April 2022

In Memoriam

Dr. Joan Snyder: Visionary chronic disease philanthropist, 'grandmother ' of Canadian women's hockey



Canadians, the University of Calgary and the extended family of Dr. Joan Snyder, Hon. LLD'11, have lost a visionary philanthropist, enthusiastic community builder and Order of Canada member. Snyder, who lived for most of her life in Calgary, passed away April 7, 2022, at the age of 90. Unwavering in her commitment to help others, she was exceedingly generous in her support of a wide range of non-profit organizations, strongly believing in building the next generation of leaders.

Over the past two decades, UCalgary has been a grateful recipient of Snyder's generosity. In particular, her 2008 gift, a \$9-million donation

followed by significant additional support over the years, established the Calvin, Phoebe and Joan Snyder Institute for Chronic Diseases and helped put it at the forefront of chronic, infectious and inflammatory disease research. Read more.

Research news

Training the next generation of researchers in gastroenterology and liver studies: Snyder Institute researchers are leading the way

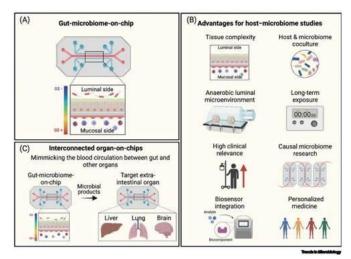


A recent grant for \$2.4 million has been awarded to a team of researchers led by Dr. Nicola Jones, MD, PhD (U of T) and three members of the Snyder Institute for Chronic Diseases, along with other Canadian colleagues. The grant, called Training Researchers In the Next Generation in Gastroenterology and Liver (TRIANGLE), was awarded by the CIHR Institute for Nutrition, Metabolism and Diabetes through the prestigious Health Research Training Platform (HRTP) Pilot competition.

This Canada-wide, six-year grant focuses on PhD students, post-doctoral fellows, residents in gastroenterology and hepatology, and early career investigators. The program will advance discovery in gastroenterology/hepatology, with plans to accomplish significant capacity building within the discipline, and to be transformational in developing holistic approaches to trainee development. Read more.

Recently published papers

Trends in Microbiology: <u>Gut-on-chip for ecological and causal human gut microbiome</u> research – Drs. Shirin Moossavi, MD, PhD and Marie-Claire Arrieta, PhD

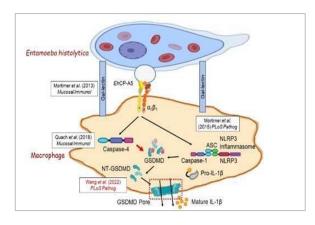


There is a growing interest to understand if and how the gut microbiome is causally linked to the pathogenesis and/or progression of diseases. While in vitro cell line models are commonly used for studying specific aspects of the host—microbe interaction, gnotobiotic murine models are considered the preferred platform for studying causality in microbiome research. Nevertheless, findings from animal studies provide limited opportunity for delineating various areas of interest to the human gut microbiome research.

Gut-on-chips are biomimetics recapitulating

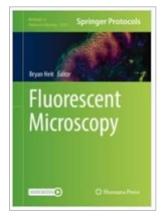
intestinal physiology which enable investigation of bidirectional effects of the host and microbiome. This research shows that they could advance causal and ecological gut microbiome research in three major areas: (i) diet—microbiome and drug—microbiome interaction; (ii) microbiome-targeted therapeutics pharmacoecology; and (iii) mechanistic studies of gut microbiome and microbiome-targeted intervention in extraintestinal pathologies.

PLOS Pathogens: The colonic pathogen Entamoeba histolytica activates caspase-4/1 that cleaves the pore-forming protein gasdermin D to regulate IL-1β secretion – Shanshan Wang, MSc, and Dr. Kris Chadee, PhD



When pathogens invade the gut, they stimulate an intense inflammatory response that kills cells on contact by a process call, pyroptosis. In this study, the researchers show that when amoeba contact inflammatory macrophages, it triggers an intense inflammatory response but keep the cells alive termed "hyperactivated macrophage". This is the first known parasite that does this by regulating the amount of pore-forming protein that is produced by the cell to cause a sustained inflammatory response critical in disease pathogenesis.

