

REALISE *the News* – January 2019

MEET YOUR HBITO EXECUTIVES

Aaron Lanz, Education Director of the HBITO



By Brooke Belanger

Originally from Vancouver, BC, Aaron was infatuated with the fact that so little is known about the brain. While completing his bachelor's degree in neuroscience at the University of Calgary, he discovered his passion for exploring the unknown and decided to pursue a master's degree. Under the supervision of Dr. Grant Gordon, Aaron's first project focuses on finding a new, voluntary and automated method of imaging brains in mice while minimizing their stress. With Dr. Jaideep Bains, his second and primary project involves investigating chloride homeostasis in neurons and how alteration of this ion can regulate the stress response. Aaron hopes to find more unanswered questions in the field of neuroscience and move on to a PhD.

If he isn't in his lab, Aaron is most likely out on the field. An avid sports player, he is a part of three soccer teams and one volleyball team. As someone who enjoys community involvement, Aaron became the director of the HBITO education committee, which has allowed him to pursue his passion for teaching and sharing knowledge. He is a strong believer that graduate students need to understand and design their experiments well, and as such has created a journal club focusing on this subject. Starting in January, Aaron hopes that this journal club will enhance graduate students' success.

Learn more about the HBITO at <https://hbito.ucalgary.ca/>

UPCOMING REALISE TRAINING MODULES

To sign up for upcoming modules, please use the REALISE Intranet Site URL:

<https://ecs.ucalgary.ca/faculty/medicine/realise>

Neuro 00 Module Series

This module series is designed with incoming neuroscience graduate students in mind, however, registration is open to all HBI trainees interested in a refresher on one or more of the module topics. The courses below will provide a baseline understanding of the material covered in Neuro II.

Neuro 00 - Introduction to Neuroimaging

January 10, 2019 | 1 – 2:20 pm | Location: HSC 1405B

Presenter: Trevor Low

Module in brief: This module will teach various clinical and research applications of advanced neuroimaging techniques that will be discussed throughout Neuro II.

Neuro 00 - Introduction to Behavioral Neuroscience

January 11, 2019 | 1 – 2:20 pm | Location: HSC G384

Presenter: Pauline de Jesus

Module in brief: This module will teach applications of various basic science approaches to behavioural assessments used in neuroscience and discussed throughout Neuro II.

Conflict Resolution

January 15, 2019 | 9 am – 12 pm | Location: HSC G750

Facilitated by: Terry Wasylak, Senior Consultant, The Career Clinic

Module in brief: Conflict itself is neither good nor bad. In its best forms, conflict can be a catalyst for dialogue and creativity. Successful people know this and learn to manage conflict effectively, turning it into an opportunity for growth and change. This workshop will help participants identify their preferred conflict management style and highlight alternate styles depending on the situation.

Presented in partnership with ACHRI.

***only 1 seat left; additional registrants will be placed on the waiting list*

The Hippocampus: Structure and Function in Neuropsychiatric Illnesses

Lecture 1: January 23, 2019 | 1 – 2:20 pm | Location: HSC 1405A

Lecture 2: January 28, 2019 | 9 – 10:20 am | Location: HSC 1405A

Presenter: Nikita Nogovitsyn

Modules in brief: Learn about the pathophysiology of hippocampus and its role in neuropsychiatric illnesses.

Lecture 1: January 23, 2019

- Hippocampus structure: cytoarchitectonic, neurotransmitters and principal hippocampal neurocircuits
- Hippocampus function: cognition and memory
- Visualizing hippocampus for research. Common research methodological procedures investigating hippocampal structure and function. In-vivo neuroimaging techniques; ex-vivo/post-mortem immunological procedures.

Lecture 2: January 28, 2019

- Hippocampus and neurocognitive disorders
- Hippocampus and neuropsychiatric illness

Basics of fMRI Preprocessing and Analysis

January 28, 2019 | 10:30 am – 2:30 pm* | Location: HSC O1501

** Lunch break from 12 – 1pm. Lunch not provided.*

Presenters: Dan Pittman and Fil Cortese

Module in brief: A two-part session, comprised of a lecture and hands-on component, designed to teach trainees new to fMRI to preprocess (prepare data for further analyses) and perform first-level analyses. Attendees will be able to: appreciate and understand 4D datasets, convert scanner acquired data to nifti format, use FSL (comprehensive library of analysis software tools) to perform basic preprocessing steps

(filter, motion and time corrections, spatial smoothing, brain registration), and initial within-subject analysis (multiple regression, experimental design, data fitting, statistical output).

