FORWARD FOCUSED

University of Saskatchewan President Peter Stoicheff and Board of Governors Chair Lee Ahenakew offer their thoughts on priorities for 2017 and the exciting developments across campus as we begin the new year.

SEE PAGES 8 AND 9.

FORWARD FOCUSED 3

AGING POPULATION 5

VANIER SCHOLARS 10
USAFE app simplifies safety procedures

MEGHAN SIREN

Knowing how to react after being the victim of a crime can be an overwhelming, emotional task.

To help simplify the process for those affected by crime or during an emergency, the University of Saskatchewan (U of S) launched a safety app called USAFE last fall.

The USAFE app features emergency contact information, safety tips, a way to ask a friend to virtually walk you home, as well as an emergency alert component. It also includes an interactive campus map, webcam views of campus, links to local transportation, and the ability to send your location to a friend via text or email.

“We wanted to create a clean, simple interface that you could use quickly,” said Peter Hedley, director of support services within the Vice-Provost Teaching and Learning portfolio. “Our main priority with the app is to increase awareness of, and access to, university supports and to allow quick access to information on what actions to take during an emergency.”

The university worked with a Toronto-based company, AppArmor, to develop the app. Hedley said the company was already in discussions with Ata Merat, the 2015/16 vice-president of operations and finance at the U of S Students’ Union (USSU). The project was then taken forward by Hedley and Merat’s successor, Emmanuel Barker.

“This was a genuine campus-wide collaboration. With my newness to the role and the university, it genuinely surprised me how many parts of the university the project touched, as well as how many people on campus wanted to support us,” said Hedley.

The app also features content for use on U of S campuses in Prince Albert and Regina. When the app opens, users are prompted to select their location, with the features and contact information changing depending on what was selected.

“Those campuses can sometimes be out of sight and out of mind for those of us in Saskatoon, and it’s important for us to remember that there are literally hundreds of students and many faculty and staff on those campuses,” said Hedley.

“They have the same safety needs as any other student or employee.”

Barker said the most tangible part of the app is the “emergency call” button, which is bright red on the front page. Once the button is selected, USAFE locates the phone and, depending on the location, will dial Protective Services or 911.

“The university can be a difficult place to navigate in person and online, and this app makes everything so much easier,” said Barker.

“When you’re nervous or you’re in shock, you need to have all of that information at your fingertips. There’s no time to search for help.”

In the 2016 National College Health Association survey, 12 per cent of female U of S students (and 57 per cent of male students) said they felt very safe on campus at night.

That dropped to nine per cent for females (and 38 per cent for males) when asked how they felt in the broader community at night.

According to Harold Shifman, associate director of Protective Services, those numbers will likely

SEE NEW, PAGE 15
From Syria to Saskatoon:
Visiting professor finds new life at the U of S

HENRYTYE GLAZEBROOK

When a missile struck the oil refinery near her home in Syria, setting ablaze a raging fire only steps from her children’s bedrooms, Rana Mustafa left with her family and never looked back.

The only possession she brought with her was her laptop. Six months later, air attacks destroyed the house and snatched away any hope of recovering her family’s remaining belongings.

“Everything was left inside—books, clothes, my kids’ paintings, everything you can imagine,” said Mustafa, a visiting professor in food science at the University of Saskatchewan’s College of Agriculture and Bioresources.

“How do you leave your home every day? I left my home exactly like that. I moved, but I thought I could come back later when the fire was gone. I have never been there since.”

Until recently, Mustafa was an associate professor and leading researcher at Al-Baath University in Homs, Syria. Her life was upended when early into the ongoing Syrian Civil War, the building she worked in was attacked and the entire institution was forced to shut down for three months. Even after it reopened, life remained violently different.

“All the time there was bombardment, explosions, kidnap-ping,” she said.

“You’d be as close to campus as Place Riel and you’d see and hear the guns and bombardment in the neighborhood. When I would go from one department to another, or to-and-from class, many times I would run because I was afraid. Many people were killed that way, or in explosions.”

Mustafa has been working at the U of S since February of 2016, when she was able to leave her home through joint funding from the College of Agriculture and Bioresources and the Institute of International Education’s Scholar Rescue Fund.

She came to Canada with just her two children—a daughter, 17, and 10-year-old son—leaving behind all the rest of her family members.

The process of leaving her old life behind was no simple affair, and meant juggling her extraordinary circumstances with the hidden truth that she was actively searching for an exit. If anyone had discovered her plans, it would have likely meant prison.

“I risked my life just going to-and-from the university. At every checkpoint, I had to give my ID. I just wanted to go home,” Mustafa said.

While her current role primarily involves doing research, Mustafa said she chose the U of S over other possible options because it provided her with better future opportunities to do what she loves most about her job: educating.

Even in war-torn Homs, when safety measures meant classes that normally featured more than 100 students slowly dwindled to single-digit numbers, Mustafa continued pushing her pupils to learn through online lessons via Facebook.

“If you can’t come to class, you have internet. You have to learn. It will help you,” she said. “All day I was working on the internet to reply to their questions and give them their lectures, to communicate with them and encourage them. I said to them all the time, ‘Education is the key.’”

Mustafa’s scholarship ends in February, though she is seeking, with no guarantees, to have it renewed for another year. In the meantime, she is trying to apply for jobs which match her skills and could help her to stay with her kids here in Canada.

She spends her spare time getting to know her colleagues, interacting with people from other cultures in the city and volunteering with community organizations such as the Saskatoon Open Door Society.

On some days Mustafa will take her family to cultural gatherings, where her son will lift spirits by playing the oud—a large, guitar-like instrument with a body shaped like a chestnut cracked in two—while she sings along beside him, the two of them helping to build community in their new home.

“I had no choice. I want to work, and I want my kids to live. I see that there is no future in Syria for us,” she said. “I could have died there, but I’d rather die some other way.”

For more information and a copy of the nomination form and guidelines, please visit our website at: usask.ca/secretariat

Please send your nominations by January 31, 2017, to Senate Honorary Degrees Committee c/o Elizabeth Williamson, University Secretary, Room 212 Peter MacKinnon Building.
U of S professor touts economic opportunities for Indigenous communities in the North

While the debate continues over the potential merits and pitfalls of federal carbon pricing, one University of Saskatchewan (U of S) professor sees a growth opportunity for a group of Canadians who are often sidelined in discussions about energy and economy.

