



August 2025 - Issue 91

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!](#)

You're Invited – Vice-President Research 2025-26 Campus Address



Join Vice-President Research, Baljit Singh, to kick off the 2025-26 academic year by celebrating momentum, identifying opportunities and setting goals surrounding research, scholarly and artistic work (RSAW) at USask! Attendees are encouraged to enjoy cake and socializing following the formal program.

A live stream option is also available.

Learn more and register [here!](#)

- Campus Address – Wednesday, Sept. 3, 2025, 12:00pm – Convocation Hall

NEW - USask Signature Series Podcast



World-leading research and innovation - right in the heart of Canada.

The [USask Signature Series Podcast](#) explores the cutting-edge research taking place at USask across the university's Signature Areas of Research.

Listen today! Streaming online or wherever you get your podcasts.

- Episode 1: [Are your pets good for your health?](#)
- Episode 2: [How will Saskatchewan lead the energy transition?](#)
- Episode 3: [How will quantum technology change our lives?](#)

- Episode 4: [What makes Saskatchewan farmers so efficient?](#)
- Episode 5: [What should we know about our changing waterscapes?](#)
- Episode 6: [How does the synchrotron advance innovation?](#)
- Episode 7: [How do we create a sustainable built environment?](#)
- Episode 8: [How have we seen trust in science, academia and public health change?](#)

This Month's Stories



[USask appoints Dr. Vince Bruni-Bossio as 12th president and vice-chancellor](#)

Dr. Vince Bruni-Bossio (PhD) has been appointed as the 12th president and vice-chancellor of the University of Saskatchewan (USask) for a five-year term beginning on January 1, 2026.

A skillful educator, Bruni-Bossio received Canada's most prestigious teaching award, the 3M National Teaching Fellowship, in 2022, along with numerous teaching accolades at USask. He has been a faculty member in the Edwards School of Business since 2012.

"During my time at USask, I have come to know the university as an exceptional place, indeed, among the best post-secondary institutions in Canada," said Bruni-Bossio, who has an MBA from the Edwards School of Business and a PhD from Johnson Shoyama Graduate School of Public Policy. "I am privileged to be a part of a community of scholars, researchers, educators, students and staff who will work together to build on USask's outstanding accomplishments and reputation."

[USask researcher explores AI attitudes and digital evolution](#)

A USask researcher is tackling the complexity of technological advancements like AI and investigating how digital businesses respond to changes, in two research projects funded by the Social Sciences and Humanities Research Council of Canada (SSHRC).



With the 2025 SSHRC Insight Development Grant, **Dr. Shan Wang (PhD)**, professor in management information systems at USask's Edwards School of Business, is observing AI-powered innovations in fitness apps and how users respond to AI-driven fitness programs.

In her study, Wang is assessing how users respond to different AI fitness apps, measuring how users' needs, like exercise goals or social interaction, are satisfied by these apps.



[USask researcher uses honey bees to study fetal alcohol spectrum disorder](#)

Bees share a surprising number of similarities to humans, in both their biology and their social structure. **Dr. Sarah Wood (DVM, PhD)**, associate professor at USask's Western College of Veterinary Medicine (WCVN), believes that because of these similarities, honey bees can be used as a model to study the effects of fetal alcohol spectrum

disorder (FASD).

By introducing ethanol to bee larvae in their diet in the laboratory and raising them into adult bees before re-introducing them into the hive setting, researchers will study bee social

behaviours as well as the genetics of the alcohol-exposed bees to get a fuller understanding of FASD in bees as a model for humans.

The project received support from the Saskatchewan Health Research Foundation (SHRF) Establishment Grant program, intended to support early-career researchers in building their research programs. Wood and graduate student **Maria Janser** will be running the project.

[VIDO researchers building pandemic preparedness tool kit with the help of bats](#)

From the tiny bumblebee bat to the giant flying fox, there are more than 1,490 species of bats found across the globe. These diverse creatures can be spotted in the skies of every continent (except Antarctica), playing a crucial role in our ecosystems and the health of our planet.