Writing Bias

January 30, 2019 | 1 – 3 pm | Location: HSC G801E

Presenter: Jenna Slobozian

Module in brief: The session will look at gendered language from two perspectives; the first examining the differences and similarities in the ways in which men and women write and the second being the differences and similarities in the way men and women are written about. The session will cover topics such as writing of grant/fellowship/scholarship applications as well as letters of support or recommendation.

Intellectual Property and Licensing

February 5, 2019 | 10 am – 12:00 pm | Location: HSC 1405B

Presenter: Nima Najand, Innovate Calgary

Module in brief: The session will provide an overview of the types of intellectual property and how to protect them. Participants learn how to:

- define intellectual property types including patent, trademark, copyright, trade secret, confidentiality, ownership, and licensing
- describe what can be protected
- assess considerations related to protecting intellectual property
- perform valuation and licensing of intellectual property
- access tools for global searching of 100,000,000 patents
- identify Calgary resources for intellectual property support

Adobe Design Fundamentals in Research

Part 1: February 14, 2019 | 3 – 4:50 pm | Location: HSC O1501

Part 2: February 26, 2019 | 3 – 4:50 pm | Location: HSC O1501

Presenter: Brooke Belanger and Aaron Lanz

Module in brief: A two-part seminar on how to utilize Adobe Illustrator effectively for visual representations of research. These modules will teach trainees how to arrange posters effectively and create infographics to illustrate their work. Participants will use icons, words and images in an eloquent and visually appealing way to communicate their ideas to different target audiences. Part 1 of the module series (February 14) will focus on posters using both Illustrator and PowerPoint. Part 2 of the module series (February 26) will focus on infographics using Adobe Illustrator. Participation in Part 2 is optional, but it is strongly recommended that trainees attend Part 1 before attending Part 2.

Introduction to EEG and ERP Research

February 25, 2019 | 10:30 am – 2:30 pm* | Location: HSC O1501

** Lunch break from 12-1pm. Lunch not provided.*

Presenters: Dan Pittman and Fil Cortese

Module in brief: A two-part session, comprised of a lecture and hands-on component, designed to acquaint trainees with encephalography (EEG) and event-related potentials (ERPs). We will discuss theories underlying EEG/ERP recordings, teach how to collect EEG/ERP data correctly, provide a hands-on tutorial on how to analyze EEG/ERP data, explain how to perform statistical analysis of EEG/ERP data, and briefly touch upon advanced EEG/ERP analysis topics such as wavelet and source analysis.

OTHER UCALGARY WORKSHOPS, EVENTS AND SEMINARS

Three Minute Thesis (3MT) Contest Information Sessions

January 16, 2019 | 3:00 – 5:00 pm | Location: HSC 1405B

Learn techniques for crafting an engaging 3 Minute Thesis talk that is memorable and accessible to any audience. You will also learn about cognitive biases that contribute to the natural nerves experienced when delivering a public talk, and how to establish credibility with your audience.

[Click here for more information and to register](#)

Biostatistics Workshop - Refresh your knowledge

January 23, 2019 | 9 am – 3 pm | Location: HSC Theatre 3

Facilitated by Dr. Alberto Nettel-Aguirre, this workshop is intended to provide an introduction/overview of some of the main concepts regarding data types, descriptives, and hypothesis testing, and will include a hands-on component. Resources for prior and further reading will be provided to registrants.

[Click here to register](#)

OTHER OPPORTUNITIES

N2 Neurology/Neuroscience Training and Collaboration Workshop

February 21-23, 2019 | Chateau Lacombe, Edmonton, Alberta

Registration is now open for Campus Alberta Neuroscience's N2 Neurology/Neuroscience Training and Collaboration Workshop! The focus of the workshop will be a province-wide collaborative learning event among Neuroscience graduate students and postdoctoral fellows and clinical Neurology/Neurosurgery residents. The workshop aims to promote understanding and awareness of recent discoveries and knowledge gaps in medical research areas, teach how to develop a research grant proposal to address these gaps and establish dialogue between trainee clinicians and scientists.

Application Deadline: January 20, 2019

[Click here for more information](#)