

July 2018 - Issue #7

Discovery Digest

Highlights of U of S research news

In this issue: U of S researchers win major national health research funding, major social sciences and humanities funding, national and international accolades, and much, much more...

Each month, U of S Research Profile and Impact assembles a selection of research stories from across campus. It's a glimpse into how U of S research, scholarly and artistic work is making a difference for Saskatchewan, Canada, and the world.



[U of S awarded \\$2.4M for Indigenous health care, stroke recovery, and cancer research](#)

The Canadian Institutes for Health Research (CIHR) have awarded more than \$2.4 million to **Dr. Alexandra King**, **Prof. Linda Chelico**, and **Prof. Phyllis Paterson** for four University of Saskatchewan (U of S) research projects, including two Indigenous health initiatives. [Read more here.](#)



[Nine U of S projects awarded almost \\$1M in SSHRC Insight Grants](#)

Nine U of S projects have been awarded a total of \$897,000 by the Social Sciences and Humanities Research Council of Canada (SSHRC) to conduct research ranging from engaging parents in schools, to investigating how and when women decide whether or not to delay motherhood, to examining the wider social and economic impacts of moving to renewable energy systems. [Read descriptions of each project here.](#)



SHRF funding boosts U of S research

U of S researchers have been awarded \$2 million in grants from the Saskatchewan Health Research Foundation for research ranging from a pilot program to help Indigenous cancer patients navigate a complex Saskatchewan health system to using the Canadian Light Source to analyze the airway of lung transplant swine models to better understand organ rejection.

[Nine researchers were awarded SHRF Establishment grants totalling \\$1.04 million](#), and eight post-doctoral fellows received \$800,000 in research fellowships. [Six U of S researchers in respiratory health were awarded a total \\$150,000](#) in Inspire awards funded jointly by SHRF and the Lung Association, Saskatchewan.

In the spotlight



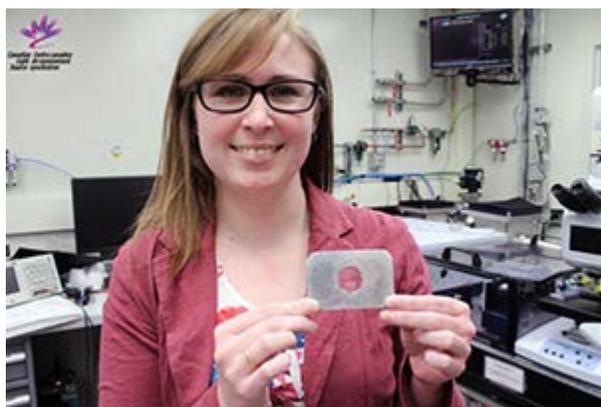
[U of S researcher Ingrid Pickering named CFI board chair](#)

Geological sciences professor **Ingrid Pickering**, Canada Research Chair in Molecular Environmental Science and acting vice-dean of research, scholarly and artistic work for the College of Arts and Science, is the first woman ever appointed chair of the board of directors of the Canada Foundation for Innovation (CFI), an independent organization that invests in leading-edge infrastructure that researchers across Canada need to advance research and innovation.



[U of S engineering dean awarded national fellowship](#)

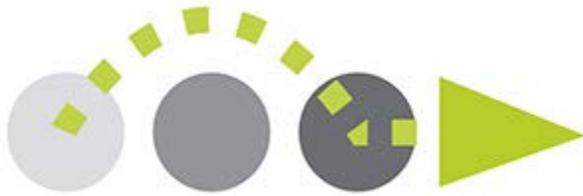
College of Engineering dean **Suzanne Kresta** is one of 59 new Fellows inducted into the Canadian Academy of Engineering (CAE), the national institution through which Canada's most distinguished and experienced engineers provide strategic advice on matters of critical importance to Canada. New fellows are nominated and elected by their peers to Fellowships, in view of their distinguished achievements and career-long service to the engineering profession.



