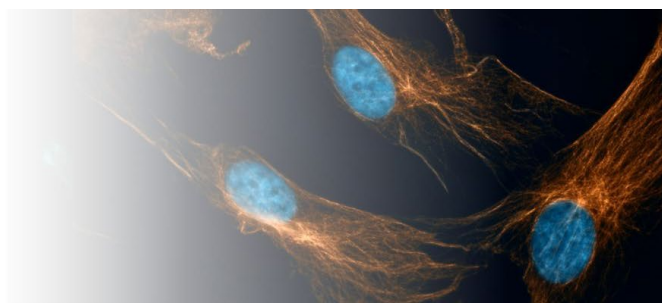




May 2025 - Issue 88

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. Marjorie Delbaere (PhD) – [Is the art of war good business?](#)
- Dr. Valerie Verge (PhD) – [Breathing new hope into MS and nerve injury recovery](#)

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?](#)
-

This Month's Stories



[USask scientists identify vulnerability in cancer cells](#)

A team of University of Saskatchewan (USask) researchers, using innovative genetic screening, have identified a new target to suppress breast cancer growth.

Dr. Franco Vizeacoumar (PhD) and **Dr. Andrew Freywald (PhD)** with USask and the Saskatchewan Cancer Agency, are leaders of a USask research team that has identified a

potential target for eliminating breast cancer cells.

The team focused on an enzyme called polo-like kinase 1 (PLK1), which is found in large amounts in nearly all cancer cells and helps tumours grow.

However, because PLK1 also exists in small amounts in healthy human cells, it is difficult to attack PLK1 in only cancerous cells without damaging normal tissues.

Using the CRISPR gene editing tool at the single-cell level, the research team identified what Vizeacoumar called “genetic dependencies” of PLK1-overproducing cells. Instead of targeting the PLK1 enzyme directly, the researchers focused on the genes co-operating with PLK1 in driving cancer.

[USask's Dr. John Pomeroy wins international water](#)

[research prize](#)

One of the USask's—and the world's—top water researchers has been recognized with a prestigious international honour recognizing his career work.



Dr. John Pomeroy (PhD) is the recipient of the 2025 International Hydrology Prize – Dooge Medal, awarded by the International Association of Hydrological Sciences (IAHS), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the World Meteorological Organization (WMO).

The Dooge Medal is presented annually to a researcher who has made critical contributions to the fundamental understanding of the science of hydrology. In “one of the most distinguished pools of candidates” ever seen, according to the IAHS announcement, Pomeroy received the award in recognition of his advancements in climate science, hydrological processes and hydrological predictions.



[USask-led research program examines Canadian trust in public health](#)

In the wake of the COVID-19 pandemic, researchers are looking for answers about why trust in health care and medical care across Canada changed, and how that trust could be regained.

Dr. Nazeem Muhajarine (PhD), a professor in Community Health and Epidemiology in the USask College of Medicine and the director of the Saskatchewan Population Health and Evaluation Research Unit, said we are already seeing some of the consequences of an eroding of trust in public health – and now more than ever regaining that trust is important.

The “Trust Dynamics and Equity in Public Health Project” led by USask researchers with the Coronavirus Variants Rapid Response Network (CoVaRR-Net), investigated the trust of Canadians in the information and efficacy of the public health system following the worst of the COVID-19 pandemic.

[AI risky as corporate governance tool, USask-led team finds](#)

Corporate leaders today face increasing pressure to use artificial intelligence (AI) applications to augment decision-making, but they should be wary of risks in AI that can undermine the power and influence of strategic management roles.



That’s the finding of a paper recently published in the prestigious journal Harvard Business Review (HBR) by a team of interdisciplinary researchers from USask’s Edwards School of Business and the University of Calgary’s Haskayne School of Business.

“We identified a new risk to AI we call encroachment risk—the novel idea that AI can encroach on the power and influence of strategic roles and pose an organizational risk,” said co-author **Dr. Vince Bruni-Bossio (PhD)**, associate professor at Edwards and USask’s acting provost and vice-president academic.

