



CONFERENCE ON SIGNALLING IN NORMAL AND CANCER CELLS

12TH EDITION

April 23 -27, 2023

The Banff Centre, Banff, Alberta

BanffSNCC@ircm.qc.ca

event.fourwaves.com/banffsncc2023/



@BanffSNCC

Organizers:



Jean-François Côté, PhD

Institut de recherches cliniques de Montréal /
Montreal Clinical Research Institute



Michael Gold

University of British Columbia



Nina Jones, PhD

University of Guelph

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12th Conference on SIGNALLING in Normal and Cancer Cells

Program

APRIL 23, 2023

- 14:00 – 17:30** Registration (Max Bell Central Foyer)
- 14:00 – 17:30** Poster set-up (rooms MB 251, MB 252, MB 253)
Posters should remain up for the entire meeting.
- 17:30 – 18:45** Dinner (Vistas Room)

19:00 – 19:30 **Opening remarks and Tony Pawson retrospective**
(Max Bell Auditorium)

Tony Pawson Keynote Lectures

(Max Bell Auditorium)

Chairpersons: [Jean-François Côté](#), [Michael Gold](#), and [Nina Jones](#)

19:30 – 20:30

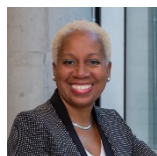


Marc Therrien, PhD

Professor, Department of Pathology and Cell Biology of the Faculty of Medicine of the Université de Montréal and Scientific Director of IRIC

From flies to humans: deciphering the inner workings of the RAS-MAPK pathway

20:30 – 21:00



Juliet Daniel, PhD

Professor and Associate Dean of Research & External Relations, McMaster University

What's Kaiso got to do with it (TNBC)?

21:00 – 21:30 Social time



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APRIL 24, 2023

7:00 – 8:30 Breakfast (Vistas Room)

8:30 – 12:00

SESSION 1: Signalling in the Tumor Microenvironment

(Max Bell Auditorium)

Chairperson:

TBC

8:30 – 9:00



Calvin Roskelley, PhD

Faculty of Medicine, Department of Cellular & Physiological Sciences, UBC

Metastatic colonization of the lung is facilitated by inflammatory-derived monocyte-derived macrophages

9:00 – 9:30



Bebhinn Treanor, PhD

Associate Professor, Canada Research Chair, Department of Biological Sciences, University of Toronto-Scarborough

Glycan-galectin interactions in the regulation of B cell activation and autoimmunity

9:30 – 9:45



Andrew Craig, PhD

Associate Professor, Department of Biomedical and Molecular Sciences, Queen's University; Director, Queen's Cancer Research Institute, Principal Investigator, CBG Division Queen's University

Coordinated blockade of TGF- β and PD-L1 by bintrafusp alfa promotes survival in preclinical ovarian cancer models by promoting T effector memory responses

9:45 – 10:00



Carrie Shemanko, PhD

Professor, Integrative Cell Biology, Biological Sciences, University of Calgary

From molecular mechanism to drug candidate and predictive testing, how we stop the vicious cycle of prolactin-accelerated breast cancer bone metastasis

10:00 – 10:30

Coffee Break (Max Bell Central Foyer)



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10:30 – 11:00



Sebastian Guettler, PhD

Deputy Head, Division of Structural Biology, The Institute of Cancer Research

Wnt/beta-catenin signalling: molecular mechanisms and regulation through ADP-ribosylation by tankyrase

11:00 – 11:30



André Veillette, MD

Director, Molecular Oncology Research Unit, IRCM; Executive Director, Marathon of Hope Cancer Centres Network; Tier 1 Canada Research Chair in Immune System Signalling

Novel immune checkpoints in anti-tumor immunity

11:30 – 11:45



Karla Williams BSc, PhD

Assistant Professor, Faculty of Pharmaceutical Sciences UBC

Invadopodia Drive Tumor Cell Invasion into the Lymphatic System Promoting Metastasis to the Lymph Nodes and Lungs

