WORLD WATER LEADERS

The University of Saskatchewan is the No.1 ranked institution for freshwater resources research in the country and ranked 18th in the world. In this issue of On Campus News, we chat with some of our internationally-renowned experts in the Global Institute for Water Security, and dive into the work we are doing in leading the national Global Water Futures research program.

SEE PAGES 8-9.
USask hosts successful planetary health conference

Collin Semenoff

For two days in March, the University of Saskatchewan (USask) brought the planetary health discussion to Saskatoon to examine the interdependencies of human civilization and nature.

Planetary health acknowledges the interdependence of human health and the health of the planet. As an initiative of the USask International Blueprint for Action, the second annual People Around the World (PAW) conference brought together a number of expert presenters and a diverse audience to explore the intricate connections between food, people and the planet.

“Understanding and examining issues related to planetary health is an absolute requirement for those of us who operate within the health and social sciences, environmental organizations, or anywhere human civilization and nature intersect,” said conference chair and scientific lead Dr. Steven Jones (PhD).

Jones, USask’s interim assistant vice-provost, health, and executive director of the School of Public Health, emphasized that the conference theme is not a new disciplinary silo or research centre.

“Planetary health is a transdisciplinary system that builds on all of our existing strengths, compelling us to work together in new and more powerful ways,” he said.

PAW 2019 opened on March 12 with a keynote address from Dr. Brent Loken (PhD), contributor to the groundbreaking *EAT-Lancet Commission on Food, Planet, Health*. Before an audience of health, environment, Indigenous, and policy researchers, USask students and community partners, Loken emphasized the need for a holistic approach to developing healthy, sustainable food systems.

For Loken, this can only be achieved through an agenda that integrates not only health and environmental concerns but all 17 of the Sustainable Development Goals adopted by United Nations member states in 2015 as part of the 2030 Agenda for Sustainable Development. “Who else is better positioned to advance this than a university such as this?” Loken said. “[We need] all hands on deck.”

Day 2 of the conference featured keynotes from the University of North Dakota’s Dr. Donald Warne (MD) addressing *Indigenous perspectives on health disparities*, and Canadian Association of Physicians for the Environment board president Dr. Courtney Howard (MD) presenting *Healthy planet, healthy people*.

**Indigenous health**

The Indigenous Peoples’ Health Research Centre at USask has teamed up with the Saskatchewan Centre for Patient-Oriented Research to offer free, monthly training modules for patient-oriented research teams seeking to engage Indigenous communities in health research endeavours. The in-person training module, entitled *Building Research Relationships with Indigenous Communities*, is the first of its kind in Canada. It will provide researchers with basic tools and knowledge to build meaningful research relationships with Indigenous peoples and their communities. The first module was offered March 22 in Saskatoon.

**Student support**

A USask pilot project starting this spring will help students develop professional skills, prepare for the demands of the workforce and transition into careers. Sponsored by a $300,000 donation from the RBC Foundation, the RBC Learn to Work, Work to Learn program—in partnership with the College of Agriculture and Bioresources and the Student Employment and Career Centre—will provide networking opportunities to meet professionals and alumni and learn about career options in industries. AgBio students will also be able to take an eight-month work-integrated course to develop career skills.

**Engineering access**

USask’s College of Engineering has launched a new program designed to help more Indigenous people enter the college and complete their degrees. The Engineering Access Program is part of the college’s Indigenous Peoples Initiatives Community. The program helps prospective and current Indigenous engineering students through: Pathways to Engineering, a year of academic upgrading for students who do not have the required pre-requisites; Summer Bridging Program, to help students with academic preparation, navigating campus and Saskatoon; and Student Success Program, offering social, academic and financial supports.

**Durum decoded**

University of Saskatchewan researchers, led by corresponding author Curtis Pozniak, played a key role in an international consortium that has sequenced the entire genome of durum wheat—the source of semolina for pasta, a food staple for the world’s population—according to an article published April 8 in *Nature Genetics*. In an exciting discovery, the research team discovered how to significantly reduce cadmium levels in durum grain, ensuring the safety and nutritional value of the grain through selective breeding. The research involved more than 60 scientists from seven countries.

For more up-to-the-minute news, visit: news.usask.ca  
@usask
People of the Plan

The University of Saskatchewan’s new seven-year plan through to 2025 is entitled *The University the World Needs* and has been gifted Indigenous names *nikaniitan manachihitowinihk* (Cree) and *ni manachihitoonaan* (Michif), which translate to “Let us lead with respect.” In each issue of *On Campus News* in 2019, we will take a look at the 12 major goals of the new plan by profiling individuals involved in the university’s commitment to Courageous Curiosity, Boundless Collaboration and Inspired Communities. In this issue we profile Dr. Carey Simonson (PhD) in the College of Engineering.