[U of S grad student recognized on international Periodic Table of Younger Chemists](#)

U of S chemistry doctoral student **Kelly L. Summers** has been selected by the International Union of Pure and Applied Chemistry (IUPAC) to represent Copper (Cu, element 29) on the Periodic Table of Younger Chemists. In celebration of the International Year of the Periodic Table and IUPAC's 100th anniversary, the table of younger chemists honours outstanding chemists from around the world. [Read more here](#)

Commercialization



[USask launches “Fast License” program to speed commercialization](#)

The University of Saskatchewan’s [Innovation Enterprise](#) is making it easier for companies to commercialize technologies that university researchers develop. By making available a succinct, simple summary of key business terms, and a full license contract, a [USask Fast License](#), can be acquired in a fraction of the time of traditional licensing processes. The regime features attractive terms such as exclusivity with no restrictions on territory or field of use, attractive royalty rates and full rights to sub-license, and accommodating diligence requirements.

Indigenous Research



[U of S professors launch Indigenous history website](#)

Indigenous studies professors **Robert Alexander Innes** and **Winona Wheeler** have collaborated with other Canadian academics to launch [Shekon Neechie: An Indigenous History Site](#), a new website dedicated to Indigenous history, and serve on the site’s managing board with Indigenous researchers from York University and universities of Guelph, Toronto, Ottawa, and Winnipeg. The site is meant to serve as “a venue for Indigenous historians to gather as an e-community and share their ideas or works in progress.” The site states that the term “historian” is broadly defined to include people who research and present Indigenous histories in essays, stories, photographs, videos, podcasts or through other means, and whose work is based in oral history and traditions, archival research, archaeology and material interpretation.

Health Research



[U of S College of Medicine granted full accreditation](#)

After a full-site accreditation visit by the Committee on Accreditation of Canadian Medical Schools (CACMS) in Fall 2017, U of S's medical school has achieved full accreditation of its undergraduate program. In addition to an improved admissions process, new curriculum, new facilities, and doubled faculty engagement in teaching, there has been more than a doubling of Canadian Institutes for Health Research (CIHR) funding, and recruitment in key positions such as Cameco Chair in Indigenous Health and the Saskatchewan Chair in Multiple Sclerosis Clinical Research.



[U of S researchers win award for work on patient safety](#)

Anesthesiology residents **Stefan Kojic** and **Fabio Magistris** have been awarded the *Ian White Patient Safety Award* from the Canadian Anesthesiologists' Society (CAS) for their research on potential damage caused by an artificial airway with balloon-like cuffs that provide a seal to anesthetized patients' airways. The researchers found most patients in the study had airway cuff pressures outside of the safe range, leading to an increased risk of permanent airway damage.



[Reduced oxygen may hold key to spinal cord recovery](#)

U of S researchers **Valerie Verge** and **Gillian Muir** are optimistic about the results of a study involving rats with partial spinal cord injuries who were repeatedly exposed to low levels of oxygen and provided rehabilitative training. The treatment, called acute intermittent hypoxia (AIH) therapy, saw rats who received both AIH and rehabilitative motor therapy had markedly improved functional abilities compared to rats that received only the motor therapy. Their findings just published in [PLOS ONE](#), hold promise for recovering functionality from a range of injuries and conditions that affect the human nervous system.

Water Security Research



[Water security documentary to be broadcast in North Carolina](#)

A documentary produced by Global Institute for Water Security and Media Production, [The Changing Climate and Environment of Western Canada](#), has been licensed to [University of North Carolina at Charlotte Television \(UNCCTV\)](#) public access channel for broadcast. The 35-minute documentary featuring many U of S water security researchers will air three to four times a week to viewers across UNC Charlotte campus and 500,000 households in the county this summer, and regularly over the next five years. The documentary focuses on Western Canada's rapidly changing cold interior and how the climate and environment have changed and will continue to change until the end of the 21st century. [You can watch it right now.](#)



[Nature can heal itself after an oil spill, it just needs a little help](#)

Writing in [The Conversation Canada](#), soil scientist and NSERC/COOP Industrial Research Chair in In Situ Remediation and Risk Assessment **Steven Siciliano** argues that moving oil across the Rockies is dangerous, and no matter the safety precautions, spills will sometimes occur. Cleaning the soil afterward is difficult, expensive and time-consuming -- why not nudge the natural soil ecosystem to clean itself?