Carbon pricing has become an increasingly hot-button issue in Canadian politics since October, when Prime Minister Justin Trudeau announced a planned minimum price of $10 per tonne to be implemented by 2018. Some opponents to the approach, including Saskatchewan Premier Brad Wall, are concerned that the plan could have a detrimental effect on the provincial economy.

Putting the political debate aside, U of S School of Environment and Sustainability professor Greg Poelzer believes that the situation could create a financial boom for northern Indigenous communities.

“This is probably the most important development in Canadian history in the last 100 years, in terms of renewing Indigenous relations. People probably don’t realize the magnitude of this opportunity,” said Poelzer, who is also the founding director of the International Centre for Northern Governance and Development at the U of S.

In November 2015, Saskatchewan set a goal of bringing its use of renewable resources up to 50 per cent of its overall energy consumption by the year 2030, effectively doubling its current 25 per cent usage in only 15 years. Meanwhile, the federal government has made reconciliation with Canada’s Aboriginal population a priority as the nation moves forward.

In Poelzer’s mind, these are two goals that naturally fit together in ways beneficial to all parties and will bring newfound economic growth to Indigenous communities in the North and beyond.

“Clean energy is going to create a whole new massive industry, quite frankly, both in the addition of new power and the replacement of fossil-based energy,” he said.

Poelzer credits this potential in large part to renewable energy being less site-specific than the sources widely used today. A local mining facility, for example, can prove very beneficial to those communities that are lucky enough to have ore deposits nearby, while other groups are left without economic benefits simply due to a lack of geological resources in their area.

And while renewables still rely on this “luck of the draw” system, as Poelzer puts it, the widespread potential for wind, solar and hydro energy in northern Saskatchewan is staggering enough to make up for it.

“When you think of where most of the potential hydro facilities would be, the vast majority are going to be in northern Saskatchewan,” Poelzer said. “Eighty-six per cent of the population in northern Saskatchewan is Aboriginal, so many of those sites are almost invariably, just by definition, going to be near or on Indigenous lands and waters. It creates tremendous partnership and new business opportunities for Indigenous peoples.”

Poelzer added that these kinds of partnerships only get more enticing when you look into the common, multi-decade terms for electrical production agreements—especially when compared to those of extractive industries, such as potash and oil, which rise and fall according to the whim of global commodity prices.

“When things are going well, there’s more jobs at the mine, more services, more contracts. When prices fall, the reverse happens,” he said. “With electricity, usually you have 20- or 30-year power purchase agreements. With that comes great stability. You can project outwards, you know what the pricing is going to be.”

Poelzer was quick to caution, however, that an across-the-board standard on carbon prices may ultimately only forge new difficulties.

“We can’t go with a cookie cutter approach,” he said. “Think of northern communities, not just in Saskatchewan but elsewhere, that are diesel dependent. You can’t put a price on that, because you’re dealing with the poorest populations in Canada that are paying the highest costs in fuel. Tax on top of that would be just unconscionable.”

However, if such pitfalls are
Researchers focus on falling and frailty

Fall-related injuries continue to be the leading cause of emergency room visits and hospitalization for Canadian seniors, one of the fastest-growing demographics in the country.

Through interdisciplinary research, computer simulation, patient-oriented research and community partnerships, U of S researchers are looking to reduce falls and injury risks by educating and empowering older adults.

“Our research is focused on falls and injury prevention with falls,” said Joel Lanovaz, an associate professor in the College of Kinesiology.

This includes working with frail adults—those more vulnerable to catastrophic physical or mental impairments associated with aging—as well as the pre-frail—older adults who are susceptible to falls but may not be classified as frail, explained Lanovaz.

“The question is, how do you stop them from going down that spiral to become a frail adult that has to be taken care of with the next step in the health-care system?”

The area of falling and frailty research is growing as fast as the demographic of people experiencing it, explained Cathy Arnold, a faculty member in the School of Physical Therapy.

“By 2036, 25 per cent of our population will be over the age of 65, and the health-care costs associated with that are just escalating dramatically,” said Arnold, a former clinician who has also seen her fair share of injuries and has treated many older adults. “All health-care systems are really struggling with how to cope with that. It has a huge impact on long-term care and acute care and community care across the spectrum.”

Aside from the physical and economic effects, the senior’s social life may be impacted by the subsequent fear of future falls.

“They decrease their activity levels and social levels and interaction with others—it becomes a real spiral of frailty,” said Arnold, adding that simple tasks like grocery shopping get put on the back burner or delegated to caregivers.

To change attitudes about falling and to empower seniors, Arnold and Lanovaz and their co-investigators created FAST (Fall Arrest Strategy Training), a program aimed at decreasing injury risk when a fall is unavoidable. Aside from increasing arm strength, reaction time and trunk control, FAST teaches better landing techniques in the event of a fall. These techniques were integrated into another fall prevention program co-ordinated by the Saskatoon Health Region and subsequently taught at senior residences in the city.

By supplementing that program with their research, “it’s turned out to be a real excellent collaborative opportunity for both of us,” said Arnold. “They get some outcome measures for their program, and we utilize the sites and participants to recruit.”

Their research laboratory in the Kinesiology Building has a FOOSH (Fall On OutStretched Hands) apparatus, a diagonal structure made to simulate a fall. The participant is fitted with cables and falls forward, where their landing and post-impact reaction can be measured. Data from FOOSH led to the development of the FAST program, and further application of this research includes a computer simulation model, which can help understand differences in injury risk and the role of modifiable factors such as strength, said Lanovaz.

“Our plan is to eventually map those models to match our participants and then we simulate them actually falling, which we can’t really do in real life,” he said. “We can ask those what-if questions with the computer simulations.”

Arnold and Lanovaz also plan to execute a patient-oriented study—encompassing patients, caregivers and the role of modifiable factors—over the next year.

Researchers focus on falling and frailty

UNIVERSITY COUNCIL

Elections

An election of faculty members to University Council will be held to replace those members whose terms on Council expire on June 30, 2017 and any other vacancies that have arisen this term. University Council is responsible for overseeing and directing the university’s academic affairs. Your participation by standing for election is essential to the continuing good governance of the university.

