

A NEWSLETTER FROM The Snyder Institute for Chronic Diseases



May 2023

### **Research news**

# Dr. Kerri Johannson discusses health risks as wildfire smoke blankets the Calgary region



Dr. Kerri Johannson, MD, a clinical associate professor of medicine at the University of Calgary, a lung specialist and a member of the Snyder Institute said that when wildfire smoke blankets our environment, the most vulnerable groups are newborn babies with developing lungs, elderly adults, pregnant people, and those with lung or heart conditions. People in these groups can experience severe symptoms, as the air quality can exacerbate the pre-existing conditions.

"Wildfire pollution is more toxic than general pollution, because it's representative of just burning everything in its path, and that can be rubber and plastic, and tires and buildings," she said. "All of that gets vaporized and gaseous, and it's what we inhale."

Johannson noted that the severe symptoms linked to extremely poor air quality might not present themselves when the wildfire smoke arrives, but instead, studies suggest, the symptoms manifest days later. <u>Read more</u>.

### Drug-resistant hookworms – which can infect dogs and humans – are a growing concern. Snyder Institute member Dr. John Gilleard has adapted a DNA-sequencing technique to screen for resistance



#### mutations

Parasitic roundworms are ubiquitous in the animal kingdom. Hookworms are named for their hook-shaped mouthparts, which they use to latch onto a host's intestinal wall and feed on its blood. In dogs, the most common species is *Ancylostoma caninum*. Adult hookworms live in the gut, and their eggs are spread through feces. Dogs can get infected when they come into contact with the larvae while walking or playing in contaminated areas or when they ingest larvae-ridden feces. *A. caninum* infection is known by veterinarians to be potentially fatal for puppies. The worms consume so much blood that young animals can die from blood loss. A puppy is also at risk because high numbers of larvae can pass through the milk of its infected mother.

Snyder member <u>Dr. John Gilleard, BVSc, PhD</u>, and his research team have successfully adapted a DNA-sequencing technique that can screen hundreds of hookworm eggs from a single dog simultaneously for resistance mutations. <u>Read the full story</u>.

#### **Published papers**

- Dr. Marie-Claire Arrieta, PhD and Emily Mercer, PhD candidate: Probiotics to improve the gut microbiome in premature infants: are we there yet? Taylor & Francis Online.
- Dr. Régine Mydlarski, MD: <u>Overexpression of Krüppel-Like Factor 9 Enhances</u> the Antitumor Properties of Paclitaxel in Malignant Melanoma-Derived Cell Lines <u>- PubMed (nih.gov)</u> Mohammed O. Altonsy, George X Song-Zhao, Mahmoud M. Mostafa, Dr. Paule Régine Mydlarski. *Pharmaceuticals (Basel, Switzerland)*.
- Dr. Markus Geuking, PhD: Intestinal colonization regulates systemic anticommensal immune sensitivity and hyperreactivity Regula Burkhard, Mia Koegler, Kirsty Brown, Kirsten Wilson, Lukas Mager, Amanda Zucoloto, Carolyn Thomson, Roopa Hebbandi Nanjundappa, Isla Skalosky, Shokouh Ahmadi, Braedon McDonald, Markus Geuking. *Frontiers in Immunology*.

## Congrats



• Dr. Marie-Claire Arrieta (in collaboration with Dr. Jeff Dunn) received the 2022 Azrieli Accelerator Catalyst Grant for the application entitled "Influence of microbiome maturation in preterm infants on brain growth and neurodevelopment".

• Dr. Paul Kubes was awarded the Order of the University of Calgary, 2023

• PhD candidate Emily Mercer (Dr. Marie-Claire

- Arrieta) received a CIHR Doctoral scholarship.
- **Simmone D'souza** (Dr. Carla Coffin) was awarded a CIHR PhD scholarship.
- **Dr. John Conly** was <u>awarded an Honorary Doctor of Science</u> (DSc) by the University of Saskatchewan.

Well done! Congratulations to you all!

### Welcome



Dr. Katharina (Katha) Lahl, PhD, Associate Professor, Microbiology, Immunology and Infectious Diseases. Dr. Lahl hypothesizes that viral infections have long-lasting effects on life-long health. Her laboratory focuses on characterizing the initiation and long-term maintenance of virus-induced immunity in response to neonatal infection at the mucosal surface.

We look forward to working with you!

