April 2024

Snyder Institute for Chronic Diseases Catalyst Grant Results

Congratulations to Dr. Christina Thornton and Dr. Braedon McDonald for winning the Snyder Catalyst Grant (Winter 2023) competition. Their project, titled "Bringing the Lab to the Bedside – A Novel Point-of-Care (PoC) Microbiome Metagenomics Platform to Advance Microbial Therapeutics Precision Medicine," promises to make significant strides in precision medicine. They are supported by Co-Applicants Dr. Kathy McCoy and Dr. William Hsiao.

Catalyst grant aims to fund high-risk, high-reward research that aligns with the Snyder Institute's mandate and priorities, with a particular focus on projects that make extensive use of its Live Cell Imaging Lab and other core research platforms. Learn more about Snyder Institute for Chronic Diseases Catalyst Grant Program.

Research News

New study finds direct communication path between the lungs and the brain

Researchers at UCalgary’s Snyder Institute have discovered that the lungs communicate directly with the brain when there is an infection. Findings show the brain plays a critical role in triggering the symptoms of sickness, which may change the way we treat respiratory infections and chronic conditions.
“The lungs are using the same sensors and neurons in the pain pathway to let the brain know there’s an infection,” says Dr. Bryan Yipp, MD '05, MSc'05, clinician researcher at the Cumming School of Medicine, member of the Snyder Institute and senior author on the study. “The brain prompts the symptoms associated with sickness; that overall feeling of being unwell, feeling tired and losing your appetite. The discovery indicates we may have to treat the nervous system as well as the infection.” Read more.

Published Papers

- Afshin Derakhshani (PhD Student) and Dr. Antoine Dufour et al. Integrating the analysis of human biopsies using post-translational modifications proteomics. Protein Science, April 2024.


Congrats

- Congratulations to Dr. Nargis Khan on receiving the NSERC Discovery grant! This program supports research with long-term objectives, fostering creativity and innovation over five years. These grants serve as "grants in aid" to cover operational costs, aiding in securing additional funding while not covering all expenses of a research program.

- Congratulations to Dr. FuiBoon Kai and Dr. Aline Ignacio for CIHR Research Excellence, Diversity, and Independence (REDI) Early Career Transition Award.

Dr. FuiBoon Kai completed undergraduate and graduate training at Dalhousie University. She uses advanced biophysical techniques and engineered extracellular matrix (ECM) scaffolds to study how cells interact with the ECM. Her research focuses on understanding how cells sense and respond to ECM-related
forces, particularly in fibrotic lung diseases like idiopathic pulmonary fibrosis and asthma.

Dr. Aline Ignacio studies the interplay between the body's innate immune system and its microbial inhabitants. She looks at the concept of innate immune memory, or 'trained immunity,' to show its potential role in combating infections and managing chronic inflammation. Her current project investigates whether the gut microbiota can impart memory to macrophages within the intestinal environment to shape overall gut health.

Congratulations, well done everyone!

Welcome

- Welcome to our new Executive Members: Dr. Carla Coffin from the Department of Medicine (Gastroenterology), Dr. Cathy Lu also from the Department of Medicine (Gastroenterology), and Dr. Ian Lewis from the Department of Biological Sciences.
- We extend a warm welcome to Dr. Chris Mody and Mrs. Carolyn Daly Sanderson for joining the Snyder Strategic Advisory Board (SAB).

We look forward to working with you!

And we are excited to welcome four woodchuck pups born recently. Thank you, Dr. Carla Coffin, for sharing this wonderful news and the adorable photos.
**Education News**

**New Grant Opportunity in Diabetes Research: Apply by June 30, 2024**

The Snyder Institute is excited to announce a grant competition focusing on diabetes research in partnership with the Department of Medicine and the Department of Microbiology, Immunology, and Infectious Diseases. This grant offers funding of $20,000 per year for two years, with a deadline for submissions set for June 30, 2024. Researchers interested in applying can obtain additional information and detailed application instructions by contacting snyderadmin@ucalgary.ca. This is an excellent opportunity for researchers to secure funding for their innovative projects in diabetes research.

**Snyder Graduate Seminar Series – May**

All lectures begin at noon. Pizza: first come first served; best to arrive by 11:50 am (limit 2 pcs. per person please)

**May 6, Theatre One:**

- Spencer Abbott, MDMI MSc Graduate Student
  Dr. Corcoran’s Laboratory, Department of Microbiology, Immunology & Infectious Diseases

- Jared Schlechte, MDIM MSc Graduate Student
  Dr. McDonald’s Laboratory, Department of Microbiology, Immunology & Infectious Diseases

**May 13, Theatre One:**

- Mitchell Bulluss, MDIM MSc Graduate Student
  Dr. Dufour’s Laboratory, Department of Physiology and Pharmacology

- Simarpreet Kaur, MDMI MSc Graduate Student
Dr. Thornton & Dr. McDonald’s Laboratories, Department of Microbiology, Immunology & Infectious Diseases
Esha Kaul, MDIM MSc Graduate Student

