



## October 2022 - Issue 57

*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!](#)

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### This Month's Stories

#### Singh contributing expertise to advisory panel

USask Vice-President Research **Baljit Singh** has been appointed to the newly launched Advisory Panel on the Federal Research Support System. Singh and six fellow panel members will provide independent, expert policy advice to optimize the supports provided to Canada's researchers, and foster collaboration within the research community, industry and government. To maximize the impacts of research and innovation, the panel will focus on the relationships among the three major federal granting agencies—NSERC, SSHRC and CIHR—and their relationship with the Canada Foundation for Innovation.



#### Delivering success: USask research sheds light on what makes maternity waiting homes work in low-income countries

Pregnancy- or childbirth-related death is rare in high-income, western countries, but not so in low- and middle-income countries. New research published by USask College of Medicine researcher Dr. **Nazeem Muhajarine** (PhD) tackles the questions of why, how, and under what conditions maternity waiting homes—facilities built for women in low-and middle-income countries about to deliver to access timely, professional care—lead to positive outcomes for mother and baby.

From analysis of over 100 studies, Muhajarine identified and validated nine sets of explanations about how and why the facilities succeed or fail.



## New USask post-doctoral fellows initiative to enhance interdisciplinary research activity

USask is now accepting applications for the second phase of *The Living Skies Post-Doctoral Fellows Program*, a new program that aims to increase interdisciplinary research activity by recruiting outstanding post-doctoral fellows (PDFs) from around the world.



USask has allocated \$2 million in one-time funding provided by the Government of Saskatchewan, as well as \$400,000 from the Vaccine and Infectious Disease Organization (VIDO). Through the pilot project, USask will recruit PDFs who have earned their PhD degrees at other universities, thereby bringing new citizens, and their talents and expertise, to Saskatchewan.

Prospective post-doctoral fellows cannot submit an application directly for this program. Faculty members need to [apply here](#) to recruit under this program.



### Settee brings a northerner's perspective to global climate issues

USask Professor Emeritus Dr. **Priscilla Settee** (PhD), USask professor emeritus and interim vice-dean Indigenous of the College of Arts and Science, has been invited to COP27, the 2022 United Nations Climate Change Conference being held in Egypt next month, to speak to Canadian and world

leaders on climate issues.

Settee, who is an expert on Indigenous food systems and food sovereignty and author the textbook *Indigenous Food Systems: Concepts, Cases, and Conversations* (2020), the first book of its kind in Canada, was invited to speak to the UN conference after a cross-Canada tour where she spoke about her research to First Nations and federal government leaders.

### GIFS at USask receives \$2.5 million in federal funds to modernize biomanufacturing in Canada

Prairies Economic Development Canada (PrairiesCan) has contributed \$2.5 million to the Global Institute for Food Security (GIFS) at USask to help build Canada's only biomanufacturing facility dedicated to advancing sustainable agriculture and innovative food ingredients.



This investment, provided through PrairiesCan's Regional Innovation Ecosystems (RIE) program, creates an agri-food hub in Saskatchewan and will help Canadian researchers and processors better compete in agri-food industries, increase the pace of research into sustainable agriculture, attract foreign investment to Canada, and supply training in this growing field of research, while creating high-quality jobs in Saskatchewan.



### to distraction, procrastination

USask researcher Dr. **Cody Phillips** (PhD) is breaking negative stereotypes about video games by using them as a tool for combating procrastination instead of causing it.

Phillips and his team recently received a Natural Sciences and Engineering Research Council of Canada (NSERC)

Discovery Grant to create video game-based tools to reduce procrastination for “knowledge workers” — people who work in areas that typically require significant formal training and use that knowledge for “thinking” jobs. His theory is that by leveraging video game mechanics, these workers can help combat the procrastination that comes with the burnout of working long hours.

### USask researchers’ study of Salmonella transmission first of its kind

Dr. **Aaron White** (PhD) and his team recently received an NSERC Discovery Grant of \$160,000 over five years to get to the heart — or the gut — of how and why Salmonella bacteria continue to thrive.



Before Salmonella bacteria can be purged from the body, White said the population splits into two forms: extremely infectious and virulent single-celled Salmonella, and cells that clump together to form what is called a “biofilm” — a cluster of cells that stick to each other and can survive for a long time in the environment. White’s research focuses on how Salmonella changes forms.



### Childhood diet may contribute to impacted wisdom teeth, USask research shows

USask doctoral student **Elsa Van Ankum**, studies why so many people have impacted wisdom teeth—the answer may lie in their diets and vitamin D in food. Van Ankum is travelling to Britain to collect data from human skeletal remains excavated from archeological sites, sampling remains from before and after 1850, when diets changed

due to the Industrial Revolution.

### Immigration data at one’s fingertips

Researchers at USask’s Canadian Hub for Applied and Social Research (CHASR) have teamed up with Lori Wilkinson, Canada Research Chair in Migration Futures at the University of Manitoba, to create a **Canadian Immigration Research Portal**. It’s an easy-to-use, powerful digital map that enables users to quickly find immigration-related data at a national level, down to individual communities. CHASR director **Jason Disano** says the





project shows the value of CHASR to academia and to local communities through developing real-world applications that provide relevant and timely data.



### Visual Representation of Saskatchewan's Soil Zones

USask's College of Agriculture and Bioresources presents a new, permanent art display—the Visual Representation of Saskatchewan's Soil Zones. Created by Emeritus Professor Dr. **Ken Van Rees** (PhD), the art brings together surface soil samples from the different soil zones across the province. Van Rees gathered soil every 25 kilometers along three highways 2, 9, and 21, from the U.S. border to as far north as Weyakwin, Hudson Bay, and Pierceland.

