



## September 2024 - Issue 80

*Discovery Digest* is a glimpse into how University of Saskatchewan research, scholarly and artistic work is making a difference for Saskatchewan, Canada and the world. Curated by the Research Profile and Impact unit, Office of the Vice-President Research. [Feedback welcome!](#)

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***Did you miss the Vice-President Research's Campus Address earlier this month? No problem! [Click here](#) to watch the recorded livestream.***

### **This Month's Stories**



#### **[USask-led international partnership for sustainability education receives unprecedented funding](#)**

**Dr. Maureen Reed (PhD)**, a professor in the University of Saskatchewan (USask) School of Environment and Sustainability (SENS), is the principal investigator on a multinational education project that received more than \$500,000 CAD from the Spencer Foundation in the United States.

Titled “Co-designing Transdisciplinary Sustainability Education,” this project is meant to offer training internationally that draws on the collective knowledge of community partners and academic researchers to support learners inside and outside of academia. The goal is to work together to address key sustainability challenges.

This is the first time that a USask-led project has received this grant funding from the Spencer Foundation.

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#### **[USask researcher empowers communities with culturally](#)**

### [rooted digital heritage project](#)

Driven by the vision of Cumberland House residents and led by **Dr. Allyson Stevenson (PhD)**, assistant professor in the Department of Indigenous Studies at USask and Gabriel Dumont Institute Chair in Métis Studies, this unique research project aims to grow dynamic partnerships with galleries, libraries, archives, and museums across the Prairies with the goal of preserving and reclaiming cultural heritage.



Stevenson's project was recently awarded just under \$200,000 over three years from the Social Sciences and Humanities Research Council (SSHRC). Stevenson and her collaborators are hopeful that this project may generate a museum tool kit and provide useful direction for other communities who are looking to establish similar historical projects or integrate historical materials back to their communities.

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### [USask researcher named co-chair of United Nations advisory board](#)

Glaciers around the world are melting at an alarming rate and their disappearance from the landscape has long-term implications for communities, ecosystems and freshwater resources.

Appointed by the United Nations Education, Science and Cultural Organization (UNESCO), **Dr. John Pomeroy (PhD)** will co-facilitate discussions on how best to move forward with awareness efforts for 2025.

Pomeroy adds the prestigious designation to his already impressive list of existing roles which includes the Canada Research Chair in Water Resources and Climate Change, UNESCO Chair in Mountain Water Sustainability, director of the Global Water Futures and Global Water Futures Observatories programs at USask and the director of USask's Centre for Hydrology.

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### [USask's cutting-edge soil science laboratory receives \\$760K](#)

USask researchers have long been innovators in soil science research and now a project to upgrade and overhaul the USask soil sciences laboratory has received funding from the Canadian Foundation for Innovation's John R. Evans Leaders Fund (JELF). The fund supports innovative research and



research infrastructure projects across the country.

**Dr. Colin Laroque (PhD)**, the head of the Department of Soil Science and a professor in the College of Agriculture and Bioresources, said this funding will help upgrade the tools and technology of the Bank of Montreal (BMO) Soil Analytical Laboratory to match the skills and expertise of the researchers at USask. The JELF funding of \$761,727 will go towards the purchase and installation of 11 new tools.

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### **USask's VIDO awarded NIH contract to develop critical models for global research**

USask's Vaccine and Infectious Disease Organization (VIDO) has been awarded a major new research contract in the global fight against infectious diseases.

VIDO has received an Indefinite Delivery/Indefinite Quantity (IDIQ) contract under the pre-clinical models of infectious disease program by the United States' National

Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health (NIH).

VIDO was one of four international awardees and the only Canadian organization selected as part of the program which further demonstrates VIDO's scientific excellence, robust quality systems and strong ethical research practices. The seven-year IDIQ contract's ceiling is \$146.3M USD.

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**Looking for more research stories? [Visit Discovery Digest online.](#)**

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### **Renowned USask researcher named Canadian Academy of Health Sciences fellow**

**Dr. Alexandra King (MD)**, an associate professor in the College of Medicine and the Cameco Chair in Indigenous Health and Wellness, was announced as a fellow of the Canadian Academy of Health Sciences on Sept. 10.



Considered one of the highest honours for Canadian health scientists, being named a CAHS Fellow recognizes excellence and leadership in advancing both health sciences and diversity, equity and inclusivity in Canada.

King is a member and citizen of Nipissing First Nation in Ontario. A specialist focusing on the care and treatment of HIV/AIDS and viral hepatitis, King came to Saskatoon and was named the Cameco Chair in Indigenous Health and Wellness at USask in 2017. She co-leads

Pewaseskwan, a Cree name gifted to researchers and collaborators for the Indigenous Wellness Research Group.

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### [New USask research into aging-related cell damage receives CIHR funding](#)

**Dr. Jeff Dong (PhD)**, an assistant professor in the Department of Biochemistry, Microbiology and Immunology in USask's College of Medicine, is exploring the mechanisms behind how cells in the brain and nervous system are damaged by age – leading to the formation of chronic lesions in the brain or the spine that are part of multiple

sclerosis (MS).

