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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!](#)

This Month's Stories



[**Black History Month: Fonge making a difference at USask**](#)

When it comes to cancer research, scientists like **Dr. Humphrey Fonge (PhD)** know they are always working against the clock for patients who often don't have the benefit of time.

"It is a huge race against time, and I get emails from patients and you really feel for these people and what they are going through," said Fonge, an award-winning nuclear medicine researcher and associate professor of medical imaging in the College of Medicine at USask. "People who you don't know tell you about how much they count on your efforts, so for me it is a race to save even one life. I would retire a happy man, if one of these breakthroughs saved lives."

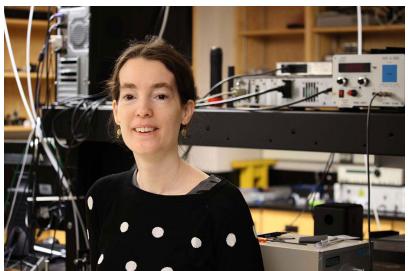
[**Black History Month: USask's Ugochukwu working towards a food-secure future**](#)

Dr. Albert Ugochukwu's (PhD) journey into the field of agricultural economics was driven by a passion for sustainable development, nurtured by various mentors during his doctoral studies at USask.

Today, as a Senior Policy Fellow at the Centre for the Study of Science and Innovation Policy (CSIP) in the Johnson Shoyama Graduate School of Public Policy (JSGS), his research brings



together genomics, digital architecture, and technology, with a key focus on enhancing our understanding of crop productivity and conservation – through an Indigenous lens.



Women and girls in STEM: ‘Different perspectives are always good’

Dr. Amy Stevens (PhD) is an assistant professor in the Department of Chemistry at the USask College of Arts and Science. Her current research is focusing on folding DNA strands into different shapes to observe how nanoparticles interact. By observing how these microscopic particles interact, this information can inform how pharmaceuticals or drug therapies are developed or delivered into a body.

In her academic career, Stevens has faced the narrative that her chosen area of study is geared towards men or perceived as a “male-dominated field,” but she has never felt deterred from pursuing her interests.

USask health researchers recognized for achievement, impact and excellence

Dr. Hassan Vatanparast (PhD) and other USask researchers were honoured for their contributions to health research at the Saskatchewan Health Research Foundation (SHRF) Santé Awards on Jan. 25.



Vatanparast, professor in the School of Public Health and the College of Pharmacy and Nutrition, is this year’s recipient of the SHRF Career Achievement Award. The award honours a Saskatchewan-based researcher who has made significant contributions to the health of the province, advanced knowledge, informed decision-making, and built local capacity across their career.



USask livestock and forage research receives nearly \$6 million

Livestock-focused research projects spearheaded by researchers at USask and USask-affiliated centres received almost \$6 million from the Agriculture Development Fund (ADF) and are supported by industry co-funders.

One of the research projects funded is led by **Dr. Mika Asai-Coakwell (PhD)** with the College of Agriculture and Bioresources who is using a newly developed ranking system to identify efficient cows from among large populations.

Another is led by **Dr. Nathan Erickson (PhD)** with the Western College of Veterinary

Medicine, whose project helps maintain the health of calves as they transition from the earliest stage of birth and growth into the second stage, or the “feedlot” stage.

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

[USask researcher awarded \\$4.2 million to battle root rot](#)

Root rot in pulse crops has grown to be a devastating issue for growers across Saskatchewan and Western Canada, so a team of USask researchers and colleagues at Agriculture and Agri-Food Canada (AAFC) and the National Research Council (NRC) led by **Dr. Sabine Banniza (PhD)** of USask’s Crop Development Centre (CDC) is comprehensively searching for ways to beat it.



Banniza, a professor with the College of Agriculture and Bioresources and the CDC, and the Government of Saskatchewan Ministry of Agriculture Strategic Research Program Chair in Pulse Crop Pathology, received more than \$4.2 million from the Strategic Research Initiative (SRI) to uncover solutions for root rot in pea and lentil crops.