Elections will be held for members-at-large and for all college representatives.

This year the following vacancies need to be filled (of which we are currently aware):

• 2 members from each college to serve as college representatives
• 16 members-at-large (three-year team)

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

All members of University Council whose term expires on June 30, 2017 are eligible for re-election.

The deadline for submitting your nomination to stand for University Council is Wednesday, February 1, 2017.
Aboriginal Career Start program opens doors

ZAHEED BARDAI

The Aboriginal Career Start (ACS) program has received rave reviews from participants since being launched at the University of Saskatchewan (U of S) in spring 2016.

The program, a partnership between the U of S and the Saskatchewan Indian Institute of Technologies (SIIT), the Gabriel Dumont Institute (GDI) and the Saskatoon Tribal Council (STC), placed 18 graduates of administration and business programs in term positions across the university. Of the 18 placements, 13 secured full or part-time employment on campus, while four individuals were accepted into full-time studies at the university.

ACS program chair Paul Sayers is pleased with the results. “The ACS would have never been possible without the support of our external Aboriginal partner organizations,” he said. “However, we are most proud of the students of the program, as many have obtained permanent full-time employment here at the university in departments outside of their ACS placements. This speaks to the calibre of the institutions where these students have graduated from.”

Due to its success, the program will be offered again this spring and expanded across campus.

We caught up with four graduates and asked them what the ACS program afforded them, personally and professionally.

Dwayne Kinniewess, Saulteaux, Kinistin Saulteaux Nation (SIIT), College of Medicine
- What were your favourite things about the ACS program?
  Meeting new people, fellow ACS participants and leadership from different departments of the university. The training helped me understand the systems and programs and I felt very comfortable meeting with other Aboriginal people working here. For the ACS committee and the various levels of leadership to have confidence in me, it means everything to me.

Vanessa Montgrand, Métis, La Loche (GDI), Student and Enrolment Services Division
- How supportive were the people involved with the ACS program?
  The support I receive from my co-workers, managers and ACS committee has been overwhelming. My co-workers and managers are supportive and are always positive and willing to lend a hand when I need it. The ACS committee has been enlightening, constructive and humble. Their life experience and personal interest with the Aboriginal initiatives at the University of Saskatchewan makes me proud to be a part of the team.

Sharon Robinson, Métis, Green Lake (GDI), Connection Point
- How has the ACS program opened doors for you?
  The ACS program opened up a door to my new career as a service agent at ConnectionPoint. I love my job and all the people involved, and I can’t thank ACS enough for being able to have this opportunity. For anyone interested in taking the ACS program here at the U of S, I encourage them to do so. It will open up a bright future to a career, and it helps others know that anything is possible.

Deana Thunderchild, Thunderchild First Nation (GDI), College of Medicine
- What makes you proud to be a graduate from the ACS program?
  Knowing that I did it, I made the step of choosing a better path for my career. With the ACS program, there are so many opportunities to be involved in something great.

- What do you like most about working at the U of S?
  The environment would be what I like the most. It is enjoyable knowing you will never go through the same thing, two days in a row.

Zaheed Bardai is a communications specialist with Human Resources.
New scanner advancing medical research

A new scanner in a small, spartan room at the Saskatchewan Centre for Cyclotron Sciences building at the University of Saskatchewan (U of S) has implications far beyond its relatively innocuous appearance.

The scanner—a microPET/SPECT/CT—is the first big building block in the new medical imaging research lab that will help to do research development of radiopharmaceuticals-pharmaceuticals labeled with isotopes that are used for diagnosis and therapy—at the U of S.

“The first phase of this program, which was funded by the provincial and federal governments, allowed the university to establish the Saskatchewan Centre for Cyclotron Sciences, which is currently being used to produce agents or drugs that are already approved,” said Humphrey Fonge, a clinical assistant professor in the department of medical imaging. “That kind of facility exists in almost every province in Canada.”

But the new Preclinical Imaging Facility and Radiopharmaceutical Lab takes that work one step further by giving researchers in the College of Medicine the opportunity to design, and ultimately produce, their own drugs.

“Existing compounds that are currently used to diagnose patients (can be) kind of sub-optimal. In some cases, they don’t give the best diagnostic characteristic of the patients, and there are very few of such compounds that are used by Health Canada,” Fonge said, explaining the importance of continuing research into pharmaceutical production. “So what that means because it’s not a one-size-fits-all, physicians in certain cases cannot make the right diagnosis based on the existing diagnostic tools that they have.”

“So the research in this area is very intensive, and very rapidly growing, whereby we seek to develop newer agents that would help physicians improve diagnosis, compared to what they currently have.”

The need to advance that research is what led the team to this second phase of the program, which was the creation of this lab.

“It’s going to be designated for anyone, like a core facility,” Fonge explained. “Anyone whose research interest is to develop new diagnostic agents for molecular imaging. It’s similar to the concept in health sciences: shared labs.”

The work starts in the radiochemistry lab, where the researchers work on designing and producing the initial radiolabeled drugs for testing. After in vitro testing, they move on to the invivo studies, and that’s where the new scanner comes into play. Following injection of the radiolabeled drug in a living subject, the microPET/SPECT/CT picks up radiation from the subject which is being scanned, allowing a computer to stitch together the resulting images in a process called ‘construction.’

The end result is a composite image of the organs, giving the researcher the ability to clearly characterize the diseased organs/tissue.

“The nice thing about this kind of work is how interdisciplinary it is,” Fonge said. “I know on campus there are four principal investigators (PI) whose research is solely this, and three of them have just been hired in the last three months. There aren’t many universities in Canada that have that number of really high profile PI’s in this field, so the university being able to attract people like that is a good thing.”

The lab, which officially opened in mid-December, hasn’t finished growing quite yet. Fonge and his team—with support from the university—recently submitted an application for an $18 million Canadian Fund for Innovation (CFI) grant and will find out in June if they have been successful.

Marg Sheridan is an online communications co-ordinator in the College of Medicine.

Nominate a colleague for the President’s Service Award

SELECTION CRITERIA
The President’s Service Award is designed to recognize exceptional contributions by a non-academic staff member who is currently working at the University of Saskatchewan.

