

April 2025 - Issue 87

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!](#)

NEW – TEDxUniversityofSaskatchewan talks are live on YouTube!



[TEDxUniversityofSaskatchewan](#) 2025 honoured the theme of Inspiring Impact, bringing together USask students, staff, faculty, alumni and community members in a celebration of ideas worth spreading. Watch the latest talks below:

- Dr. Jordan Woodsworth (PhD, DVM) – [Are dog-human relationships the key to community health?](#)
 - Dr. Kerry McPhedran (PhD) – [Shifting the 'waste' out of wastewater](#)
 - Dr. Franco Vizeacoumar (PhD) – [Building a cancer map: The Road to a cure](#)
 - Dr. Christopher Eskiw (PhD) – [Aging: Inevitable or preventable?](#)
 - Dr. Bishnu Acharya (PhD) – [Turning waste into wealth: Pioneering the bioeconomy for a sustainable future](#)
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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 Germany trip strengthens international research and industry connections](#)

The University of Saskatchewan (USask) is pushing the boundaries of research through partnerships across the globe.

A Saskatchewan delegation, including USask leaders and officials from the provincial government, recently traveled to Germany to foster strong research and economic connections through several key events.

The delegation from USask included **Dr. Baljit Singh (PhD)**, Vice-President Research; **Dr. Steven Rayan (PhD)**, director of USask's Centre for Quantum Topology and Its Applications (quanTA); and **Alix Hayden**, director of USask's Innovation Mobilization and Partnerships (IMP) unit.

Saskatchewan Premier **Scott Moe** and a delegation from the provincial government were also an integral part of the trip to Germany, with the Premier acting as one of the witnesses for the MOU signing between USask and one of Germany's top research institutions and fostering connections between Saskatchewan and the world on an international stage.

[USask celebrates 2025 Images of Research contest](#)

winners

For the past 11 years, the USask Images of Research contest has showcased the stunning research, scholarly and artistic work of USask staff, students, faculty and alumni. From honeybee yards to the hidden universe inside ourselves, this year's contest captured the essence of USask research in eight winning photographs.



Organized by USask's Research Profile and Impact team, the Images of Research contest is an annual celebration of the beauty, diversity and impact of USask research. This year's contest featured nearly 100 entries across five categories, with winning images selected by judges on seven multi-disciplinary panels. Viewers' Choice was decided by more than 1,500 public votes. The contest was viewed online nearly 20,000 times. The submitted images represent the research, scholarly and artistic works of 11 USask colleges and schools.



USask data-driven anthropology research project receives international acclaim

As modern development spreads across Canada, First Nations in the Peace River region of British Columbia and Alberta require unbiased, data-driven research to maintain their Treaty-protected cultural and economic traditions.

That's where USask researcher **Dr. David Natcher (PhD)** and his collaborators step in.

Working with First Nations in the Peace River Basin area, Natcher and his team have explored various facets of anthropological research to show, quantifiably, how industrial development and modern industry has and will continue to threaten the land and culture protected by Treaty 8.

Exploring the intersection of climate change, water security and gender equity

The project led by **Dr. Sabine Liebenehm (PhD)**, assistant professor in the College of Agriculture and Bioresources at USask, is investigating the intersection of climate change, water security and gender equality.



The project looks to enhance research capacity related to water security and gender equity while facilitating an exchange between West African and Canadian scholars, including USask, where they work on research, professional and leadership skills through community engagement activities and exchanges with policy and industry decision-makers.

Liebenehm and her colleagues evaluate water security for productive use — mainly agriculture — as well as domestic use, including access to safe water, sanitation, wastewater management and health-related issues.



[USask research explores benefits of donor breast milk for HIV-exposed babies](#)

Making sure infants with weaker immune systems are happy, healthy and well-fed is the core of an innovative new USask research study.

The USask-led project is exploring both the accessibility and feasibility of using donor breast milk to supplement the feeding of babies born to a mother with HIV, or “HIV-exposed infants.”

