

July 2025

CIHR Spring 2025 Project Grant Winners



Congratulations to the CIHR Spring 2025 Project Grant awardees from the Snyder Institute. We're proud to recognize the important work being done across our community. Their projects cover diverse fields including pain signaling, metabolism, immunotherapy, neuroinflammation, trauma, autophagy, cardiology,

salmonella, and more. Their innovative work continues to demonstrate the strength and impact of Snyder Institute researchers.

- **Christophe Altier** – ALKAL2-ALK signaling in spontaneous neuropathic pain
- **Simon Hirota** – The regulation of intestinal first-pass metabolism by IL-22 - understanding the link between host-microbe/pathogen interactions and alterations in drug metabolism
- **Raynell Lang** – A Trauma Screening Program for People with HIV: Development of a patient-centered Trauma Screening Questionnaire and Implementation Guidance for HIV care programs
- **Andrew Leidal** – Deciphering the role of autophagy-dependent secretion in influenza A virus infection

- **Shalina Ousman** – The gut microbiome and neuroinflammation and neurodegeneration in a model of progressive multiple sclerosis
- **Elissa Rennert-May** – Population-based Assessment of Cardiac Implantable Electronic Device Infections in Canada: The PACED Study
- **Bas Surewaard** – Microscopy-Driven Insights into Salmonella O-Antigen's Role in Kupffer Cell Immune Evasion during Bloodstream Infections
- **Christina Thornton** – Deciphering How Host-Microbe and Microbe-Microbe Interactions Drives Bronchiectasis Outcomes

Medical research in the U.S. is on the chopping block. What's at stake for Canadians?



As U.S. slashes medical research funding, tough questions emerge about Canada's own investment in science. Not just that, vital research into treatments for major diseases could be stunted. Why should we as Canadians be concerned about this situation? How does medical research funding differ in Canada? Is it better or worse, and do we get more bang for our buck?, writes Dr. Chris Mody and Mary Siliveru. [Read more.](#)

Snyder Institute Research Day 2025 | September 23



We are pleased to announce that this year's Snyder Institute Research Day will be held on Tuesday, September 23, in HSC Theatre 4 and the HRIC Atrium. The 2025 Research Day will spotlight exciting discoveries in the multi-omics era, with presentations by Drs. Yasmin Nasser, Arshad Ayyaz, Christophe Altier, Jeff Biernaskie, Justin Chun, Craig Jenne, Jonathan Canton, and Franz Zemp. This is a great opportunity for

Snyder members to connect with colleagues, trainees, and staff. The day will conclude with a reception in the HRIC Atrium. Registration is required, and lunch and a reception will be provided to all registered attendees. Please register by Tuesday, September 16, 2025. We look forward to seeing you there! [Click here to register.](#)

Dr. Craig Jenne Speaks to the *New York Times* About Rising Measles Cases in Alberta



Dr. Craig Jenne discusses the rise in measles cases among children and its impact in Alberta. Provincial figures show that about 71% of children in Alberta are fully vaccinated by the age of 7. Some of the hardest hit parts of Alberta have immunization rates of under 50%, well below the 95% threshold for herd immunity, says Dr. Jenne. [Read more.](#)

Publications

- Wu, Z., Kondo, A., McGrady, M., Baker, E. A. G., Chidester, B., Wu, E., Rahim, M. K., **Bracey, N. A.**, Charu, V., Cho, R. J., Cheng, J. B., Afkarian, M., Zou, J., Mayer, A. T., & Trevino, A. E. [Discovery and generalization of tissue structures from spatial omics data.](#) *Cell Reports Methods* (2024)
- **Niloofer Mirzadzare**, N., Blyth, G. A. D., Hannawayya, R., Cirone, K. M., Kilari, G., Lahiri, P., Tan, Y. L., Herik, A. I., Fu, Y., Gorman, H., **Bjorn Petri, Kris Chadee, & Eduardo R. Cobo.** [Cathelicidin regulates goblet cell mucus secretion and mucus-associated proteins in *Citrobacter rodentium*-induced colitis.](#) *Gut Microbes* (2025)
- Puentes, R., **Niloofer Mirzadzare.**, Hannawayya, R., Perez-Perez, L., Dies, A., Tiedje, K., Derakhshani, A., Young, D., Johnson, F., Golub, L., Scaduto, J., **Antoine Dufour, & Eduardo R. Cobo.** [A curcumin derivative metalloprotease inhibitor \(CMC2.24\) mitigates *Brachyspira* spp.-induced swine dysentery.](#) *International Immunopharmacology* (2025)

