

ANNUAL PROMOTE RETREAT

Day 1

Tuesday May 4, 2021

9:45 a.m. - 10:00 a.m. Introduction – NSERC CREATE (PROMOTE)

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

Competencies and Careers in the Sciences: Rebecca Maymon (McGill University)

This talk will examine the competencies developed during graduate work and how they relate to skills demand trends anticipated over the next few years. We will discuss labour market trends and explore career outcomes in the Sciences. Importantly, we will also review tips and strategies for communicating your competencies and for navigating the labour market.

11:00 a.m. - 12:00 p.m.

7 Strategies for Dealing with Literature Overload: April Colosimo (McGill University)

It is not easy to stay on top of the literature in any field, but in fast moving sciences, it can be particularly challenging. Join this session for tips on getting a handle on those published papers and for reading strategically, to save time and energy.

12:00 p.m. - 12:30 p.m. Lunch Break

12:30 p.m. - 2:00 p.m.

Trainee Research Talks

S. Zakaria	Developing a DNzyme-based Test for the Detection of Early Colorectal Cancer
D. Isaacs-Bernal	Affinity-Based Delivery System for Controlling the Release of Four Therapeutic Proteins Relevant for Retinal Stem Cell Activation
W. Copp	O ⁶ -Alkylguanine DNA Alkyltransferase Mediated Disassembly of a DNA Tetrahedron
S. Diallo-Blais	Optimizing the Stability of Electrochemical DNA-Based Biosensors
D. Hiraki	Development of Software for High-Throughput Screening of Potential Novel Antibiotics
O. Kovecses	Targeting “Undruggable” Transcription Factors Using Therapeutic Oligonucleotides”

2:00 p.m. - 2:15 p.m. Break

2:15 p.m. - 3:30 p.m.

Trainee Research Talks

A. McVean	Small Nucleic Acid-Based Inhibitors (Snubs) of Streptococcus Pyogenes CRISPR-Cas9
S. Yin	New Photostabilizing Compounds for Single Molecule Fluorescence
A. Xue	Rationally Designed 3D Hydrogels Model for LAM Disease In-Vitro
A. Mahmud	Monitoring of Cardiac Disease with Reagent-Free Molecular Pendulum Aptasensors
T. Brown	Sequence-Programmed DNA Crosslinking Hotspots Create Ultra-Stable Nanomaterials for use as a Biological Platform

3:30 p.m. Wrap up day 1

ANNUAL PROMOTE RETREAT**Day 2****Tuesday May 5, 2021****10:00 a.m. - 11:00 a.m.****Responsible Conduct of Research 101: Emily Bell (McGill University)**

This session will present an overview on the topic of responsible conduct of research and research integrity for the bench scientist. We will discuss the threats brought by scientific misconduct using case studies, and we will examine guidance on responsible conduct. We will provide, and generate together, some practical tips on dealing with challenging ethical situations day-to-day at the bench and in the lab.

11:00 a.m. - 12:00 p.m. Genomics and Policy**Genomics and Policy: Ma'n H. Zawati (McGill University)**

This session will describe the work of a lawyer working on the legal, ethical and policy issues in the field of genomics. More specifically, several issues (consent, return of results, privacy, access, etc.) will be presented across multiple research initiatives to provide the attendees with practical examples of challenges in this field and potential solutions/tools to address them.

12:00 p.m. - 12:30 p.m. Lunch Break**12:30 p.m. - 2:00 p.m.****Trainee Research Talks**

J. Chen	Disease Monitoring of Protease Activity Using a Reagentless Molecular Pendulum
T. Lyalina	Development of an Electrochemical DNA-Based Biosensor for Monitoring Heart Failure in a Drop of Blood
C. Nurmi	Detection of SARS-Cov-2 RNA Using Sequence-Specific RNA Cleaving DNase
G. Juneau	Development of an Assay to Evaluate O ⁶ -Alkylguanine DNA Alkyltransferase Activity
F. Ebanks	The Development of DNA Aptamer-Based Gold Nanoparticle Colorimetric Assays for the Detection of Small Molecules and Proteins
A. Sakaya	Unravelling Phase Separation Behavior of A-D-A Conjugated Oligomers in Supported Lipid Bilayers

2:00 p.m. - 2:15 p.m. Break**2:15 p.m. - 3:30 p.m.****Trainee Research Talks**

J. Stille	Computer-Aided Design of Riboswitch-Targeting Therapeutics
H. Fakih	Sequence Controlled DNA-Polymer Conjugates and their Applications in Drug Delivery
S. Hirka	Post-SELEX DNA-Encoded Functionalization of Aptamers
B. Hosseinpour	Aptamer Selection and Application in Cancer Therapy
L. Abdullahu	Small Molecule-Like Oligonucleotides as Novel Antifungal Reagents Against tRNA 2'-Phosphotransferase (Tpt1)

3:30 p.m. Closing remarks