Employee must be a current employee as of April 30 of year nomination is considered.

Criteria for selection of the individual include evidence of the following:

• enhancement of the work environment by providing extraordinary service to the university community;
• inspiration, support and respect of the endeavours of others; and
• distinction achieved through dedication and commitment.

Clear demonstration of at least one of the principles or values as included in the mission, vision and values of the University of Saskatchewan.

NOMINATIONS
All members of the University of Saskatchewan community are invited to nominate an employee for the President’s Service Award. Each nomination must include:

1. a completed nomination form;
2. a one-page overview/executive summary by the nominator;
3. specific examples of how the nominee meets the criteria of this award; and
4. exactly three signed letters of support.

These letters may be:
• from internal supporters, for example, students, co-workers, supervisors;
• from external supporters as they relate to the work of the nominee at the university;
• signed by one or more individuals.

The maximum length of the package, including the nomination form, must not exceed 12 pages.

Deadline March 1, 2017.

For further information, call 306-966-6613.

For information on the President’s Service Award, please visit usask.ca/leadershipteam/president/presidents-award-and-fund.php
There will be memorable centennial celebrations as well as inevitable challenges and changes, but Peter Stoicheff is looking forward to seeing all that 2017 has in store for the University of Saskatchewan (U of S).

Now serving his second year as president of the U of S, Stoicheff is focused on both short-term priorities and long-term goals as the university commemorates the 100th anniversary of its alumni association with multiple events, while Canada celebrates the country’s 150th anniversary—its sesquicentennial.

“I am looking forward to us participating meaningfully in the country’s sesquicentennial and I am looking forward to the fact that this is the 100th anniversary of our alumni association as well,” said Stoicheff. “Building engagement with our alumni is something that is a very high priority for me … And I am also very excited that we have the mission, vision and values document in place now. I find it a very inspirational document and just what the university needs at this time in its history.”

For the first time in 24 years, the university has updated its mission, vision and values, reflecting the plethora of changes that have occurred on campus since 1993, while staying true to the tenets and traditions that have successfully guided the institution over its 110-year history. Stoicheff is determined to bring that newly revised mission, vision and values document to life.

“I am looking forward to the ways that the university will engage in making that document real,” he said. “In other words, strategic planning, in terms of the things that we do.”

Stoicheff said the university remains firmly focused on constantly improving the student experience as one of the country’s leading research-intensive institutions and continuing to build on the major funding initiatives and progressive programs and projects that have been started across campus.

From the ongoing construction of the Collaborative Science Research Building and the new hotel complex on campus to continuing the Home Ice Campaign to complete funding for Merlis Belsher Place as the new home for hockey and basketball, there are a variety of projects underway that will continue to enhance the look of the university. However, the foundation of the university remains built on research, teaching and outreach, and Stoicheff is looking forward to seeing tangible results from multiple major recent funding announcements.

“It’s exciting to start to see the outcomes of the many different high-level research initiatives that we have embarked upon,” said Stoicheff, noting that the U of S was the only university in the country to be awarded two Canada First Research Excellence Fund (CFREF) awards, totalling $115 million in federal funding. “Seeing what will happen with the two CFREF grants that we received and the wonderful addition of Canada Excellence Research Chair Leon Kochan, all of these things are really exciting. And I have to mention the transformational work that has been done in the College of Medicine that has really positioned that crucial college for success.”

Among the president’s priorities in 2017 is completing the search for the university’s first vice-provost of Indigenous engagement, as well as continuing to pursue the possibility of re-opening the Emma Lake Kenderdine Campus.

“We are moving on the vice-provost Indigenous engagement position,” he said. “The committee was struck, I am chairing it and it is beginning to meet. So it is very much in the works.”

As for the Kenderdine project, fundraising will be a key component in the process to re-open the satellite campus that was temporarily closed in 2012.

“We have a professionally designed site plan that combines some of the buildings that are there and are good enough to remain there, with a whole new capacity for that campus,” he said. “So we are moving on Emma Lake. Giving you a date for its opening would require knowing where the funding is coming from and all that I can say there, and what people deserve to know, is that we are putting a strong push on a quiet phase of fundraising for that.”

Fundraising remains a crucial area of support for the university, which is also dealing with budgetary pressures at the provincial level. Despite a great deal of success receiving federal funding in support of specific research and infrastructure projects, the U of S experienced a mid-year adjustment that took back $5-million from the 2016 provincial operating grant, and anticipates the upcoming provincial budget this spring will create more financial challenges for the university.

“It was a mid-year adjustment and it was disappointing,” Stoicheff said. “(But) I do not read it as a signal that the province does not support the value of the University of Saskatchewan. And the province has stated the adjustment is one-time.

“But it was disappointing. As (interim provost) Michael Atkinson stated, this does not yet mean that we are going to be diminishing our academic program offerings, diminishing our support for research, or cutting positions anywhere in the university.”

To accommodate the budget shortfall, the university dipped into its reserve fund for the second straight year, an unsustainable practice for any institution.

“We have been excellent stewards of our financial situation and as a result, we have had the appropriate percentage of our overall budget devoted to reserve funds. Not inappropriately large, entirely appropriate within the post-secondary education sector in the country,” Stoicheff said. “We’re glad that we did have that and we are now in a situation where we are using that. But as with any reserve funds, that situation isn’t eternally sustainable.

“The point we continually make to the provincial government is that investment in us is an investment in the future and in the province’s capacity for innovation, growth and solving the social challenges we face.”
Lee Ahenakew has settled into his new role as the chair of the Board of Governors at the University of Saskatchewan. Ahenakew, who graduated from the U of S with a Bachelor of Commerce in marketing in 1997, was appointed to the board in 2013 and took over as chair on July 1, 2016, replacing Greg Smith. Ahenakew recently spoke with On Campus News editor James Shewaga about his role and goals.

- You have served on the board for three years and as the board chair since July 1. How comfortable are you now in the new role?

I’m quite comfortable. I had time to be well prepared, serving as vice-chair for over a year. I’ve invested time in director training and attended the Canadian University Boards conference and served on boards since I was 23 and have chaired many meetings. Our board is a good size and we have the right skills, engaged board members, and a great leader in President Peter Stoicheff. That all helps me feel comfortable in my role.