Education News

Joan Snyder Award for Research Excellence | Deadline: August 8



Apply for the prestigious Joan Snyder Award for Research Excellence. This award recognizes an outstanding national or international scientist alongside an exceptional Snyder Institute trainee from equity-deserving gender groups (women, transgender, non-binary). The trainee will receive a \$10,000 scholarship, a \$5,000 research allowance, mentorship opportunities and a chance to present with the external awardee. Eligible trainees (MSc, PhD, PDF) must be members of the Snyder Institute and demonstrate scientific

excellence relative to their career stage. Self-nominations and nominations by Snyder members are welcome. Submit your complete application, including a nomination letter, application form and modified Tri-Agency CV as a single PDF to snydered@ucalgary.ca by August 8, 2025, 5:00 pm MST. [Learn more](#).

Snyder Summer Student Research Day | August 20



Join us for the Snyder Summer Student Research Day on August 20, 2025! While the abstract submission deadline was August 1st, we encourage you to attend and support the student presentations. Whether you're presenting or attending,

it's a great chance to connect with others, learn about exciting summer research, and celebrate the work of our Snyder Summer Students.

Microbiology Research Group Seminar | August 21



Join us for a special Microbiology Research Group Seminar hosted by the Snyder, Microbiology and Infection Biology Research Groups on Thursday, August 21, 2025, from 10:00 to 11:00 a.m. in HSC 1500. We're excited to welcome two outstanding invited speakers from University Medical Center Utrecht (The Netherlands): Dr. Dani Heesterbeek, presenting "*Bactericidal Membrane Attack Complex formation initiates at the new pole of E. coli*", and Dr. Bart Bardoel, presenting "*Identification of antibodies against K. pneumoniae*

that synergistically drive complement activation." Both speakers are internationally recognized for their groundbreaking research in bacterial pathogenesis, high-resolution imaging, complement biology and host-pathogen interactions. Faculty, trainees and staff are encouraged to attend and join the discussion. For more information, contact [Dr. Bas Surewaard](#).

Brew Lab Nomination Form



Join *Brew Lab*, a new science communication event co-hosted by the University of Calgary, RCIScience and TELUS Spark Science Centre, bringing researchers and the public together for an evening of engaging, accessible storytelling at Establishment Brewing on Thursday, October 16. If you are interested in delivering a short, 15-minute interactive talk designed for a general audience, no jargon, just compelling science and great stories, [please fill out this form](#). Talks should be clear, have real-world relevance, be fun and easy to understand and

encourage conversation rather than lectures. Researchers, scientists and communicators from all disciplines and career stages are welcome to apply or be nominated.

CSM Health Innovation & Commercialization Newsletter



The Innovation and Commercialization Office at the Cumming School of Medicine is launching a newsletter for faculty, staff and students who are interested in translating health research into real-world impact. This newsletter will feature resources, funding opportunities, success stories and updates on translational research happening across the CSM community. If you'd like to stay connected and be part of this growing innovation network, take a moment to fill out a short survey to subscribe. [Click here to learn more.](#)

Upcoming Events

BBQ Lunch Fundraiser | August 6



Join for a BBQ lunch fundraiser on Wednesday, August 6, 2025, from 11:45 a.m. to 1:00 p.m. in the courtyard outside the Azrieli Atrium (HRIC Atrium) on Foothills Campus. For \$10 (cash only), enjoy a cheeseburger, chips and a drink; vegetarian option available. All proceeds go to the Foothills Campus Community Pantry to support food security on campus. Non-perishable food items and cash donations will also be collected. Hosted by the Precision Equity & Social Justice Office (PESJO) at the Cumming School of Medicine.