But bats also hold deeper secrets that can help us better understand and improve our own health. By unlocking the secrets of bat genes, **Dr. Arinjay Banerjee's (PhD)** lab at USask's Vaccine and Infectious Disease Organization (VIDO) is learning how to tackle emerging viruses and help safeguard against disease outbreaks.

Banerjee and his trainees have recently published three new papers in academic journals that act as a pandemic preparedness tool kit—a body of foundational data and research that can help shape policy, better understand the immune system of mammals, and even develop prospective therapeutics that could treat diseases.



[Raising awareness of the unseen environmental impacts of floods](#)

Just recently, the world watched as many people were injured and dozens died after a torrential flood swept through a Texas town early in July.

While the immediate impact of these dangerous events is top of mind, USask researcher **Dr. Markus Brinkmann (PhD)** is raising awareness about the environmental and

health concerns that persist after flood waters recede.

Brinkmann, an ecotoxicologist and director of USask's Toxicology Centre, said the contaminants found at the bottom riverbeds in layers known as sediments, are often chemicals that we stopped using decades ago due to toxicological concerns because of their links to illness, cancer and birth defects. But when disturbed by floods, these chemicals can find their way into fields and even into our food system again.

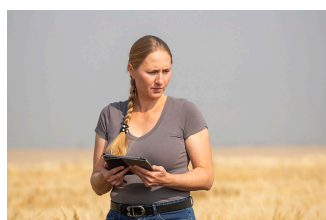
The remobilization of chemicals is a topic of interest in this year's United Nations Environment Programme (UNEP) Frontiers Report, [The Weight of Time- Facing a new age of challenges for people and ecosystems](#).

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

[Young Innovators: USask researchers giving canola producers never-before-seen insight into their crops](#)

To get a bigger picture of canola's growth cycle, USask graduate student **Hansanee Fernando** is turning her attention towards the sky, past the whips of cotton clouds, and into space, where she is harnessing satellite imagery to help canola producers monitor and grow healthy crops.

To achieve this, Fernando is collecting images from open-source satellites and using these to map large scale sections of farmland across Western Canada. While optical satellite imaging is a commonly used technique that captures clear, crisp pictures of the Earth below—like you'd see on an online map—there are certain limitations that prevent researchers from collecting certain types of data using these satellites. Fernando, instead, is using radar images on top of optical images, a promising technique in agricultural mapping that can catch complementary details over large areas of land.



[USask appoints Sask Wheat research chair to accelerate crop variety development](#)

Dr. Valentyna Klymiuk (PhD) has been appointed as the Saskatchewan Wheat Development Commission (Sask Wheat) Applied Genomics and Pre-breeding Chair at USask, supporting the development of productive, climate-smart crop varieties.

Funded by Sask Wheat, the position was established to enhance cereal research breeding and training activities in the USask Crop Development Centre (CDC) by accelerating variety development through applied genomics and pre-breeding strategies.

With a primary focus on wheat, Klymiuk's research will connect discovery research, gene bank exploration, genomics, and breeding to translate gene discovery into improved varieties for Saskatchewan's growing conditions.

[Moose on the loose: Five facts about urban wildlife around Saskatoon](#)

They're big, they're heavy, and they typically live in Northern forests. But there are still plenty of moose nearby—some even entering the city limits of Saskatoon.

Kaitlyn Harris, a USask PhD candidate in Animal and Poultry Science in the College of Agriculture and Bioresources with supervisor **Dr. Ryan Brook (PhD)**, has been studying urban wildlife in and around Saskatoon. Harris's moose research was recently published in [Alces - A Journal Devoted to the Biology and Management of Moose](#).

With 30 trail cameras over three years, Harris said she recorded 249 moose photos in Saskatoon. She noted that's not saying there's more than 200 moose in Saskatoon—the same moose could end up in multiple photos—but we share this land with some incredible (and large) animals.