11:45 – 12:00



Sponsor talk –

Peter Hurley, Business Development Manager, **Olink Proteomics**

Empowering Genomics with Proteomics

12:00 – 15:00 Lunch (Vistas Room) and free time

15:00 – 15:45 Lightning talks (Max Bell Auditorium)

15:45 – 17:30 Poster session (rooms MB 251, MB 252, MB 253) (ALL ODD NUMBERS)

17:30 – 19:00 Dinner (Vistas Room)



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19:00 – 22:00

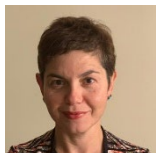
SESSION 2: Cell Cycle and Genome Stability

(Max Bell Auditorium)

Chairperson:

TBC

19:00 – 19:30

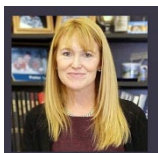


Sabine Elowe, PhD

Full professor, Department of Pediatrics, Faculty of Medicine, Université Laval

ARHGEF17: A driver of cell cycle progression and mitotic fidelity

19:30 – 20:00



Lisa Porter, PhD

Professor, Department of Biomedical Sciences, University of Windsor; Executive Director, WE-SPARK Health Institute

Atypical Cell Cycle Regulation in Liver Homeostasis: Implications in the Progression to Hepatocellular Carcinoma

20:00 – 20:30

Coffee Break (Max Bell Central Foyer)

20:30 – 21:00

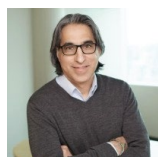


Sébastien Carreno, PhD

Principal Investigator, Cellular Mechanisms of Morphogenesis during Mitosis and Cell Motility Research Unit, IRIC; Full Professor, Department of Pathology and Cell Biology, Faculty of Medicine, Université de Montréal

Exploring the dynamic control of cell morphogenesis in mitosis

21:00 - 21:30

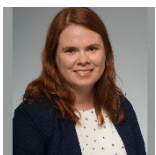


Savraj Grewal, PhD

Professor, Department of Biochemistry & Molecular Biology, University of Calgary

Innate immune signaling and the control of hypoxia adaptation in Drosophila

21:30 – 21:45



Véronique Giroux, PhD, Professor, Faculté de médecine et des sciences de la santé, Université de Sherbrooke

Targeting stem cells to fight against anti-cancer treatment resistance



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21:45 – 22:00



Joel Pearson, PhD, Assistant professor, Max Rady College of Medicine, Pharmacology and Therapeutics, Department of Pharmacology and Therapeutics, University of Manitoba; CancerCare Manitoba Research Institute

Simplifying cancer: A single transcriptional complex stratifies cancers into just two types that interconvert to drive drug resistance



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APRIL 25, 2023

7:00 – 8:00 Breakfast (Vistas Room)

8:00 – 12:15 **SESSION 3: Signalling in Normal and Cancer Cells**
(Max Bell Auditorium)

Chairperson: TBC

8:00 – 8:30



Anne-Claude Gingras, PhD
Senior Investigator, Lunenfeld-Tanenbaum Research Institute

Exploring the spatio-temporal aspects of signal transduction

8:30 – 9:00



Esther Verheyen, PhD
Professor, Molecular biology and biochemistry, Simon Fraser University

Integration of metabolic sensing with oncogenic signaling mechanisms in Drosophila tumour models

9:00 – 9:30



Daniel Schramek, PhD
Investigator, Lunenfeld-Tanenbaum Research Institute; Associate Professor, Dept. of Molecular Genetics, University of Toronto, Canadian Research Chair in Functional Cancer Genomics

In vivo veritas - using CRISPR technologies in mice to unravel novel cancer driver alterations in the non-coding genome

9:30 – 10:00 Coffee Break (MB Central Foyer)

