

# REALISE *the News* – April 2020

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Dear trainees,

We hope this message finds you healthy and coping well with our current situation! Here's an excerpt from the recent [HBI's Message from the Director](#); we couldn't have said it better:

*Trainees, you will all have recently started working from home. We already miss interacting with you on a daily basis, being surrounded by your enthusiasm, and hearing about the fantastic work you are doing.*

*Educational efforts within HBI continues. We are starting to plan REALISE modules that can go forward as online modules, and would love to hear of any ideas you may have along these lines. I also encourage trainees to organize and initiate virtual journal clubs, social meetings and conversations (e.g. Slack), and seek out volunteer opportunities. Reach out to trainees, friends and neighbours who you know are living alone, and who might feel isolated.*

Read on to learn about the online modules we have planned for you, plus other opportunities from Career Services and Mitacs. While it won't be quite as good as seeing you in person, we hope it will be the next best thing!

As always, please don't hesitate to [get in touch](#) with us with your ideas, comments, or just to chat.

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## HBI UPDATES

### HBI Spring Awards Competition

We're happy to announce that the HBI is going forward with the spring awards competition with an extended deadline of May 15. Visit [Graduate Funding Opportunities](#) and [Postdoctoral Funding Opportunities](#) for more information.

### HBI Research Day

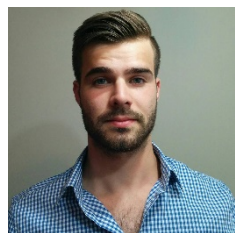
The HBI's 16<sup>th</sup> Annual Research Day will take place online on May 28 from 9 am to 12:30 pm. Please join us for exciting talks from our trainees, faculty members, and keynote speaker, Dr. Margaret M. McCarthy. *Trainees—you are strongly encouraged to submit an online poster to showcase your exceptional work.* Prizes will be awarded for the top posters. Visit [HBI Research Day](#) for more information.

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## MEET YOUR HBITO EXECUTIVES

### Michael McLaren-Gradinaru, HBITO Webmaster

Written by Carly Pontifex



As the HBITO's webmaster, Michael McLaren-Gradinaru has been advocating for improving cross-campus engagement. For the past year, he has been focused on redesigning and releasing the [new HBITO website](#). He has integrated a new comprehensive calendar detailing the events occurring around the HBI. "I pushed this aspect because I believe we were missing a critical component of trying to engage the different campuses and that was a central hub for communication that is easy to use and outlines what is happening around the HBI."

Last September, Michael completed his Master's project at the University of Calgary working with Dr. Giuseppe Iaria. Michael studies a disorder known as Developmental Topographic Disorientation (DTD) – a developmental disorder where people fail to navigate familiar environment in the absence of neurological disorders or brain damage. He designed and conducted preliminary tests on a virtual spatial training program on healthy individuals.

He recently published his first paper demonstrating that it could help subjects develop spatial navigation skills. For his PhD, he continues his work with Dr. Iaria. He intends to add an EEG component to the training program to determine if young adults, adults and the elderly are affected differently by the training regimen.

Michael says the most interesting he's learned is that "the brain is incredibly good at adaptation and in many cases is able to compensate or design different strategies to achieve goals that require skills that an individual may not have. We even see this with people who are relatively poor navigators, where they have designed strategies that still allow them to orient their environments in a semi-efficient manner. However, in the case of DTD, that adaptation does not seem to exist and despite navigation being such a major component to daily life, in most cases, their brains are unable to find a way to compensate. This leads to complete reliance on things like GPS and always having others present while navigating."

Michael's experience serving as the HBITO's webmaster left Michael with the impression that "there are many things that have been done right by the HBITO to improve the student experience and I would like to take some of those ideas and apply them to the psychology student body." Continuing with his strategy for improved integration, he hopes to find ways to facilitate networking between the neuroscience and psychology department. "I am incredibly fond of the level of connection that can be found between neuroscience students and would like to see that within the psych student body and hopefully start a motion to see that between the fields as well."

While continuing his training, he considers his future. "I am looking into a career as an entrepreneur, likely in the field of neuro-psychology. One of my most intriguing ideas is starting a software company that focuses on designing a user-friendly program containing virtual versions of well-known psychological and neurological assessments."

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## **UPCOMING HBI REALISE MODULES**

To register for upcoming modules, sign in to the [REALISE intranet site](#) with your UCIT username and password. You may also view the modules on the [new REALISE calendar](#), and register on the calendar form where available. Either way, your attendance in all REALISE modules will be documented, and your dossier is available anytime upon request

### **Introduction to Real time PCR**

**May 5 | 10 am to 12 pm | Online via Zoom**

Real-time polymerase chain reaction (real-time PCR) is a technique that quantifies nucleic acids and is useful for mRNA expression analysis, copy number determination, genotyping and diagnostics. This technique is available to support your research at the [HBI Molecular Core Facility](#). Join Dr. Frank Visser, manager of the facility, for a two hour introduction to the design, implementation, and analysis of real time PCR assays. You will learn basic concepts, primer design, use of online database tools, efficiency experiments, melting curve analysis, and data analysis. Guided practice time will be made available when the university work from home directive is lifted.