Other team members and co-authors are Edwards professors **Dr. Devan Mescall (PhD)** and **Dr. Regan Schmidt (PhD)**, and Haskayne professor **Dr. Anup Srivastava (PhD)**.



USask researchers link plants and people through advanced medical imaging

Using cutting-edge nuclear imaging technology, medical isotopes produced at the Saskatchewan Cyclotron Facility and a deep knowledge of chemistry and biology, two USask researchers are uncovering surprising connections between plant science and human health.

Dr. Chris Phenix (PhD), associate professor in USask’s College of Arts and Science’s department of chemistry, has spent years developing new nuclear-imaging tracers to study how malfunctioning enzymes in the brain can contribute to diseases like Parkinson’s or Alzheimer’s.

Alongside **Dr. Sue Abrams (PhD)**, adjunct professor in USask’s College of Arts and Science’s department of chemistry and former National Research Council of Canada organic chemist, Phenix is adapting PET imaging tools to study how plants respond to environmental stressors such as drought.

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

USask research team’s discovery breaks new ground in swine disease management

A USask research team has discovered a bacteria-killing molecule that enhances a pig’s immune system response and could transform how swine producers treat and prevent contagious diseases in their animals.



USask researchers recently published a paper in Scientific Reports that identified a promising alternative for controlling infectious diseases such as swine dysentery.

“As researchers, we have an important role and responsibility in advancing animal welfare.

I’m very excited to work on this novel project knowing that the disease responses of pigs can be enhanced through exploring the properties of this new molecule,” said **Dr. Arthur Nery Finatto (DVM)**, a PhD student based at the Western College of Veterinary Medicine (WCVN) and the research paper’s lead author. His supervisor is **Dr. Matheus Costa (DVM, PhD)**, a WCVN associate professor and a board-certified veterinary practitioner in swine health management.



USask veterinarians urge owners to protect dogs from deadly parvovirus

Veterinarians at USask highlighted canine parvovirus prevention as part of a national awareness day for preventing the deadly disease among dog populations.

Parvovirus (or parvo) is a highly contagious and life-threatening virus in dogs. The virus attacks a dog’s gastrointestinal system, leading to symptoms such as vomiting, bloody diarrhea, a lack of energy and loss of appetite. The virus also disrupts a dog’s immune system by attacking the animal’s bone marrow where white blood cells are produced.

The extremely hardy virus spreads through contact with contaminated feces, and even indirect contact can spread the disease. Veterinarians recommend that all owners vaccinate their dogs against parvo—the only effective way to prevent the disease.

“Vaccination is absolutely paramount,” said **Dr. Karen Sheehan (DVM)**, a veterinarian and clinical instructor at the Western College of Veterinary Medicine (WCVN) at USask.

Research continues on historic nursing artifact at USask

Students Sask College of Nursing generally become aware at some point during their studies that the college has an impressive artifact in its midst – a medicine chest that renowned founder of modern nursing Florence Nightingale used in her care for wounded soldiers.



While some students and alumni will drop by to spend a few minutes with the chest, imagining the instruments and medicine that may have rattled around inside, College of Nursing Professor **Dr. Arlene Kent-Wilkinson (PhD)** has spent significantly more time, verifying the chest’s authenticity, tracing how it came to the university, and most recently, even connecting with the descendants of the original donors, who ensured its safety as a prized possession at USask College of Nursing.

Five USask faculty members honoured with distinguished professorship



The honorary title of distinguished professor is an award that celebrates lifetime achievement in research, scholarly, and artistic work. Three USask faculty members and two professors emeriti were selected to receive the honorary title this year.

Professors emeriti and current USask faculty members who hold academic qualifications corresponding with an appointment at the rank of full professor are eligible for appointment to the distinguished professor position. Recipients of this lifetime award become distinguished professors emeriti upon retirement.

This year’s distinguished professors are **Dr. Nazeem Muhajarine (PhD)**, **Dr. Julita Vassileva (PhD)**, **Dr. Valerie Verge (PhD)**, **Dr. Lorne Babiuk (PhD)**, and **Dr. Verna St. Denis (PhD)**.