- What do you see as your main role as board chair?

A big part of my role is to ensure that we get input from both university administration and our key stakeholders in a frank discussion in order to come to the best decision possible to meet our goals. Understanding where board members are at on a given issue is a crucial part of the process so that everyone feels good about the decisions that we make. And as always, we need to be guided by the values and principles of the university as we make these decisions.

- What would you consider to be the top priority for the board in the 2016-17 academic year?

The board is primarily responsible for property and revenues of the university, so the most important thing is always ensuring that we are making decisions that will ensure financial sustainability and provide the resources required to fulfill our strategic plan. We need to work even more closely with the province to find innovative financial solutions to ensure these tight economic times do not distract us from our academic and research mission.

- What are some of the other major areas that you are looking forward to dealing with?

Indigenization is very important and a subject matter that is of personal and professional interest. I am a proud member of the Ahtahakkoop Cree Nation and have worked for more than 20 years in the field of corporate Aboriginal relations. I’m serving on the committee that will choose our first vice-provost Indigenous engagement, which is an important new position. The new mission, vision and values document, for which I served on the committee, makes bold statements for Indigenization which excites me. I’m also looking forward to facilitating the board’s input to the fourth integrated plan, which will be based on the vision document and determine how we will fulfill our future.

- How important is it to continue to build on the university’s commitment to Indigenization and to Aboriginal achievement?

Post-secondary has a key role to play in reconciliation as articulated by the final report of the Truth and Reconciliation Commission of Canada. The university is a leader in this area, and given our important position among Canadian universities we have an opportunity to do what we need to do to have an impact on the country, and even the world. So our ability to work with Indigenous people for the benefit of Indigenous communities, provincially and globally, is vital. This will fuel social good and sustainable economic growth.

- Are there a couple of key agenda items coming up that people should know about?

There are many important agenda items, but none more in the public eye than the new ice facility, which has the potential to transform Huskie Athletics. We’re already leading the country with a unique Huskie Board of Trustees that provides the expertise needed to take our student-athletes and teams to the next level. With a new multi-purpose rink facility on the horizon, it is an exciting time for the Huskies.

- The board went through some difficult decisions a few years ago, with the change in president. How comforting is it to have stable leadership at the top now under President Stoicheff?

In President Stoicheff we have a leader who inspires. His upbringing and career provide him with a balance between arts and humanities and the sciences that we need in a leader right now. Collaboration across disciplines is the key to innovation that will serve Saskatchewan in the things that are needed most. Peter is the president that can lead us to those solutions.

- What is the biggest challenge facing the university over the next few years?

There is no one thing. The environment for universities has intensified in the last couple of decades with larger faculty, bigger budgets, information technology, increased scrutiny for public dollars, greater expectations by stakeholders, and a bright light on ethics and values. Combine that with deferred maintenance on buildings and squeezed operating budgets and government transfers. We really need to work with all parties to ensure that we maintain our increasing leadership position.

- How excited are you about the direction the University of Saskatchewan is heading?

I burst green with pride when I think about it! We have the collaborative attitude, people, and research infrastructure to solve the world’s problems. We have a wide array of colleges and research infrastructure to do what no one else can do. That and we’re the most beautiful campus in Canada in the best city and province to live in. Really, what more could you ask for?
Vanier scholarships supporting students

If you ask University of Saskatchewan PhD student Kimberly MacKay, a genome’s three-dimensional structure is best explained by likening it to origami.

A single piece of crisp paper can be folded into any number of shapes. Twist its edges one way and you’ll wind up hoisting a paper crane. A simple re-arranging of those creases, however, could yield a dove, a boat or seemingly boundless other possibilities.

“You can think of the genome three-dimensional structure the same way,” MacKay said. “You have your strand of DNA. Fold it one way and it will do one thing, but fold it a different way and it will do another thing, and those will have different structures and functions associated with them.”

MacKay, who studies bioinformatics, is one of two U of S students—along with Jacques Desmarais—to win a Vanier Canada Graduate Scholarship in 2016. The prize is one of Canada’s top honours for graduate students, and awards recipients with up to $150,000 over three years to support their doctoral studies.

For MacKay, that funding is supporting her work on predicting three-dimensional genome structures, as she builds a program that takes in biological data and uses it to create a model of what these structures could potentially look like.

MacKay explained that the project could reveal a new understanding of science at a fundamental level, with vast potential in fields as wide-ranging as agriculture, medicine and essentially anything involved with the study of biology. It could even be used as a starting point to develop new treatments for diseases such as cancer.

“One of the main areas that three-dimensional genome structure has been shown to have a big role in is cancer research,” she said. “With cancer, different folds can happen that cause different mutations or rearrangements to occur in the genome. If we can develop therapies to reverse these disease-related folds, we can potentially return cells back to a non-cancerous state.”

For his part, Desmarais, a PhD student in geology, earned his Vanier Scholarship in part due to his research into defining objects unseen to the human eye.

Desmarais is working on computer algorithms that calculate properties of materials. The project works entirely from a theoretical standpoint, based on the concepts of quantum mechanics and using little to no prior knowledge from experiments.

“Say we wanted to know how the inside of the Earth works, because the inside of the Earth is what drives volcanoes and plate tectonics and things like that,” he said. “Since we can’t get there, and since often it’s too difficult to simulate the high pressures and temperatures, sometimes the only thing we can do is theory.”

Among other applications, the algorithms are used to study crystals that make up geological formations on Earth and other planets.

Using these types of theoretical approaches, one can calculate the properties of materials inside of planets and, from there, start to predict how exactly the inside of that planet works.

“Using these types of theoretical approaches, one can calculate the properties of materials inside of planets and, from there, start to predict how exactly the inside of that planet works,” he said.

The Vanier Scholarship has allowed Desmarais to team up with researchers in Italy working on a project called Crystal, featuring collaborators from around the globe who have been developing these types of algorithms for more than 60 years. In 2016, he joined the group for three months, got a grasp of speaking Italian and relished the opportunity to learn from bright minds from around the world.

“They have a lot of collaborators from different countries and they all come to meet at this particular lab,” he said. “Maybe every week there would be a new professor or researcher from a different country and I’d get to meet them and learn something from them.”