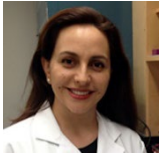
10:00 – 10:30



Shoukat Dedhar, PhD
Professor, Biochemistry and Molecular Biology; Professor, Genetics Graduate Program; Senior Scientist, British Columbia Cancer Agency / British Columbia Cancer Research Centre

Death by Iron accumulation: Targeting the CAIX-NFS1/xCT axis in Hypoxic Solid Tumors

10:30 – 11:00



Silvia Penuela, PhD

Associate Professor, Anatomy and Cell Biology, University of Western Ontario

Pannexin channels in cancer regulation through Wnt signalling

11:00 – 11:30



Robert Rottapel, PhD

Professor, Departments of Medicine, Immunology and Medical Biophysics, University of Toronto; Senior Investigator, OICR; Co-Leader, Ovarian Cancer Translational Research Initiative; Senior Scientist and Amgen Chair for Cancer Research, Princess Margaret Cancer Centre

Emergent Adaptive Pathways in High Grade Serous Ovarian Cancer

11:30 – 11:45



Wei Zhang, PhD, Assistant Professor and CIFAR Global Scholar, Department of Molecular and Cellular Biology, University of Guelph

Targeted protein degradation by ubiquitin variant induced proximity

11:45 – 12:00



Mohan Malleshaiah, PhD, Assistant Research Professor, IRCM; Assistant Research Professor, Department of Biochemistry and Molecular Medicine, Université de Montréal; Adjunct Member, Division of Experimental Medicine in the Department of Medicine, McGill University

Altering stem cell states by controlling cell signalling information

12:00 – 12:15

Sponsor's talk - STEMCELL

12:15 – 15:00 Lunch (Vistas Room) and free time

15:00 – 15:45 Lightning talks (Max Bell Auditorium)

15:45 – 17:30 Poster session (rooms MB 251, MB 252, MB 253) (ALL EVEN NUMBERS)

17:30 – 19:00 Dinner (Vistas Room)



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19:00 – 22:00

MOHCCN SESSION #1: Improving Outcomes of Hard-to-Treat Cancer with Precision Oncology

(Max Bell Auditorium)

Chairperson:

TBC

19:00 – 19:30

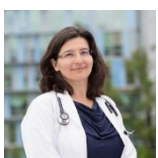


Alexandre Orthwein, MSc, Ph*

Assistant Professor Department of Radiation Oncology | Emory University School of Medicine Winship Cancer Institute of Emory University

Identification of novel DNA repair factors with prognostic potential using multi-omics data integration analysis

19:30 – 20:00



Janessa Laskin, MD, FRCPC*

Clinical Associate Professor, Medical Oncology, University of British Columbia

Integrating State-of-the-Art Genomic Technology into Cancer Care

20:00 – 20:30

Coffee Break

20:30 - 21:00

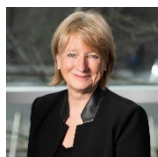


Trevor Pugh, PhD, FACMG*

Senior Scientist, Princess Margaret Cancer Centre

Using Cancer Genomes as Spotlights to Search for Minimal Residual Disease in Cell-free DNA

21:00 – 21:30



Morag Park, PhD*

Professor, Department of Biochemistry and Director, Rosalind and Morris Goodman Cancer Centre, McGill University

Unleashing the Molecular Mysteries of METex14del: Paving the Way for Personalized Cancer Therapies

21:30 – 22:00



Marathon of Hope Cancer Centres Network
André Veillette, Isabel Serrano, Natalie Szudy

***An introduction to the Marathon of Hope Cancer Centres Network,
Team Canada advancing Precision Medicine for cancer patients
and opportunities for collaboration***



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APRIL 26, 2023

7:00 – 8:00 Breakfast (Vistas Room)

8:00 – 12:00 **SESSION 5: Kinases and Ras proteins**
(Max Bell Auditorium)

