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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



[Organoid research key to exploring relationship between Crohn's and mental health](#)

A multidisciplinary team of USask researchers is using innovative organoid models to explore connections between Crohn's disease and mental health disorders.

"We'll be basically building a miniaturized model of a Crohn's patient to look at how the brain organoid interacts with the intestinal organoids to hopefully support the theory that this is one disease affecting the whole body," said **Dr. Amanda Hall (MD)**, assistant professor of surgery in USask's College of Medicine and a pediatric surgeon with the Saskatchewan Health Authority (SHA).

The USask team received \$150,000 over three years from the Saskatchewan Health Research Foundation (SHRF) Establishment Grant program to build out this research program.

[USask co-leads of first-ever nationwide One Health training program](#)

A new training program co-led by the University of Saskatchewan (USask) will help prepare and train researchers to identify and prevent the threat of disease against animal and



human populations..

The Canadian One Health Training Program on Emerging Zoonoses (COHTPEZ), a first-of-its-kind program in Canada, received \$2.7 million from the Canadian Institutes of Health Research (CIHR).

The program was co-designed with input from experts at various government and not-for-profit bodies, as well as from academic and research institutes like USask, Dalhousie University, the University of Guelph, the University of Montreal, the University of Toronto and York University.

"This new national training program on One Health and Zoonosis will fill critical gaps in our workforce to tackle emerging zoonotic pathogens and help prevent the next pandemic," said **Dr. Arinjary Banerjee (PhD)**, professor of veterinary microbiology in USask's Western College of Veterinary Medicine and a co-lead of the USask One Health Signature Area of Research.



[International USask collaboration discovers environmental impacts of soft plastic fishing lures](#)

Soft plastic fishing lures are becoming more and more popular among anglers as a more natural-feeling and economically-friendly option – but a recent collaborative international study suggests there may be environmental risks to consider when using them.

An international team of researchers from USask, the Thünen Institutes of Baltic Sea Fisheries and Fisheries Ecology in Germany, and the Toronto Metropolitan University published a paper in [Science of the Total Environment](#) that reveals the environmental and human health impacts of using soft plastic fishing lures.

Dr. Markus Brinkmann (PhD), a co-author of the paper and the director of the Toxicology Centre at USask, said a chemical analysis of soft plastic lures indicated there were potential hazards to using them.

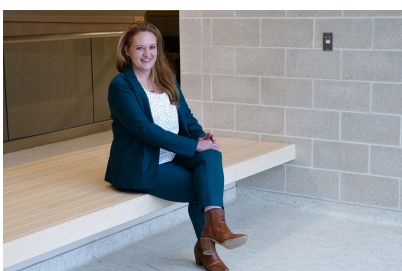
[Getting to know the School for the Arts inaugural director](#)

The creation of the School for the Arts is the result of a multi-

year project within the College of Arts and Science to elevate fine arts programming. As part of this revisioning project, the Department of Art and Art History, Department of Drama, and Department of Music have merged into a single school as of July 1.



Dr. Andrew Denton (PhD)'s artistic and scholarly works have included collaborations with his partner, Jennifer Nikolai, a dancer—choreographer, scholar, and associate professor. The pair have collaborated as co-researchers on projects involving film, dance, and live performance technologies. Denton's other interdisciplinary collaborative research projects have included working with Antarctic geoscientists, dance and ageing, and early childhood engagements with water and the lived environment.



[USask researcher secures CIHR funding for groundbreaking work on histamine and emerging pathogens](#)

From invading the host immune system to gathering nutrients needed to survive and thrive, opportunistic bacteria use many unique strategies to cause infection.

Dr. Jessica Sheldon (PhD), assistant professor in biochemistry, microbiology and immunology in the College of Medicine at USask is focused on drug-resistant bacteria and their interactions with histamine, a chemical commonly associated with our immune system and allergies.

“Our main focus for the CIHR grant is teasing apart what the host histamine is doing and what the bacterial histamine is doing,” said Sheldon.

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

[USask farm shoulder study shows research in action at Ag in Motion](#)

The Canadian Centre for Rural and Agricultural Health (CCRHA) at USask partnered with industry to conduct much-needed research at the recent annual Ag in Motion outdoor agricultural show near Langham, Sask., July 16-18, 2024.



Dr. Angelica Lang (PhD), faculty lead of the musculoskeletal and ergonomics lab at the centre, is researching shoulder movement during basic farm tasks to better understand how

common shoulder injuries develop in farmers.