After six decades of work already, there is no end in sight for the Crystal project. While some researchers may be uncomfortable working without a strict deadline, Desmarais is excited about the possibility of remaining involved in the project long-term.

“It’s an exciting project. We’ll see how things turn out, but I could see myself working on it or similar projects for some time.”
A class in the College of Arts and Science is exploring the physical, economic, political and social aspects of one of the world’s most pressing issues—climate change.

Global Climate Change, taught by Krys Chutko in geography and planning, covers climate modelling, natural and human-induced changes, and its potential impact on humans (and vice versa) on a macro scale.

“The climate system is definitely global,” he said. “If you do anything to any part of it, it’s going to impact it on a global level.”

An example of this is Canada’s Arctic. Despite its sparse human population, the area is feeling the effects of global warming due to polar amplification—a phenomenon in which polar regions tend to experience a greater extent of change more quickly, explained Chutko. On average, he said, the changes occur at about twice the rate of southern counterparts.

“You go far north, and temperatures are warming more and precipitation patterns are changing,” said Chutko. “Because it’s a dominantly cold environment, you start to see those changes more.”

With the rise in temperature comes a loss of snow, he explained, and an increase in the amount of the sun’s radiation absorbed by the land. This drives up the temperature further, which subsequently means less snow.

“It just starts to amplify,” he said.

The warmth is also causing a change in precipitation patterns, affecting wildlife that have spent thousands of years adapting to live in the harsh environment.

“If there’s rain falling on the snow, you get ice,” he said. “Animals in that region are designed to dig through snow—they can’t dig through ice. So you’re seeing herds of caribou and muskox dying of starvation because they can’t access their food.”

The inconsistency in precipitation is another facet to be explored in the class. While temperatures are climbing, precipitation—once a reliable, predictable indicator of the environment—has become spatially and temporally variable.

“This is something that the Inuit people talk about all the time. They’re used to cold weather conditions and rely heavily on it, and they’ve lost their ability to predict because it’s so variable now,” he said. “I think that’s one of the biggest things we’re seeing, especially in northern communities, and that comes with a cost.”

The new class will also annotate between human and natural changes in the environment. Chutko’s own research interests lie within natural processes such as the carbon cycle—changes which take a very long time to happen.

“Think along the scales of ice ages,” he said, “whereas human changes are very fast and are superimposed on top of these natural changes. They kind of blend together and it’s hard to separate the two. I suppose that is one of the sources of a lot of confusion around climate change.”

This leads to climate modelling, prediction and measuring—something that can be challenging.

“To measure climate change you have to measure on a 30-year time scale,” he explained. “And humans are impatient. We don’t want to have to wait for that information to come. We look out the window and say, ‘Oh, it’s snowing today, how can global warming exist?’ That’s not climate change—that’s daily weather. It changes every day.”

---

**WUNUSWEH LECTURE IN ABORIGINAL LAW**

**GRAND CHIEF DEREK NEPINAK**
Assembly of Manitoba Chiefs

**MONDAY, JAN. 16, 2017**
7PM, GORDON OAKES RED BEAR STUDENT CENTRE, 5 CAMPUS DRIVE, U OF S

**JUSTIN WINTERS**
Writer and producer, Los Angeles

**MONDAY, FEB. 6, 2017**
12PM (NOON), ROOM 150, MLT LECTURE THEATRE, COLLEGE OF LAW, U OF S
Most people react to bats in their neighbourhood in the same way that they would if a mouse skittered across the kitchen floor—with anxiety, disgust, maybe even a short squeal of terror.

What many people don’t realize, however, is that those fanged, winged mammals are not only creepy-looking creatures. In fact, they may hold the key to bringing the severe effects of some disabling human illnesses down to a manageable minimum.

“When there is infection in the lungs, it causes an inflammation which leads to symptoms—fever, coughing and sometimes shortness of breath,” said University of Saskatchewan PhD student Sonu Subudhi. “Human beings tend to show an enormous amount of inflammation to certain virus infections and that is one of the reasons why humans suffer from severe disease, which may have fatal consequences. In such cases, inflammation gets activated in people like crazy, but for some reason in bats it is kept very low.”

Subudhi is part of a team of researchers at the Western College of Veterinary Medicine led by professor Vikram Misra. The group is currently studying the infection patterns of coronaviruses, a species of virus in bats that includes Middle Eastern Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS).

Coronaviruses have been an area of increasing importance to researchers as advancing technology has eased their spread, with the SARS outbreak of 2002-04 one example of how an infection can expand beyond geographic boundaries and become a world-wide problem.

“These viruses can be transferred from one person to the other, and people travel all around the world all the time,” Subudhi said. “A person may be unknowingly carrying the virus and travel to other countries.

“In 24 hours, one can be anywhere in the world, and we don’t have fool-proof screening procedures necessary to check whether a person has the virus or not. That makes things scary and that’s why we need to focus on these issues even if they might not be right here in Canada now. They could be in the future.”

The SARS outbreak tremendously increased researchers’ interest in bats, which were discovered to be carrying a strain of coronavirus similar to what was infecting humans. What sets these animals apart, said Subudhi, is how they react to the infection.

“We suffer from fever, cough, shortness of breath, and after you have had the infection for a while, if you’re not able to clear it, you could get pneumonia, which could progress to multi-organ failure. That’s how the virus could spread to all the organs and you may succumb to it,” he said. “In bats, that’s not the case. They somehow control the infection.”

Unlike humans and other animals, bats can carry viruses for months without ever succumbing to the illness. Subudhi attributes this to the mammal’s unique evolutionary history.

“Bats and viruses have evolved for a long, long time,” he said. “Bats have been on Earth for a much longer time than humans—years and years and years. They are much older than we are. Since they are such an old species, they have more time to evolve with the viruses. They have co-evolved for all these years and this is where the persistent infection comes into play.”

Each of their unique traits highlight bats’ strong resilience to viral infections and opens the door to the possibility, however small, of replicating their defenses in humans. However, Subudhi said that such a goal is lofty at best, at least in the short term.

In the meanwhile, Subudhi is excited for what his research could mean for expanding the human ability to control the spread of illness and slow or prevent the spillover from animal hosts to people. Rabies, for instance, ran rampant until the discovery of a vaccine for both humans and animals, which has now reduced the disease to very low levels.

