Discovery Digest

BE WHAT THE WORLD NEEDS

September 2026 - Issue 104

Discovery Digest **is a glimpse into how University of Saskatchewan research, scholarly and artistic works are 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!**

This Month's Stories

USask tops Canada, reaches top 10 worldwide in water research

The University of Saskatchewan (USask) has cracked the top 10 worldwide for water research and scholarship in a prestigious international university ranking.

USask placed ninth globally and first in Canada in the Water Resources area of the annual ShanghaiRanking Global Ranking of Academic Subjects (GRAS).

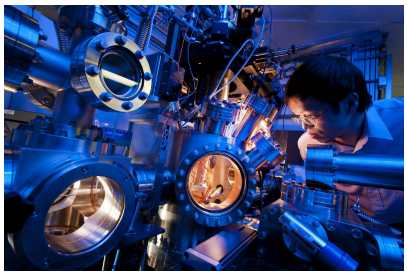
This achievement recognizes the internationally acclaimed research, scholarly, and artistic works taking place at USask that addresses water sustainability and security.

USask moved up in the 2026 GRAS in five subjects, including Water Resources, Medical Technology (up to 101-150 tier), Chemistry (up to 151-200 tier), and Education (up to

301-400 tier).

The university also moved into the 201-300 tier in Nursing, a massive leap after being unranked in the GRAS last year.

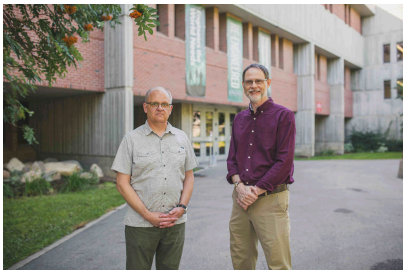
Innovation Saskatchewan supports critical upgrade at Canadian Light Source



Innovation Saskatchewan is committing $3 million through the Innovation & Science Fund (ISF) to support a major technology upgrade at the Canadian Light Source (CLS) at USask, helping strengthen Saskatchewan's position as a global leader in research and innovation.

The funding will support the installation of a state-of-the-art solid-state amplifier (SSA), an essential component of the particle accelerator at the heart of the CLS, powering all 22 synchrotron beamlines. The upgrade will enhance the facility's performance, reliability and energy efficiency, strengthening the advanced research capabilities that researchers and industry rely on to drive innovation and discovery.

"We are deeply grateful to Innovation Saskatchewan for this generous funding," said **Dr. Ingrid Pickering (PhD),** Interim CEO of CLS. "The new solid-state amplifier will boost our facility's reliability and performance, giving researchers and industry partners improved tools to drive innovation and deliver practical solutions across many sectors."



New USask wind tunnel to be research and industry 'game changer'

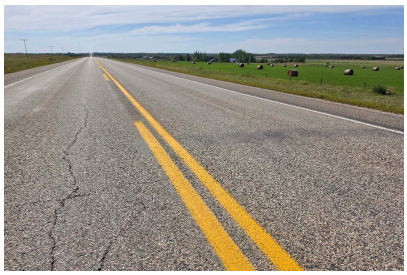
A new wind tunnel set to be built at USask will simulate real-world airflow conditions, helping to bridge the gap between applied and fundamental research in aerodynamics and engineering.

The wind tunnel will aid researchers in testing wind forces on rooted crops, examining drone flights and aerodynamics, studying agricultural spraying, conducting aerospace industry experiments, and much more.

Dr. David Sumner (PhD), a professor in the Department of Mechanical Engineering in the College of Engineering, and **Dr. Scott Noble (PhD)**, the head of the Department of Mechanical Engineering in USask's College of Engineering, are the co-leads of the project to build the new wind tunnel which has received support from the Canada Foundation for Innovation (CFI) John R. Evans Leaders Fund (JELF). Projects funded through the CFI-

JELF stream are intended to support strategic investments to attract and retain research strength.

USask, Government of Saskatchewan exploring canola oil-based road paints



From little yellow flowers in farmers' fields to the long yellow paint lines on Prairie highways: Can canola be a part of what keeps drivers safe on Saskatchewan roads?

A new USask research project will determine if agriculturally produced oils can replace petroleum products in the paint used on roadways and highways.

If canola oil can be used to create highway paints manufactured and applied in the Prairies, it could open doors for a home-grown, sustainable product that the people of Saskatchewan will benefit from every day.

This research project will test canola oil-based alternatives, creating a more sustainable, home-grown option for highway paints.

Dr. Bishnu Acharya (PhD), the Saskatchewan Ministry of Agriculture Endowed Research Chair in Bioprocess Engineering and professor of chemical and biological engineering in USask's College of Engineering, is determining if canola oils in the road paints can have significant impacts on both sustainability and cost.

