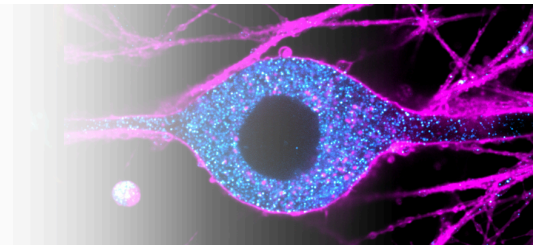
Discovery Digest

BE WHAT THE WORLD NEEDS



February 2026 - Issue 97

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!**

The 12th annual Images of Research contest is live!

Knowledge is beautiful and USask researchers know it better than anyone.

Each year, University of Saskatchewan students, staff, faculty and alumni capture the impact of their research, scholarly and artistic works. Through a single image and a simple description, they show how their work makes a difference to society, the economy and global challenges.

Submit your images to the 12th annual Images of Research contest by March 1, 2026 for a chance to win cash prizes.

Deadline to enter: March 1, 2026

Enter now **at the link here**.

This Month's Stories

Looking forward together – Q&A with Baljit Singh

University of Saskatchewan (USask) Vice-President Research, **Baljit Singh**, reflects on 2025 and discusses what's next for USask's research, scholarly and artistic work in 2026.

"We have a lot to look forward to. We will continue to build off our long and storied history of collaborative scientific discovery and find solutions that benefit the people of Saskatchewan and beyond."

USask's Dr. Curtis Pozniak receives international agricultural award

Dr. Curtis Pozniak (PhD) is this year's recipient of the Bertebos Prize, a biennial award granted for research and innovation with "significant contributions to the interface between ecology and food production with focus on research of high scientific quality, high innovation and relevance for the value chain, and of importance for achieving improved sustainability."

A professor in USask's College of Agriculture and Bioresources and the director of the Crop Development Centre (CDC), Pozniak said he was both "excited" and "humbled" to receive the Bertebos Prize.

This achievement will mark only the second time in history that a Canadian has won the Bertebos Prize.

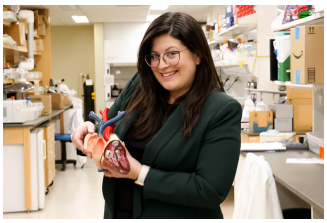
USask accelerates research, training for critical mineral innovation

Critical minerals are essential to modern technology, from clean energy to smartphones and medical imaging. As global demand for these materials increases, USask is leading the way for critical mineral resource research and development.

Researchers throughout USask have and are continuing to build strength in critical minerals research. **Dr. Matt Lindsay (PhD)**, a professor with the Department of Geological Sciences in the College of Arts and Science, and **Dr. Camille Partin (PhD)**, an associate professor in the Department of Geological Sciences and the inaugural Shklanka Chair in Precambrian Critical Mineral Systems, are two experts exploring critical minerals at USask.

As Saskatchewan strengthens its role in Canada's critical mineral sector, USask is continuing to position itself as a crucial hub for preparing up-and-coming scientists and engineers to tackle the critical mineral questions of tomorrow.

USask researcher getting to the heart of atrial fibrillation



It's easy to take our hearts for granted. The strong muscle is powered by unseen electrical impulses that anchor our lives in a steady, reliable beat. But what happens when these electrical impulses misfire, and our hearts fall out of rhythm?

Dr. Michelle Collins (PhD), professor of anatomy, physiology and pharmacology in the College of Medicine at USask, is researching the genetic links of atrial fibrillation (Afib), a condition that causes the heart to beat irregularly, leading to an increased risk in heart failure and stroke. It's estimated that nearly 500,000 Canadians are living with atrial fibrillation, but the real impact in unknown due to the often "silent" or asymptomatic nature of the disease.

USask researching sustainable bison grazing management

A new research project led by USask is laying the groundwork for more sustainable bison husbandry through grazing management and ecosystem enhancement techniques.

Dr. Trever Crowe (PhD), acting dean of USask's College of Agriculture and Bioresources, is working with Livestock and Forage Centre of Excellence (LFCE) Director **Dr. Scott Wright (PhD)** and LFCE research scientist **Dr. Eric van Cleef (PhD)** on the project.

As van Cleef puts it, the goal of this research will be to "start from the beginning" to develop scientifically-grounded feeding, grazing and care techniques tailored specifically for bison populations living in modern "intensive" systems – meaning grazing within fences instead of being completely free-roaming.

Looking for more research stories? Visit Discovery Digest online.

USask among the world's best in international subject rankings

The 2026 Times Higher Education (THE) World University Rankings by Subject ranks institutions in 11 different subject areas, capturing 148 disciplines within those subject areas.

Around 400 to more than 1,500 universities are part of the different subject rankings, and USask consistently performs well among the THE Rankings by Subject each year.

