

**NRC-CHUSJ Workshop – November 22, 2022**

**9:00am – 4:45 pm**

Zoom link: [https://chusj.zoom.us/webinar/register/WN\\_RoxeBmaDROa1ipq8zIS6ug](https://chusj.zoom.us/webinar/register/WN_RoxeBmaDROa1ipq8zIS6ug)

**Day Program Overview**

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| 9:00 – 9:10   | Welcome<br>Chairs: Sue Twine and Sylvain Chemtob   |
|               | Update from the Scientific Committee: A year in review<br><i>Sue and Sylvain</i>   |
| 9:10 – 10:20  | Projects with Proof-of-Concept co-funding<br>Chair: Sue Twine  |
|               | Modeling tumor microenvironment acidosis and hypoxia using 3D spheroids of non-small cell lung cancer and their impact on anticancer drug effects.<br><i>Presenter: Nazanin Rohani (NRC)</i><br><i>Leads: Noël Raynal (CHUSJ) &amp; Anne Lenferink (NRC)</i> |
|               | Testing and Development of Novel Solid Tumour CARs Using Novel Therapeutic Cell Platforms.<br><i>Elie Haddad (CHUSJ) &amp; Scott McComb (NRC)</i>  |
|               | Automated immunomagnetic purification from complex biofluids on microfluidic microchips.<br><i>Presenter: Lucas Poncelet (NRC)</i><br><i>Leads: Daniel Sinnott (CHUSJ) &amp; Teodor Veres (NRC)</i>  |
|               | MicroDNA signature for prognosis of childhood acute lymphoblastic leukemia.<br><i>Maja Krajcinovic (CHUSJ) &amp; Teodor Veres (NRC)</i>  |
|               | Harvesting and banking of human amniotic fluid cells for iPSC reprogramming.<br><i>Anna Jezierski (NRC) &amp; Christian Beauséjour (CHUSJ)</i>   |
|               | Improving neurogenesis in Tatton-Brown-Rahman Syndrome by regulating DNMT3A protein expression.<br><i>Serge McGraw (CHUSJ), Richard Marcotte (NRC) &amp; Anna Jezierski (NRC)</i>  |
|               | Functional characterization of factors influencing natural killer (NK) cell activity against therapy-induced senescent solid tumor models.<br><i>Christian Beauséjour, Elie Haddad (CHUSJ) &amp; Richard Marcotte (NRC)</i>                                  |
| 10:20 -10:35  | Break  |
| 10:35 – 10:45 | Collaboration progress and update<br>Chair: Sue Twine  |
|               | An update on the developments of the CHUSJ-NRC partnership.<br><i>Sue Twine &amp; Jacques Michaud</i>  |
| 10:45-12:05   | Session II : Innovative Technologies and AI  |

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|               | Chair: Anne-Marie Alarco   |
|               | Modified lipid nanoparticles for improved gene delivery in the treatment of glioblastoma.<br><i>Pierre Hardy (CHUSJ)</i>                           |
|               | Interpretable Machine Learning Models for an Automatic Diagnosis of Retinal Diseases.<br><i>Farida Cheriet (CHUSJ/Polytechnique)</i>               |
|               | Digital Therapeutics at NRC.<br>Denis Laroche (NRC)  |
|               | Développement d'outils computationnels pour l'analyse automatique d'images histologiques placentaires.<br><i>Lama Seoud (CHUSJ/Polytechnique)</i>  |
| 12:00– 13:00  | Lunch  |
| 13:00 – 14:30 | Session III: From idea to product<br>Chair: Alexander Serrano  |
|               | CUTR as a driver of innovation.<br><i>Alexandre Serrano, Business Development Officer, NRC &amp; Anne-Marie Alarco, Chief of Innovation, CHUSJ</i> |
|               | MEDTEQ+ Beachhead program and how to finance your project.<br><i>Miled Bourourou and Marc-Olivier Pilon, Account manager, MEDTEQ</i>               |
|               | Funding collaborative life science projects with CQDM.<br><i>Mathieu Paquette, Director of business development, CQDM</i>                          |
|               | Adventures in early-stage biologics development & Chemistry Manufacturing and Controls (CMC).<br><i>Ilia Tikhomirov, CEO 35Pharma</i>              |
| 14:30 – 14:45 | Coffee and tea break   |
| 14:45 – 16:30 | Session IV AI applications in Health Sciences<br>Chair: Sylvain Chemtob  |
|               | Mila & Health.<br><i>Laurent Tillement, Director partnership, AI and Healthcare, MILA</i>  |
|               | Data infrastructures to support AI at the CHUSJ.<br><i>Vincent Ferretti (CHUSJ)</i>  |
|               | La science des données aux soins intensifs pédiatriques.<br><i>Philippe Jovet &amp; Michael Sauthier (CHUSJ)</i>                                   |
|               | AI in vaccine design.<br><i>Soren Gantt (CHUSJ) &amp; Abdoulaye Diallo (UQAM)</i>  |
|               | AI approaches applied to protein interface modelization and docking.<br><i>Christopher Corbeil (NRC)</i>   |
|               | Robotic systems for rehabilitation and assistance of patients with neuromotor deficits.<br><i>Abolfazl Mohebbi (CHUSJ/Polytechnique)</i>           |
| 16:30         | Closing<br>Sylvain Chemtob   |

