Science Research and Innovation Newsletter – January 3, 2022

Thesis Defense Seminars

BISI MSc Final Seminar “The Role of Cortisol in the Central Control of Feeding in Zebrafish” by Niepukolie Nipu (Supervisor: Matt (Mathilakath) M. Vijayan) on Friday, January 7, 2022, at 10:00am. Please contact supervisor for zoom details.

BISI MSc Final Seminar “The effects of the Kenow wildfire on the bat community in Waterton Lakes National Park, Alberta.” by Erin Low (Supervisor: Robert Barclay) on Thursday, January 13, 2022, at 1:00pm. Please contact the Supervisor for zoom details.

CPSC PhD Final Seminar “Requirements Dependency Extraction: Advanced Machine Learning Approaches and their ROI Analysis” by Gouri Deshpande (Supervisor: Guenther Ruhe) on Friday, January 14, 2022, at 11:00am. Contact the Computer Science Department (cpsc@ucalgary.ca) for zoom details.

Seminars

MTST CalgaryR presents “Validation of the underlying construct of survey instruments” by Cherri Zhang, Gata Manager and Analyst, Department Psychology, UofC on Wednesday, January 12, 2022, at 5:30pm. RSVP at https://www.meetup.com/calgaryr/events/282613720/


UCBC University of Calgary Biostatistics Centre is hosting an Introduction to R Programming Workshop on February 22, 2022, from 4:00-6:30pm and February 23, 2022, from 9:00-11:30am. Please see attached pdf for details.

Opportunities

NSERC Alliance International Grant is a new, permanent funding stream will support Canadian university researchers working with leading international academic researchers to establish and grow international research collaborations and projects of global importance that will generate benefits to Canada. The international collaborator(s) must be from the academic sector, and they must have secured funding from their national funding agency to cover their participation in the project. Alliance International offers two grant types:

1. Alliance International Catalyst grants will provide up to $25,000 for one year to support Canadian researchers in initiating international research collaborations in the NSE disciplines.
2. Alliance International Collaboration grants will provide up to $100,000 per year for up to three years, allowing Canadian researchers to participate in international projects and leverage the best international expertise to help address research challenges in the NSE disciplines of impact and benefit for Canada.

There is no deadline to apply, and grants will be awarded throughout the year. Please see NSERC’s page or view the funding calendar for further details. RSO Contact: Alisha Kadam

NSERC Collaborative Research and Training Experience (CREATE) Grant
Supports the training of teams of highly qualified students and postdoctoral fellows from Canada and abroad through the development of innovative training programs.
Faculty members who would like to participate in the 2022 competition must submit an internal Notice of Intent (download iNOI and view competition details) to rgunn@ucalgary.ca, by 4pm, Monday, January 10, 2022. This will allow the ADR and Research Facilitator to work with applicants before submission to RSO on January 14.

REMINDER: Mitacs Elevate & Mitacs Elevate (Thematic) - a two-year training program for postdoctoral fellows (PDFs), where participants lead and undertake a research project with an industry partner. Open to all disciplines and all industry sectors. Mitacs Elevate Award: $55,000 per year and Thematic Award: $70,000 per year if the project addresses at least one of the key priority sectors of artificial intelligence, biomanufacturing, clean tech, or quantum science. RSO Final Internal Deadline (Full Application): Friday, January 14, 2022, at noon. More information in the Funding Deadline Calendar.

International Research Partnership Workshop Grant
University of Calgary International is pleased to announce a call for proposals for the International Research Partnership Workshop Grants in support of the Global Engagement Plan 2020-2025. Application and information: https://ucalgary.ca/international/funding-opportunities
Six successful applications will be funded for up to $10K each that will be tenable between April 1, 2022 and March 31, 2024. Applications are due by Jan 14, 2021 (and decisions made in mid-February). Heather Clitheroe can provide details and assistance.

Call for Nominations: Royal Society of Canada Awards and Medals nomination period, which will be open from January 15 to March 31, 2022. Please visit the RSC Awards and Medals page for the 2022 opportunities. If you would like to nominate yourself or someone else, contact Danielle Demiantschuk for support.