SpringerLink Methods in Molecular Biology Book Series: Fluorescence Microscopy: A Field Guide for Biologists – Drs.Lucy Swift, PhD and Pina Colarusso, PhD



Optical microscopy is a tool for observing objects, and features within objects, that are not visible to the unaided eye. In the life sciences, fluorescence microscopy has been widely adopted because it allows us to selectively observe molecules, organelles, and cells at multiple levels of organization. Fluorescence microscopy encompasses numerous techniques and applications that share a specialized technical language and concepts that can create barriers for researchers who are new to this area. Our goal is to meet the needs of researchers new to fluorescence microscopy, by introducing the essential concepts and mindset required to navigate and apply this powerful technology to the laboratory.

Welcome new Snyder members

Welcome <u>Dr. Stephen Vaughan</u>, <u>MD</u>, Clinical Associate Professor and Infectious Diseases Specialist with research interest in Tropical Infectious Diseases (parasites, refugee health) and medical education; and <u>Dr. Bayan Missaghi</u>, <u>MD</u>, Clinical Assistant Professor, with research interest in understanding the influence and impact of infection prevention and control measures, systems and interventions on health outcomes in the nosocomial setting as well as in the tropics. We look forward to working with you!

Snyder Institute Membership Survey



The Snyder Institute Membership committee is conducting a short survey to ascertain the diverse landscape of the Institute and obtain information to enhance engagement of members. Although this survey is voluntary, your responses are highly valued and appreciated in order for us to develop upcoming membership initiatives. This information will only be used by the Executive Committee for program development. You will receive a link by email or the survey can be accessed here or via the QR code on the left. We thank you for your time.

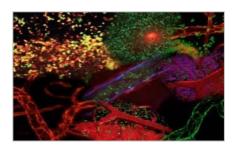
Congratulations to **Patricia Moore**, Snyder Institute Strategic Advisory Board (SAB) member, and **Bill Sembo**, SAB Chair, recently inducted as Calgary Health Foundation Honorary Patrons. Read more.



<u>Dr. Keith Sharkey</u>, PhD, recently received the **2022 Distinguished Research Award** from the Gastrointestinal and Liver (GIL) Physiology Section of the American Physiological Society. This award honours an outstanding investigator who is internationally recognized for their contribution to research in areas represented by the GIL Section. Keith receives this award for his exceptional publication record and research contributions. Congrats Keith!

Elena Fekete, a PhD student in Dr. André Buret's lab was awarded the 2022 American Society for Investigative Pathology (ASIP) Experimental Pathologist-in-Graduate-Training (EPIGT) Merit Award. Elena presented at the ASIP 2022 Annual Meeting at the Experimental Biology Conference – the largest and one of the most prestigious conferences in the broad field of Experimental Biology – on April 4, 2022, where she also received her award. Way to go, Elena!

Updated price list for Mouse Phenomics Resource Lab



There is an updated price list for the Mouse Phenomics Resource Lab. Some hourly rates increased as of April 1 for the new fiscal year to be in alignment with other resource labs and also to adjust to increased costs of reagents and consumables. New prices are here. If you have questions, please contact Dr. Björn Petri, PhD, Scientific Director, Mouse Phenomics Resource Laboratory.

Zero Styrofoam Waste Initiative



Daniel Castaneda Mogollon and Micky Ahn are launching an initiative to recycle Styrofoam across labs and facilities at Foothills campus. Bins are now allocated at the loading dock for the appropriate disposal of type #4 (low-density polyethylene) and type #6 (Styrofoam/expanded polystyrene). Following is some basic information:

Where do I recycle it? Take your Styrofoam boxes and/or low-density polyethylene to the appropriate bins located at the loading dock of Foothills Campus (in front of the Delivery Services in the basement of Health Sciences Centre). Recycling will not be picked up from labs/hallways.