USask researcher explores health benefits of public transit

A research project co-led by USask aims to determine how using public transit affects our physical and mental health, with findings that could potentially change how cities plan and implement transit systems.

"We're trying to learn how new urban things in our environment influence people's physical activity, their social connectedness, and their well-being," said **Dr. Daniel Fuller (PhD)**, associate professor in the Department of Community Health and Epidemiology in USask's College of Medicine. "Public transit is not a health system idea, it's a public transportation intervention ... that could have health impacts."

Through the use of surveys and an app to collect data from Saskatoon transit riders over the higher-traffic public transit period of September through to the end of the calendar

year, the research team hopes to gain an understanding of how the simple actions of interacting with others in the community through taking the bus might improve people's wellbeing and feeling of connectedness with their community and city.

Looking for more research stories? Visit Discovery Digest online.

Royal Society of Canada recognizes two USask researchers

From building scaffolds that repair damaged tissue to improving indoor air quality with innovative new techniques, USask's **Dr. Daniel Chen (PhD)** and **Dr. Tara Kahan (PhD)** are leaders in their respective fields of engineering and chemistry.

The Royal Society of Canada (RSC) has recognized their contributions with one of Canada's highest academic honours — an RSC Fellowship for Chen and an RSC College Membership for Kahan.

A membership in the RSC College of New Scholars, Artists and Scientists is presented to exceptional mid-career researchers who are emerging as intellectual leaders in their disciplines.

"USask is proud to be home to leading academics, scholars, and researchers whose work strengthens communities here in Saskatchewan and around the world. This recognition from the Royal Society of Canada highlights Dr. Chen and Dr. Kahan's important contributions to their fields and to society," said USask President **Vince Bruni-Bossio**. "Their work is improving lives in communities across Canada and beyond."

USask neuroscientist Valerie Verge named to Canadian Academy of Health Sciences

Only five decades ago, central nervous system (CNS) brain and spinal cord nerve cells were thought to be impossible to repair. Part of the research led by neuroscientist **Dr. Valerie Verge (PhD)** over her career has shown that they can be – if the circumstances are right.

From a PhD student at McGill University in Montreal to post-doctoral work in Stockholm, Sweden to a professorship at USask, Verge has found opportunities to pursue her cutting-edge nerve research with the best and brightest.

And now, USask's Verge has been recognized as a fellow of the Canadian Academy of Health Sciences (CAHS), one of the most prestigious honours for health and medical researchers in Canada. Being named a CAHS fellow recognizes excellence and leadership in advancing both health sciences and diversity, equity and inclusivity in Canada.

USask's Dr. John Pomeroy earns prestigious Bancroft Award

For **Dr. John Pomeroy (PhD)**, the work of exploring and modeling the frozen waters of the world never stops.

"I have worked hard to develop long term research sites in Canada, from Saskatchewan to Yukon to the Canadian Rockies, and I have been very fortunate to work with scientists from around the world," he said.

Pomeroy is a distinguished professor in the USask Department of Geography and Planning in the College of Arts and Science, the director of the Global Water Futures Observatories (GWFO), a member of the Global Institute for Water Security (GIWS), the director of the USask Centre for Hydrology, and a Fellow of the Royal Society of Canada. Now, he can add recipient of this year's Royal Society of Canada (RSC) Bancroft Award to the list.

The Bancroft Award is presented biennially to a researcher in Canada in recognition of publications, instruction, and research that contributes to the understanding and appreciation of earth sciences.'

USask's Dr. Valerie J. Korinek earns national Ursula Franklin Award in Gender Studies

Dr. Valerie Korinek (PhD), a professor in the Department of History in USask's College of Arts and Science, is this year's recipient of the Ursula Franklin Award in Gender Studies.

The RSC Ursula Franklin Award in Gender Studies is awarded biennially in recognition of the significant contributions by a Canadian scholar in gender-focused areas of the humanities and social sciences.

Korinek's work has become integral to understanding the history and evolution of feminism and same-sex activism in Canada. Currently, she is working on histories of same-sex marriage in Canada and their transnational implications.

“It’s a tremendous honour to know my peers believe my work has been groundbreaking and influential,” she said.

VIDO researcher named one of Canada’s Top 40 Under 40®

In only eight years, **Dr. Arinjay Banerjee (PhD)** has gone from a graduate student at USask to a principal scientist at USask’s Vaccine and Infectious Disease Organization (VIDO), adjunct professor in the Western College of Veterinary Medicine (WCVM), and Canada Research Chair in Zoonotic Virus and Animal Reservoirs.