Collaboration creates new surgical training opportunity for veterinary students

When a major renovation project at the Vaccine and Infectious Disease Organization (VIDO) temporarily closed access to its containment level 2 (CL2) animal surgical suites, a unique opportunity emerged — one that exemplifies the power of collaboration across USask.



To ensure the continuation of important research involving gut loop surgeries on calves, VIDO partnered with USask’s WCVI and its Veterinary Medical Centre (VMC) to establish a new surgical suite within the WCVI’s facilities. This joint effort not only allowed research to continue without interruption — it also opened the doors for veterinary students to gain rare surgical experience.

“This is a great example of what’s possible when we work together,” said **Dr. Volker Gerdts (DVM, PhD)**, VIDO director and CEO. “We are thankful to the VMC for allowing us to use their innovative surgical suite for our research and are excited that this solution is also enriching student training here at USask.”



USask Board of Governors appoints Martha Crago to CLS Board of Directors



**Westinghouse and USask partner to advance eVinci®
Microreactor**



**Asian Heritage Month: From the Philippines to Saskatoon,
USask plant scientist grows connections**

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



**Animal abuse often signals human abuse — should
therapists be allowed to report it?**

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

Imagine being a therapist and sitting across from a client who casually admits to kicking their dog. They kick until the dog stops barking.

As a therapist, you are bound by a sacred code of confidentiality, a cornerstone of your profession. But the session ends, and the client walks out. And sitting alone now, you can't help but think about the suffering dog.

What if the reported abuse is a warning sign of worse to come? You want to report the abuse, but the law ties your hands.

This is the tightrope therapists walk. They are caught between protecting privacy and preventing harm, with laws that do not fully address the complexities of the situation.

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

Join Vice-President Research Baljit Singh for the next Campus Conversations event on May 28, 2025

Campus Conversations are a series of drop-in, constructive discussions between members of the campus community to promote research, scholarly and artistic work (RSAW) excellence at USask. Join Vice-President Research Baljit Singh on May 28, 2025 from 12:00 – 12:45pm in Administration Building C280. All faculty, staff, postdoctoral fellows and students welcomed. Registration not required.



- Campus Conversations – May 28, 2025, 12:00-12:45pm – Administration Building C280

Discover the Power of Human-Animal Connections at the ISAZ 2025 Conference

Join us at the ISAZ 2025 conference, June 19-22, in Saskatoon, Canada. Founded in 1991, ISAZ supports the scientific study of human-animal interactions.



Attending will help you delve into topics that explore the health and wellness benefits of our relationships with animals. Learn about the power of the human-animal bond, measuring what matters in equine-assisted services, the emotions animals experience, interacting with animals in virtual reality, and so much more! Immerse yourself in the richness of integrated ways of understanding and Indigenous cultural perspectives.

Hosted by the PAWSitive Connections Lab at USask, we welcome scholars and the public worldwide to join us for this important gathering! Early bird pricing is available until June 1. You can [register at the link here.](#)

- ISAZ 2025 Conference – June 19-22, 2025 – Saskatoon

Save the date: Brain-Heart Interconnectome (BHI) Introductory Session for USask Researchers

BHI is a Canada First Research Excellence Fund (CFREF) initiative led by the University of Ottawa dedicated to the study, prevention and treatment of brain-heart disorders. USask is one of the two institutional partners, i.e. all our researchers are eligible to pursue funding opportunities with BHI. This initiative brings together over 45 academic, industry, governmental and non-governmental partners worldwide to lead new research and benefit Canadians.

A green rectangular box with white text. The text reads: 'Brain-Heart Interconnectome (BHI) Introductory Session for USask Researchers'.

Particularly, Health Science researchers at USask are encouraged to mark their calendars for an introductory session to learn more about the BHI science program and explore opportunities to lead or participate in larger teams, be part of the BHI peer-review community, and gain access to training programs and funding calls. Watch the USask PAWS channel for more information and event registration details.

- BHI Introductory Session – June 13, 2025, 9:00am CST / 11:00am EST – Virtual



2025 Canadian Association of Physicists Congress

Join the Department of Physics and Engineering Physics as they host the 2025 Canadian Association of Physicists (CAP) Congress at USask. This is the national annual conference for the association.