**Commitment: Courageous Curiosity**
*(Empower a daring culture of innovation with the courage to confront humanity’s greatest challenges and opportunities.)*

**Goal: Seek Solutions**
*(Foster a problem-solving, entrepreneurial ethic among students, faculty, and staff, harnessing opportunities to apply our research, scholarly, and artistic efforts to community and global priorities.)*

Carey Simonson: Seeking Saskatchewan solutions

JAMES SHEWAGA

Industry innovation and college collaboration have always gone hand-in-hand for Dr. Carey Simonson (PhD).

For the past two decades, the award-winning professor has built on a long tradition of training future academic researchers and industry leaders in the College of Engineering at the University of Saskatchewan (USask).

“I think that is where we have our biggest impact,” said Simonson, who has supervised more than 50 graduate and post-doctoral researchers, with many going on to become leaders in industry and academia. “In our college, we certainly develop technology that has industrial applications and impacts, but every master’s and PhD student who graduates will have an even larger impact over their 30-40 year career.

“The college has a long history of training experts to work in industry. So, every year, we increase the number of people we have trained for Canadian industries and abroad, and hopefully that continues to make an impact and a difference in the world.”

While the new university plan was just unveiled in October, engineering experts on campus like Simonson have been guided by key principles of the plan for years, engaging with industry on innovative initiatives to seek solutions for the benefit of society, and embracing entrepreneurial opportunities for students, faculty and staff.

“Without industry involvement, we wouldn’t have the opportunities to train students to find solutions to relevant problems that make Canada a better place and more competitive globally,” said Simonson, whose current work with national and international researchers and industry leaders is supported by more than $600,000 in funding received from the Natural Sciences and Engineering Research Council of Canada (NSERC) since 2015.

Simonson, who earned his bachelor’s (1991), master’s (1993) and PhD (1998) at USask, has continued the college’s success in improving heating, ventilation and air conditioning (HVAC) technology. He has followed in the footsteps of engineering colleagues like professor emeritus Robert Besant, who developed air exchange technology at USask 40 years ago that is now used in most homes and spawned a $3 billion industry.

In 2015, Simonson and Besant were co-winners of the NSERC Synergy Award for Innovation, for collaboration with a local company to improve heating and cooling systems. The HVAC technology developed through this collaboration not only saves money, but improves energy efficiency and reduces greenhouse gas emissions.

USask research has since been applied by companies like Facebook, which announced in 2018 that it is using technology developed in Saskatoon to cool computers in its data centres.

“(Facebook) is a neat application of the work that we are doing,” said Simonson, who is now working with post-doctoral fellow Dr. Farid Bahiraei (PhD) and a local company started by former USask master’s student Soheil Akbari to design a new system to regulate temperature in individual rooms in homes, to increase comfort and cut costs.

With climate change increasing the need for cooling systems around the world, the work of researchers like Simonson will have international impact for years to come.

“The Intergovernmental Panel on Climate Change projects that cooling energy consumption is going to increase thirty-fold this century,” said Simonson, who is now the associate dean of Graduate Studies and Strategic Projects in the College of Engineering. “Buildings are large consumers of energy and HVAC systems are the largest component of buildings themselves, so developing better HVAC systems will be more and more important.”

Dr. Carey Simonson (PhD) earned his bachelor’s, master’s and his PhD at the University of Saskatchewan before becoming a mechanical engineering professor in USask’s College of Engineering.
The student-managed fund in the Edwards School of Business has hit a memorable milestone. The George S. Dembroski Student Managed Portfolio Trust (Dembroski SMPT), the investment portfolio run by Edwards students at the University of Saskatchewan (USask), has topped the $2-million mark. The trust, overseen by a board of trustees that includes investment professionals, finance faculty and students, was valued at $2.034 million on March 1, 2019.

“As a board member, one of the most rewarding things is the terrific performance of these funds managed by students with the assistance of their professors and instructors,” said Scott McCreath, Senior Investment Advisor with BMO Nesbitt Burns and the Edwards Executive in Residence. “The power of this class and the results to date are a feather in the cap of Edwards. As time progresses it will continue to attract outstanding students and new donors.”

Through a $1-million donation, the fund was established in 2011 to provide students with investment experience in portfolio management. The classroom environment is comprised of third- and fourth-year Bachelor of Commerce students working alongside graduate students in the Master of Science in Finance program.

Faculty advisor Dr. George Tannous (PhD) said the Dembroski SMPT is an experiential learning opportunity in which Edwards students get to work with equity markets in real time with real money. “Students put their core knowledge into practice managing funds in an investment account through a course where undergraduate and graduate students work together on teams to manage the fund,” said Tannous.