“It’s kind of unreal for me," said Banerjee when asked about his early success. "I really have to thank my mentors. I cherish my relationship with my PhD supervisor, **Dr. Vikram Misra (PhD)**. He really went above and beyond training me and my postdoctoral supervisor, **Dr. Karen Mossman (PhD)** did the same thing. Everything they put into me is who I’ve become, and I am so very grateful.”

Now he’s been named one of Canada’s Top 40 Under 40®, which recognizes individuals engaging in work that has significant impact on their communities. Honourees are recognized as innovative leaders and visionaries within their field.

USask students unite to turn oral health challenges into solutions

Inspiring USask alumni to be honoured with achievement awards

[Music for climate change: USask composer incorporates social science into musical scores]

USask Signature Series Podcast - Season 2

The USask Signature Series Podcast is an exploration and celebration of the interesting and the innovative, the fun and the fantastic, the cutting-edge and the creative side of USask research.

You'll hear from USask experts across a variety of disciplines and research areas as they tackle the questions and opportunities the world needs today.

Check out the podcast on Spotify, Apple Podcasts or wherever you get your podcasts!

Here are the newest episodes of the USask Signature Series:

- S2E12 - How does USask research create impact we can see and feel?
- S2E11 – What do we need to know about nuclear energy?
- S2E10 – What should your children be eating for lunch?

And stay tuned for Season 3, coming this fall!

If you have an idea for an episode of the podcast, please email research.communications@usask.ca.

Stay connected with USask research news

Make sure to follow USask Research on Instagram at **@usaskresearch**, and on **LinkedIn** and **Twitter/X** to stay in-the-know, with exciting research news delivered right to your newsfeed. Don't forget to also follow **@VPR_USask** and **@USask** on Twitter/X 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.

In *The Conversation*

Why we give our cats, dogs and other pets social media accounts

By: **Dr. Renata Roma (PhD)**, Pawsitive Connections Lab

If you use social media, you've probably noticed a plethora of animal photos — on Instagram, Facebook, TikTok, YouTube, Pinterest and other platforms. Some people dedicate accounts exclusively to their pets, with some of these animals gaining notoriety and wealth as "pet influencers."

Others share their daily lives through pictures of interactions with their companion animals. And the tech industry has responded with new platforms such as Petzbe and other apps and communities for pets and their families.

This online behaviour reflects the growing importance of companion animals in people's lives. Ninety-seven per cent of pet guardians in the United States consider their pets to be family and 82 per cent in Canada feel the same.

Lunchbox labour is back – here's how Canada's new school food program can grow

By: **Dr. Rachel Engler-Stringer (PhD)**, USask Department of Community Health and Epidemiology, and **Dr. Jennifer Black (PhD)**, University of British Columbia

The grind of packing school lunches is returning for many families this fall. Ensuring children's access to nutritious food at school is a daily act of care that fuels their learning, nutritional well-being and sense of connection.

But this essential work takes a toll on caregivers and family budgets.

Additional hurdles exist for food-insecure families whose children are twice as likely to report missing school lunch altogether.

As federal school food funding rolls out, developing rigorous, transparent and well-governed systems for collecting data and sharing lessons learned will be important. As school food scholars, we hope researchers, policymakers, schools and advocates can collaboratively nourish a culture of evidence-based policymaking to sustain programs into the future.

Trump's geopolitical aims, not economics, are behind his trade hostility towards Canada

By: **Dr. Greg Poelzer (PhD)**, USask School of Environment and Sustainability

A seismic shift in American geopolitics explains the breakdown in United States-Canada trade relations. Understanding U.S. security policy is critical as Canada faces stark choices.

The Donald Trump administration's 2025 National Security Strategy (NSS) appears to mark a sharp break in U.S. foreign policy. It explicitly rejects the U.S.-enforced, rules-based international order and liberalized trade regime that has guided American foreign policy since 1945.

It resurrects, instead, longstanding and deeply rooted isolationist and protectionist ideologies that have shaped much of the history of American foreign policy. But, it also asserts the "Trump Corollary" to the Monroe Doctrine.

How 1,200 Saskatchewan teachers have experienced the province's pronoun policy

By: **Dr. Vicki Squires (PhD)**, USask College of Education; **Vicky Parohl**, PhD candidate, College of Education; **Marc Usunier**, USask Graduate Student Services

In 2023, the Saskatchewan government introduced the Parents' Bill of Rights with little public consultation, setting off a political and legal battle that quickly reached the province's schools.

The legislation, passed as Bill 137 and colloquially referred to as the “pronoun policy,” is an amendment to the Education Act that requires teachers and other school staff to obtain parental consent before using a student’s preferred name or gender identity.