Since its founding in 1945, the CAP has promoted the significance of physics as a fundamental science and provides support for physics research and

education in Canada. The event will feature workshops, speakers, special sessions and the Herzberg Memorial Public Lecture featuring guest lecturer **Dr. Shohini Ghose (PhD)** from Wilfrid Laurier University.

Learn more about the event and find information to register [at the link here](#).

- 2025 Canadian Association of Physicists Congress – June 9-13, 2025 – USask campus

VIDO Community Liaison Public Meeting

The Community Liaison Committee (CLC) of VIDO invites you to join their upcoming public meeting at the Willows Club. The meeting will feature presentations from scientists **Dr. Yan Zhou** and **Dr. Antonio Facciolo** on High Path Avian Influenza (HPAI) in livestock animals and VIDO director **Dr. Volker Gerdt**s with an update on VIDO becoming Canada's Centre for Pandemic Research. Question and Answer period to follow. The CLC was created by USask in 2007 to serve as an independent organization working to ensure full and open communication on safety issues related to VIDO's biocontainment facilities: vidoclc@usask.ca

[Register at the link here](#).

- VIDO Community Liaison Public Meeting – May 26, 2025, 6:30pm registration, 7-8:30pm program – The Willows Club, Twilight Room

Information and Community for Researchers

Save your spot for the 2025 MobilizeU program



Are you interested in registering for *MobilizeU knowledge mobilization course this summer? As a member of Research Impact Canada, USask gets a select number of **free spots** in the program. MobilizeU 2025 will run from June 2-July 25, with live Zoom sessions weekly on Thursdays, 12:30-2pm ET starting June 5th. To register, you must be available to

attend at least six (out of eight) live Zoom sessions.

To register:

- Go to the [Eventbrite](#) and click 'reserve a spot'
- Add one USask ticket to your cart
- Complete the registration questions and submit
- Complete your registration by **May 16 at 11:59pm ET** to secure your spot (please note that limited free spots will be released on a first come, first served basis)

*[MobilizeU](#) is Research Impact Canada's 8-week, online, self-directed knowledge mobilization course for beginner mobilizers. MobilizeU combines pre-recorded lectures and core readings, with guest expert presentations at live Zoom sessions and assignments to enhance learning.

Thank you to attendees of the 37th Annual Anesthesiology Resident Research Day

The Provincial Department of Anesthesiology would like to extend their sincere thanks to all the learners, judges, faculty, and research team for their invaluable contributions to the event. Special thanks to the College of Medicine, the Provincial Department of Anesthesiology, the SK Division of the Canadian Anesthesiologists' Society (CAS) and AbbVie for their support. Nearly 65 attendees joined for the hybrid event as they showcased the innovative research being done by Department of Anesthesiology residents, FPAs, and students across a broad range of topics.

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

- May 13 – Global News, Toronto Star Online – [Theft of NS Power customer data is likely ransomware attack: security experts](#)
- May 9 – CBC News – [U of Sask. researcher reports decline in public trust of health experts](#)
- May 8 – CBC News – [Winnipeg driver claims he got licence suspended because of 'inaccurate' cannabis test](#)
- May 4 – The Cool Down – [Scientists expose major flaw threatening futuristic fuel systems: 'One failure is too many'](#)
- May 1 – Regina Leader-Post, Saskatoon StarPhoenix – [Dental expert 'not surprised' Regina revisiting fluoridation, debunks studies](#)
- April 26 – Yahoo! News, CBC News – [Sask. academics shun travel to U.S. amid political climate](#)
- April 22 – CBC News – [How a Nova Scotia town quietly decided to stop fluoridating its](#)

water

- April 17 – Associated Press, Business Wire – [Westinghouse and University of Saskatchewan Partner to Advance eVinci® Microreactor](#)
 - April 17 – NPR – ['Lab Leak,' a flashy page on the virus' origins, replaces government COVID sites](#)
 - April 16 – CBC News – [Ankylosaur footprints from Canada are first of their kind in the world](#)
-

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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