Chairperson: TBC

8:00 – 8:30

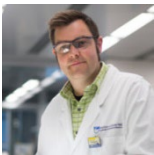


Matt Smith, PhD

Principal Investigator, Cancer Signalling and Structural Biology Research Unit, IRIC; Associate Professor, Department of Pathology and Cell Biology, Université de Montréal

Complexities in RAS GTPase Signalling to Effector Proteins

8:30 – 9:00



James Murphy, PhD

Professor, Head, Inflammation Division, Walter and Eliza Hall Institute of Medical Research, Australia

Licence to kill: understanding how the zombie protein, MLKL, is triggered to kill cells by necroptosis

9:00 – 9:30



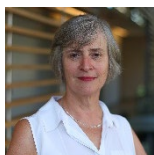
Nathalie Lamarche-Vane, PhD

Professor, Anatomy and Cell Biology, McGill University

CdGAP is a molecular target of TGF β signaling involved in development and diseases

9:30 – 10:00 Coffee Break (MB Central Foyer)

10:00 – 10:30



Lois Mulligan, PhD

Professor, Pathology and Molecular Medicine, Queen's University

Slow traffic ahead: Driving cancer through altered membrane dynamics



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10:30 – 11:00



Michael Olson, PhD

Professor, Department of Chemistry and Biology, Toronto Metropolitan University; Tier 1 Canada Research Chair in Molecular Cell Biology

ROCK1 and apoptotic blebbing: What is it good for?

11:00 – 11:30



James Woodgett, PhD*

President and Scientific Director, Terry Fox Research Institute Professor; Senior Scientist at Mount Sinai Hospital (Toronto), Sinai Health System

Robustness in developmental signaling vs sledgehammer signaling in cancer

11:30 – 11:45

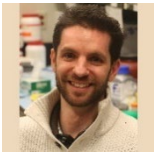


Mélanie Laurin, PhD

Chercheure, Axe Oncologie, HDQ; professeure adjointe, Département biologie moléculaire, biochimie médicale et pathologie, Faculté de médecine, Université Laval

The RhoGEF FGD1 regulates skin morphogenesis

11:45 – 12:00



Valentin Jaumouillé, PhD

Assistant Professor, Department of Molecular Biology and Biochemistry, Simon Fraser University

Actin dynamics and mechanosensing in integrin-mediated phagocytosis

12:00 – 13:30 Lunch (Vistas Room) and free time

13:30 – 15:30 MOHCCN Session #2: Immune Regulation of Cancer Progression

(Max Bell Auditorium)

Chairperson: TBC

13:30 – 14:00



Enfu Hui, PhD*

Associate Professor, Department of Cell and Developmental Biology, University of California, San Diego, USA

Cis-signaling of the T cell costimulatory receptor CD28



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14:00 – 14:30



Brad Nelson, PhD*

Professor, Medical Genetics, University of British Columbia

Deciphering and re-engineering the immune response to cancer

14:30 – 15:00

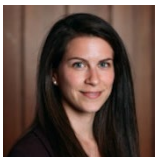


Ian Watson, PhD*

Associate Professor, Department of Biochemistry, McGill University

The NF1 tumor suppressor regulates PD-L1 and immune evasion in melanoma

15:00 – 15:30



Daniela Quail, PhD*

Assistant Professor, Rosalind and Morris Goodman Cancer Centre and the Department of Physiology, McGill University

Fueling cancer through the tumour immune microenvironment

15:30 – 16:30 MOHCCN Closing session (Max Bell Auditorium)



Marco Marra, PhD, FRS(C), FCAHS, OBC*

Professor, Department of Medical Genetics, University of British Columbia

The genomics of treatment resistant cancers

19:00 Banquet (Kinnear Centre- KC 303)

APRIL 27, 2023

7:00 - 9:00 Breakfast (Vistas Room) – Departure

** Speakers supported by TFRI/MOHCCN.*



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