By better understanding that mechanism, Dong believes his group can learn ways to better address progressive MS, which is the type of MS that becomes increasingly debilitating with age.

The project recently received more than \$1 million from the Canadian Institutes of Health Research (CIHR) Project Grant program.

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### [USask researchers explore sustainable solutions for farmers](#)

With access to more than 800,000 acres of crop yield data from farmers' combines, **Dr. Christy Morrissey (PhD)** and her colleagues are looking to find sustainable solutions that will benefit both producers and the Prairie ecosystem.

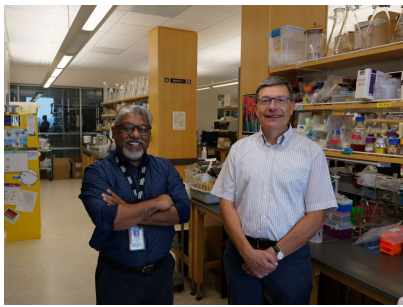


According to Morrissey, marginal lands are often not profitable to producers as they have saline, wet or dry soils and present challenges for growing crops, making turning a profit difficult to achieve. Through her research program, Morrissey and her colleagues are hoping to study the benefits in transforming these lands into systems that will help the environment and farmers' bottom line.

The project received an investment of \$3.9 million over four years from the National Sciences and Engineering Research Council of Canada (NSERC) and a Social Sciences and Humanities Research Council (SSHRC) sustainable agriculture research initiative (SARI) grant.

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### [New potential target to kill cancer cells identified by USask researchers](#)



**Dr. Oleg Dmitriev (PhD)**, a professor in the Department of Biochemistry, Microbiology and Immunology, and oncology professor **Dr. Franco Vizeacoumar (PhD)** in USask's College of Medicine were two of the authors of a research paper recently published in eLife identifying the function of a less-understood cell protein referred to as MEMO1.

As Dmitriev puts it, the team has discovered that MEMO1 binds iron and regulates iron flow in the cell. And because MEMO1 appears at high levels in triple negative breast cancer (TNBC) cells, Dmitriev said this could make iron regulation – and the MEMO1 protein – a potential target for cancer treatments.

The team used the Canadian Light Source (CLS) beamline in their research.

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### [USask recipient of distinguished award hopes to make law more accessible](#)

A schoolteacher-turned-law student who recently graduated from USask's College of Law, **Neesha Persad** has based her student career around working in the community – and has now received some prestigious commendations for it.



Persad is a 2024 recipient of the Royal Society of Canada (RSC) Justice Rosalie Silberman Abella Prize. The award is presented to a graduating student at each of Canada's 24 law schools each year, going to the student who has shown promise as a leader in the areas of social justice and equity.

Her goal is to address access to legal services comprehensively, by continuing to work and volunteer in the community with access-to-justice initiatives to help people understand how the law can be a tool to help them succeed.

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### [USask professor emerita honoured for work with Indigenous strategy](#)



### [USask historian a finalist for SSHRC Talent Award](#)



[Young Innovators: USask researchers 'beefing' up cattle with affordable, drought-proof diet](#)

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## Stay connected with USask research news



Make sure to follow the USask Research [Twitter page](#) to stay in-the-know, with exciting research news delivered right to your newsfeed. Don't forget to also follow [USask Research on LinkedIn](#), and [@VPR\\_USask](#) and [@USask](#) on Twitter for more of the latest research and university news.

Use the hashtag **#USaskResearch** when sharing USask-related research findings, publications or achievements on social media.

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## Upcoming events



### Registration is now open for the People Around the World (PAW) 2024 International Congress

USask is proud to be hosting the 6th annual PAW 2024 International Congress, October 16 – 18. PAW 2024 International Congress aims to advance USask's internationalization efforts in global research, sustainable partnerships and collaborative projects with partners around the world. This year's congress will explore the theme of the Food-Water-Energy nexus, using data as a cross-cutting concept to help address socio-cultural challenges occurring locally and globally. Bringing together experts and innovators, this event aims to share insights and help shape the future of sustainable solutions.

- PAW 2024 International Congress – October 16-18, 2024. To learn more and register, click

[here!](#)

## Mendel International Lecture with Dr. Frederick Mulder

USask graduate and honorary degree recipient Dr. Frederick Mulder (BA'64, LLD'17) will share his personal journey from the prairies to Picasso during the Mendel International Lecture at Remai Modern on Sept. 29. Mulder, who is originally from the small community of Eston, Sask., is known as one of the world's foremost dealers in the prints of Pablo Picasso and other Modern masters, and his clients have included many of the world's major museums. At the upcoming lecture, titled "A Kid from the Prairies: how Remai Modern came to have the world's greatest collection of Picasso linocuts, and other tales," Mulder will discuss how he put together the unique collection of linocuts in Remai Modern's collection, as well as the importance of the collection and its place in history.