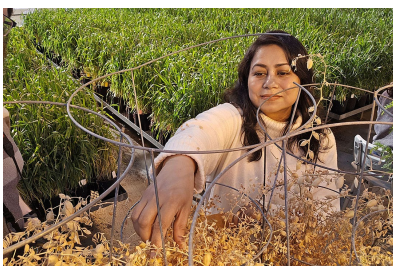
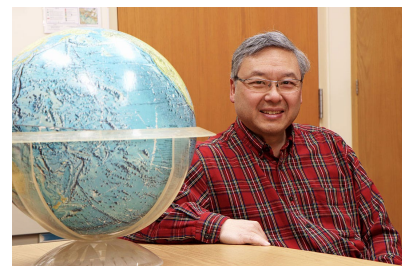
Chloe Langen, a Master of Science student in the College of Pharmacy and Nutrition, is helping to co-ordinate the project that will provide pasteurized human donor breast milk to HIV-exposed infants.

Langen is working under the supervision of **Dr. Kelsey Cochrane (PhD)**, an assistant professor in the College of Pharmacy and Nutrition. The research is supported by the Saskatchewan Health Research Foundation (SHRF), and the team recently received a SHRF 2024 Excellence Award for the project.

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

[USask geoscientist: Three things you might not know about the Earth](#)

The Earth is billions of years old, but USask geoscientists like **Dr. Jim Lee (PhD)**, the department head of Geological Sciences in the College of Arts and Science, continue to discover new information about the planet. As the world prepares to recognize Earth Day on April 22, Lee highlights three key points about the planet and the importance of taking care of our home.



[Cutting-edge USask chickpea research thrives through cold temperatures](#)

Amid the snow and the slush of frigid Saskatchewan winters, one place on the USask campus always remains warm and green: the greenhouses.

USask's 13 signature greenhouses are situated in the northern part of campus and are home to a variety of crops, including wheat, barley, beans and chickpeas.

“The greenhouse is a good way to beat the winter blues,” said **Dr. Tamanna Jahan (PhD)**, a post-doctoral fellow in USask’s College of Agriculture and Bioresources. “It’s sunny in here ... and I can control the environment.”

Jahan’s research focuses on chickpea breeding. Inside one of the greenhouse buildings, wide swaths of Jahan’s chickpea crop fill massive hydroponic systems in rectangular planters that can slide on rails, offering researchers access to the plants for study, watering and fertilization.

Meadow Lake Tribal Council and SENS partner for ecological sustainability

Meadow Lake Tribal Council (MLTC) is embarking on an Indigenous-led area-based conservation initiative that supports its nine First Nations in the environmental stewardship of traditional lands and waters.



Funded by Environment and Climate Change Canada (ECCC), MLTC has been collaborating with the School of Environment and Sustainability (SENS) at USask to train young community members in environmental science and monitoring techniques.

This initiative is part of a broader effort to build practices that support the land, water, wildlife, and associated knowledge systems in Indigenous communities while contributing to Canada’s biodiversity conservation goals.

Dr. James Robson (PhD), SENS and UNESCO Co-Chair in Biocultural Diversity, Sustainability, Reconciliation, and Renewal hopes that this initiative is the start of something that will build over time, supporting not only the communities in their environmental conservation goals, but also will help shape the future of research at SENS.



USask student recognized for leadership and commitment to energy security

Each year, USask celebrates First Nations, Métis and Inuit students, researchers, and alumni during Indigenous Achievement Week from March 10–14, 2025.

For **Jason Cook-Studer**, Master of Sustainability (MSs) Energy Security student in USask’s SENS, leading an energy security transition in his hometown of La Ronge felt like a natural calling and something rooted in his upbringing.

Growing up in the North and spending time on the land, he developed a strong connection to

natural resources and traditional knowledge. His upbringing instilled an awareness of the challenges Indigenous communities face, particularly in accessing reliable and sustainable energy.

[Expertise and technology driving innovation and collaboration at GIFS at USask](#)

The Global Institute for Food Security (GIFS) at USask has established world-class expertise and technologies to meet the needs of agri-food partners and stakeholders.



At a reception at the Saskatchewan Legislature in Regina on March 24, GIFS CEO **Dr. Steven Webb (PhD)** provided an update on the growth of GIFS' programs and technology services to members of Saskatchewan's Legislative Assembly and agri-food stakeholders.