Since its inception, the Dembroski SMPT has delivered exceptional returns considered comparable with those of top professional managers. The current value is in part thanks to the excellent performance of USask finance students and from continued investment from donors. Donations, which are tax deductible, have totaled $1,258,998 to date.

The students see the greatest impact from the Dembroski SMPT, as a portion of the income earned is reinvested directly back into the portfolio. In addition, each year a committee allocates some of the income towards initiatives to enhance the student experience.

Fourth-year students Trevor Zentner and Reis Mysko are two of the students who have helped manage the fund throughout their time in the Dembroski investment courses. They felt the access to Bloomberg terminals and practical
Dr. Vicki Holmes (MD) is now retired from her medical career and is taking advantage of her free time by spending it with family, golfing and painting. Although she describes her retirement life as “nothing exceptional,” her 43-year career was just the opposite.

Holmes completed her education at the University of Saskatchewan (USask) in 1973 and then moved to Winnipeg for two years to work at Misericordia Hospital. She and her husband returned to Saskatoon in 1975 and she went into a private practice as a family physician.

“The nice thing about family medicine is you can have all these areas that you develop an expertise in, in addition to your basic training that you can pursue, and still be within your family medicine area,” said Holmes.

Holmes was also involved with training medical students, residents, nurses, allied health professionals and the public on topics related to women’s health, palliative care and menopause. She went through various stages of her career where she was involved in different areas of medicine, such as obstetrics and palliative care.

But one of Holmes’ biggest passions was the Women’s Mid-Life Health Program. She worked on this program with Sarah Nixon-Jackie, a superlative nurse. Holmes said that Saskatchewan was missing a resource for mature women’s health at that time.

“We were one of the few provinces that didn’t have a menopause clinic,” said Holmes. “The goal of the program was to develop the expertise to investigate all of the things that are happening for women at this stage and to become a resource for the other health-care workers and the women in the community.”

In 2000, Holmes participated in a multi-disciplinary committee that developed a program for women in Saskatchewan. However, once they finished the plan, the health district didn’t have the money to fund the program.

“By that time, I was really committed that this was an excellent idea,” said Holmes. “There was a few of us that went ahead to try and find funding for this outside of the traditional medical world.”

The committee initially received funding from pharmaceutical companies, but when that wasn’t able to continue, they decided to put on an annual art show and banquet that was held from 2003-2011.

“The art auction is basically what kept us going. The generous artists, the wonderful volunteers and community support are what made it happen,” said Holmes.

They operated out of St. Paul’s Hospital until 2011 when the health district decided it would fund the program to become part of the women’s centre at City Hospital.

Because of the work she did with the program, Holmes was given the Regional Achievement Award of Excellence in the central region in 2011, by the Society of Obstetrics and Gynecology of Canada.

Holmes split her time with the program and family medicine until 2013 when she left family practice and worked exclusively with the Women’s Mid-Life Health Program. Along with her work with the program, Holmes was a board member of the Canadian Menopause Society.

Holmes retired from the program in 2017 and officially entered her retirement stage, but keeps busy with her medical column for Refine magazine and is still an active board member of the Canadian Menopause Society.

“I really feel that I’ve put in a 43-year career and gave it my all every step of the way, but I don’t really feel I need to accomplish anything anymore. It’s quite an interesting stage to be at,” said Holmes. “It was a very exciting career and I truly enjoyed it.”

Taryn Riemer is a communications specialist in Alumni Relations.
Barley breeding makes for crafty collaboration

CHRIS MORIN

When it comes to brewing better beer, most lager lovers might not think to raise a glass in salute to the University of Saskatchewan (USask).

Then again, for a number of craft brewers across Saskatchewan to industry giants such as Molson and Sapporo, it’s no secret that there is some refreshing research being done at the university when it comes to quality ingredients and expertise.

It’s a reputation that has certainly been well-earned: USask has been contributing to better brewing for the better part of a century, and it’s also one that Dr. Aaron Beattie (PhD), an associate professor in the College of Agriculture and Bioresources, is all too happy to carry on.

“The barley world is quite a tight-knit group. We work quite closely with other barley breeding programs in Western Canada. We exchange data, and that happens over the entire course of producing a new variety of barley,” said Beattie, who adds that USask’s Crop Development Centre (CDC) works with everyone from farmers to craft brewers to ensure a satisfying final product.

And when it comes to the research, Beattie said the work being done at USask is seminal to giving a number of beer varieties their distinct traits. According to Beattie, there are particular genes that produce certain off-flavours and affect key characteristics of the body of the brew.