The exhibit is located on the second floor beside Ag Café, and open to the public. Detailed figures and data about the samples, including soil organic carbon measurements are available via QR code/[this link](#). CBC detailed Van Rees' experience creating this artwork in **July, 2021**.



### USask-led research team aims to develop vaccines for prion diseases



### USask on the rise in Maclean's rankings



### Global Water Futures Observatories a critical step towards water security for Canadians



### Brain differences in men and women could affect post-stroke outcomes

### USask honours faculty members named distinguished professors



**USask researcher targets pain relief from diabetic neuropathy**



**USask researcher tracks impact of Saskatoon's growth on wildlife**

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## *In* THE CONVERSATION

### **Indigenous food sovereignty requires better and more accurate data collection**

USask researcher Dr. **David Natcher** (PhD) discusses how data is crucial to informing policies that set out to support Indigenous engagement and diversity in the agriculture sector.



USask is a founding partner of the national academic newswire, **The Conversation Canada**, which provides independent, high-quality journalism. Get in touch with [Research Profile and Impact](#) if you are interested in submitting a story or opinion piece.

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Use the hashtag **#USaskResearch** when sharing USask-related research findings, publications or achievements on social media.

## Upcoming events



### SSHRC Matters: RESOLVing Saskatchewan Violence – Oct. 19

SSHRC Matters is a research conversation series that highlights the importance of social science, humanities and artistic research, scholarship, and expression, as well as its impact on our campus, in our communities, and for our world. This session will showcase academic and community-based research addressing the issue of violence in Saskatchewan, with a particular emphasis on the work of RESOLVE SK and its partners. A panel discussion will be held followed by a casual conversation.

**Room 261, Geology Building, 12:30 PM - 02:30 PM CST. Register.**



### Join Campus Conversations

*Campus Conversations*—conversations on research, scholarly, and artistic work at USask, hosted by the Office of the Vice-President Research—resumes for 2022-2023, starting Oct. 20.

The events are an opportunity for VP Research Baljit Singh and the OVPR leadership to connect with and hear from staff, students, and especially researchers at USask. Dr. Dawn Wallin, Associate Vice-President Research (Engagement), will be facilitating this first meeting of the year.

Mark your calendars. Everyone is welcome.

The 2022-23 Campus Conversations will be held in person from **noon to 12:45 p.m.** on:

- Oct. 20 in EDUC 1004;
- Dec. 8, at Convocation Hall;
- Jan. 25, 2023 at Convocation Hall;
- Mar. 22, at Convocation Hall;
- May 3, in HLTH GB06; and
- June 14, at Convocation Hall



### DIEFENPEARSON: Reluctant Partners in the Birth of Modern Canada – Oct. 21

Featuring **John Ibbitson**, *Globe and Mail* journalist and author

Conventional wisdom holds that John Diefenbaker presided over three chaotic and ultimately failed governments, while his successor, Lester B. Pearson, established the foundations of Canada's welfare state. This isn't true. While Diefenbaker struggled with his personal demons, his governments launched major reforms in immigration, health care, pensions, equalization and human

rights that Pearson's governments then built on, even as Pearson delivered a new national vision of Canada beyond Diefenbaker's grasp. Though the two men fought for a decade in Canada's most bitter political rivalry, each needed the other to create the Canada we live in today.

Diefenbaker Building, 101 Diefenbaker Place, 03:00 PM - 04:00 PM CST, **RSVP**



### Mark your calendars: TEDxUniversityofSaskatchewan happening Jan. 22, 2023

TEDxUniversityofSaskatchewan is an event filled with a suite of short, carefully prepared talks, demonstrations and performances that engages those with the bold ambition to be what the world needs by fostering learning and wonder, sparking conversations that matter and stimulating courageous curiosity, boundless collaboration and inspired communities.

Plans are underway for an exciting line up of speakers, performers and activities. Stay tuned for more details and visit [research.usask.ca/tedx](https://research.usask.ca/tedx).

### Elements of Research Storytelling

This three-part "*How to tell your research story*" series will highlight effective ways to mix media and pull together key storytelling elements to effectively share your research story.



- Oct. 26 – **Visual Content with special guest Dave Stobbe**
- Nov. 30 – **Video Content**
- Dec. 14 – **Written Content**

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### *In the news*

- Oct. 12 – CBC News Network Online - **Sask. survey on gov't funding independent education finds less support for religious-based schools than others**
- Oct. 7 – MSN, Vancouver Sun - **\_Has Canada lost its way?**
- Oct. 5 – CBC News Network Online - **Producers experiencing water shortages in southwest Sask.**
- Oct. 4 – CKMM, CJWW, CTV Winnipeg - **Strokes impact men and women differently**
- Sept. 29 – MSN Health CA - **U of S researcher targets pain relief from diabetic neuropathy**
- Sept. 27 – IBNLive, ThePrint.in, Hindustan Times - **Punjab CM Mann Bats for Strengthening of Ties with Canada, Especially in Saskatchewan Province**
- Sept. 22 – MSN, CBS, Global News, Television NZ, Yahoo! News, ABC News, LA Times Online, AP News, San Francisco Chronicle, National Post, Toronto Star, Hamilton Spectator, NBC News - **'Once-in-a-lifetime' Tonga blast could warm the Earth temporarily**





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