[USask Greystone Singers partner with quantum researchers for concert](#)

The concert – titled “Illuminare” after the Elaine Hagenberg composition of the same name – featured performances by the Greystone Singers and Aurora Voce conducted by **Dr. Jennifer Lang (PhD)**, associate professor of choral and music education and the director of both choirs.

The performance also included a unique light display titled “The Projection Project” created by Master of Science student **Anna Elliott**, the co-lead of the Quantum Experiences theme within Quantum Innovation at USask, and **Dr. Steven Rayan (PhD)**, director of the Centre for Quantum Topology and Its Applications (quanTA) and professor of mathematics and statistics in the College of Arts and Science.

[Art exhibition springs from USask dog-human relationship research](#)

Paintings, beadwork, digital illustrations, a story skirt – when **Dr. Jordan Woodsworth (DVM, PhD)**, the director of Northern Engagement and Community Outreach with the dean’s office at the Western College of Veterinary Medicine



(WCVM), was completing her graduate studies focused on the dog-human relationship in Northern Saskatchewan and Indigenous communities, a touring art exhibition wasn't initially in the cards.

Named Atim Maskikhiy – Cree for “Dog Medicine” – the art exhibition developed from Woodsworth’s research launched at Wanuskewin on Jan. 20 and will be on display for three months before touring across Saskatchewan with the support of the Organization of Saskatchewan Art Councils (OSAC). The launch event served as the first public event supported through the Wanuskewin Institute, which is a partnership between USask and Wanuskewin Heritage Park.



[USask dean highlights education as a peace builder at the United Nations](#)

USask Education Dean **Dr. Julia Paulson (PhD)** contributed to a panel on Learning for Lasting Peace, organized by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and held at the United Nations Headquarters in New York.

Paulson shared research highlights from the Education Justice and Memory Network (EdJAM). Led by Paulson, EdJAM is a collaborative, international network of researchers, educators, and civil society organizations committed to creative ways to teach and learn about conflict, violence, colonialism, imperialism, and racism. The network funds projects in 24 countries around the world.

[New glass-ceramic composite shows promise for safer storage of nuclear waste](#)

Nuclear power holds a lot of potential as a cleaner alternative to fossil fuels; however, two main challenges have been deterrents to widespread adoption – preventing leaching into the environment and safely disposing of large volumes of waste. Using the Canadian Light Source at USask, PhD student **Merhnaz Mikhchian** and Professor of Chemistry **Dr. Andrew Grosvenor (PhD)**, studied the corrosion resistance and capacity of a new, glass-ceramic composite material with positive results.



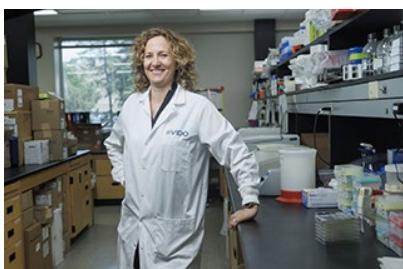
"Simply put, we want to find the best candidate for containing nuclear waste," explains Mikhchian.



[**Black History Month: USask PhD candidate offers support to fellow international students**](#)



[**Memoir by USask Vice-Provost Cranston explores themes of identity**](#)



[**VIDO awarded >\\$1million to develop innovative solutions for Saskatchewan's agriculture industry**](#)

Stay connected with USask research news



Make sure to follow the USask Research [Twitter 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 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...*

[**New study reveals four critical barriers to building healthier Canadian cities**](#)

By Dr. Nazeem Muhajarine (PhD), USask Department of Community

Health and Epidemiology, Dr. Akram Mahani (PhD), University of Regina and Joonsoo Sean Lyeo, University of Toronto

Canada's cities must be planned around resident health and well-being, our research reveals the key barriers to developing truly healthy cities.