[USask swine veterinarian receives Merck Veterinary Award](#)

Dr. John Harding (DVM), a USask professor, researcher and swine practitioner at the WCVN, is this year's recipient of the Merck Veterinary Award.



With more than 30 years of experience in the swine industry, his impact spans clinical practice, diagnostics, epidemiology and vaccine development.

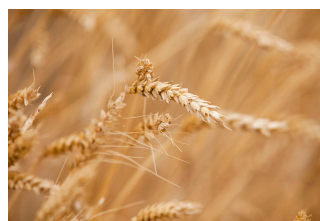
Harding was among the first to identify porcine circovirus type 2 (PCV2) as the cause of post-weaning multisystemic wasting syndrome, leading to the development of one of the most successful animal vaccines in swine medicine. His research also includes advances in the understanding of

porcine reproductive and respiratory syndrome, Brachyspira-associated colitis, and disease resilience in pigs.

Harding has played a pivotal role in veterinary education by training and mentoring more than half of the swine veterinarians practicing in Western Canada. Through his Swine Medicine Advancement, Recruitment and Training (SMART) program, he is actively addressing the shortage of swine veterinarians in the country.

[GIFS at USask receives \\$1.6 million investment from PrairiesCan](#)

The Global Institute for Food Security (GIFS) at USask has received a \$1.6 million investment from PrairiesCan to support a genomic selection-based accelerated breeding program.



The funding was part of a \$4.6 million announcement to support multiple initiatives within Saskatchewan's agriculture sector. The announcement was made by the Honourable Eleanor Olszewski, Minister responsible for Prairies Economic Development Canada (PrairiesCan).

GIFS is developing a genomic selection-based accelerated breeding program that will extend advanced breeding capabilities to companies and breeding organizations, bringing higher-yielding and higher-quality livestock, pulses, and other crops to market quicker. This investment builds on previous support to GIFS, including \$2.5 million in 2022 which helped build Canada's only biomanufacturing facility advancing sustainable agriculture and innovative food ingredients.



[What Dr. John Campbell has learned about beef cattle health in 30 years](#)



[USask scientists explore tiny crayfish's big impact on environment and other animals](#)



[USask and Muskeg Lake Cree Nation sign MOU](#)

Stay connected with USask research news

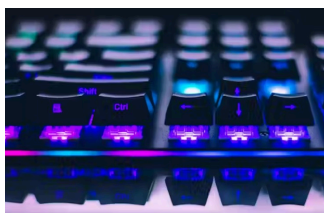


Make sure to follow the USask Research [Twitter/X page](#) to stay in-the-know, with exciting research news delivered right to your newsfeed. Don't forget to also follow USask Research on [LinkedIn](#), and [@VPR_USask](#) and [@USask](#) on Twitter/X for more of the latest research and university news.

USask Research also has a new Instagram page! Follow [@usaskresearch](#) for research-related news, features, events and more happening at USask.

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

In The Conversation



[Censoring video games with sexual content suppresses the diversity of human desire](#)

By: **Dr. Jean Ketterling (PhD)**, Women's and Gender Studies Program; **Dr. Ashley ML Guajardo (PhD)**, New York University; **Dr. Carl Therrien**, Université de Montréal; **Kenzie Gordon**, University of Alberta

Following a campaign by Australian anti-porn organization Collective Shout, the video game distribution platforms Steam and itch.io recently made changes to their policies about hosting games with adult themes.

The battle over NSFW content is provoking concern about censorship and threatening game makers' livelihoods. As game studies scholars who focus on sex, sexuality, gender and sexual violence, the authors of this article are concerned about censorship campaigns that target pornography, and the knock-on effects on queer creators and sexual education content.

Being involved in *The Conversation* is a unique and renowned avenue for sharing research and study with both colleagues and the public. We strongly encourage researchers to explore *The Conversation* as a way to share and distribute their expertise! Feel free to reach out to research.communications@usask.ca if you have questions.