“In Japan, the head on a beer is something to be enjoyed and is considered a positive attribute in beer,” said Beattie, whose own interest in crop breeding started with bean breeding during his time at the University of Guelph.

“Thanks to the research being done here, we are able to help produce a beer that has a longer shelf life, with a head that lasts longer.”

While the first barley varieties that came out of USask happened in the early 1920s, the university’s worldwide brew revolution didn’t land until 1981, when barley breeder Dr. Bryan Harvey (PhD) and his team released Harrington, a now-famous malting barley variety known for its colour and flavour as well as providing an excellent beer shelf life.

Considered one of the greatest sud successes to come out of the university labs, Beattie said that the Harrington variety changed the face of malting and brewing around the world.

“It was a real step forward but it also put the University of Saskatchewan on the map worldwide,” said Beattie. “Since then, CDC barley breeders, including my predecessor Brian Rossnagel, have continued to put out varieties that have had a large impact in Western Canada.”

While the CDC has released several varieties of barley since then, one of the latest releases to make a splash is CDC Bow, the star ingredient used in the Bow Project. That initiative paired the barley with craft breweries around Saskatchewan, with each coming up with their own uniquely-flavoured beer but using the same ingredient.

Beattie said events like the Bow Project are good exposure for the work being done at the AgBio college, especially when it comes to shining a light on campus research that some people may not be aware of. And while events like this bring together an already tight-knit community, it’s not just about crafting good science and great beer—it’s also a labour of love.

“We don’t generally get to see the end product or people enjoying it on an intimate level,” said Beattie. “As a breeder, to see the people enjoying the downstream product of something you’ve been working on for the past eight years, it’s really quite something.”
USask takes steps to reduce carbon footprint

In buildings all across campus, the front line in the battle against climate change will soon be fought behind walls, in ventilation systems, and in dark basement utility rooms.

After years of grappling with greenhouse gas emissions, the University of Saskatchewan has unveiled a new $3.48-million plan of attack to improve energy efficiency and reduce its carbon footprint.

"Most of this takes place in mechanical rooms, on roofs and behind false ceilings, so not in very visible places," said Bill Hale, manager of Facilities Sustainability and Engineering at USask. "But this is the subtlety of climate change that provides a metaphor for the nature of this work. You don’t really see or feel the greenhouse gas emissions that are the basis of climate change. However, we can measure our greenhouse gas emissions, set targets to reduce them, and then act on those commitments."

Hale said the university plans to fix, replace or eliminate equipment and systems that are out-dated and inefficient, in order to maximize energy efficiency efforts.

"An excellent way for USask to reduce its energy consumption is to make sure our heating and cooling equipment is operating efficiently," he said. "We will do this by correcting out-of-specification equipment, turning fans off when they are not needed, installing variable speed drives to slow down fans, and installing energy recovery equipment. We will do an initial retro-commissioning to identify the most economical projects to implement improvements to."

Fowler said this new program is the latest step in the university’s commitment to sustainability, after USask received a silver Sustainability Tracking, Assessment and Ratings System ranking in 2017, three years ahead of its original target date of 2020.

"We have lots to be proud of when it comes to sustainability, but we also know there is always more to do," said Fowler, noting that the university is also proposing to build a $30-million co-generation plant (combined heat and power plant) designed to significantly reduce carbon emissions by generating steam and electricity from natural gas. "So, support we receive from programs like the Low Carbon Economy Fund makes a huge difference."

Greg Fowler is the vice-president of Finance and Resources at USask.

Bill Hale is the manager of Facilities, Sustainability and Engineering at USask.

2019 USASK ALUMNI
Achievement Awards

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Global water security could be the biggest environmental challenge of this century. And University of Saskatchewan (USask) scientists are at the forefront of this critical field of research.

Dr. Jay Famiglietti (PhD) is the executive director of the Global Institute for Water Security (GIWS) at USask. His study published in *Nature* in May 2018 found that by the end of the century, worldwide changes to precipitation will cause widespread resource management issues that could affect up to five billion people.

In other words, the stakes are high.

“We must make a difference with the work that we undertake,” said Famiglietti, a former NASA Jet Propulsion Laboratory scientist who now serves as Canada 150 Research Chair in Hydrology and Remote Sensing at USask. “Canada and the world need us to succeed at what we do.”

Established in 2011, GIWS is at the forefront of water research nationally and internationally. It’s ranked as the No. 1 institute for water resources research in Canada and No. 18 in the world, according to the Shanghai Academic Ranking of World Universities. Supported by $263.5 million in research grants and contracts, the institute is dedicated to protecting people from flood and drought and finding sustainable ways to manage the world’s water resources.

Solving the world’s water challenges requires GIWS to not only understand the physical, biological and chemical aspects of water, but also the related socio-economics, Famiglietti said.

