CRAFT Research Symposium 2024

Date: Saturday, October 12, 2024
Location: National Research Council Canada, 75 Boulevard de Mortagne, Boucherville, Quebec, Canada, J4B 6Y4
Time: 7h45-17h30

Tentative Agenda

7h45-9h15 Registration
Location: NRC Boucherville, Lobby

7h45-9h15 Hot breakfast
Location: Cafeteria

8h10-9h10 Trainee workshop ***CRAFTing Success: Project Management Essentials for Collaborative Microfluidics Research*** led by Drs. Jennifer Doucet and Ilya Yakavets (RSVP needed)
Location: Meet NRC staff at entrance to cafeteria at 8h05. NRC staff will take participants to room A153.

8h30-9h00 Tours of NRC CRAFT Integrated Bio-Devices Fabrication Facility led by Drs. Keith Morton, Daniel Brassard and Lidija Malic (RSVP needed)
Location: Meet NRC staff at entrance to cafeteria at 8h30.

9h15-9h30 Opening remarks by Drs. Lakshmi Krishnan (NRC) and Ori Rotstein (Unity Health Toronto)
Chair: Dr. Teodor Veres (NRC & CRAFT)
Location: Auditorium (entrance in the lobby)

9h30-9h45 ***CRAFT Update*** given by Dr. Teodor Veres (NRC & CRAFT)
Location: Auditorium

9h45-10h45 ***Keynote:*** **3D culture, reagent delivery, and bioassay development using closed- and open-space microfluidics** given by Dr. Thomas Gervais (Polytechnique Montréal)
Chair: Dr. Teodor Veres (NRC & CRAFT)
Location: Auditorium

10h45-11h00 Coffee break sponsored by DBM Medix
Location: Lobby

11h00-12h00 Poster session with 42 posters presented by trainees across Canada and NRC researchers
Location: Main hallway, ground floor

12h00-12h45 Invited presentations – Chair: Dr. Claudia dos Santos
Location: Auditorium

12h00 ***Sketch and Etch: Microfluidic technology for spatiotemporal investigations into rare cell populations in collective cancer migration*** given by Dr. Sofia Graham (PDF, UBC)

12h10 ***Low-cost membrane-integrated microfluidic electrochemical sensor for low-limit detection of specific salt ions in drinking water*** given by Ayobami Elisha Oseyemi (PhD Student, York University)

12h20 ***Pseudopodia proteome for compositional characterizations of migrating T cells using 3D printed cell protrusion isolation devices*** given by Dr. Yang Liu (Research Associate, University of Manitoba)

12h30 ***Digital microfluidic benchtop system for prenatal genetic testing from single cells*** given by Dr. Dylan Siriwardena (PDF, University of Toronto)

12h55-14h00 Lunch
Location: Cafeteria

- private lunch for Drs. Thomas Gervais and Matthias Geissler (NRC) with 8 trainees (RSVP needed) Location: All participants to get their food in cafeteria then gather at entrance of cafeteria.

- private lunch for Drs. Samira Musah and Ben Moon (NRC) with 8 trainees (RSVP needed) Location: All participants to get their food in cafeteria then gather at entrance of cafeteria.

- private lunch for Drs. Michael Roberts and Kebin Li (NRC) with 8 trainees (RSVP needed) Location: All participants to get their food in cafeteria then gather at entrance of cafeteria.

13h30-14h00 Tours of NRC CRAFT Integrated Bio-Devices Fabrication Facility led by Drs. Keith Morton, Daniel Brassard and Lidija Malic (RSVP needed)
Location: Meet NRC staff at entrance to cafeteria at 13h30.

14h00-14h40 Invited presentations – Chair: Dr. Michael Dryden (NRC & CRAFT)
Location: Auditorium

14h00 ***Advanced morphology analysis on the biochemical and mechanical effect on microfluidic vessel network*** given by Han Shao (PhD student, University of Toronto)

14h10 ***Mass fabrication of PDMS devices by injection molding*** given by Raphaël Fillion (MASc Student, Polytechnique Montréal)

14h20 ***High-throughput preclinical model of breathing human alveoli*** given by Kimia Asadi Jozani (PhD Student, McMaster University)

14h30 ***Biphasic macroporous collagen microgels for full-thickness skin wound healing*** given by Sushant Singh (PhD Student, University of Toronto)

14h40-15h00 Invited NRC presentations – Chair: Dr. Milica Radisic (UofT & CRAFT)
Location: Auditorium

14h40 ***Viral molecular identification system for sample-to-answer quantitation of viral infection: sars-cov-2 cas***e given by Dr. Lidija Malic (NRC)

14h50 ***MicroPREP mission: Centrifugal microfluidic automation of complex sample preparation procedures for the International Space Station*** given by Dr. Daniel Brassard (NRC)

15h00-16h00 ***Organ-on-Chip Keynote: Harnessing microfluidic systems to shape stem cell fate and unravel human disease*** given by Dr. Samira Musah (Duke University)
Chair: Dr. Milica Radisic (UofT & CRAFT)
Location: Auditorium

16h00-16h15 Coffee break sponsored by DBM Medix
Location: Lobby

16h15-17h15 ***Keynote: Off the Earth, For the Earth: Leveraging microgravity to accelerate biomedical research, use-inspired technology development, and in-space production applications on the International Space Station National Laboratory*** given by Dr. Michael Roberts (International Space Station National Laboratory)
Chair: Dr. Axel Guenther (UofT & CRAFT)
Location: Auditorium

17h15-17h30 Prize announcements and closing remarks given by Dr. Amaya Arcelus (NRC)
Location: Auditorium