

July 2025 - Issue 90

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!](#)

Do you have an idea worth spreading? Apply to speak or perform at TEDxUniversityofSaskatchewan 2026!



From untapped sustainability solutions and new healthcare interventions to the power of art and the future of social change, addressing the challenges of tomorrow means taking the ideas of USask researchers, scholars and artists to the edge of possibility.

The TEDxUniversityofSaskatchewan 2026 theme of 'Exploring the Edges' calls for a celebration of the boundary-pushing, hope-inspiring work that is courageously building a better world for all. Faculty, staff, students and alumni ready to share discoveries, ask questions and explore the future of ideas worth spreading are encouraged to apply to speak or perform at the 2026 event.

For full details and to submit your application, [click here](#). Applications are due July 31 (4pm CST).

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.

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- 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?](#)
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This Month's Stories



[USask races past campaign goal to raise close to \\$571 million](#)

The Be What the World Needs Campaign—the largest fundraising campaign in Saskatchewan’s history—crossed the finish line in June. Together, alumni, individuals, and corporate donors have helped the University of Saskatchewan (USask) surpass its audacious \$500-million goal, reaching a grand total of \$570,739,155.

“This campaign is already transforming our university, and its impact will be felt for generations to come,” said USask President **Peter Stoicheff**. “USask helps drive the economy of our province and our nation. Thanks to this highly successful campaign, our students will see expanded opportunities to make a difference in Saskatchewan and around the globe.”

[USask achieves high marks in international university rankings](#)

USask is recognized around the world as a top-calibre research institution – and that reputation was recently reflected in two international university rankings recently announced.



USask ranked 378th in the world out of more than 1,500 considered institutions in the 2026 QS World University Rankings, a system that uses data points to rank universities through five main indicators: Research and Discovery, Employability and Outcomes, Learning Experience, Global Engagement, and Sustainability.

The university also achieved high marks in the Times Higher Education (THE) Impact rankings, which measures institutions against the Sustainable Development Goals (SDGs) set out by the United Nations as necessary for prosperity and global partnership among all countries in the world. USask ranked in the top 100 schools globally in three SDGs: Life Below Water (50th), Sustainable Cities and Communities (55th), and Partnerships for the Goals (81st).



Three USask students recognized nationally with Vanier scholarships

The Vanier Canada Graduate Scholarships are among the most prestigious awards for doctoral students in Canada, offering \$150,000 over three years to support world-class research, academic excellence and leadership.

USask is proud to celebrate three exceptional doctoral students who have been awarded 2025 Vanier scholarships: two funded by NSERC and one by SSHRC.

“We are incredibly proud of our Vanier scholars and the remarkable contributions they are making in their fields,” said **Dr. Debby Burshtyn (PhD)**, dean of the College of Graduate and Postdoctoral Studies. “USask is very fortunate to attract these research leaders to our graduate programs.”

Anna Gibson, Jeremy Irvine and **Jinnath Rehana Ritu** were the recipients of Vanier scholarships at USask this year.

USask community research uses virtual reality for Indigenous health education

Dr. Soo Kim (PhD) and **Dr. Stacey Lovo (PhD)** with the School of Rehabilitation Science in USask’s College of Medicine have received \$250,000 from the New Frontiers in Research Fund (NFRF) to develop new virtual reality (VR) resources to enhance health science education for Indigenous communities.



In partnership with community members in Whitecap Dakota First Nation, the research team led by Kim and Lovo will co-create multiple VR resources with Indigenous youths. In discussion with communities, Lovo and Kim noted gaps in the way health science education is provided in Indigenous communities – including a lack of traditional cultural knowledge as

part of the curriculum and access for remote communities.



[USask research explores how wildfire smoke impacts bird physiology](#)

An assistant professor of biology in USask’s College of Arts and Science, **Dr. Catie Ivy (PhD)**, is leading a new research project that will examine the physiological effects of smoke intake on songbirds.

While they don’t think that one large wildfire event would cause serious smoke-related issues for birds, Ivy said the concern comes from repeated events and repeated exposure. If prolonged smoke exposure is affecting birds’ physiology, it could alter whether or not birds are able to migrate, which could also affect bird populations if young birds are unable to make the trip.