How do I recycle it? Remove any duct tape, cardboard, or any material adherent to the Styrofoam. Do not break down the boxes into smaller pieces for recycling.

When do I recycle it? There's not a schedule for Styrofoam recycling. However, if the bins are full, please hold onto your Styrofoam until the bins are emptied.

Who can recycle it? We are limiting the program to users at the Foothills Campus. However, if a lab on main campus decides to take part of it, they are more than welcome. Nevertheless, bins will remain allocated in Foothills. Learn more here.

Education news



Snyder Institute Trainee Committee is recruiting! Are you a student or trainee who is interested in positively impacting the trainee experience at the Snyder Institute? Would you like to build leadership skills, create lasting relationships with fellow trainees and Pls, and help develop exceptional opportunities

for Snyder trainees? If the answer is yes, then they want to hear from you. The Snyder Institute Trainee Committee (SITC) is growing, and seeking individuals who are interested in taking part in the planning and creation of journal clubs, education workshops, outreach and social events. Please contact the Committee by email at SITC@ucalgary.ca.

Fundraiser for Ukraine



As part of a medical research institute, the Snyder Institute Trainee Committee (SITC) is currently fundraising for the ability to purchase medical supplies to send over to Ukraine, in order to help those wounded in the ongoing war. Donations can be made here, and are very greatly appreciated.

For Trainees, Faculty and Staff: Snyder Institute Trainee Committee presents Equity, Diversity & Inclusion (EDI) Workshop Series



In partnership with the *UCalgary Office of Equity, Diversity & Inclusion*, the Snyder Institute Trainee Committee is pleased to offer a virtual workshop series. The remainder of the series will feature two different workshops each month. Upon completing 11 of the 14 courses, workshop participants will be eligible to receive an **Equity, Diversity and Inclusion (EDI) Education**Certificate presented by the Snyder Institute. A description of each workshop can be found here.

- Tuesday April 26, 1 to 2:30 PM Intercultural Communication: Cultural Values and Communication Styles. Register here.
- Tuesday May 10, 1 to 2:30 PM Inclusive Teaching and Learning in Diverse Classrooms. Register here.
- Tuesday, May 24, 1 to 2:30 PM Gender Equity Issues in Higher Education. Register here.

Community outreach and upcoming events

Calgary Women's Health Research Symposium – Online – April 21, 9 am – 12:30



Women's health research is an emerging area of excellence and innovation at the University of Calgary, however much of this work is siloed by discipline. The inaugural **Calgary Women's Health Research Symposium** will be an interdisciplinary, online event connecting faculty, staff, and trainees from across our institution to share ongoing research in women's health across the lifespan and share ideas to build capacity for women's health research at UCalgary. Learn more and register.

'R Bootcamp for Biologists' offered on April 21-22

The International Microbiome Centre's bioinformatics platform is announcing their first workshop for 2022!

The purpose of this course is to teach scientists (students, postdocs, PIs, and staff) in biological and medical sciences to use R for typical data analysis tasks they might encounter routinely. No prior knowledge of R is expected and workshop attendees can expect to come away with a skill set that is immediately translatable to their respective data tasks.

For more details and registration, please visit https://imcbioinformatics.github.io/introR/ or contact sahar.bagheri1@ucalgary.ca The fee for this workshop is \$300 CAD.

2022 Southern Alberta Scientific Equipment (SASE) Trade Show April 27, 9 – 2 pm HRIC Atrium



Join us on April 27. Coffee and donuts will be available for all visitors throughout the morning. This event is organized by The Office of the Associate Dean Research, Cumming School of Medicine. For questions about the event, please contact: medoadr@ucalgary.ca.