Call for Nominations: Calgary Awards, offered by the City of Calgary, celebrate and recognize outstanding achievements and contributions made by Calgarians. Last year there were four major categories which included: The Award for Accessibility; The Community Achievement Awards; The Environmental Achievement Award; The International Achievement Award. Next rounds nominations will be accepted from January 5 to February 9, 2022. Further information on these awards will be communicated in early January. Please contact Danielle Demiantschuk if you have any questions or would like assistance in preparing a nomination.

Panmure House Prize will award $75,000 for the best research proposal on the topic of long-term funding of innovation in the spirit of Adam Smith. Projects should explore a critical question pertaining to the issue of long-term investing to fund innovation. Research Services’ final internal deadline for the full application is noon on March 31, 2022. For more information see the Funding Deadline Calendar. RSO Contact: Anna LeMarquand

Opportunities – Health Sciences
Webinar: Alberta’s Partnership for Research and Innovation in the Health System (PRIHS)
Alberta Health Services and Alberta Innovates will be hosting the following webinar in advance of their launch of the PRIHS 7 funding opportunity. The focus of PRIHS 7 is Digital Health and will provide opportunities for researchers to propose the implementation of promising solutions to priority health system challenges in collaboration with Strategic Clinical Networks (SCNs).
Join us on January 27th, 2022 for a virtual engagement session where you can ask your questions and provide comments towards the development of the PRIHS funding opportunity.
Date: Thursday, January 27
Time: 1:00 – 3:00 pm (Calgary time)
Contact: Caitlin Janzen
**CIHR: Network Grants in Oral Health and Bone Health**

This funding opportunity will provide support for the creation of two networks: one in the priority area of Oral Health and one in the priority area of Bone Health. Applicants must register with CIHR by Feb 8, 2022 and application are due by noon on March 3, 2022. The RSO Contact, Lindsey Hritzuk, can provide details about an information webinar for applicants on Jan 12th at 11am.

**CIHR: Joint Canada-Israel Health Research Program Phase II** seeks to support fundamental research at the cutting-edge of biomedical science and global health. This first call for proposals under phase II is directed toward proposals at the intersection between non-communicable chronic disease (NCD) and infectious diseases while strengthening capacity in Canada, Israel and in low- and middle-income countries (LMIC). The Program will support world-class research teams co-led by three principal investigators: one from Canada, one from Israel and one from an LMIC. Registration with CIHR is due to CIHR by March 3 and RSO’s final internal deadline for the full application is noon on Thursday, March 31, 2022. RSO Contact: Lindsey Hritzuk

**CIHR Catalyst Grant: HIV/AIDS and STBBI Community-Based Research** aims to provide seed money to support HIV and/or other STBBI CBR research activities which represent a first step towards the pursuit of more comprehensive funding opportunities (e.g., operating grants). RSO’s final internal deadline for the full application is noon on April 20, 2022. RSO Contact: Lindsey Hritzuk

**CIHR Operating Grant: HIV/AIDS and STBBI Community-Based Research** aims to contribute to the creation, dissemination and use of health-related knowledge, and to help develop research capacity, by supporting original, high-quality projects proposed and conducted in partnership between the community and academia. RSO's final internal deadline for the full application is noon on April 20, 2022. RSO Contact: Lindsey Hritzuk

**Opportunities – Postdoctoral Scholars**

**2022 Killam Postdoctoral Fellowship**

The Killam Postdoctoral Fellowship enables postdoctoral scholars to engage in postdoctoral training at the University of Calgary, consolidate their research training, develop and initiate original research in their discipline, and contribute to the activities of the host unit. The fellowship is open to all faculties and research areas. Postdoctoral scholars who have completed their PhD or equivalent degree from another institution between 1 September 2019 and 1 September 2022 are eligible to apply. Please visit the Research Services funding and fellowship calendar for full details.

**Award:** $50,000 per year for two years and a one-time $6,000 research allowance

**Deadline:** Friday, February 18, 2022 at 11:59 p.m. MST

**Contact:** vprawards@ucalgary.ca

**CIHR Canadian HIV Trials Network (CTN)** facilitates research in HIV, hepatitis C (HCV) and other sexually transmitted and blood-borne infections (STBBIs) and related health conditions by providing funding to candidates who wish to write a trial protocol, research program, and develop and run their own trial.