"It’s important for us to know because we can be cognizant of why population declines might be happening, or why we might expect declines," Ivy said. "Even being able to say the magnitude to which (smoke) stresses birds is important."

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

[Fedoruk Centre at USask announces new executive director](#)

The Sylvia Fedoruk Canadian Centre for Nuclear Innovation Inc. (Fedoruk Centre) at USask is pleased to announce that **Dr. Jeter Hall (PhD)** is joining the organization as executive director, effective July 2, 2025.

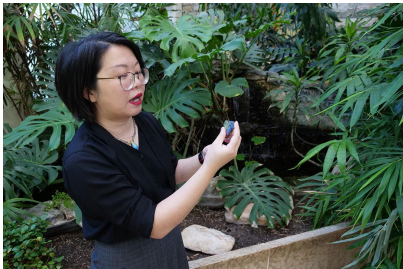


Hall, the former director of research at SNOLAB, will step into the new role in the Fedoruk Centre following the planned departure of long-serving Executive Director **Dr. John Root (PhD)**.

Since 2017, Hall has been a leader at one of Canada’s premier facilities for astro-particle research, heading the research group, project management office and scientific support team to ensure the lab’s science program continues the tradition of world class research.

[USask researcher uses laser and diamond technology to simulate meteorite impacts](#)

Impact craters are commonly seen on rocky planetary bodies throughout our solar system, like the Earth, the moon and



Mars. **Dr. Tianqi Xie (PhD)** began her PhD study examining the rocks from Mistastin Lake impact structure in Labrador. She mainly focused on the changes in feldspar, one of the most common minerals not only in the Earth’s crust but also seen on the moon and Mars. Now an assistant professor in the USask Department of Geological Sciences, Xie continues her research using ultra-advanced synchrotron X-ray and lasers to simulate the conditions of impact events and study how the impact brings changes to feldspar.

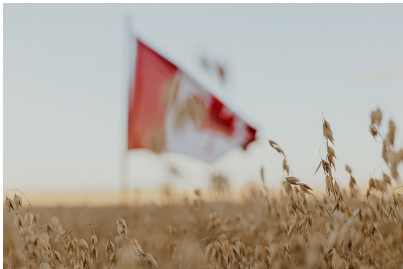
Young Innovators: USask researchers highlight the healing power of nutrition for long-term care patients

Over the next several decades, cases of dementia are expected to increase globally. In Canada, The Alzheimer Society predicts that by 2050, more than 1.7 million people will be living with this complex medical condition.



USask master’s student **Heather Alford’s** research tackles some important challenges that many families will face in the future, offering a framework to help navigate a dementia journey.

Through her graduate work at the College of Pharmacy and Nutrition, Alford has been investigating how families use food and mealtimes to maintain connections with their loved ones in long-term care. She is also focused on how family involvement promotes better health outcomes for people living with dementia.



GIFS at USask study shows Prairie farmers producing lowest carbon intensity barley and oats

A new comparative carbon footprint study of barley and oats production shows that Saskatchewan and Western Canadian farmers are producing these crops with the lowest carbon intensity relative to other jurisdictions.

The study, commissioned by the Global Institute for Food Security (GIFS) at USask, compared barley and oats produced in Saskatchewan, Western Canada, Canada and international competitors – Australia and France for barley, and Australia, Finland, Poland and Sweden for oats.

“The results from our oat and barley report further reinforce the productive sustainability of Western Canada’s cropping system,” said GIFS Chief Executive Officer **Dr. Steven R. Webb**

(PhD). “These findings are consistent with previous studies on non-durum wheat, durum wheat, canola, lentils, and field peas we announced last year. It’s a clear story of innovation—demonstrating that Canada’s advanced cropping systems continue to drive sustainable productivity.”

USask undergrad student puts community first in ecological research

Acagos Carriere is completing a Bachelor of Science degree with a focus on biomedical neuroscience. An Indigenous woman from Cumberland House, Carriere’s interest in the fishing and the water in her home community led her to connect with **Dr. Tim Jardine (PhD)** at the Toxicology Centre.