“There might be a possibility that, if we know these factors, we might be able to more effectively control it. If you don’t know what’s happening and how it’s spilling, there’s no way of controlling a spillover,” Subudhi said. “Once we know that, we might be able to control it.”

Focus group examines program barriers

FROM PAGE 5

policy-makers, community groups, clinicians and researchers—looking at the determining factors of participating in a program such as FAST. According to Lanovaz, gender may be one of those factors.

“One of the questions the focus group is looking at pertains to the barriers to getting involved,” he explained. “Most of these programs, at the sites, the women are going to them and not the men, despite stats showing that the men fall as much as women do.”

Arnold and Lanovaz also recently presented their research to MPs in Ottawa as part of a health research symposium, focusing on the biology of frailty as well as its role in patients within a crowded health-care system.

“When these kinds of things come up, they’re very eager to learn,” Lanovaz said of the event, adding that many of the MPs had personal anecdotes or experiences with frailty, typically with parents or grandparents.

Similarly, Arnold believes in the importance of taking an interdisciplinary look at a growing issue impacting the physical, social and mental well-being of Canadians.

“It’s a huge health-care issue across the country and provincially,” she said. “Anything that would help to keep older adults at home and free of injury is important.”
End of an era
Huskies coach Towriss leaves legacy

For the first time in 33 years, the University of Saskatchewan (U of S) is looking for a new coach to head the heralded Huskies football program.

Long-time head coach Brian Towriss, the winningest coach in Canadian university football history, ended his remarkable tenure on December 19.

U of S President Peter Stoicheff said Towriss’ legacy reaches all corners of the campus and far beyond, especially when considering his leadership and mentorship of the thousands of Huskie student-athletes who he guided on and off the field.

“Beyond the wins, the records and the Vanier Cups … Coach Towriss’ most important contribution to our campus is undoubtedly the impact that he had in the lives of thousands of student-athletes,” Stoicheff stated.

“I often talk about excellence being a transferable skill, and I know Brian taught that to all of the student-athletes who he coached. Those students now exemplify the excellence that he instilled in them and are the mark of his true legacy.

“We look forward to celebrating Coach Towriss and his wonderful contributions in the coming year.”

The 60-year-old Towriss leaves a legacy unmatched in the country. Towriss holds the record for most victories (196) and most games coached (315) in Canadian university football after taking over the program as head coach in 1984 following a four-year stint as an assistant. The Moose Jaw native led the Huskies to three Vanier Cup championships and nine appearances in the national final, while also being named Canada West coach of the year nine times and earning the national award once.

“I want to thank all of those that have supported me throughout my career at the University of Saskatchewan and all of the fans in Huskie Nation,” said Towriss, who played four years for the Huskies from 1974-77 before beginning his coaching career.

“I have had a fulfilling and wonderful career here. It wouldn’t have been possible without the support of my wife, Vicki, and my two wonderful children, Kellie and Jake. I have also had the pleasure of working with a loyal group of coaches and support staff that have shared my vision and passion for the program for a long time. I am proud to say that we won a lot of football games and we did it with honesty, respect and hard work. I wish the program continued success and a return to national prominence.”

Affectionately known as BT, Towriss has coached 71 All-Canadians and 154 Canada West conference all-stars, 160 players who were All-Academic team members, and 47 Huskies who have gone on to play professionally in the Canadian Football League. Towriss also joined a prestigious group in 2007 when he earned the Order of Merit, Saskatchewan’s highest honour.

“BT has had a long distinguished career as a coach, but moreover as a well-respected leader in sport across Canada West and U Sports,” said athletic director and long-time friend Basil Hughton, who also recently announced that he will be retiring on June 30. “He has impacted many young athletes, coaches and staff throughout his years of service as their mentor and friend. BT has devoted countless hours promoting our university to not only prospective athletes, but to many other audiences across Canada. While the term legend is reserved for only a select few, I truly believe that it is fitting to describe BT and his accomplishments as one.”

The search for a new head coach has begun, with an interim coach expected to be named shortly.
Making connections across the campus

Jaspreet Kaur is a travel and expense administrator with ConnectionPoint at the University of Saskatchewan. She chatted recently with communications specialist Jennifer Robertson about her experience with the new unit.

- What is your role in ConnectionPoint?
  I work as a travel and expense administrator in ConnectionPoint, which means I process personal reimbursements for staff, faculty and graduate students, as well as guest speakers and guest researchers who come to visit the university. This includes processing Concur online claims, paper claims, like cheque requisitions, and petty cash claims. If someone needs assistance completing an expense report for personal reimbursement or learning how the process works, we provide the support. Once someone sends in a claim, we review it to make sure all the expenses are aligned with the policies and procedures of the university.

  Our team can also book travel for members of our university community. If you require any help booking travel or want us to make hotel or car rental arrangements, we can do that.

  We also provide Concur support for the university community. If you have a question about Concur, you can contact us for help.

- What do you enjoy most about your job?
  ConnectionPoint services make life easier for the university community and it really feels good when you help people with their day-to-day expenses. I really enjoy that we get a lot of opportunities to learn. I worked at the university for one year before I joined ConnectionPoint and even though I had past experience here, I learned a lot about how university processes work after I joined ConnectionPoint.

  What do you enjoy most about your job?
  ConnectionPoint services make life easier for the university community and it really feels good when you help people with their day-to-day expenses. I really enjoy that we get a lot of opportunities to learn. I worked at the university for one year before I joined ConnectionPoint and even though I had past experience here, I learned a lot about how university processes work after I joined ConnectionPoint.

- Can you highlight an improvement that has been made because of user feedback?

Poelzer predicts more job opportunities up north

FROM PAGE 4

“As we add more power generation, the population of Canada is going to continue to grow, and in turn, need even more power. As we bring on more power, you’re going to create more transmission lines, which is going to go across a lot of traditional lands, requiring clearing, and all of this is going to mean more job opportunities and participation in these projects for Aboriginal peoples,” he said. “Those kind of things are going to play out across Canada.”
COMING EVENTS

COURSES / WORKSHOPS

Winter Conversational Language Classes
Looking to maintain, learn or improve your language skills? All courses are taught by experienced and qualified instructors. For more information, visit learnlanguages.usask.ca or call 306-966-4355 or ext. 5539.