The Honourable Daryl Harrison, Saskatchewan Minister of Agriculture, and Todd Klink, Executive Vice President, Marketing and Public Affairs at Farm Credit Canada (FCC), representing GIFS' Board of Directors, also spoke at the event.

Through ongoing initiatives, including the development of GIFS' Engineering Biology Platform, GIFS is establishing unique capabilities and capacities that are serving as the basis for collaborations with researchers and organizations around the world.

[USask alumni earn book award nominations](#)



More than a dozen University of Saskatchewan (USask) alumni are finalists for this year's Saskatchewan Book Awards.

The 2025 shortlist was announced on March 21, 2025, during an event in Regina. In total, 39 books were shortlisted in 14 categories. Prizes for each award are \$2,000 except for the Book of the Year award, which comes with a \$3,000 prize. The 32nd Saskatchewan Book Awards Gala & Awards Ceremony will be held in Saskatoon on Friday, May 9, 2025.

[Get your data faster: GIFS at USask introduces AVITI short-read sequencing services](#)



[USask library space named to honour longtime supporters Grit and Scott McCreath](#)



[The University of Vimy Ridge: USask on the front lines](#)

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



[Do union endorsements make a difference in election campaigns?](#)

By: **Dr. Daniel Westlake (PhD)**, USask College of Arts and Science, and **Dr. Larry Savage (PhD)**, Brock University

Nearly one in three workers in Canada is covered by a union contract, making union members a potentially powerful voting bloc at election time. It should therefore

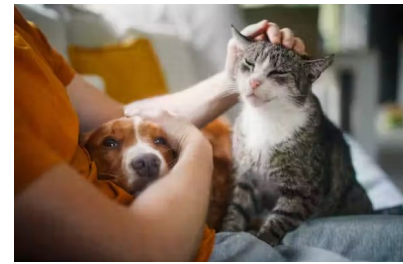
come as little surprise that federal parties have been making overt efforts to secure endorsements from labour unions and the votes of their members as election day nears.

[More than just an animal: Losing a pet deserves more](#)

attention and compassion

By: **Dr. Renata Roma (PhD)**, USask Centre for Forensic Behavioural Science and Justice Studies (CFBSJS)

Research shows that losing a pet can be as devastating as losing a family member, yet the grief over a companion animal is often overlooked in society. As a result, losing a pet can be an isolating experience.



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



Save the date for the People Around the World (PAW) 2025 International Congress at USask!

Join local and international experts October 22–24, 2025 at USask to explore creative and accessible solutions to support planetary health!

The 2025 congress theme of ‘Healthy people, healthy planet: Driving innovation with data’ will examine the benefits of shared perspectives, highlighting solutions to support local and global communities guided by data-driven insights and innovative technologies. [Learn more here.](#)

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

Accessing Health Data for Research Across Canada

Are you interested in accessing health data in Saskatchewan and across Canada? Join us on April 30, 2025, to learn how HRDP-SK is working with DASH to help you access the data you need.



Health Research Data Platform – SK (HRDP-SK) and Health Data Research Network (HDRN) Canada collaborate with health data agencies across the country to make health data available to Saskatchewan researchers.

HDRN Canada's Data Access Support Hub (DASH) is a one-stop data access service portal for researchers requiring multi-regional health and health-related administrative data in Canada. DASH streamlines the data access process through its centralized data access request form and harmonizes processes to request data from multiple data repositories across the country.

[Learn more and register at the link here.](#)



Innovation in Real Places: Strategies for Prosperity in an Unforgiving World

Keynote Speaker: **Dr. Dan Breznitz (PhD)**, Professor and Munk Chair of Innovation Studies at the Munk School of Global Affairs and Public Policy; Co-Director, the Innovation Policy Lab.