Carriere’s research explores water quality in and around Cumberland House, with a focus on testing mercury levels in the fish living in nearby waterways.

Carriere was the inaugural winner of USask’s Undergraduate Research Storytelling Competition. The competition required a pitch explaining her work and her vision for telling her research story through a specially produced video in partnership with USask’s Media Production department.



Governments of Canada and Saskatchewan Invest \$3.4 Million to Support Usask's Integrated Genomics for Sustainable Animal Agriculture and Environmental Stewardship Project



Queering the Classroom project aims to showcase student work, transform learning

Better heating method makes legumes easier to digest



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



[School lunches, the French way: It's not just about nutrition, but togetherness and bon appetit](#)

By: **Dr. Rachel Engler-Stringer (PhD)**, Department of Community Health and Epidemiology, College of Medicine

This spring, as part of a sabbatical project, I had the privilege of visiting school food programs and meeting with school

food researchers in six cities in France, England and Scotland.

I got to eat school lunches, visit central kitchens in two cities where meals are prepared for thousands of children, visit school kitchens and discuss school food with the countries' leading experts.

This visit intersects with my research with colleagues on promising food programs across Canada. This research offers insights for consideration as regions navigate the federal government's first National School Food Program and National School Food Policy.

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



Early bird rates for PAW 2025 are still available!

Early bird registration is now open for the People Around the World (PAW) 2025 International Congress at USask!

Take advantage of discounted rates and join researchers, scholars, industry partners, government representatives and community members for this dynamic three-day event at USask Oct. 22-24, 2025. Student rates also 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.

We are currently seeking judges to help evaluate undergraduate research poster presentations and welcome participation from:

- Faculty members across all departments
- Graduate students with research experience
- Professional staff with relevant expertise

Your time and expertise make a meaningful difference in the academic journey of our students. If you're interested in serving as a judge, please [sign up here](#). Contact undergraduate.research@usask.ca if you have any questions.

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



Information and Community for Researchers

CIHR celebrates 25 years

Health research is one of the most important investments we can make as a nation. For 25 years, the Canadian Institutes of Health Research (CIHR), Canada's federal



funding agency for health research, has been supporting life-changing discoveries and innovations that make Canadians healthier. To mark CIHR's 25th anniversary, we invite you to read about some [impressive made-in-Canada health research breakthroughs](#) and discover more about the [impact health research has on the lives of Canadians](#).

Here's to 25 years of research for a healthier Canada!

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

- July 14 – The Saskatoon StarPhoenix – [U of S researchers discover genes protecting wheat from disease](#)
- July 4 – CTV News, Discover Magazine Online – [How preserved blood vessels found in Saskatchewan's most famous T. rex are opening doors for researchers](#)
- July 3 – CBC News, MSN News – [Ancient Saskatchewan archaeological site falls victim to illegal scavenging](#)
- June 29 – CBC News, Yahoo! News – [Researchers apply for money to further study elevated manganese in Whitehorse groundwater](#)
- June 26 – The Western Producer – [Genomics research to enhance the Canadian beef cattle industry starting in Saskatchewan](#)
- June 25 – CBC News – [Sask. study finds apparent increase in urban moose excursions](#)
- June 22 – CBC News – [Impact of high-potency cannabis rippling through courts, health-](#)

[care system](#)

- June 20 – CTV News, The Globe and Mail, Canadian Press – ['Randomness and chaos': The invisible, unpredictable forces behind fatal rockfall](#)
 - June 18 – The Saskatoon StarPhoenix, The Regina Leader-Post – [Impact of \\$500M campaign will be felt 'for generations': U of S president](#)
 - June 17 – CBC News – [Flourish or flounder: How wildfires affect boreal forest wildlife](#)
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Banner image photo credit: **W̓inipekw 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.



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

You are receiving this email because you either subscribed manually to Discovery Digest or were a former subscriber to USask Monthly Research Update. Questions? Comments? Send an email to [Research Profile and Impact](#).