[Saskatchewan teacher strike: It's about bargaining for the common good](#)

By Dr. Charles Smith (PhD), USask College of Arts and Science and Dr. Simon Enoch (PhD), University of Regina

Chronically underfunded classrooms with fewer supports to meet student needs is a core issue for Saskatchewan teachers.

[Wheat Pool 2.0: The time might be ripe for a revival of Prairie co-ops](#)

By Dr. Marc-Andre Pigeon (PhD), Johnson Shoyama Graduate School of Public Policy and Natalie Kallio, Canadian Centre for the Study of Co-operatives



One hundred years after the founding of the once-mighty Saskatchewan Wheat Pool, the time might be ripe for a revival of Prairie farmer co-operatives.



[Employers should use skill-based hiring to find hidden talent and address labour challenges](#)

By Dr. Joseph Schmidt, Edwards School of Business and Dr. Joshua Bourdage (PhD), University of Calgary

Job listings now often demand that applicants have degrees and experiences that were previously unnecessary, with some job requirements even surpassing the qualifications of current employees.

[Two-thirds of Canadian and American renters are in unaffordable housing situations](#)

By Tyler Case, Edwards School of Business and Dr. Grant A. Wilson (PhD), University of Regina



Most research on unaffordable housing has focused on homeownership, but rental affordability is also a serious issue.

Upcoming events



Campus Conversations – Dr. Dawn Wallin, AVP Research (Engagement)

Mark your calendar for the next 'Campus Conversations' event with AVP Research (Engagement) Dawn Wallin!

These events bring together members of the USask community for constructive and engaged discussions about research, scholarly & artistic works.

- Campus Conversations – Thursday, Feb. 29, 2024, 12:00 – 12:45 p.m., Administration Building C280

Women Plus Water – Leveraging Water for Peace

In preparation for World Water Day on March 22, Women Plus Water invites you to join us for a conversation with our expert guests on water diplomacy and management around the world. All are welcome and encouraged to attend.



- [Women Plus Water - Leveraging Water for Peace -](#)
[Thursday, March 14, 12:30 p.m. CST](#)

NEW - Information for researchers

Save the date! 10th Annual Images of Research Contest – Call for submissions

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

Celebrate the diversity of research, scholarly and artistic work on campus and beyond by submitting your photography and imaging to USask's 10th Annual Images of Research Contest! **Submit your image between February 20 – 29 for a chance to win cash prizes.**



Learn more and submit at: <https://research.usask.ca/research-stories/images-of-research.php>

USask 3MT® 2024 Preliminaries - now accepting submissions!

All USask thesis-based graduate students who are enrolled in a Master's or Ph.D. graduate program are invited to compete in the virtual preliminary event for a chance to win!

The 3MT® communication competition challenges students to translate their research and its impact to an audience of non-specialists in just 3 minutes using only one static slide. This competition helps graduate students develop essential communication skills to aid in funding proposals, transitioning into employment, and generating awareness and support for academic research.

The deadline to submit your 3MT® talk is **March 19th, 2024** at 4:30PM CST.

Are you a French-speaking graduate student? CGPS is partnering with the University of Regina and Acfas to promote the annual MT180 competition, or Ma thèse en 180 secondes.

The deadline to submit your MT180 entry is **March 9th, 2024**.

To learn more about these competitions and to access resources to help you craft your presentation, visit: <https://cgps.usask.ca/grad-life/events/3mt-usask.php#top>

Call for Nominations – Publicly Engaged Scholarship Team Award

The Office of the Vice-President Research invites nominations for the Publicly Engaged Scholarship Team Award that recognizes tenured and tenure-track faculty members who lead teams of graduate students, postdoctoral fellows, and community partners who have engaged in public scholarship over the last five years that has produced outstanding social impact locally, nationally, or internationally.