### **Education news**

#### The following entries are excerpts from the Snyder Institute Trainee Committee (SITC) <u>newsletter</u>

#### **Postdocs and Research Associates Seminar Series**



As part of the series of events on professional development and education for members within the Snyder Institute, the Snyder Institute Trainee Committee (SITC) is organizing a seminar series dedicated to Postdocs and Research Associates seeking an opportunity to present their research or improve their teaching skills by giving a chalk talk for the Snyder community. The seminars will take place monthly. If you are interested in joining this and further opportunities,

please provide your contact information here.

#### Multi-Institute Summer Workshop Series, Online, May – August 2023

This summer, the CSM Institutes are pleased to offer a compelling Summer Student Program for our summer students. The program consists of an orientation on May 10, a series of workshops, a mentorship program, a journal club, and other opportunities. Regardless of their source of funding, all students are welcome to participate in any or all aspects of the program, which will be offered in an online format from May to August 2023. Learn more.

**Journal Club Series** 

Snyder Trainee breakfast and lunch events

- Free breakfast June 9, in the HMRB atrium starting at 9 am
- Free pizza lunch June 21, in the HMRB atrium starting at noon

CSM Postdoctoral Mingler – May 31 Noon – 2 pm

Meet your Grant & Fellowship Development Support Team and your new Assistant Dean of Postdoctoral Research

<u>Canadian Orthopaedic Association</u> is offering an opportunity for medical, undergraduate and graduate students who self-identify as a member of an underrepresented community to learn more about orthopedic surgery on **Saturday**, **June 24** (2:00 – 4:00pm MT) at the Calgary Telus Convention Centre.

More upcoming SITC events

#### **Other news**

# Pre-Announcement: CIHR Team Grants in Lung Health funding opportunity

The Canadian Institutes of Health Research are collaborating with the Canadian Cancer Society, the Canadian Lung Association, and the Heart and Stroke Foundation of Canada on the upcoming <u>Team Grants: Lung Health</u>. This funding opportunity is also supported by in-kind contributions from Cystic Fibrosis Canada and Children's Healthcare Canada.

## EDIA: Announcing the Snyder Institute Equity, Diversity, Inclusion and Anti-Racism Action Group

We're pleased to announce <u>Dr. Laura Sycuro, PhD</u>, as the new Portfolio Lead of the Snyder EDIA 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 will each be managed by Action Leaders: one faculty member and one staff or trainee member. Learn more and get involved.

#### Help fight food insecurity among students



A survey of graduate students at Foothills campus showed 50 per cent of respondents struggle with food insecurity, and 80 per cent said they can't bring enough food to get through their day. With these results, ACHRI graduate student volunteers Taylor Scheidl and Jessica Wager contacted the Graduate Students' Association and were awarded a Quality Money grant to start the **GradSnacks program**. Operating out of the ZenDen in HSC G214, it is available to all Foothills campus graduate students. <u>View feedback.</u>

Although GradSnacks has received significant support from the community, demand for the program outweighs the current funding. GradSnacks is seeking support to sustain the program. <u>Donate to GradSnacks</u>.

<u>Read the UToday story.</u> Questions? Contact Taylor at <u>taylor.scheidl@ucalgary.ca</u> or Jessica at <u>jessica.wager@ucalgary.ca</u>

#### **Foothills Campus Community Pantry**



OPED has launched a grassroots initiative to support the food needs of our local campus community. To be located in the Health Sciences Centre atrium (also known as Hippocrates Mall), <u>the community pantry</u> will be stocked with nonperishable and hygiene essentials and available to all campus community members. This is a pilot project to support any of our community members who are in need. Campus groups and departments are invited to become

involved by organizing donation collections. Please direct questions to <u>oped@ucalgary.ca</u> about how you can help, or provide <u>feedback anonymously here</u>.

## **Upcoming events**

## Diverse perspectives on navigating your career path – Hybrid meeting – May 30, 2:30 – 3:30 pm

Join this panel discussion from the Alberta Precision Exchange (APEX) Access Program featuring four experts in the health sciences who have diverse career paths and learn how they navigated career decisions in this broad field. In-person meeting held at UCalgary's main campus, in MacKimmie Tower, Rm. 701. <u>Register here</u>.

