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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!

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This Month's Stories



USask major scientific centres awarded MSI funding of \$170M

Four flagship research centres at the University of Saskatchewan (USask) uniquely equipped to keep Canada at the forefront internationally in vaccine development, imaging science, sustainable water management and space weather monitoring have been awarded nearly \$170 million.

USask chemists solve 27-year-old riddle, produce promising new compound

USask chemists have successfully produced for the first time a new, stable organic compound which has eluded other scientists for more than 27 years. **Dr. Michel Gravel (PhD)**, lead researcher and professor of chemistry at USask's College of Arts and Science, succeeded where others fell short. While researchers theorized in 1995 the existence of a stable form of [10]annulene, a flat ring of 10 carbon atoms which are attached together by alternating single and double bonds, it has proven impossible to produce in the laboratory—until now.



Regrowing nerves, understanding severe period pain, eliminating HIV infection, and fibrotic diseases are focus of new USask research

The Canadian Institutes of Health Research (CIHR) has awarded Project Grants to a range of USask research projects: **Dr. Valerie Verge (PhD)** is co-leading a project



developing a non-invasive therapy to treat peripheral nerve injuries, **Dr. Michelle Gagnon (PhD)** aims to improve understanding of menstrual pain in female youth, **Dr. Kerry Lavender (PhD)** is developing a more targeted viral treatment for curing AIDS caused by HIV infections, and **Dr. Andrew Leask (PhD)** is researching ways to reduce the occurrence of fibrotic diseases, which currently account for almost 45 per cent of health care costs in developed nations.

Rare instruments see light of day with new series- -*Discovering the Amatis*

USask's quartet of historic Amati string instruments is featured in a four-concert series launched Sept. 11. The *Discovering the Amatis* series is curated by **Dr. Véronique Mathieu (D.Mus)**, associate professor of violin and the David L. Kaplan Chair in Music, and features some of Canada's best players.



USask research informing decision on national school food program

Dr. Rachel Engler-Stringer (PhD), professor in community health and epidemiology, is partnering with community agencies and multidisciplinary academics to inform federal decision-making on a nationally harmonized school food program. Canada is the only G-7 nation that does not have a national school food program.

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Bold USask projects aim to advance MS therapy, agriculture innovation

Three interdisciplinary health and agriculture projects led by USask researchers have been awarded \$250,000 each under the federal New Frontiers in Research Fund Exploration grant program that aims to foster innovative high-risk research with the potential to yield significant and impactful results.

Dr. Graham George (D.Phil.), professor in geological sciences in USask's College of Arts and Science, will lead a team to study the role of metals in neurological disease development.

Dr. Leon Kochian (PhD), professor in USask's College of Agriculture and Bioresources, and Canada Excellence Research Chair in Global Food Security, lead a team to develop climate-resilient crops through improved root traits.

Dr. Tim Sharbel (PhD), professor in USask's College of Agriculture and Bioresources, is aiming to create diverse varieties of canola with desirable traits, using the plant's asexual reproduction capacity.

USask history student wins Fulbright research award

USask doctoral candidate **Mckelvey Kelly** will study the history of the Wyandot Nation of Kansas, thanks to a \$25,000 US Fulbright scholarship award. Supervised by **Dr. Kathryn Labelle (PhD)**, Kelly will spend the next nine months in Kansas conducting community-engaged research at the University of Kansas in cooperation with the Wyandot Nation, meeting with Chiefs, Elders, and leaders of the nation, and visiting local government, university and community archives.



New research on lead exposure risks from bullets used in big game hunting

The lead in some bullets used for hunting deer, moose, and elk is toxic to the humans who eat the harvested meat, and to scavenger animals that feast on remains left in the field.

A team of researchers from USask's Canadian Light Source synchrotron and College of Medicine, including **Dr. Adam Leontowich** (PhD - pictured), has for the first time, used synchrotron imaging to study both the size and spread of bullet fragments in big game shot by hunters. Their findings were published in *PLOS One*.

Pewaseskwan at USask to work with The Key First Nation and Yorkton Tribal Council on researching heart disease and Kennedy's Disease

Co-led by **Dr. Alexandra King (MD)** of Nipissing First Nation, pewaseskwan Indigenous Wellness Research Group at USask has partnered with The Key First Nation and Yorkton Tribal Council to support research on heart disease and spinal-bulbar muscular atrophy, also known as Kennedy's Disease. There is a need for culturally responsive health research, services and programming that prioritize Indigenous knowledge systems, create ethical space between Indigenous and Western systems, and ensure culturally safe and resonant Western approaches, King said.