“I want to understand what role university institutes like GIWS can play in moving the needle on water security in some of the hottest of the world’s water-insecure hotspots,” he said.

The USask-led Global Water Futures program is tackling the socio-economic and political factors that are intrinsically linked to water.

Funded in part by a $77.8-million grant from the Canada First Research Excellence Fund, the GWF program is the largest university-based freshwater research program in the world. There are 39 projects active across the country, including one to create a national flood forecasting system in Canada.

“Canada is the only major developed country not to have a national flood forecasting program,” said GWF Director Dr. John Pomeroy (PhD), the Canada Research Chair in Water Resources and Climate Change at USask.

This is a serious and pressing issue. Pomeroy said flood damages in Canada have been increasing dramatically, doubling and tripling over time. The 2013 Alberta floods and the 2014 Assiniboine River flood caused massive property damage and even deaths.

“If we were able to add a few more days to flood warnings, the loss of life and destruction of property could have been reduced,” Pomeroy said.

Developing a national flood forecasting program is a massive undertaking. GWF has the largest water modelling team ever brought together in Canada and they worked with Environment and Climate Change Canada to host the first national flood forecasting meeting with all provinces and territories.

There is a version of the forecasting system up and running in the Yukon, and models are now being tested in Alberta. They’ll be moving across the country, river basin by river basin. There’s international interest in the program, with the models developed here in Canada already being applied around the world.

Setting aside the challenges of creating a forecasting system for a country the size of Canada, the issues of governance still remain.

“The way we govern water
The Global Water Futures (GWF) second annual Open Science Meeting will bring together researchers from across the country May 15-17 at Saskatoon’s TCU Place.

“This meeting is a chance for us to come together to share, learn, plan and celebrate our achievements,” said Dr. John Pomeroy (PhD), GWF director at the University of Saskatchewan (USask).

Researchers will present their work on topics including climate and hydrology, human dimensions and hydro-economics, and ecosystems and water quality. While the meeting is a chance for GWF researchers to connect in person, it is an open meeting, with community partners and the public invited.

On May 14, a public event at the Roxy Theatre will feature an expert panel discussion on local and regional water issues and how GWF is responding to the challenges. Sharing Indigenous knowledge is also an important part of the meeting, with a half-day event May 15 at Wanuskewin Heritage Park that will include cultural activities.

The GWF Young Professionals, led by president Holly Annand, a USask graduate student, will also host professional development and social events throughout the weekend.

In short, Pomeroy wants to transform Canada. By 2023, he said he wants to see a functioning national flood forecasting system in place, and Indigenous communities serving as full partners in water management across the country.

GWF received major international recognition earlier this year when it was designated as one of only three regional hydroclimate projects in the world by the Global Energy and Water Exchanges, one of the four core projects of the United Nations’ World Climate Research Programme.

“['in many places in the world, women are ... the knowledge keepers and primary water managers,' Pomeroy said. ‘In many Indigenous societies in Canada, that’s also the case.’"

The series also highlights some of the great water research women are doing in Canada, much of which is happening in the GWF program.

“There’s an explosion of scientific information coming out of this,” Pomeroy said.

Ashleigh Mattern is a freelance writer from Saskatoon and a graduate of the University of Saskatchewan.
Bringing career readiness into the classroom at USask

SYDNEY GOBEIL and MEGHAN SIRED

As students move from the classroom into the workplace, some are quickly discovering employers are looking for more than just a diploma or degree.

Employers expect their team to demonstrate core career competencies such as professionalism, leadership and collaboration, according to Kimberly Matheson, career counsellor in the Student Employment and Career Centre (SECC) at the University of Saskatchewan (USask).

Matheson is one of a number of SECC team members who have been working with USask instructors over the last four years to determine the needs of employers and the best practices for bringing career readiness—which Matheson defines as acquiring the skills required to successfully transition into the workplace—into the classroom.

"Integrating career readiness into curriculum has enabled students to develop connections between what they are learning in the classroom and their career direction and employability, which can be vital upon graduation," said Matheson. "We’ve been working alongside instructors and bringing in our expertise around career readiness to enrich their course content—looking at their syllabus and seeing ways that we can complement and support what they’re teaching."

Matheson said the level at which each instructor wants to integrate career readiness is completely up to them, as staff at the SECC are able to tailor their time and focus in the classroom to suit each individual course.

Over the last four years, more than 930 students in the Colleges of Arts and Science, Pharmacy and Nutrition, Graduate and Post-doctoral Studies, and the Edwards School of Business have taken classes in which career readiness concepts were intertwined in the other learning material.