### **Confessions of a Scientist: Tales of Academic Horror Vol. 2**

**May 13 | 1 to 2:30 pm | Online via Zoom**

Research is not a journey for the faint-hearted. It is often full of failures, dead ends, and moments of despair. It is not easy to accept failure in a community that sets lofty goals and aspires for nothing less than excellence. "Confessions of a Scientist" is back with a second edition, bringing together faculty members from the HBI, McCaig, and Snyder Institutes, who will tell tales of academic horror they had to overcome on their way to the top. In addition to getting to know renowned faculty members, attendees will gain a better awareness of the variety of problems faced in academia and how to deal with them successfully. Panelists include Dr. Rebekah Devinney from the Snyder Institute, Dr. Frank MacMaster from the HBI, and Dr. Derrick Rancourt from the McCaig Institute. This interactive session will be delivered online via Zoom and participants will have the opportunity to ask questions.

### **Modern Approaches to Optogenetics and Behavioural Neuroscience**

**May 26 & 27 | 10 to 11:50 am | Online via Zoom**

Join Drs. Taylor Chomiak and Tamas Fuzesi for an introduction to Optogenetics and Behavioural Neuroscience with a focus on basic principles and practical applications. Participants will be given an introduction on how to effectively incorporate optogenetics and behavioural analysis into their research. Lectures will cover the basics and general principles guiding optogenetics and rodent behavioural testing and analysis. Participants will also become familiar with classic and more modern approaches for behavioural and statistical data analysis. An emphasis will be placed on ensuring proper controls are in place to ensure that reliable, high quality data are produced.

## **An Introduction to MATLAB for Optogenetics and Behavioural Neuroscience**

**May 28 & 29 | 10 to 11:50 am | Online via Zoom**

Join Leo Molina for an introduction to computer coding in MATLAB with a focus on basic principles and practical applications with respect to Optogenetics and Behavioural Neuroscience. Participants will be given an introduction on how to navigate the MATLAB environment and effectively code in MATLAB. An emphasis will be placed on practical MATLAB experience using real data. Participants are required to have their own computer with MATLAB.

## **Conflict Resolution**

**June 9 | 9 am to 12 pm | Online via Zoom**

Conflict itself is neither good nor bad, in fact, it 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, facilitated by Terry Wasylak of The Career Clinic, will help participants identify their preferred conflict management mode, identify the best approach for each situation, and ultimately handle conflict in a positive and productive way.

*Presented in partnership with ACHRI. Enrollment is limited so register soon!*

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## **OTHER UCALGARY WORKSHOPS, EVENTS, AND SEMINARS**

### **Career Resilience Series**

**Multiple days | 12 to 1 pm | Online**

In today's world, it is increasingly important for individuals to build career resilience, the ability to thrive in one's career in the midst of a rapidly changing career landscape. This four-part series incorporates recent research findings to support you with building career resilience.

- **May 1** [Part 2 – Developing a Growth Mindset](#)
- **May 8** [Part 3 – Fostering Collaborative Relationships](#)
- **May 15** [Part 4 – What Makes Good Work](#)

### **Mitacs: Practice Your Presentation Skills I**

**April 28 | 9 am to 5 pm | Online**

In this one-day course, theory is introduced in short bursts and participants spend the majority of time practicing their presentation skills. Participants will learn how to plan and structure a presentation, persuade and motivate others, use visual aides, overcome fear of public speaking, gain practice and receive expert feedback, and more!

### **Mitacs: Foundations of Project Management I**

**May 11 & 12 | 9 am to 5 pm | Online**

This 2-day course provides an experiential, collaborative learning experience to enable participants to integrate the principles of project management, team building, group dynamics, and leadership to their future careers and lives.

### **Mitacs: Business Writing**

**May 15 | 9 am to 5 pm | Online**

No matter what field you're working in, written communication is a critical part of your day-to-day duties. Regardless of your comfort or skill level, you can benefit from learning techniques to entice your readers and achieve your goals. This course will help you hone your writing skills using proven techniques and processes.

## **Mitacs: Time Management**

**May 18 | 9 am to 5 pm | Online**

If you find yourself frequently running out of time on a project or impending deadlines are making you anxious, this course is here to help. You'll learn how to make the most of every minute, avoid procrastination and other "time thieves," and create achievable plans and schedules, based on project management best practices.