Upcoming events

People Around the World (PAW) Conference 2025

Join local and international experts as they explore creative and accessible solutions to support planetary health.



PAW 2025 is bringing together experts in health, environmental sciences, sustainability, food, energy and water, digital technologies and social sciences to address the 2025 congress theme of *'Healthy people, healthy planet: Driving innovation with data.'*

Researchers, scholars, industry partners, government representatives and community partners are encouraged to attend this dynamic three-day event at USask Oct. 22-24,

2025. Student rates are available.

Learn more and [register here](#).

- PAW 2025 International Congress – October 22-24, 2025 – USask Saskatoon campus

2025 Student Undergraduate Research Experience Symposium

Announcing the return of the Research Acceleration and Strategic Initiatives (RASI) Student Undergraduate Research (SURE) Symposium!

The event is aimed at showcasing and celebrating Undergraduate Research, Scholarly and Artistic Works (uRSAW) from all disciplines. The 2025 SURE Symposium will take place at Convocation Hall on Aug. 27, 2025.

Contact undergraduate.research@usask.ca if you have any questions.

- 2025 SURE Symposium – August 27, 2025 – Convocation Hall



Information and Community for Researchers



ORCID Workshop

Our colleagues at ORCID US are hosting an upcoming ORCID Workshop for Researchers on Wednesday, Aug. 27, 2025 at 11:00am.

This free session is designed for researchers whether they're brand-new to ORCID or want to get more from their record.

The timing of this workshop couldn't be better: right before the Fall semester begins, and just ahead of major funding competition cycles.

It's the perfect moment for researchers to create or update their ORCID record, ensuring they're ready for a busy season of publishing, grant applications and reporting.

We encourage you to share this invitation with your researchers, faculty and colleagues.

Register [here](#)!

If you have any important information for USask researchers, please contact research.communications@usask.ca!

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 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.**

In the news

- Aug. 13 – SaskToday – [Ottawa boosts Saskatchewan Ag industry with \\$4.2M funding](#)
- Aug. 12 – CBC News – [University of Saskatchewan names Vince Bruni-Bossio as 12th president](#)
- Aug. 8 – CBC News – [Breaking down how a massive U.S. funding cut could impact future mRNA vaccines](#)
- Aug. 5 – The Associated Press – [Frequent disasters expose climate risks to infrastructure in South Asia](#)
- Aug. 4 – Yahoo! Canada, The National Post – [Why beans can be hard to digest, and what a Sask. researcher is doing about it](#)
- July 31 – CBC Radio – [How an anti-porn lobby on payment processors censored thousands of video games](#)
- July 29 – CTV News – [U.S. billionaire backs B.C. ostrich farm as it fights to appeal avian flu cull order](#)
- July 29 – Regina Leader-Post, Saskatoon StarPhoenix, CTV News – [U of S researchers use VR to revolutionize Indigenous health education](#)
- July 26 – CBC News, CTV News – [Could honeybees help us understand FASD? This Saskatoon researcher watches hives for clues](#)
- July 15 – CBC News – [U of S researcher studies impact of wildfire smoke on songbirds](#)

Banner image photo credit: **Wînipek on the rising** - by **Lindsay Carlson**, PhD Student, College of Arts and Science

Images of Research 2025 - *Winner, Community Impact*

Nearly half a century after work began on the James Bay hydroelectric project, the Eeyou (Crees of Northern Quebec) are working to understand how hydroelectric development and the region's rapid isostatic rebound are affecting the plants and animals of their traditional territory. Spring goose break is perhaps the most important Eeyou cultural activity, and hunters have noticed a decline in waterfowl passing through each season. We partnered with land users, tallymen, and regional agencies to understand how goose habitat quality and habitat use has shifted following drastic changes to the bay. Cree land user, Dwayne Wistchee, keeps his boat in deeper water while I sample intertidal vegetation used by staging waterfowl on a rising tide.



BE WHAT THE WORLD NEEDS

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

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