"For students, some of the most important outcomes that we want to see are an understanding of the value of career readiness competencies and that they possess, or can develop, and articulate these competencies," said Matheson.

The eight career readiness competencies the SECC team explores with students are professionalism and work ethic, oral and written communication, teamwork and collaboration, critical thinking and problem solving, digital technology, leadership, global and intercultural fluency, and career management.

Prior to introducing career readiness concepts into curriculum, the SECC looked to post-secondary institutions in the United States, Australia and the United Kingdom to see how career readiness was being approached as a partnership between instructors and career services.

"We spent quite a bit of time looking at best practices and digging into how other universities were approaching it and how they went about designing, developing and evaluating that type of content into courses," said Matheson.

After conducting their research, the SECC team worked closely with the Gwenna Moss Centre for Teaching and Learning (GMCTL), and began to explore how best to create a model for career readiness and curriculum integration at USask. From there, staff at GMCTL connected the SECC with faculty who were interested in supplementing their courses.

Matheson said these partnerships formed the basis for the integration of career readiness partnerships across several courses at the university and has been an excellent experience with powerful outcomes for both students and instructors.

Matheson and her manager, John Ault, were given the opportunity to share this work in January at Cannexus, Canada’s largest bilingual career development conference.

"There is definitely a growing appetite for these types of partnerships and a new appreciation for their value," said Matheson. "There was a lot of interest in our session and it gave us an opportunity to have great conversations with other institutions and allow the University of Saskatchewan to shine."

Dr. Carol Henry (PhD), assistant dean of nutrition and dietetics, has seen firsthand the impact of the SECC’s work in regards to career readiness for students.

Four years ago, the College of Pharmacy and Nutrition wanted to restructure the NUTR 466 course, to provide students with practical applications for what they had learned in class. It was at this point that they began working with Matheson, who introduced them to the SECC’s approach to career readiness.

The course now better prepares students for their practicum and gives them the chance to find out what their own strengths are. Henry has heard nothing but positive feedback from students.

“It has been a great experience, and we really look forward to continue to build on that experience,” said Henry.

Meghan Sired is a communications co-ordinator and Sydney Gobeil is a student intern in Teaching, Learning and Student Experience at USask.
Images of Research

Close to 120 images were submitted for the fifth annual Images of Research competition this year. University of Saskatchewan faculty, staff, students and alumni submitted their best photos of research for consideration in an array of categories. The winning images are on display in Place Riel until April 12, and posted on-line at: research.usask.ca

Here are this year’s winners:

GRAND PRIZE:
SUCCESSFUL SELF-POLLINATION!
EVELYN OSORIO, master's student in plant sciences
Looking for tolerant cultivars of field pea to heat stress, this gorgeous stigma with lots of pollen is telling us that its pollination was successful after the flower was exposed to heat stress conditions. The increase in temperature of the environment is one of the factors that threatens yield of field pea by causing abortion of flowers and fruits of the plant. My research is trying to find out how heat stress affects the reproductive process of these plants and find cultivars that are tolerant to this abiotic stress.

BEST DESCRIPTION: PAMM'S FIELD DAY
TYRONE KEEP, staff, mechanical engineering
The Phenotype Acquisition and Measurement Machine (affectionately dubbed PAMM, because all the best science things require an acronym) is a robotic imaging platform developed for field crop phenotyping. Pictured here is PAMM taking in the beauty of the prairie skyline after a test drive on Halloween 2018. The weather was ideal and it proved to be the last warm day of the year. PAMM's day job includes acquiring phenotypes for wheat, lentils, and canola, but she dreams of broadening her research horizons to measure traits of all types of crops.

BEST DESCRIPTION: REACHING OUT FOR PREGNANCY AND LABOUR
AYOMIKUN OLALOKU, undergraduate student in physiology and pharmacology

FROM THE FIELD: LOOKING AT THE FUTURE
KRISTA MURRAY, master's student in archaeology and anthropology

COMMUNITY AND IMPACT: FABALOUS POTENTIAL
JESSA HUGHES, master's student in plant sciences

MORE THAN MEETS THE EYE: HITCHING A RIDE
ZACH BALZER, master's student in biology

RESEARCH IN ACTION: COLD FINGERS, FROZEN ELECTRONICS
CAROLINE AUBRY-WAKE, PhD student in hydrology

VIEWER’S CHOICE: REACHING OUT FOR PREGNANCY AND LABOUR
AYOMIKUN OLALOKU, undergraduate student in physiology and pharmacology
We live in troubled times. Across the globe certain countries are retrenching and turning inward, while others are turning their backs on the world’s most vulnerable citizens. In some political circles ignorance and deceit are paraded as virtues.