"Placing in all 11 subject areas, and the success USask continues to have in these kinds of rankings, are notable achievements for our university's scholarship," said USask Interim Provost and Vice-President Academic **Dr. Patricia McDougall (PhD)**. "USask continues to be a high-performing and sought-after university for students and faculty alike."

One-of-a-kind USask lab bridges engineering and community

The Engineering Design Mutualism (EDM) Laboratory is a unique hub at USask intended to promote collaboration in cutting-edge engineering design between researchers and to support collaborative work between researchers and community partners, rights holders and co-researchers.

"It's a place where we want people of different disciplines to feel welcome sharing their perspectives on different engineering design aspects and protocols," said **Dr. Lori Bradford (PhD)**, an associate professor in the Ron and Jane Graham School of Professional Development in USask's College of Engineering and a Tier 2 Canada Research Chair in Social and Cultural Decision-Making in Engineering Design. "We have fine arts students who are involved in theatre and visual arts and music, engineers from different engineering disciplines, social sciences and humanities experts ... It's a real variety."

The EDM Lab under Bradford's guidance is exploring innovative solutions to engineering design questions by thinking outside the box and putting a focus on directly connecting with the public for more thoughtful and informed design decision-making.

Joint USask-City of Saskatoon research explores changing housing landscape

Dr. Scott Bell (PhD), a professor in the Department of Geography and Planning in the USask College of Arts and Science, is working with the City of Saskatoon to explore how housing development is changing as Saskatoon's infrastructure continues to evolve.

Specifically, Bell's current project is looking at population density, utilities and services along the transit corridor as the city continues to build infrastructure for Saskatoon's upcoming bus rapid transit system, called Link.

Tyson McShane, the manager of Long Range Planning with the City of Saskatoon's Department of Planning and Development, said gaining as much data as possible on changes that may result from transit investments and policy changes can provide important insights into the future of city planning.

USask leads livestock research with massive government investment

Nearly $4.7 million in support from the provincial and federal governments is going to innovative livestock-focused agricultural research projects and partnerships led by USask.

Seventeen USask-led livestock and forage projects are receiving funding from this year's Agriculture Development Fund (ADF), a joint fund between the provincial government and the Government of Canada.

"USask researchers develop new knowledge, tools and products and instil this new knowledge in the next generation of innovators. Our partnerships with funders allow us to be responsive to industry's needs and advance Saskatchewan's position as a leader in agriculture," said **Dr. Trever Crowe (PhD)**, acting dean of the College of Agriculture and Bioresources. "This support from the government and our industry partners enables the essential and interdisciplinary research needed to address relevant and current issues of food security, production efficiencies and policy."

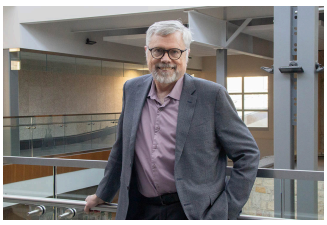
Tech talk: How USask researchers are utilizing new technology

As digital technology continues to change, advance and shape our everyday lives, experts are leveraging new tech and new tools to push the boundaries of research, scholarly and artistic work.

Researchers at USask are at the forefront of new and evolving digital tech and are harnessing this innovation to advance their research and the livelihoods of people around the world. Exploring the ever-evolving and always-exciting tech space, USask researchers are finding new ways to leverage growing technology like drones, artificial intelligence, virtual reality, and quantum computing.

Check the link to learn more about how USask research is leveraging unique technologies.

USask part of research team examining pain relief for kids



[Powering discovery. The Fedoruk Centre's impact on health research]

[USask's one-of-a-kind dog therapy program celebrates a decade of healing]

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 creative 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:

- S2E09 – How are we encouraging young scientists? (International Day of Women and Girls in Science special!)
- S2E08 – How does a curling rock curl?

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 Canada must step up to protect children in a period of global turmoil

By: **Dr. Kirsten Fisher (PhD)**, USask College of Arts and Science; Dr. Izabela Steflja (PhD), Wilfried Laurier University; Dr. Myriam Denov (PhD), McGill University, Dr. Catherine Baillie Abidi (PhD), Mount Saint Vincent University

At a time of unprecedented global insecurity, funding and resources to care for, protect and engage with children affected by armed violence continue to decline.

The Donald Trump administration's recent announcement of unprecedented American cuts to funding for international organizations. Cuts like these can have a devastating effect on some of the world's most vulnerable populations, undermining important work to identify and prevent violations against children, and to assist children in rebuilding their lives in the aftermath of violence. Canada cannot sit on the sidelines.

Draining wetlands produces substantial emissions in the Canadian Prairies

By: **Dr. Colin Whitfield (PhD)**, USask School of Environment and Sustainability; **Dr. Lauren Bortolotti (PhD)**, adjunct professor, USask School of Environment and Sustainability; Dr. Kerry Finlay (PhD), University of Regina

The value of wetlands on the landscape cannot be overstated — they store and filter water, provide wildlife habitat, cool the atmosphere and sequester carbon.