For further information, please review the Publicly Engaged Scholarship Team Award

[Nomination Process and Selection Criteria](#)

Nomination Deadline: **March 1, 2024**

Please submit your nomination package and direct any questions to Diana Pitoulis at

diana.pitoulis@usask.ca

Distinguished Researcher Award

The Distinguished Researcher Award is presented annually to faculty members in recognition of significant contributions to knowledge or artistic creativity. Up to two awards may be given annually. The Distinguished Researcher Award applies to eligible candidates that received their Ph.D or terminal degree 10 or more years ago.

The Vice-President Research has issued a call for nominations for the Distinguished Researcher Award. [Nomination packages](#) can be submitted to candace.leuschen@usask.ca.

Nominations are due by **March 1, 2024**.

New Researcher Award

The New Researcher Award is presented annually to members of the university research community in recognition of significant contributions to knowledge or artistic creativity. Up to two awards may be presented annually. The New Researcher Award applies to eligible candidates who are within 10 years of receiving their Ph.D or terminal degree.

The Vice-President Research has issued a call for nominations for the New Researcher Award. Nomination packages can be submitted to candace.leuschen@usask.ca.

Nominations are due by **March 1, 2024**.

Nominations Open for USask Internationalization Recognition Awards

As part of the University of Saskatchewan Blueprint for Action 2025, the International Office announces the **J.W. George Ivany Internationalization Award, GlobalResearch 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 and students who provide outstanding contributions to the internationalization of USask. Nominate a deserving colleague for an Internationalization Award.

Nomination deadline: **March 29, 2024, 4 pm CST/SK time**

Visit internationaloffice.usask.ca/awards for details.

In the news

- Feb. 12 – MSN, CBC News – [World's globetrotting animals at risk due to habitat loss, climate change](#)
- Feb. 8 – CBC Radio – [Art exhibit shares the bond between dogs and humans in northern communities](#)
- Feb. 6 – Global News – [VIDEO director discusses research in Saskatchewan having a global impact](#)
- Feb. 5 – CBC Radio – [Is Saskatchewan facing a drought year?](#)
- Feb. 2 – The Globe and Mail – [Scientists report rare fossil tree unearthed in New Brunswick: 'Like something out of a Dr. Seuss book'](#)
- Feb. 1 – The Western Producer – [Livestock, forage research projects approved in Sask.](#)
- Jan. 29 – Saskatoon StarPhoenix – [University of Saskatchewan researcher studies shoulder pain in farm workers](#)
- Jan. 26 – Regina Leader-Post – [Expert calls out province over claim drug policy increased HIV, overdose rates](#)
- Jan. 25 – CTV Saskatoon – [Therapy dogs offer mental health support for U of S students](#)
- Jan. 19 – CTV Saskatoon – ['A methodical approach': Addictions expert applauds Sask.](#)

shifting policies on illicit drug use

- Jan. 17 – CBC Radio – [University of Sask. researchers are buying and burning weed for a one-of-its-kind study in Canada](#)
 - Jan. 16 – CBC News – [Extreme weather squeezes electricity systems. These strategies can help keep the power on](#)
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Banner image photo credit: **New Life Reveals All** - by **Dr. Kayla Buhler (PhD)**, recent alumna in Veterinary Microbiology

Images of Research 2023 - *Runner-up, Best Description*

When you think about climate change in the Arctic, pictures of polar bears and sea ice loss probably come to mind. You may not have thought about infectious diseases, even though they are emerging as temperatures warm. We have very little information about the diseases that northern wildlife encounter. So how do we measure any changes? This Arctic fox mom and her pups are part of a long-term disease study in Nunavut. Her pups, especially, provide a snapshot of the diseases that they encounter during the summer months. A little bit of blood collected from litters each year helps to build a picture of how climate impacts disease transmission in the Arctic.

Funders: Natural Science and Engineering Research Council of Canada, Weston Family Foundation, ArcticNet and Polar Knowledge Canada



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