapy unit in 1951, also used for cancer treatment. When the construction of the linear accelerator was announced in the fall of 1961, it was billed as the next logical step in the university's research goals and reputation as a leader in nuclear physics in Canada.

The 80-foot electron accelerator tube was designed to create energy six times that of the betatron. The cost of the \$1,750,000 facility was split between the National Research Council (NRC) and the U of S, with the NRC investing in the equipment, while the U of S handled the cost of the new building.

Poole Construction of Saskatoon was the general contractor for the project, while California company Varian Associates designed and built the linear accelerator.