As supporters and critics battled over the policy in media and political arenas, school divisions had to quickly determine how it would work in practice — even after a judge temporarily halted the policy’s implementation, citing the potential for “irreparable harm” to students.

As education researchers, we conducted a study that combined survey data with teachers’ written comments and interviews. The study, yet to be peer-reviewed, is among the first to examine teachers’ experiences with the policy. Results suggest that the fallout extended well beyond the public debate.

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

Register for PAW 2026

USask is pleased to announce Dr. Grant Isaac (PhD), president and chief operating officer with Cameco Corporation, as the opening keynote speaker at PAW 2026! Learn from Dr. Isaac and others Oct. 20-22 at PAW 2026. Early Bird Registration closes August 31. Learn more and register today at the link **here**.

- People Around the World (PAW) 2026 International Conference – Oct. 20-22 – Various USask locations

---

Have any upcoming research events?

Please email research.communications@usask.ca with your event title, information and any links links for registration to include in the Discovery Digest.

Information and Community for Researchers

Help shape the return of the Whelen Lecture Series

USask's Whelen Lecture Series is returning in 2027, and we're inviting the USask community and beyond to help shape its next chapter.

As preparations begin for the relaunch of this signature event, we're seeking suggestions for distinguished thinkers, innovators, and leaders whose ideas can challenge perspectives, spark meaningful discussion, and inspire action. We welcome recommendations from a broad range of disciplines, including but not limited to science and innovation, technology, public policy, health and wellness, arts and culture, sustainability, and social impact.

Who would you like to hear from at USask?

Submit your speaker suggestion by October 31, 2026 at the **link here**.

University Library researcher workshop series

The University Library is offering a series of free online workshops this Fall on topics of interest to USask researchers. Sessions include: creating a data management plan, how to use AI ethically in your research, comprehensive searching for literature reviews, critically assessing literature, citation managers Zotero and Mendeley, reducing or avoiding open access charges, predatory publishers, researcher profiles and tracking scholarly impact, and copyright issues for researchers. The library is also offering several sessions on upcoming changes to the Tri-Agency policies on research data management and open access, and how we can help you comply with these policies.

All researchers are welcome (students, faculty, or staff). For more information and to register, click the **link here**.

AI literacy resources expand with a new faculty-focused tutorial

Artificial intelligence (AI) is shaping teaching, research and administrative work at USask. Staff and faculty are encouraged to explore **USask's general AI literacy tutorial**, which introduces foundational concepts. A new faculty-focused tutorial builds on this resource and supports instructors as they consider how AI may or may not be applicable in teaching and assessment. The tutorial is designed to be completed in stages, allowing modules to be undertaken as time permits, with each module taking no more than 30 minutes. Access the new faculty tutorial at the **Canvas link 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

- Sept. 10 – The Toronto Star – **Trump's new 50% cheese tariffs and whey import ban poised to sting Canadian dairy exporters**
- Sept. 8 – CNN Health – **Not hitting your step goal? Pick up the pace**
- Sept. 5 – CJME News, 650 CKOM – **Saskatchewan highways could soon be painted with home-grown canola oil**
- Sept. 3 – CBC News – **Vaccine-preventable illnesses on the horizon again as Canadian kids head back to school**
- Aug. 29 – CBC News, The Weather Network – **Scientists fear Nepal's disaster is just a glimpse of the carnage climate change could cause**
- Aug. 26 – 650 CKOM – **U of S synchrotron getting $3 million upgrade from Innovation Sask.**
- Aug. 24 – CBC News – **Paddler shoots and kills polar bear along Hudson Bay coast in Manitoba, province says**
- Aug. 19 – Global News – **Studies suggest public transit may improve health**
- Aug. 16 – CTV News – **Aphids: How these tiny green insects are causing problems in Regina**
- Aug. 14 – CBC News – **Why fossilized feces from ancestors of modern animals help us understand Earth's early ecosystems**

Banner image photo credit: **Summer is Fleeting** - Photo by **Lindsay Carlson**, PhD student, Department of Biology, College of Arts and Science

Images of Research 2026 - *From the Field winner*

Blink, and you'll miss summer in the Arctic. The pace of life is frenetic, even manic, to make the most of the abundant but ephemeral resources. The same is true for the scientists who work there: we make the most of every moment in our short field season. I took a break from cleaning nets after dinner to watch two parasitic jaegers (Stercorarius parasiticus) fight over the remains of an Arctic char (*Salvelinus alpinus*). The purple saxifrage (Saxifraga oppositifolia hadn't even been in bloom the day before, but it was nearly time for me, and the birds, to fly south again.

UNIVERSITY OF SASKATCHEWAN

BE WHAT THE WORLD NEEDS

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.**