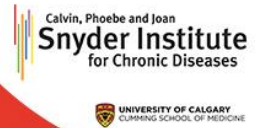




A NEWSLETTER FROM
**The Snyder Institute
for Chronic Diseases**



May – June 2022

Message from the Director

Dear Snyder Institute Member,

As we move toward the summer break, I want to thank each of you for your contributions to a very successful year:

- Grants (~50% success in the fall 2021 competition)
- Publications (Science, Immunity, Nature Medicine, Journal of Clinical Investigation, PLoS Pathogens, Microbiome, Cell Host Microbe...)
- Many awards to Faculty & Trainees for research, teaching and service



With your participation, we have remained focused on achieving the goals in the Institute's Strategic Plan to advance our Mission and Vision:

- Retain and recruit top quality researchers – welcome to each of our new members!
- Maintain, develop and leverage world-class research facilities (Cores, HOIH, LCI, IMC)
- Promote clinician-researcher interaction
- Engage with patients and community members (social accountability)
- Provide a first-class training environment

[Read more](#)

Research news

Snyder study finds probiotic supplement helps to form mature microbiome in extremely preterm infants

Snyder member [Dr. Marie-Claire Arrieta](#) and her team of researchers have shown probiotic supplements can help form a healthy microbiome in the gut of the tiniest infants who are born without a fully formed gut microbiome. The study found that a specific mix (five species) of probiotic supplement accelerated the maturation of the microbiome into a term-like state and reduced intestinal inflammation in extremely preterm infants.



“The findings show that a daily probiotic supplement containing the right type of microbes prompted a rapid transition of the gut microbiome to what is normally observed in healthy, breastfed infants born at term. This mature microbiome is more stable, more resilient and was linked to reduced inflammation in the babies’ gut,” says Dr. Arrieta, PhD, assistant professor at the Cumming School of Medicine and co-principal investigator on the study. [Read more.](#)

COVID patients receiving antibiotics worsened the global antimicrobial resistance



Snyder Institute members (and One Health scholars) [Drs. John Conly, MD](#), and [Herman Barkema's \(DVM, PhD\)](#) meta-analysis reveals that COVID patients receiving antibiotics worsened global antimicrobial resistance. In a recently published study, researchers with Alberta’s Antimicrobial Resistance (AMR) – One Health Consortium have found this common hospital practice may be acting “as a catalyst” to increase global antimicrobial resistance (AMR).

The researchers searched databases for articles about COVID patients with resistant co-infections over the first 18 months of the pandemic, from November 2019 through May 2021. They analyzed the prevalence and types of resistant co-infecting organisms in different hospital settings and locations. A total of 1,959 patients met the researchers’ criteria. Of them, 29 per cent, or 569 patients, were identified to be infected with a number of organisms that are drug resistant. [Read more.](#)

Snyder researchers discover a molecule in the nervous system that may hold key to treating chronic pain

In a study published in the Journal of Clinical Investigation, researchers at the Snyder Institute have found a potential new way to treat chronic pain using anti-cancer drugs rather than opioid-based pain medication.



By analyzing a large number of genes important in the transmission of pain information to the brain, principal investigator [Dr. Christophe Altier, PhD](#), who holds a Canada Research Chair in Inflammatory Pain, and his team have identified the existence of a molecule in the nervous system that enhances sensitivity to pain. This molecule had previously been thought to play a role in cancer growth but had never been reported in the nervous system. It may now be possible to use already existing anti-cancer drugs to block pain.

“With these anti-cancer drugs, there is no effect on tolerance, we don’t need to increase the dose of the drug to obtain pain relief,” says Dr. Manon Defaye, PhD, first author on the paper. [Read more.](#)

Thank you

How one of Calgary’s most generous philanthropists is advancing precision health at the Cumming School of Medicine



Cal Wenzel is well-known both for having built the homes of thousands of Calgarians as founder of residential builder Shane Homes, and as a strong voice in the local homebuilding Industry. What you may not know about the 78-year-old grandfather, whose family foundation recently gave \$16 million to the University of Calgary’s Cumming School of Medicine (CSM) to advance precision health, is that he’s also one of Calgary’s most generous philanthropists.