It can be refreshing, therefore, to reflect on the contributions of Evelyn Potter of Biggar, Sask., a woman who built relationships and laid the foundation for cross-cultural understanding across social, economic, and political divides.

Now showing at the Diefenbaker Canada Centre at the University of Saskatchewan (USask) until the end of June, China Through Saskatchewan Eyes: Evelyn Potter’s 1971 Journey, features a sampling of more than 1,150 photographs taken by Potter, when she was one of two Canadian “peasant” representatives on a historically significant delegation to China. Co-curated by Potter, Dr. Liang Zhao (PhD), a professor at Sichuan University (China), and Dr. Keith Thor Carlson (PhD), a USask history professor, the exhibit’s evocative pictures of city, farm, school, family and factory life provide an intimate view of Chinese society at the mid-way point of the Great Proletarian Cultural Revolution.

Cold War tensions had isolated communist China from the western world in the 1950s and 1960s. In 1959 and 1960 China suffered successive agricultural calamities, while innovations in Canada caused grain production to soar. Prime Minister John Diefenbaker’s government saw this overabundance of Canadian wheat as both a humanitarian and economic opportunity to open the doors of trade with China. Relations between Canada and China matured throughout the 1960s, and by 1963 China had become Canada’s second largest overseas market for wheat.

In 1971, following the opening of formal diplomatic relations, the first Canadian delegation (led by University of British Columbia faculty) travelled to China to promote cultural exchange and understanding. However, a mere month before, the trip had almost been cancelled when the Chinese government discovered that there were no farmers in the group. The Chinese demanded that a “peasant” representative be included, and the delegation’s organizers turned to Potter, the first female president of the recently created National Farmers’ Union (NFU).

As the leader of a volunteer organization dedicated to preserving small-scale farming, Potter was especially interested in learning “how the Chinese [were] so successful at involving people in similar organizations.” She was also intrigued by the stories she had heard of “people working together” in Chinese communes. Potter agreed to join the delegation, and her participation was significant in motivating a series of subsequent Canada/China farmer-peasant exchanges organized through the NFU and the Canadian co-operative movement.

The exhibit offers glimpses into Potter’s experiences and perspectives, as revealed in the images captured through her camera lens. Further, these pictures serve to remind us of the ongoing importance of Canada’s farm communities and agricultural sector in opening and shaping modern relations with the People’s Republic of China. While the photos in the exhibit are of China, in many ways the story is about Potter, a Saskatchewan farmer who played a significant role in building awareness and understanding between the politically divided East and West.

Teresa Carlson is the curator of the Diefenbaker Canada Centre at the University of Saskatchewan.
Huskie star Labach’s career is right on track

By: JAMES SHEWAGA

She has earned a place in Huskie Athletics history, joining the likes of the legendary Diane Jones Konikowski, Taryn Suttie and Kelsie Hendry, who all went on to become Olympians.

And after completing a remarkable record-setting track and field career during her five years at the University of Saskatchewan, Julie Labach hopes to be the next Huskie athlete to compete for Canada.

“I would say for most athletes, the Olympics is the ultimate goal, and it would be really special, definitely,” said Labach, a 22-year-old hometown star from Saskatoon. “I haven’t had the opportunity to be on the national team yet, so that is the next big goal.”

Labach, who was named Huskie Athletics female athlete of the year in both 2019 and 2018, capped her U Sports career in award-winning fashion this year, setting two Huskie records and racing into the national spotlight by being named female track athlete of the year in Canadian university sports.

“It was such a lovely way to end off my last year and I definitely didn’t expect to win the U Sports award, so that was really special,” said Labach, who set Huskie records in the 600 metres (a record that had stood since 1984) and the 1,000 metres, after completing a full course load in each of her first four years, while competing for the Huskies in both track and women’s soccer—suiting up with her sister Ally.

Labach completed her Bachelor of Commerce degree in the Edwards School of Business on the Dean’s Honour Roll last spring with a superb 89 per cent academic average, and is now in law school at USask, hoping to earn her fifth straight Academic All-Canadian award this year.

“Definitely it’s always a goal of mine,” she said. “School always comes first and if I ever felt like my grades were being compromised, that was when it was time to step away and focus on academics first. It’s definitely busy and requires lots of time management. But when I am in school, I really love what I am doing, and when I am at track I really love what I am doing as well. So, when you enjoy it, it doesn’t feel like work.”

In one of her interesting academic projects, Labach took part in the 2018 Undergraduate Project Symposium hosted by the University of Saskatchewan Students’ Union, placing second with her study of how American President Donald Trump’s tweets affect the stock market.

“It was part of my honours project in behavioural finance, so it was a very interesting topic,” she said. “There was so much data to study, in the future it could make a really interesting master’s or PhD project.”