Innovation is key to lasting prosperity, but it differs from invention, a distinction often ignored by regions copying Silicon Valley. In this talk, based on his award-winning book, Prof. Breznitz argues for models of innovation-based growth that don't rely on a high-tech industry. Saskatchewan hosts models of innovation, in agriculture, oil and gas, mining, medicine and nuclear. Success lies in understanding global production changes and using local advantages, to foster surprising forms of specialized innovation. This is a hybrid event. [Learn more and register at the link here.](#)

- Innovation in Real Places: Strategies for Prosperity in an Unforgiving World – April 23, 2025, 7-9 pm – University of Regina CB 139 AND Zoom

Indigenous Membership and Citizenship Conference

The Office of the Vice-Provost Indigenous Engagement at the University of Saskatchewan is looking forward to your participation in this national conference aimed to engage in meaningful discussions on the creation, implementation, and impact of Indigenous citizenship/membership verification policies and processes in post-secondary education. The conference will host keynote speakers, panels from institutions at various stages of policy and implementation development, and a workshop to conclude the two-and-a-half-day event. This event is open to ALL engaged in this work. You can buy tickets at the [link here](#). The deadline to register is April 30.

- Indigenous Membership and Citizenship Conference – May 7-9 – TCU Place

Information and Community for Researchers



Unleashing Discovery in Research: The Value of Investment, Partnership and Impact

In the latest episode of Lung Sask's 'Let's Talk Lungs' podcast, Inspired Breathing hosts Lori and Trent have a lively conversation with USask Vice President Research Dr. Baljit Singh (PhD). Singh talks about his early days as a young researcher and how Lung Sask supported his research work in lung health. He also speaks to the strength of Saskatchewan research, the importance of investing in research, and how

research contributes to health and wellness. This episode was sponsored in part by the Saskatchewan Health Research Foundation.

- Check out the podcast at the [link here](#)!

Announcing the 2025 College of Medicine Graduate Research (CoMGRAD) Award Recipients

Congratulations to the 25 recipients of the 2025 College of Medicine Graduate Research Awards (CoMGRAD), including 11 PhD students and 14 master's students. These awardees were selected from multiple disciplines across the college. The CoMGRAD Scholarship Program is a competitive funding opportunity to provide support to graduate students and faculty supervisors who demonstrate a passion for research that has been, or will be, translated into advancements in science. Awardees were notified on March 17. [View the full award announcement.](#)

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

- April 13 – Fortune, Yahoo! News – [As RFK Jr. defends cuts to public health, experts warn of devastating effects that could haunt Americans for decades](#)
- April 9 – The Minnesota Star Tribune – [Can creatine supplements help older adults' muscles? Here's what to know.](#)
- April 8 – CBC News – [AI feature at legal website can simplify complex Canadian cases for Sask. public](#)
- March 31 – The Canadian Press, CTV News – [CMAJ urges more Canadian health research amid cuts to U.S. health agencies](#)
- March 28 – The Saskatoon StarPhoenix – [How Canada Wins: The synchrotron and](#)

[Saskatoon's bright scientific future](#)

- March 24 – Interesting Engineering, Yahoo! News – [Next-gen seawater batteries stand 380,000 charging cycles, could replace li-ion](#)
 - March 24 – CBC News, CBC Radio – [How researchers are trying to tackle Sask.'s high tuberculosis rates](#)
 - March 23 – The Canadian Press, CBC News – [Researchers share lessons on science, friendship on Nova Scotia's wild Sable Island](#)
 - March 19 – LA Times, Yahoo! News – [New strain of bird flu wipes out Mississippi poultry farm; human flu may offer immunity](#)
 - March 18 – Regina Leader-Post, Saskatoon StarPhoenix, MSN News – [COVID, five years later: People lost and lessons learned](#)
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Banner image photo credit: **The Hidden Universe Inside Us** - by **Asmaa Fadl**, PhD Student, College of Dentistry

Images of Research 2025 - *Winner, More Than Meets The Eye*

You think you are a small entity, but within you is enfolded the entire universe.— Rumi. What we see under a microscope can be just as vast and complex as the universe itself. This fluorescence microscopy image captures human gingival fibroblasts, the main cells that build connective tissue in the gums. β -Tubulin (orange), a structural protein, forms the cellular framework, stretching like distant galaxies, while the nuclei (blue) resemble scattered stars. This microscopic landscape mirrors the infinite patterns of the cosmos within the fundamental building blocks of our bodies. Beyond its striking resemblance, this image reveals key insights into the structure and behavior of fibroblasts in diseases like fibrosis and cancer, deepening our knowledge and ultimately guiding new treatment approaches.



BE WHAT THE WORLD NEEDS

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

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