Morris Equipment and its sister company, RiteWay Manufacturing, provided the agricultural equipment needed for the research study.



[USask agriculture, environmental sustainability projects receive Canadian Space Agency funding](#)

Two innovative USask research projects have received funding from the Canadian Space Agency (CSA) to use satellite technology for detailed mapping and analysis of the Earth's surface.

Dr. Steve Shirliffe (PhD), a professor with the College of Agriculture and Bioresources, is leading a research project to map “hot spots” in growers’ fields where the greenhouse gas nitrous oxide emissions should be the greatest.

Dr. Xulin Guo (PhD), department head of Geography and Planning in the College of Arts and Science, is leading another USask research team which aims to develop new ways to monitor woody plant encroachment and protect the grasslands of Saskatchewan and Canada, which are critical reservoirs of biodiversity and wildlife habitat.

[‘There’s no other place for me to be’: Neuroscientist joins veterinary college at USask](#)

From a young age, **Dr. Olamide Adebisi (DVM, PhD)** has loved animals and teaching — two interests that eventually led to her career in veterinary medicine and academia.



Now she’s preparing for the next step in her career: a move to USask and the Western College of Veterinary Medicine (WCVM). This summer, Adebisi will join the Department of Veterinary Biomedical Sciences as an assistant professor of neuroscience, where she will continue her research activities and teach courses in the college’s DVM program.

Her research lab, Myelin in Neurodegenerative and Neurotoxic Disorders (MyNND), will serve as a hub for collaboration and a translational approach to her research on demyelination and cognition.

[Canadian Light Source appoints leading researcher as Chief Science Officer](#)

The Canadian Light Source (CLS) at USask has appointed **Dr. Ingrid Pickering (PhD)** as its new Chief Science Officer.

A professor and Tier 1 Canada Research Chair in Molecular



Environmental Science at USask, Pickering is appointed for a 5-year term.

With more than 225 peer-reviewed publications and 21,500 citations, Pickering leads a cross-disciplinary research team that uses and develops synchrotron techniques to investigate the roles and impact of essential and toxic elements in the environment and human health.

[USask professors awarded Distinguished Agrologist Awards](#)

Two researchers from the Crop Development Centre at USask have been awarded Distinguished Agrologist awards for their outstanding service and worthy contributions to agriculture, bioresources, food and the environment.



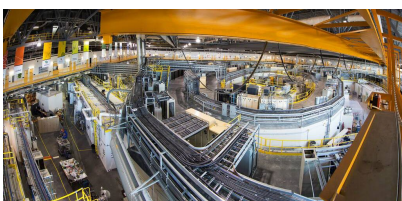
The Saskatchewan Institute of Agrologists Distinguished Agrologists Award is presented to a Saskatchewan agrologist for professional distinction associated with outstanding service and worthy contributions to agriculture, bioresources, food or the environment.

Dr. Sabine Banniza (PhD) is a well-known plant pathologist specializing in pulse crop diseases such as aphanomyces.

Dr. Pierre Hucl (PhD) is a plant breeder at the Crop Development Centre. His work has resulted in significant improvements in wheat productivity.



[Sun safety in agriculture: USask partnership at Ag in Motion](#)



[Finding solutions to problem of clumping in potash](#)



[Cultivating creative minds: The impact of arts education](#)

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*...

Check out USask's previous pieces in *The Conversation* at the [link here](#)!

Upcoming events

You're Invited – Vice-President Research 2024-25 Campus Address

Join Vice-President Research, Baljit Singh, to kick off the 2024-25 academic year by celebrating successes, identifying opportunities and setting goals surrounding research, scholarly and artistic work (RSAW) at USask! Attendees are encouraged to enjoy cake and socializing following the formal program.



- 2024-25 Campus Address – Wednesday, September 4, 2024, 12:00pm CST, Convocation Hall. Live stream option also available. Learn more and register [here](#)!



Registration is now open for the People Around the World (PAW) 2024 International Congress

USask is proud to be hosting the 6th annual PAW 2024 International Congress, October 16 – 18. PAW 2024 International Congress aims to advance USask's internationalization efforts in global research, sustainable

partnerships and collaborative projects with partners around the world. This year's congress will explore the theme of the Food-Water-Energy nexus, using data as a cross-cutting concept to help address socio-cultural challenges occurring locally and globally. Bringing together experts and innovators, this event aims to share insights and help shape the future of sustainable solutions.