Conversational Language Classes begin the week of Jan. 16 and run for two hours weekly:
- French Levels 1–8
- Spanish Levels 1–8
- Japanese Levels 1 and 2
- Japanese for the Traveller
- German Levels 1, 2, 3 and 7
- Italian Levels 1, 2, 4 and 5
- Cree Level 1

Spanish Weekender for Beginners Workshop
Feb. 3–5; ideal for the traveller who has little or no Spanish-speaking skills. 20 hours over 2.5 days. Cost: $575 (includes manual, Saturday and Sunday lunch included). GST exempt. Taught by a native Spanish speaker, Patty Corkal.

1-week Intensive French Immersion
Feb. 20–25; ideal for the traveller who has little or no French-speaking abilities. 20 hours over 6 days, cost: $575 (includes manual, Saturday final luncheon, progress report card, transcript and certificate of completion). GST exempt. Taught by experienced, qualified instructors who are also native French speakers.

French Voyager Weekend Workshop
Feb. 17–19; ideal for the traveller who has little or no French-speaking abilities. 20 hours over 2.5 days; cost $575 (includes manual, progress report card, transcript and certificate of completion). GST exempt. Taught by experienced and qualified instructor, Irene Gould.

Edwards School of Business Executive Education
For information call 306-966-8686, visit edwards.usask.ca/exceed or email exceed@edwards.usask.ca.
- Jan. 10—April 11, Supply Management Training: Transportation - Saskatoon
- Jan. 19, Engagement Series - Part 1: Fueling Enthusiasm: Building a Culture of Appreciation - Saskatoon
- Jan. 28—Feb. 3, The Effective Executive Leadership Program - Waskesiu
- Feb. 1–3, Digital & Social Media Program: Strategy and Tactics - Saskatoon
- Feb. 9, Leadership Essentials for Supervisors - Saskatoon
- Feb. 16, Engagement Series - Part 2: Boosting Energy - Taking a Break to Get a Grip - Saskatoon
- Feb. 16–June 24, The Masters Certificate in Project Management - Saskatoon
- Feb. 23–24, Business Sales & Strategy - Saskatoon - NEW
- Feb. 28–March 2, The Business Analyst’s Course - Regina
- March 7, Emotional Intelligence: Another Side of Smart - Saskatoon
- March 16, Engagement Series - Part 3: Tapping Passion - Moving Beyond Mid-Life Malaise - Saskatoon

THE ARTS

Sisters United: An exhibit on women’s suffrage in Saskatchewan
Daily until March 14, 2017, 9 am–8 pm, Diefenbaker Centre. Sisters United commemorates the centennial of women winning the right to vote in 1916. Explore compelling stories of suffragist leaders who laid the foundation for women’s rights in Saskatchewan.

SEMINARS / LECTURES

Department of Psychology’s monthly colloquium series
Members of the university community and the general public are welcome to attend. For more information, please contact Peter Grant at 306-966-6675 or via e-mail: peter.grant@usask.ca.
- Jan. 19, 2:30–3:30 pm, Arts 153. Professor Erika Dyck, Department of History, will give a talk entitled: Tune in, Turn on, Step Back: LSD’s past and present in psychedelic psychiatry. In this presentation, Dyck will examine the historical clinical uses of LSD in Canada—including the facility that led to the coining of the term ‘psychedelic’ and the infamous Hollywood Hospital that offered psychedelic treatments for addictions—to explore some of the lessons that a close reading of LSD’s treatments for addictions—to explore some of the lessons that a close reading of LSD’s treatments for addictions—to explore some of the lessons that a close reading of LSD’s treatments for addictions—to explore some of the lessons that a close reading of LSD’s treatments for addictions—

MISCELLANY

How to Receive Criticism and Make it Work for You
Jan. 16, 3–4 pm, Arts 101. Receiving criticism is hard but don’t let your ego stand in the way of benefitting from that feedback. This workshop will help you to learn to effectively accept criticism and use it in a productive way. To register, visit bit.ly/2fOcLCL. For more information, contact Wellness Resources at 306-966-4580 or email wellness.resources@usask.ca.

WSCM Imaging Centre open house
Jan. 18, 9 am–3 pm, Room 2208 WSCM. The imaging centre houses state-of-the-art imaging equipment: transmission electron microscope, field-emission scanning electron microscope, TIRF microscope, confocal microscopes and ultrasound imaging system. We offer comprehensive training on the microscopes, imaging services, preparation of samples for microscopy and assistance with image analysis. A tour takes about 15 minutes and imaging technicians will be onsite to answer your questions. Refreshments will be served.

New app assists Protective Services

New app assists Protective Services

Next OCN: Friday, Feb. 10
Deadline: Tuesday, Jan. 31
Tell us about yourself.

Hello, I’m Farley Mowat. I was born in Ontario and spent part of my childhood there, but moved to Saskatoon with my family when I was nine years old. As a teenager, I had a column in the *Saskatoon StarPhoenix* about birds and birdwatching, as well as a newsletter about nature. I suppose that was the start of my writing career.

From 1940-45, I served my great country in World War II, first as a private and then climbing the ranks to become a captain. I started writing in 1949 and have 42 books to my name, as well as many short stories appearing in publications such as *The Saturday Evening Post* and *Maclean’s*, to name but a few.

What inspires you?

Nature and the environment are my biggest inspirations. The physical environment has played a huge role in my life and that prominence has carried over to many of my books. I also love travelling, especially to remote, quiet places. It was a two-year stint in the Arctic that inspired me to start writing, in fact. I also spent some time in Siberia, getting to know the land and the people. Aside from that, I’m fortunate enough to have seen just about all of Canada, from the salty sea air of Vancouver Island to the rolling hills of Cape Breton to the snowy Arctic coast.

Who is your furry friend?

This is my dog, Chester. I’m taking him for a walk, as I do every morning.

Why did you choose to stay in Saskatoon?

Saskatoon is a lovely city with a beautiful riverbank and a scenic university campus in a natural setting. I do believe it would be a wonderful place to spend the rest of my days.