- Mendel International Lecture with Dr. Frederick Mulder – Sept. 29, 6:00 p.m. –Remai Modern. Register at the [link here!](#)



## Participate in USask's inaugural One Health Symposium

The One Health Symposium celebrates and highlights the outstanding One Health-based research being conducted at USask. This coming together across disciplines will serve as a forum for learning, discussion and the provoking of new ideas and collaborations. The symposium is hosted by USask's One Health Signature Area of Research, whose interdisciplinary work addresses the interconnectedness and interdependence between human, animal and environmental health.

This one-day event will be held on November 23 in USask's Health Sciences Building.

- One Health Symposium – November 23, 2024 – Health Sciences Building. Register at the [link here!](#)

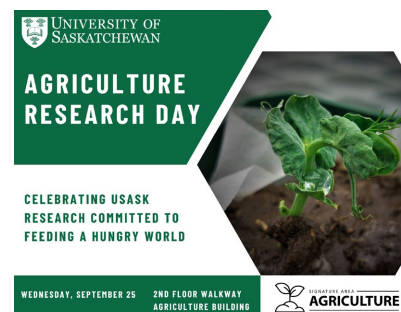
## Register for Agriculture Research Day on September 25!

Agriculture Research Day is open to all students, postdoctoral fellows, faculty, and staff conducting research in the Agriculture Signature Area at USask.

It's an excellent opportunity to practice research communication, network, and enhance your CV, all while promoting the diversity of agriculture research across campus.

There will also be cash prizes for the best posters and poster presentations!

Register by September 18, 2024 at [the link here](#) to be part of the poster presentation.



- Agriculture Research Day – September 25, 2024 – Agriculture Building 2nd Floor
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**Have a research event to share? Email [research.communications@usask.ca](mailto:research.communications@usask.ca) with the subject line "Discovery Digest - Event" and let us know!**

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## **NEW - Information for researchers**



### **How to access Saskatchewan health data for research**

The Health Research Data Platform - Saskatchewan (HRDP-SK) is the province's first fully integrated multi-agency data access platform for health research.

Over the last several years, the HRDP-SK team has worked with health system partners to create a streamlined, transparent process to support researchers with access to health data. USask employees have collaborated nationally to further support inter-jurisdictional research via the Health Data Research Network Canada (HDRN Canada). This event will help you learn how to access health data to support your research projects.

Join this session to find out how you can use health data in Saskatchewan and across Canada through HRDP-SK and HDRN Canada. You can learn more at the [link here](#).

- Information session – Sept. 26, 2:30-3:30 p.m. – Health Building 1130
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### **Submitting to Discovery Digest**

If you would like to submit a research-focused event or news item for consideration for Discovery Digest, please submit a link and a description of no more than 150 words to [research.communications@usask.ca](mailto:research.communications@usask.ca) with the subject line "Submission – Discovery Digest," along with the month and year you are submitting for.

Please indicate whether your submission is a recommendation for a news item, event or information for researchers. If you would also like to submit a photo, please make sure it is a 3:2 aspect ratio image.

The Discovery Digest goes out on or as close to the 15th of each month as possible. **Please ensure any submissions are sent in by at least the 8th of each month to be considered for inclusion.**

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### ***In the news***

- September 11 – BBC News – [What Western medicine can learn from the ancient history of psychedelics](#)



- September 9 – SciTechDaily – [Frozen in Time: Scientists Discover 45-Million-Year-Old Ancient Walnuts on Remote Arctic Island](#)
  - September 5 – Toronto Star – [Drones helped in big Vancouver arrest. It's time for policy scrutiny, researchers say](#)
  - September 2 – CBC News – [For long-haul truckers, quality rest areas are a matter of life and death](#)
  - August 29 – CBC News – [Gene project to help wood and plains bison underway in Sask.](#)
  - August 26 – Saskatoon StarPhoenix, Regina Leader-Post – [Sod-turning held for new Sask. Polytechnic campus in Saskatoon](#)
  - August 25 – SciTechDaily – [Mini-Brains Built From Blood: "Crazy Idea" Could Revolutionize Alzheimer's Treatment](#)
  - August 22 – The Western Producer – [Research goes molecular on potash clumping](#)
  - August 20 – Global News – [Where are the bees? How Saskatchewan finds itself in a honey shortage](#)
  - August 18 – Yahoo! News, CBC News – [With a Saskatchewan provincial election just months away, experts warn about putting faith in a single poll](#)
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Banner image photo credit: **Family of Fungi** - by **Olivia Yurach**, MSc student, Department of Soil Science, College of Agriculture and Bioresources

Images of Research 2024 - *Winner, From the Field*

In northern Saskatchewan, ecological restoration research is seeking to understand recovery post-disturbance. These mushrooms were spotted while collecting blueberry seeds for propagation so we can study the role moss and blueberries have on boreal soil systems.



BE WHAT THE WORLD NEEDS

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**We want your feedback! [What do you think of Discovery Digest?](#)**

You are receiving this email because you are a student, faculty or staff at USask. Questions? Comments? Send an email to [Research Profile and Impact](#).

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