The \$16 million is part of Wenzel’s cumulative giving of more than \$20 million to fund many precision health projects and other research at the CSM. For example, the Cal Wenzel Family Foundation, led by his wife, Edith, has championed liver research through the Cal Wenzel Family Foundation Chair in Hepatology. The foundation’s gift to fund CSM’s International Microbiome Centre research on the gut microbiome and diabetes helped researchers show how mothers’ microbiota affects babies before birth. [Read more.](#)

- Summer Student Workshop: Abstract writing on July 10
- [Impressions of Medical Sciences event on July 22](#)
- Summer Student Research Day on August 25

Paul Kubes Trainee Award of Excellence



In 2007, [Dr. Paul Kubes, PhD](#), a world leader in chronic disease research, became the founding Director of the Snyder Institute for Chronic Diseases. During his tenure, the Institute built the Live Cell Imaging Facility and the International Microbiome Centre – two powerhouses in research – and created Mini-Medical School as a way to engage the public in chronic and infectious disease research. After serving as Director for 13 years, Paul stepped down in 2020. In honour of Paul's tireless support for Snyder Institute trainees and their research, the **Paul Kubes Trainee Award of Excellence** was created. Paul is an advocate and mentor for countless

trainees – many of whom enjoy exemplary careers in medical research in Canada and around the world. This award will cultivate the next generation of chronic disease researchers, clinicians and industry leaders. More information about the Paul Kubes Trainee Award of Excellence will be shared soon; applications will be accepted in Fall 2022. Visit [Snyder.Ucalgary.ca/Education/Scholarships and Fellowships](https://Snyder.Ucalgary.ca/Education/Scholarships%20and%20Fellowships).

On April 29, Paul's family and friends, and many members of the Snyder Institute, Cumming School of Medicine and UCalgary gathered to celebrate his achievements. Our event was extra special as one of our first opportunities to see each other face to face and toast Paul for his many years of dedication to our Institute. [Photos of the event.](#)

SITC Equity, Diversity & Inclusion (EDI) Workshop Series

After a summer break, the SITC will resume their Equity, Diversity, and Inclusion workshop series in September. These workshops are aimed at providing a new framework for thinking about inclusive language, teaching, classroom diversity, and other intersections in an academic space. For information and registration, see the [SITC newsletter](#).

Welcome new staff

Snyder welcomes our new staff members, Saba and Anurag



Saba Aslani has joined our Business Team as Community Outreach Coordinator. She earned her Master's in Neuroscience at McGill University, and her Master's in Medical Biotechnology at University of Tehran. Saba is passionate about science communication and community outreach. During her days at McGill, she actively participated in planning events, talks and other community engagement programs, and she is looking forward to continuing the same journey at the Snyder Institute.



Anurag has joined us as Research and Communications Assistant. He is a first-year PhD student in the Department of Communication, Media and Film, where he is researching fake news and misinformation in Southeast Asia. Prior to his PhD, he worked as a science journalist, technical writer and interned at several organizations such as BBC and Supreme Court of India. In his free time, you can find him hiking, cycling or playing squash.

Upcoming events

Canadian Society for Immunology Early Career Investigator Webinar Series

July 14, 2022, 3 pm (Eastern Standard Time), Dr. Maria Tokuyama, University of British Columbia will present ***The role of endogenous retroviruses in immunity***. Each webinar typically lasts ~45 minutes followed by a 10-15-minute-long Q & A session. [Register here.](#) [Information on the Webinar Series.](#)

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 us 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 and Facebook channels

To ensure your event receives the highest level of exposure, we ask that you please send your event information for website and social media **no less than one week before the event date; (two weeks is even better)**. For the newsletter, please send your news by the **third Monday of each month**, and it will be distributed the following month. Please contact Holly if you have any questions (holly.kerr@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 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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