Reindl said Labach’s commitment to both academic and athletic achievement—juggling a full class schedule with training six days a week—made her the ideal role model for her young Huskie teammates.

“Being able to balance all those time-consuming elements just shows the quality of person that she is,” he said. “Julie has found a way to do it throughout her career and she is a prime example that you can be successful in every aspect of your student-athlete career here.”

So, what’s next for Labach? She wants to earn a law degree and practice corporate/commercial law one day, as well as compete internationally in track. She is a candidate to represent Canada in the Summer Universiade from July 3-14 in Naples, Italy, and to race in the Pan American Games starting July 26 in Lima, Peru. Labach also hopes to make the national team for the world track and field championships that open Sept. 27 in Doha, Qatar, to set up a possible run to the 2020 Summer Olympics in Tokyo.

“It will be a busy summer if all goes well,” she said. “But I am really looking forward to it.”

HUSKIE HONOURS:

Other Huskie year-end award winners were: men’s hockey goalie Taran Kozun (Male Athlete of the Year); quarterback Kyle Siemens (All-Around Male Athlete); wrestler Logan Sloan (Male Rookie of the Year); soccer midfielder Payton Izsak (Female Rookie of the Year); Labach (All-Around Female Athlete); wrestling coach Daniel Olver (Coach of the Year); and top student trainers Brianna Antonichuk (women’s soccer) and Melinda Ardagh (women’s basketball).
The Murray Library at the University of Saskatchewan (USask) recently received an infusion of colour and creativity, courtesy of senior art students from Saskatoon’s Marion M. Graham Collegiate.

The art exhibit is part of the Secondary School Art in the Library (SSAIL) initiative, a partnership between the Department of Art and Art History, Student Recruitment, and the University Library, which began in September 2015. SSAIL introduces students from a local high school to art and art history offerings at USask and provides them with the opportunity to showcase their finished pieces at the library.

Each fall, Student Recruitment, and the Department of Art and Art History, connect with a local high school art teacher who has expressed interest in the project. Workshops are offered to the high school art class to help the students develop their skills and to promote USask’s visual arts programs. The students create a piece of artwork during the fall semester that is of importance or meaning to them and provide a reflection to accompany their piece.

“SSAIL is a wonderful opportunity for prospective students to connect with USask,” said Alison Pickrell, assistant vice-provost, strategic enrolment management. “Students learn about the opportunities to study art at USask and also the important learning supports that the University Library offers.”

“The response to SSAIL from our partners, visitors to the library and our employees has been exciting,” said Christine Drever, Murray Library operations manager. “We are very proud to present the work of these talented art students to our one million visitors.”

The artists were honoured at a reception in March at the Murray Library and their framed works were unveiled on the first floor, where they will be displayed until December.

Sean Conroy is the communications officer for the University Library.
HUSKIE SALUTE

From left, athletes Kyle Siemens (All-Around Male Athlete), Julie Labach (Female Athlete of the Year, and All-Around Female Athlete), Payton Izsak (Female Rookie of the Year), Logan Sloan (Male Rookie of the Year) and coach Daniel Olver (Coach of the Year) were honoured at the Huskie Salute year-end awards banquet on March 29.
The University of Saskatchewan marked its 90th anniversary with a special convocation ceremony and a historic sod-turning event for Nobel Plaza 22 years ago.

Held 90 years after the foundation of the institution on April 3, 1907, the university awarded nine honorary doctorates at a ceremony in Convocation Hall, and honoured its Nobel Laureate history outside the doors of what is now the Peter MacKinnon Building. The sod-turning event marked the ceremonial start of construction on the new plaza built in honour of former University of Saskatchewan professor Dr. Gerhard Herzberg (PhD) and USask graduate Dr. Henry Taube (PhD).

Taube, who passed away in 2005, earned a Bachelor of Science in 1935 and a master’s in 1937 at the University of Saskatchewan. The native of Neudorf, Sask., went on to work at Stanford University and was awarded the Nobel Prize in Chemistry in 1983. Herzberg, who passed away in 1999, escaped Nazi persecution and emigrated to Canada in 1935 and spent the next 10 years teaching at the University of Saskatchewan. He later moved on to do research in Ottawa and Chicago and was awarded the 1971 Nobel Prize in Chemistry. Interestingly, Taube studied under Herzberg during his time on campus, with both later receiving honorary degrees from the university.

At the Nobel Plaza sod-turning event in 1997, Herzberg’s daughter, Dr. Agnes Herzberg (PhD), recounted that her father often told her that his time at the University of Saskatchewan was “the best 10 years of his life.” Agnes Herzberg earned her master’s and PhD in mathematics and statistics at USask and also received an honorary degree in 2018.