PROGRAM Day 1

Monday August 15th, 2022
Otto Mass Chemistry (Room 217)
McGill University

8:30 a.m. – 8.55 a.m.	**Registration and Refreshments (OM Lobby)**
8:55 a.m. - 9:00 a.m.	**Introduction – NSERC CREATE (PROMOTE) OM 217**

9:00 a.m. – 10:00 a.m.

Connection & Communication for your Career: Networking On & Off-line
Erin Corber PhD & Rebecca Maymon PhD (McGill University)

Building a network is a vital component of exploring your career options, learning about new paths, finding new collaborators, and gaining valuable knowledge from industry insiders. This workshop focuses on strategies for developing your online presence as well as communication skills for great career conversations, both integral components of cultivating a rich professional network.

10:00 a.m. - 11:00 a.m.

Dual Career Couples and Spousal Hiring

11:00 a.m. - 11:15 a.m.	**Coffee Break (OM Lobby)**

11:15 a.m. – 12.15 p.m.

Regulatory Affairs 101: What May Happen will Happen!
Linda Peltier PhD (McGill University)

This workshop will give you a broad overview of regulatory compliance, describe the differences between policies and procedures, and discuss what type of validation can or should be done before the research is started.

12:15 p.m. - 1:00 p.m.	**Lunch Break (OM Lobby) – Group Picture**

1:00 p.m. - 2:30 p.m.

Trainee Research Talks

A. Sakaya	Singlet Oxygen Flux and Membrane Expansion Dynamics Visualized on Giant Unilamellar Vesicles
J. Stille	Application of Computational Modeling Towards the Development of TPP-Riboswitch Inhibitors
D. Isaacs	Affinity-based delivery system for controlling the release of antibodies
A. Pontarelli	Synthesis of a Convertible Linker Containing a Disulfide Group for Oligonucleotide Functionalization
F. Ebanks	Development of DNA aptamer-based gold nanoparticle colorimetric assays for detection of small molecules
S. Lee	An RNA-cleaving DNAzyme Activated by bacterial pathogen *Clostridium difficile*

2:30 p.m. - 2:45 p.m.	**Coffee Break (OM Lobby)**

2:45 p.m. – 4.15 p.m.

Trainee Research Talks

O. Kovecses	Drugging Transcription Factors in Acute Myeloid Leukemia using RNA Therapeutics
A. Shi	New photostabilizing compounds for single molecule fluorescence
D. Hiraki	Development of a new solvent model for use in docking small molecules to nucleic acids
D. Knight	Characterization of IAPP-binding Aptamers by Fluorescence Spectroscopy and Filter Binding Assays for Treatment of Diabetes
T. Brown	Sequence-programmed DNA crosslinking hotspots create ultra-stable nanomaterials for biological use
H. Barber	Chemically Modified ASOs Targeting the *C9orf72* Repeat Expansion Found in ALS Patients

4.15 p.m.	**Wrap up Day 1**

PROGRAM Day 2

Tuesday August 16th, 2022
Otto Mass Chemistry (Room 217)
McGill University

8:30 a.m. – 8.55 a.m. **Registration (OM Lobby)**

9:00 a.m. - 10:30 a.m.

Researching Your Self: Cultivating a Growth Mindset & Why Stress is Good
Joan Butterworth (McGill University)

How important is it for you as a researcher to be intentional about your mindset? We all bring our own mental models (beliefs, values, and perspectives) to our work but might not have a chance to reflect on their impact. This interactive workshop gives everyone an opportunity to explore contemporary trends related to cultivating growth mindsets that allow us to ground and focus ourselves as well as reframe stress. Our goal will be to identify some meaningful steps to take in becoming better researchers and collaborators.

10:30 a.m. - 10:45 a.m. **Coffee Break (OM Lobby)**

10:45a.m. - 12:15 p.m.

Writing the Ideal Abstract
Chris Corkery PhD (McGill University)

The learning objectives of this session will focus on how to (i) Separate abstracts into their key components, (ii) Convey the thesis of your manuscript succinctly, (iii) Entice readers to dive deeper into your work.

12:15 p.m. - 1:00 p.m. **Lunch Break (OM Lobby)**

1:00 p.m. - 2:30 p.m.

Trainee Research Talks

M. Dang	A Hydrogel Depot as a Long-Acting Drug Delivery System for the Treatment of Chronic Glaucoma
S. Zakaria	Efforts towards identifying an unknown F. nucleatum biomarker for disease detection
B. Hosseinpour	Characterization of AML-specific DNA aptamers
S. Hirka	Rescue of the light-up aptamers and facile high-throughput mutational analysis for improved binding
C. Nurmi	Accessing the inaccessible: Improving the activity of 10-23 DNAzymes against viral genomic RNA targets for biosensing
F. Fungo	Super Resolution Imaging of Lipid Membrane Peroxidation Reveals Sites of – Antibiotic Induced – ROS-Associated Membrane Damage

2:30 p.m. - 2:45 p.m. **Coffee Break (OM Lobby)**

2:45 p.m. - 3:45 p.m.

Trainee Research Talks

A. Xue	Loss of CD40 expression by $TSC2^{-/-}$ cells may promote T cell unresponsiveness and allow their proliferation in vitro
A. Mahmud	Reagent-Free Programmable Bioelectronic Detectors for *In-situ* Continuous Biomolecular Analysis
S. Yao	DNA hydrogels for drug delivery and tissue engineering
B. Maru	Assessing Programmed Cell Death in Acute Myeloid Leukemia

3:45 p.m. **Closing Remarks**