[How to fight desertification and drought at home and away](#)

Writing in [The Conversation Canada](#) and in *The National Post*, GIWS Professor **Andrew Slaughter** outlines how a growing human population and runaway consumption are putting unsustainable pressures on the natural resources we depend on for survival. Slaughter argues that better water resource management to help agriculture adapt is part of the solution.



[How to show consumers the benefits of genetically modified foods](#)

Despite the lack of scientific evidence to suggest genetically modified foods are less safe than conventional foods, previous studies have shown that consumers are reluctant to fully embrace them and are wary about the technology that produces them. **David Di Zhang**, Edwards School of Business management and marketing professor, writing in [The Conversation Canada](#) with **Grant Wilson**, also of Edwards, argue that promoting direct benefits to consumers could shift attitudes.



[Toxic leftovers from Giant Mine found in snowshoe hares](#)

Writing in [The Conversation Canada](#), toxicology researchers **Som Niyogi** and **Solomon Amuno** examine the long environmental legacy of the Giant Mine, closed decades ago, on the outskirts of Yellowknife. Snowshoe hares living near the former mine show levels of arsenic 20 to 50 times that of hares living 20 kilometers away. It's the first time small mammals with chronic arsenic poisoning have been seen in Canada.

[Write about your own research in The Conversation](#)

Want to reach a broad audience with your research? Consider submitting an item to the Conversation, an academic journalism hub of which U of S is a co-founding member. [Read more here](#) or [get in touch with Sarath Peiris](#).

Young Innovators



[U of S research team aims to develop salmonella vaccine](#)

PhD student **Akosiererem Sokaribo** has genetically modified a salmonella strain to generate a new variant that produces high quantities of the vaccine antigen, a molecule that induces immune responses to the bacteria. Currently being tested in animal models, the vaccine shows promise because it relies on an antigen common to salmonella strains that cause gastroenteritis (of which there are 1,500 varieties) and can be purified in large quantities. [Her work is featured in *The Young Innovators* series, a partnership with *The Saskatoon StarPhoenix*.](#)

A Green and White Globe



New Director of International Research

Meghna Ramaswamy, has just been named Director of International Research in the Office of the Vice-President Research. Ramaswamy has a PhD in Clinical Infection from University College London, England, and comes to U of S from London, where she led the Centre for

AIDS Reagents, the only HIV Reagent Repository in Europe, at the National Institute of Biological Standards and Control, in the UK.

Ramaswamy will lead a team that will implement the U of S strategic vision for internationalization in both research and development, while **Jim Lee**, Executive Director of International, will oversee international partnerships, visiting delegations, and institutional memberships, as well as specialists responsible for China and international research partnerships.

Ramaswamy's new office is 222.1 Thorvaldson and Lee's office is located in Admin C180. Together, they will be working towards activities highlighted in the International Blueprint.

Undergraduate Research



[Mining for Data, Striking a Future](#)

Political studies undergraduate **Davis Yuzdepski** took an opportunity to work with an interdisciplinary team, analyzing data on health and wellness conditions and programs in mining through the Undergraduate Research Initiative. His experience as a student research assistant changed his entire “perspective on what research actually is.” [Read his whole story here.](#)

In the arts



[Lori Blondeau: Grace](#)

[Grace](#) is a complex survey of works by Cree/Saulteaux/Métis artist **Lori Blondeau**, U of S MFA alumna and member of the George Gordon First Nation. Throughout her career, Blondeau has produced tough, powerful female personas in her performance and photography-based practice. Her extensive body of work continues to impact and influence Canadian contemporary art. Curated by **Leah Taylor**, the exhibition runs until August 30 at the College Art Galleries.

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