**Award:** $50,000 per year for up to 2 years

**RSO Final Internal Deadline (Full Application):** Friday, February 11;

**RSO Contact:** rsotrainee@ucalgary.ca

**Zuckerman Postdoctoral Scholars Program** attracts high-achieving postdoctoral scholars from premier universities in the United States and Canada to do research at one of seven Israeli universities.

**Award:** $50,000 per year for up to 2 years

**RSO Contact:** rsotrainee@ucalgary.ca

**Did You Know?**

Science Graduate education is diverse! We have international scholars that represent SIXTY countries.
Winter 2022 Grad Special Topics Courses

Below is a list of new (or relatively new) W22 graduate courses in ‘special topics’ courses and/or graduate courses that may be beneficial to, and attended by, students outside of the program in which the course is scheduled. If you are interested in enrolling in one of the below classes, please contact sci.grad@ucalgary.ca for assistance.

**BIOL 607.08 Special Problems in Biology (R-Wizardry)**
R-Wizardry is a once-a-week course to develop basic and advanced skills in computer programming using R/RStudio. These skills include data management, processing, exploratory data analysis, flow control, data visualization, publication-quality plots, among others. The last two weeks of the course will touch on special and advanced topics depending upon needs of attending students. Each class will consist of a short lecture into the day’s objectives, followed by directed learning with example programming, concluding with a short homework assignment to reinforce the skills learned.
Meeting time: Wednesday, 2:00-4:45pm, Instructor: Paul Galpern

**ECOL 603.06 Advanced Behavioural Ecology**
Behavioural ecology is a discipline that is asking how natural and sexual selection shape animal behaviour. The most important questions being asked are: 1) why do they behave the way they do? 2) What are, if any, the fitness advantages to individuals’ behaviours? or, in other words, 3) What are the ultimate explanations for observed behaviours? The currencies we measure to answer these questions are either proxies of, or direct benefits to the survival or reproductive success of individuals. In this class, we will cover some of the most important topics in the study of behavioural ecology, the questions asked, experimental and observational approaches, and how these inform and shape our current understanding of the behaviour and ecology of individuals.

The pedagogy behind this course is to get you to ask pertinent questions, discuss current literature and present individual topics to the class. Each weekly meeting will be a combination of lectures and discussions of focused studies on the topics of your choice (listed below). The end goal is for you to write a review paper on a specific topic, that can, but does not have to be, on an aspect of your own research.
Meeting time: Tuesday, 11:00am-1:45pm, Instructor: Kathreen Ruckstuhl

**PHYS 619 Statistical Physics II**
This course gives an introduction to equilibrium and non-equilibrium critical phenomena corresponding to phase transitions as well as to methods to study complex systems including complex network theory, extreme value theory and causality analyses. The goal of this course is to develop specific conceptual, mathematical, and numerical skills for understanding and analyzing critical phenomena and associated fluctuations in different settings as well as complex systems and their dynamics in general.
Meeting time: Tuesday/Thursday, 11:00-12:15pm, Instructor: Jörn Davidsen

**SCIE 601- Theory and Practice of University Teaching and Learning in STEM**
Emphasizing a research-to-practice approach, this course will engage students in readings and discussions about current research, theory and methodological approaches, and pedagogical approaches in Discipline-Based [STEM] Education (DBER) research. Course readings will be varied and include scholarly, practical, and popular readings in order for students to gain nuanced understandings of the social contexts and related issues and challenges of college and university STEM education. Course materials will also emphasize critical, antiracist and decolonizing approaches to build frameworks of transforming postsecondary STEM Education cultures towards belonging of diverse students and cultural-scientific worldviews. While there will be seminal readings, aspects of the course will be co-designed with students’ interests and professional needs in mind. Activities will be geared towards designing environments for equitable postsecondary STEM education, broadening ideas about assessments and evidences of
student learning, SoTL research and other topics and interests that emerge from students’ interests and experiences.
Meeting Time: Tuesdays, 3:30-6:15pm, Instructor: Jennifer Adams

Please send any seminar notices or events or CONGRATULATIONS notes to be included in the newsletter to sci.borg@ucalgary, subject line SRIN.