Mini-Medical School presents One Health: Understanding the relationship between human health, parasites and worms. May 2, 6:30 – 8 pm – online interactive webinar

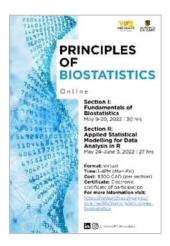


One Health is a multi-disciplinary approach recognizing that the health of people is closely connected to the health of animals and our shared environment. Please join Dr. Derek McKay, PhD and Dr. Nathan Peters, PhD to learn more about the interconnection between people, animals, plants, and their shared environment at this interactive, free lecture. This event requires registration, but you do not need a Calgary Public Library card to register. Thank you to the Cumming School of Medicine, the Calgary Public Library and Astra Zeneca for their support of Mini-Medical School. Register for free here.

Human milk oligosaccharide supplementation: effects on gut microbiota and chronic disease risk – online seminar – May 2, 8:30 – 9:30 am

Presenter Dr. Noye Tuplin is a postdoctoral associate in Dr. Raylene Reimer's laboratory at UCalgary. Her work investigates the beneficial effects of human milk oligosaccharide supplementation during critical periods of development on the gut microbiota and future disease risk. Register here.

Principles of Biostatistics – online course – May 9 – June 3



The Principles of Biostatistics course is offered by <u>One Health</u> at UCalgary in collaboration with the <u>University of Calgary Biostatistics Center</u>. This course is comprised of two sections:

Section 1: Fundamentals of Biostatistics, will serve as a fundamental foundation for participants to understand the basic concepts of biostatistics with a focus on statistical testing in research studies.

Section 2: Applied Statistical Modelling for Data Analysis in R, will cover basics of applied statistical modelling. <u>Info and registration</u>.

Call for Speakers: Panel Discussion on Ableism

The CFD Equity, Diversity and Inclusion (EDI) committee is planning a panel discussion on ableism at the CSM. Through this event, the hope is to raise awareness about barriers that might limit a person's access to learning, teaching or working, and also to generate ideas about how to make our campus more accessible to those with disabilities. Dr. Gregor Wolbring, a professor of ability studies, has kindly agreed to be the keynote speaker for this event, and the organizers are seeking additional academic speakers who can discuss their experiences with ableism. The event will take place on May 16 or 17, depending

on the availabilities of the speakers. If you are interested in sharing your insight or experiences with ableism in academia, or if you have any questions, please email jahanara.rajwani@ucalgary.ca.

Save the date – Annual Shaffer-Davison Research Awards Day – May 27 in person



Calling all Trainees from the Gastrointestinal Research Group (GIRG) and the Division of Gastroenterology and Hepatology! The annual Shaffer-Davison Research Awards Day will be May 27, 9 am - 3:30 pm. Agenda and details to follow.

IMPACCT/IMC Bioinformatics Workshop at UCalgary - May 30 - June 1



May 30 – June 1, <u>IMPACTT</u> and the <u>IMC</u> are organizing an in-person workshop for students, postdocs, PIs, and staff bioinformaticians working with or about to embark on the analysis of marker gene, metagenomic, and metatranscriptomic data from microbiomefocused experiments.

This workshop will replace the Microbiome Analysis

Workshop for 2022, previously hosted by Bioinformatics.ca.

Priority will be given to those coming from Canadian academic institutions. Learn more here.

Having IMPACCT 2: Advancing Microbiome Research: Registration now open

IMPACTT (Integrated Microbiome Platforms for Advancing Causation Testing and Translation) and the **IMC** (International Microbiome Centre) are organizing a symposium on **June 2 & 3, 2022** of interest to microbiome researchers, clinicians, and trainees. The goal for this symposium is to bring together leading minds and highlight the latest findings and new discoveries from microbiome research teams across Canada and around the world. From causation testing to translational studies, world-class researchers will share their findings on how our microbiome shapes our health, and how we can harness the power of our microbes to improve global wellbeing. More information here.

4th Symposium of the Canadian Society for Virology: Registration now open



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More information here.

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

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