- PAW 2024 International Congress – October 16-18, 2024. To learn more and register for PAW 2024 International Congress, click [here!](#)

Learn how Opus at USask can support you!

The Opus Info Session covers everything you need to know about the various programs Opus offers – from supporting a general interest in entrepreneurship to building your business acumen as you start a venture.

Join the Opus team on September 10th from 5:00-6:30 at the Collider Hub. Light food and beverages will be provided.



- Opus Info Session – September 10, 2024, 5:00-6:30pm – Collider Hub. Register for free [here!](#)



Participate in USask's inaugural One Health Symposium

The One Health Symposium celebrates and highlights the outstanding One Health-based research being conducted at USask. This coming together across disciplines will serve as a forum for learning, discussion and the provoking of new ideas and collaborations. The symposium is hosted by USask's One Health Signature Area of Research, whose

interdisciplinary work addresses the interconnectedness and interdependence between human, animal and environmental health.

This one-day event will be held on November 23th in USask's Health Sciences Building.

The call for abstracts is open until September 13th. [Click here](#) to learn more, submit an abstract and register for the event.

- One Health Symposium – November 23, 2024 – Health Sciences Building

Register for Agriculture Research Day on September 25!

Agriculture Research Day is open to all students, postdoctoral fellows, faculty, and staff conducting research in the Agriculture Signature Area at the University of Saskatchewan.

It's an excellent opportunity to practice research communication, network, and enhance your CV, all while



promoting the diversity of agriculture research across campus.

There will also be cash prizes for the best posters and poster presentations!

Register by September 18, 2024 at [the link here](#) to be part of the poster presentation.

- Agriculture Research Day – September 25, 2024 – Agriculture Building 2nd Floor
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Save the Date! Giving Day 2024

Giving Day 2024 will take place on Tuesday, September 10. Giving Day is a one-day fundraising initiative to bring campus and the larger university community together in support of the Be What the World Needs Campaign.

This year, we will focus on highlighting the four pillars of the campaign – Student Success, Indigenous Achievement, Critical Research, Visionary Spaces—and their associated funds.

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

Have a research event to share? Email research.communications@usask.ca with the subject line "Discovery Digest - Event" and let us know!

NEW - Information for researchers



Apply to speak or perform at

TEDxUniversityofSaskatchewan 2025!

USask is home to researchers, scholars, artists and leaders who inspire impact locally, nationally and around the world. We invite students, staff, faculty and alumni to apply to share their innovations, ideas and creativity on the 2025 TEDxUniversityofSaskatchewan stage!

Applications due September 6, 2024, 4:00pm CST.

[Learn more and apply here.](#)

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

- August 13 – The Saskatoon StarPhoenix – [University of Saskatchewan research gets Canadian Space Agency funding](#)
 - August 12 – Chemical and Engineering News – [Can chemical AI help solve the fentanyl crisis?](#)
 - August 9 – Global News – [Sask. family takes it 'one day at a time' after son's diagnosis: Sanfilippo syndrome](#)
 - August 7 – The Western Producer – [Watch for copper, selenium deficiencies in beef calves](#)
 - August 2 – CBC News, Yahoo! News – [An Oregon tree study could help northern forests weather the climate crisis](#)
 - August 1 – CBC News – [Wildfires devastated Jasper. The soot and ash are putting Alberta's glaciers at risk, scientists warn](#)
 - July 26 – MSN News, The Mirror – [Bird flu outbreak sees three more humans test positive as H5N1 virus tears through farms](#)
 - July 26 – MSN News, Global News – [University of Sask.'s VIDO facility is raising its game in vaccine research](#)
 - July 22 – CBC Radio – [While searching for grizzly bear dens, U of S researchers make an unexpected discovery of polar bear dens](#)
 - July 18 – CBC News – [Yukon's Eagle mine failure comes during 'disastrous' salmon run](#)
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Banner image photo credit: **Family of Fungi** - by **Olivia Yurach**, MSc student, Department of Soil Science, College of Agriculture and Bioresources

Images of Research 2024 - *Winner, From the Field*

In northern Saskatchewan, ecological restoration research is seeking to understand recovery post-disturbance. These mushrooms were spotted while collecting blueberry seeds for propagation so we can study the role moss and blueberries have on boreal soil systems.



BE WHAT THE WORLD NEEDS

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

You are receiving this email because you either subscribed manually to Discovery Digest or were a former subscriber to USask Monthly Research Update. Questions? Comments? Send an email to [Research Profile and Impact](#).