Congrats

- The State University of New York at Oswego proudly presented to Snyder member Dr. Antoine Dufour, Class of 2005, with the 2025 Distinguished Alumnus Award during Reunion Weekend, the highest honor bestowed by the Oswego Alumni Association. The award recognizes alumni who have achieved national or international distinction in their field. Congratulations!

- Congratulations to Dr. May Choi on receiving the Canadian Institutes of Health Research (CIHR) Catalyst Grant: Digital Health – Early to Mid-Career Researcher for the project titled Automated Sarcopenia Assessment using Routinely Acquired Computed Tomography Imaging of the Head and Neck (SARCO).
- Congratulations to Drs. Ranjani Somayaji and Ganesh Swamy on receiving the McCaig/Snyder SPARC Ignite Grant!
- Congratulations to Cleo Hendrickson for presenting at the International Seminar on Microbiome and Neurological Disorders in Herborn Dill, Germany, and winning the Best Poster Presentation award.
- Congratulations to Dr. Shalina Ousman on being promoted to Professor. We wish you continued success in your future research, teaching and mentorship.
- Congratulations to Hayley Gorman, postdoctoral fellow in Dr. Kris Chadee's lab, on receiving the Achievers in Medical Science (AIMS) Postdoctoral Fellowship. The award provides two years of support along with a \$5,000 annual research allowance.

In The News

- **CBC News**

This lab asks research volunteers to breathe in toxic fumes — and they do it willingly

Dr. Kerri Johansson spoke to CBC about the effects of wildfire smoke and air pollution on the human body. [Read more.](#)

- **UToday**

Ask Me Something: How to stay healthy when wildfire smoke is in the air

Dr. Brandie Walker answers frequently asked questions about smoky air and other air-quality concerns. [Read more.](#)

- **Western Standard**

Alberta influenza deaths reach 16-year high

Dr. Daniel Gregson discusses the new strain of measles and its impact. [Read more.](#)

- **City News, Economic Times, CBC, EL Pais, CTV News, Calgary Herald**

Alberta influenza deaths reach 16-year high

Dr. Daniel Gregson discusses the new strain of measles and its impact. [City News](#), [Economic Times](#), [CBC](#), [EL Pais](#), [CTV News](#), [Calgary Herald](#), [CBC -2](#)

Innovation and Commercialization Office

The Innovation and Commercialization Office at the Cumming School of Medicine is launching a new newsletter focused on helping faculty, staff and students explore the commercialization potential of their research. Whether you're developing a translational project, considering a start-up, or just curious about how discoveries move from lab to market, this Commercialization Office will share resources, success stories and support available at CSM. Learn how health research can lead to real-world products, services and companies—and how you can be part of that journey. [Learn more.](#)

Help Improve Recognition for Core Facility Staff – Take the Survey



GLOBAL BIOIMAGING
growing collaboration

**Authorship and Acknowledgement
of Imaging Core Facility
contributions in publications**

Are you working in an Imaging Core Facility or performing equivalent support roles? We need your voice!

Take 5 minutes to share your perspectives:

- How core facility staff contributions are recognised in publications.
- Institutional policies on authorship and acknowledgments.
- The impact of recognition - or lack thereof - on career paths and our community.