Our work highlights a large increase in the carbon footprint associated with wetland drainage rather than a reduction, while other work documents impacts on streamflows and nutrient export, and the loss of ducks and other birds.

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

Campus conversations with Dr. Terry Fonstad

Join Terry Fonstad, Associate Vice-President Research on Monday, February 23 at 12 pm for the next Campus Conversations event!

Constructive discussions with members of the campus community and OVPR leadership to support research, scholarly and artistic works (RSAW) at USask.

All faculty, staff, postdoctoral fellows and students are welcome. No registration required.

- Campus Conversations – Monday, Feb. 23, 12:00pm – Administration Building C280

State of Canada Series: Transition to the Carney Era: One Year in

One year into his mandate, Prime Minister Mark Carney is navigating a period of increased public and political attention. Has his leadership delivered on key promises around economic reform, climate action, housing, and reconciliation? This lecture provides a critical assessment of Carney's governance style, policy decisions, and political strategy as it relates to a Saskatchewan context. Through expert analysis we explore the emerging legacy of Canada's new leader and what his first year signals for the country's future. **Click the link here to register**.

- Transition to the Carney Era: One Year In – Feb. 25, 4:30-6:00pm – Prairie Room, Diefenbaker Building, USask or via Zoom

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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

Nominations open for USask Internationalization Recognition Awards

As part of the University of Saskatchewan Blueprint for Action, the International Office announces the J.W. George Ivany Internationalization Award, Global Research Leadership Award for Faculty, Global Research Leadership Award for Students and International Engagement Service Award for Staff. These awards are to recognize the achievements of faculty, staff, postdoctoral fellows and students who provide outstanding contributions to the internationalization of USask. Nominate a deserving colleague for an Internationalization Award.

Nomination deadline: **March 31, 2026, 4 pm CST/SK time**

Visit **internationaloffice.usask.ca/awards** for details.

SSHRC USRAs for Black Student Researchers: Deadline Extended

The deadline for the 2026 SSHRC Undergraduate Student Research Awards (USRA) competition for Black Student Researchers has been extended!

Students must self-identify as a Black Student Researcher and be a Canadian Citizen, Permanent Resident, or a Protected Person. Undergraduate students and faculty supervisors must submit applications by Friday, February 20th, 2026, at 4:00 PM Saskatchewan Time.

Full eligibility criteria, faculty matching requirements, and application instructions are available on our **website**.

Contact us at **undergraduate.research@usask.ca** with any questions.

Living skies Postdoctoral Fellowship Program

The Living Skies Postdoctoral Fellowship (PDF) program is accepting applications for 2026. Open to all eligible USask faculty members, the unique program is meant to foster interdisciplinary collaborations and recruit PDFs to USask.

Deadline: **February 23, 2026, 4:30 PM (CST)**

Click here for more information.

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

- Feb. 15 – CJWW Radio – **USask professor researching genetic links in atrial fibrillation**
- Feb. 14 – LiveScience – **There's 13 Great Lakes' worth of water hidden beneath the contiguous US, new map reveals**
- Feb. 11 – Regina Leader-Post, Saskatoon StarPhoenix – **U of S researcher hopes to bolster Saskatoon berry production**
- Feb. 10 – CTV News – **'A very new technology': Saskatchewan scientists research how to make solar panels more efficient**
- Feb. 10 – The National Post – **CWF and partners showcase 'Secret Life of Grasslands'**

- Feb. 5 – CJWW Radio – **USask and City of Saskatoon researching housing landscape changes amid infrastructure evolution**
- Jan. 31 – 650 CKOM – **U of S professor and crop breeder receives agriculture award from king of Sweden**
- Jan. 28 – Global News – **University of Saskatchewan bison research project looks toward sustainability**
- Jan. 16 – The Western Producer – **Could beetle banks work in Prairie agriculture?**

Banner image photo credit: **Be careful of what you are doing, the cells are watching! -** by **Minh Vu,** MSc Student, College of Medicine

Images of Research 2025 - *Runner-up, More Than Meets the Eye*

This image offers a unique glimpse into the intricate relationship between nicotinic receptors (nAChRs – dark blue) and serotoninergic type 3 receptors (5HT3Rs – light blue) within a superior cervical ganglion (SCG) neuron. Although 5HT3Rs are known to be highly expressed alongside nAChRs in SCG neurons, the underlying reason remains a mystery. The composition forms an evocative "eye" shape and a dynamic scene: a dense flow of axons encircling an SCG neuron, with a tiny vesicle appearing as a "tear drop". This artistic element evokes the sensation of the "eye" weeping, perhaps from the cellular stress induced by the intense axonal traffic. Scientifically, this tiny vesicle is on a vital journey, carrying signals to communicate with other neurons! Membrane lipid rafts (pink).

UNIVERSITY OF SASKATCHEWAN

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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.