May 20 Victoria Day: No Seminar Schedule

May 27 Theatre One:

- Samantha Cortez, MDIM MSc Graduate Student
  Drs. Cobo & McKay Laboratories, Department of Microbiology, Immunology & Infectious Diseases

- Ana D’Aubeterre, MDMI MSc Graduate Student
  Drs. Sycuro & Dufour Laboratories, Department of Microbiology, Immunology & Infectious Diseases

Save the Date! May 16, 2024 – Snyder Institute Endowed Chair Seminar Series featuring Dr. William Agace (hosted by Dr. Kathy McCoy)

Other News

New student-led art exhibit combines art, science and medicine

Diana Changirwa, MSc, fourth year MD-MSc student, Leaders in Medicine program and Immunology Graduate Program, Dept. of Critical Care Medicine, awarded an Equity, Diversity and Inclusion Award. She is co-founder and member of the Snyder Institute EDI Committee, co-lead for the Policy and Engagement subcommittee and the trainee-lead for the Snyder Institute on the Cumming School of Medicine EDI Leads network.

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
Upcoming Events

The Snyder Institute presents Mini-Medical School: Diet and nutrition in patients with Crohn's Disease strictures, May 6, 6:30 – 8 pm, in-person and online

Join us for the Snyder Institute’s Mini-Medical School, presented in person and also online by Dr. Cathy Lu and Dr. Karen Madsen. Dr. Lu is a practising clinician and Assistant Professor in the Department of Medicine at the University of Calgary’s Cumming School of Medicine. Dr. Lu’s primary research interests are in fibrostenotic Crohn’s disease, intestinal ultrasound, and -omic biomarkers in the diagnosis, monitoring, and treatment response in IBD.

Dr. Karen Madsen, PhD, is a Professor in the Department of Medicine at the University of Alberta, a lead investigator in the GEM project and national IMAGINE Chronic Disease Network, and the University of Alberta’s lead for the national Microbiome Research Core, IMPACTT. She is also a member of the Women’s & Children’s Health Research Institute in Edmonton and AHS’s Digestive Health Strategic Clinical Network. The primary focus of Dr. Madsen’s research is the relationship between the host and its resident microbiota, with particular interest in the role of microbes in inflammatory bowel diseases and metabolic disorders and how environmental factors and diet can modulate these interactions. This interactive lecture will be presented in person at Health Sciences Centre Theatre 4, UCalgary’s Foothills campus, and online via zoom. Mini-Medical School lectures are free, but register to attend. Register here.

FLOW: Connecting the Dots, TEDx Calgary, May 10, 1 pm, The Ampersand

FLOW is an event designed to elevate your thinking and inspire intriguing conversations with other curious individuals. On May 10, attendees will have the opportunity to connect the dots across a range of industries and generations, experiencing powerful talks from the main stage as well as deep, immersive interactions. Register here.
McCaig Research Day talk on the topic of "Mesenchymal Stromal Cells Promote Fibrosis Resolution: Fact or Fiction?", May 15

Dr. Inés Colmegna is an Associate Professor in the Division of Rheumatology, Department of Medicine, Division of Experimental Medicine. Her research focuses on defining basic mechanisms accounting for the disruption of immune tolerance in patients with rheumatoid arthritis (RA). This talk was part of McCaig Research Day, which was organized on May 15th. Learn more about the event here.

Summer Student Welcome Event May 28, 3 pm, HMRB Atrium

Join the Summer Student Welcome event hosted by EDI committee of the CSM research institute to celebrate equity, diversity and inclusion with your fellow students and in welcoming the incoming 2024 summer students. This gathering provides an informal setting for EDI summer students, as well as any students and staff interested in EDI topics, to connect and engage. It's a great opportunity to network with peers and interact with investigators. Register here.

Snyder EDI Action Group next meeting May 27, 10:30 – 11:45 am, HSC G382

Dr. Laura Sycuro, PhD, is the Portfolio Lead of the Snyder EDI Action Group. Launched in Fall 2022 by Snyder trainees, Dr. Karen Lithgow and Diana Changirwa. The Group currently has ~30 members working to initiate policies and advance practices that address structural inequities, celebrate diversity and promote an inclusive environment for all.
Three sub-committees are formed and are managed by Action Leaders: one faculty member and one staff or trainee member for each group.

**Open to all faculty, trainees and staff who want to be involved**

There are opportunities to join as a member-at-large or sub-committee leader. Learn more about the Snyder Institute EDI Action Group.

**Riddell Centre for Cancer Immunotherapy upcoming events**

- May 6, 3 – 4 pm: Research Rounds, Robert Puckrin, HS Room 1500 and via Zoom
- May 13, 3 – 4 pm: Work in Progress, Hobin Seo, HS Room 1500 and via Zoom

**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)
- Twitter, 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

![Social Media Icons]

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

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