Help us advocate for **better recognition of core facility staff!**



Are you working in an Imaging Core Facility or a similar support role? Share your experience in a quick 5-minute survey on how core facility staff are recognized in publications, institutional policies on authorship, and how this affects careers. Your input will support advocacy for better recognition across the research community. [Fill survey here.](#)

Pillai Lab ddPCR Services



Pillai Lab ddPCR Services

ddPCR is a highly sensitive and robust nucleic acid amplification test (NAAT) that offers several key advantages over traditional qPCR:

- Absolute quantification without the need for standard curves
- High precision and reproducibility, even at low copy numbers
- Superior tolerance to PCR inhibitors

ddPCR is particularly well-suited for detecting low-abundance targets, resolving SNPs, and quantifying subtle changes in nucleic acid levels. Its versatility makes it a powerful tool across various research and clinical applications, including:

- Liquid biopsy
- Copy number variation (CNV) analysis
- Rare mutation and sequence detection
- Gene expression profiling
- Single-cell analysis
- Wastewater surveillance
- Pathogen detection and microbiome profiling
- Next-generation sequencing (NGS) workflows

Contact Information

The Pillai Lab has proudly operated a ddPCR system for over five years. For inquiries about accessing our ddPCR platform, please contact jack.burkegaffney@ucalgary.ca.



Make Droplets **Cycle Droplets** **Read Droplets**

The Pillai Lab offers droplet digital PCR (ddPCR) services, providing a highly sensitive and precise nucleic acid amplification method. Unlike traditional qPCR, ddPCR

enables absolute quantification without standard curves, maintains high accuracy even at low copy numbers and shows strong resistance to PCR inhibitors. This makes it especially useful for detecting low-abundance targets, identifying rare mutations and

measuring subtle changes in nucleic acid levels. Applications include liquid biopsy, copy number variation analysis, gene expression profiling, single-cell analysis, wastewater surveillance, pathogen detection, microbiome profiling and supporting next-generation sequencing workflows. [Click here to learn more.](#)

Design Support for Advanced Imaging and Prototyping: LCI ProtoLab



The LCI ProtoLab offers custom imaging adapters, fluidic devices, flow chambers, sample holders and more, enabling you to concentrate on your scientific endeavors. As a comprehensive design and prototyping laboratory, we specialize in meeting the unique needs of your experiments. Our extensive capabilities include adapters for various lab equipment, imaging flow chambers, Transwell insert tools, patterned substrate molds, custom culture

inserts, flow and shear stress chambers, bubble traps, custom sample chambers and pumping devices. Allow us to provide the design advice and technical support necessary to help you achieve your experimental goals. For more information, contact [Nicholas Pittner](#).

Other News

Snyder Institute Funding Reminder

- Snyder internal funding opportunities can be found on our website under [Membership & Funding](#)
- Snyder internal scholarship opportunities can be found on our website under [Education & Scholarships](#)

Awareness Information

Freezer Efficiency Matters: What You Need to Know



A new ultra-low temperature (ULT) freezer uses as much energy as an average household.

- Too many ULT freezers increase building heat load and strain HVAC systems.
- Freezer management helps cut costs, prevent failures, and improve performance.
- Try “Freezer Fridays” to clear out expired

or unusable samples.

- Label all samples and keep an inventory—less time searching means less time with the door open.
- ULTs take ~10 minutes to recover for every 1 minute the door is open.
- Test older freezers (10–15+ years); some use 2–4x more energy and pose a risk to stored samples.

Would you like to contact someone at the Snyder Institute?

On our website, our [Contact Us page](#) has some useful contacts.

We want to hear from you! Send us your news

We invite all Snyder members, trainees and staff to send us your news about successes, lectures, workshops... anything that you would like to share with the membership. We will make every effort to post it, and the best ways for us to share your news are through our:

- [Snyder Newsletter](#)
- [Snyder Website](#) (as long as your news fits the site’s guidelines)
- [X](#), [LinkedIn](#), [Instagram](#) and [Facebook](#) channels

Do you want help publicizing your event/lecture/workshop? Send us the details **at least one month before the event date**. Please contact Anurag if you have any questions (anurag1@ucalgary.ca). Thank you.

For the latest news and information, visit us at snyder.ucalgary.ca, and at



If you have news to share, please send it to Anurag: anurag1@ucalgary.ca

Calvin, Phoebe and Joan
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