Fire-adapted insects make the most of breeding grounds sterilized by wildfires: USask research

With a rise in the number of wildfires in Saskatchewan and elsewhere each year, burnt landscapes stripped of plant life

are becoming more common. Most creatures find a burnt environment uninhabitable, but a USask research team including adjunct professor **Dr. Iain Phillips (PhD)**, PhD candidate **Aaron Bell**, and USask alumna **Kiara Calladine** has discovered how certain species of insects use these scorched lands as a safe location to lay eggs.



USask team's dorm monitoring project shows passive COVID-19 sampling effective: paper



From doctoral thesis to coffee-table book, for USask researcher



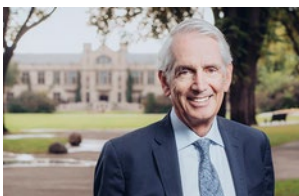
Research finds insecticides impair a bee's ability to move in a straight line



USask alum named president of Canadian Medical Association



USask researchers studying zebrafish to get to the heart of your heartbeat



USask President Stoicheff selected to head Canada's U15 group of universities



USask's Dr. Vivian Ramsden (PhD) elected Canadian Academy of Health Sciences Fellow

USask team plans unique facility to develop, test alternative fish



food



How does dairy affect a child's growth and development? USask researchers determined to find out



Young Innovators: USask researcher says pain assessment tools can be more inclusive

In THE CONVERSATION

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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From the Office of the Vice-President Research



ICYMI: VP Research Baljit Singh's Annual Campus Address

On Friday, Sept. 16, USask VP Research Baljit Singh delivered his annual campus address in Convocation Hall. VP Singh reviewed the past year's research progress and accomplishments and set forth his priorities for the upcoming year. The event was attended in person and livestreamed online. [Watch a recording of the event.](#)

Stay connected with research news



Click the icon to the left 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 follow [USask Research on LinkedIn](#), [@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.

Upcoming events



Announcing TEDxUniversityofSaskatchewan 2022: Call for speakers and performers

Universities play a vital role in nurturing, empowering, and unleashing the curiosity that will allow us to imagine a brighter, more sustainable future. In the spirit of ideas worth spreading, USask will host a TEDx event. We are looking for pioneers in discovery who are improving lives, expanding opportunities, strengthening social cohesion and protecting the environment to share their voice and vision. This year's theme is, "Be What the World Needs." To apply to speak or perform at this year's event, **fill out this form** by Sept. 29. More details on the event will be shared soon. You can stay up-to-date by visiting 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**



Join the Campus Conversation

Welcome to the start of another academic year and, with it, the resumption of Campus Conversations on Research, Scholarly, and Artistic Work at USask. These events enable researchers, students and staff discuss issues or ask questions of Vice President Research Baljit Singh and his team.

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.

In the news

- Aug. 16 – *The Star Phoenix* - **Saskatchewan waste water teams consider testing for polio, monkeypox**
- Aug. 17 – *Global News* - **USask research collaboration into MS could hint towards a treatment**

- Aug. 22 – *The Star Phoenix* - **University of Saskatchewan institutes get \$170 million from federal government**
- Aug. 22 – *CBC* - **Funding for USask-led water monitoring network will help understand, manage floods, drought: director**
- Aug. 23 – *CJWW* - **University of Saskatchewan awarded more than a quarter of available federal funding**
- Aug. 24 – *Global News* - **USask researchers discover lead in bullets spreads in small fragments, advocate switch to copper**
- Aug. 26 – *RealAgriculture.com* - **Pulse School: Differentiating between aphanomyces and fusarium root rot**
- Aug. 26 – *The Star Phoenix* - **Saskatchewan team treats chronic pain from hundreds of kilometres away**
- Aug. 30 – *CTV News* - **University of Sask. researchers investigate advanced HIV treatment**
- Aug. 31 – *Global News* - **University of Saskatchewan research project aims to cure HIV**
- Sept. 5 – *CBC* - **Pets we call our 'fur babies' offer us more than just companionship**
- Sept. 7 – *CNN* - **Comfort dogs are greeting Uvalde students for their return to school. Here's how canine visitors can help after tragedy**
- Sept. 12 – *CBC* - **Ripe for the picking: how people are growing fruit that's not so common in Sask.**
- Sept. 12 – *CBC* - **Sask. wastewater studies show COVID-19 levels on the rise across province**
- Sept. 13 – *Global News* - **Saskatchewan's COVID-19 wastewater surveillance shows another jump in viral load**
- Sept 15 - *University Affairs* - **Universities are monitoring the monkeypox threat as the fall session gets underway**
- Sept. 15 – *CTV News* - **YXE Underground digs into water security in Saskatoon**



BE WHAT THE WORLD NEEDS

We want your feedback! What do you think of Discovery Digest?

You are receiving this email because you are a student, faculty or staff at USask. Questions? Comments? Send an email to **Research Profile and Impact**.