## Figures First: 2 Workshops on Scientific Figures for Grant applications – June 7

The CSM Grant Development Office is pleased to offer the following in-person workshop presented by Dr. Sarah Treit of Figures First Consulting. (Due to demand, a second workshop has been added.) The content will be the same at both workshops. "Improve your next grant application by learning about the elements of effective figure design, tips for improving clarity, as well as considerations (and resources) for creating great data figures, schematic (grant-at-a-glance) diagrams and Gantt charts for your next grant application. This 90-minute lecture will be followed by a 30-minute Q & A." <u>Registration required</u>.

# Final episode of CSM's COVID Corner Series – June 7, 7 – 9 pm, online course

At the end of this episode, participants will be able to:

- Recognize the role of healthcare professionals as care providers, leaders, and advocates in the face of extraordinary circumstances during the COVID-19 pandemic
- Reflect on personal, professional and system accomplishments and lessons learned
- Discuss opportunities to effect positive changes in preparing for next normal for health care

More information and registration

#### One Health at UCalgary presents:

One Health Summer Institute, June 10-17, in person at Barrier Like Field Station, Kananaskis, AB



The One Health Summer Institute is an in-person summer program for students to explore the concept of One Health as a multisectoral, systems-based and collaborative approach to complex problems. This one-week class and field-based program will be an engaged learning experience whereby students will 'learn by doing'. Using climate change in montane ecosystems as a case study, participants will learn how scientific inquiry from different disciplinary perspectives and engaging people on all sides of the challenge can lead to more constructive, sustainable, and

socially just solutions. Cost: \$500 *(includes instruction, learning materials, accommodation, food, and transportation)*. <u>More information and registration here.</u>

### Register now: Lymphatic Forum 2023 June 13 – 17



The Lymphatic Forum, June 13 – 17, 2023 in Banff, Alberta is a biennial event that brings together researchers from around the world to present and discuss studies on the

lymphatic system in health and disease. Under the sponsorship of LE&RN and NAVBO and the Lymphatic Research and Education Program, the Snyder Institute for Chronic Diseases is organizing the Lymphatic Forum 2023 (LF2023), the fifth iteration of this

meeting. For more information, including the program, registration, and abstract submission, please visit <u>http://lymphaticforum.org</u>. We look forward to seeing you there.

# Snyder/MIID Coffee Meet-ups for Faculty: Next meet-up June 23, 11am – Noon



Snyder Faculty members, come and get to know your Snyder/MIID colleagues! <u>Please join us for coffee and treats</u> in an informal setting on **June 23, 11 am - Noon**. \*We'll provide the coffee and treats; please bring your own mug or cup if possible.

# Save the date, register now: Neuroimmunophysiology of the Gastrointestinal Tract 2023 conference, September 28 – 30, 2023



Held in Banff, Alberta, the **Neuroimmunophysiology of the GI Tract 2023 conference** will focus attention on the complex interrelationships that exist among and between the regulatory systems that contribute to normal intestinal homeostasis. The meeting will also explore the ways in

which deviations from this norm can lead to gastrointestinal disease states. The breadth and diversity of the program will challenge and inspire you. The concepts that will be developed over the two days of the meeting will broaden your thinking and can provide a new impetus to your research.

The meeting will be a success if lasting friendships are formed, and new collaborations emerge. We hope that you will enjoy some great science surrounded by the awe-inspiring Rocky Mountains. For more information, including the program, registration, and abstract submission, please visit

https://snyder.ucalgary.ca/neuroimmunophysiology-conference.

## Save the date, register now: CASL Single Topic Conference – HBV – 2023: Sept. 29 – Oct. 1, 2023, Calgary



The Canadian Hepatitis B Network (CanHepB) and the Canadian Association for the Study of the Liver (CASL) are pleased to present the Inaugural *Progress toward Hepatitis B Elimination Meeting* in Canada, September 29-October 1, 2023 at Sheraton Suites Eau Claire, Calgary. Learn more and register.

#### Do you want 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
- <u>Snyder website</u> (as long as your news fits the site's guidelines)
- Twitter, LinkedIn 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 Holly if you have any questions (<u>holly.kerr@ucalgary.ca</u>). Thank you.

## For the latest news and information, visit us at <u>snyder.ucalgary.ca</u>, and at



#### If you have news to share, please send it to Holly Kerr, holly.kerr@ucalgary.ca

snyder.ucalgary.ca/

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Snyder Institute for Chronic Diseases Cumming School of Medicine

University of Calgary 3280 Hospital Drive NW Calgary, Alberta, T2N 4N1

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