



IRCM

Institut de recherches
cliniques de Montréal

Inspiré par la vie.

29th Boston-Ithaca Islet Club Annual Meeting May 14th-15th, 2022

Institut de recherches cliniques de Montréal (IRCM)
110 Avenue des Pins Ouest,
Montréal (QC), Canada

This meeting is supported by generous contributions from:

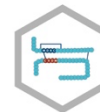


Institute of Nutrition,
Metabolism and Diabetes

Institut de la nutrition,
du métabolisme et du diabète

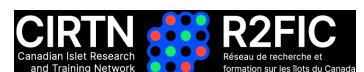


Comprendre pour prévenir et guérir



**Montreal Diabetes
Research Center**

Understand to Prevent and Cure



SATURDAY, MAY 14th

8:30 am: Registration and continental breakfast

9:00 am: Welcome and Introduction

9:10-10:50 am: SESSION I: To Be or Not to Be: Cell Identity in the Islet

(Chair: Luis Fernando Delgadillo Silva)

9:10: *Rare Insulin⁺ Glucagon⁺ cells in human islets: A transcriptomic journey.* **Ji Soo Yoon.** Graduate Student, Lynn Lab, University of British Columbia.

9:30: *The role of transcriptional coregulator Med15 in matured β -cells.* **Rachel Spencer.** Graduate Student, Taubert Lab, University of British Columbia.

9:50: *Investigating α - and β -cell phenotypes in T1D.* **Theodore Dos Santos.** Graduate Student, MacDonald Lab, University of Alberta.

10:10: *A transcriptomic signature for single pancreatic islet leader β -cells.* **Pauline Chabosseau.** Postdoctoral Fellow, Rutter Lab, CR-CHUM.

10:30 *Single nucleus RNA sequencing of human pancreatic islets identifies new β -cell gene markers and three β -cell subpopulations with different transcriptional activity.* **Randy Kang.** Research Associate, Garcia-Ocana Lab, Icahn School of Medicine at Mount Sinai.

10:50-11:10 am: Coffee break (Sponsored by Sable Systems International)

11:10-12:20 pm: SESSION II: Short and Sweet!

(Chair: Geming Lu)

11:10: *Investigating potential cross-talk between HIF1 α and AhR in pancreatic β -cells.* **Noa Gang.** Graduate Student, Bruin Lab, Carleton University.

11:20: *Differential effects of senolytic and senomorphic drugs on β -cell function.* **Stephanie Sanjines.** Undergraduate Student, Aguayo-Mazzucato, Joslin Diabetes Center.

11:30: *Electrophysiological characterization of stem-cell derived β -cells.* **Jasmine Maghera.** Graduate Student, MacDonald Lab, University of Alberta.

11:40: *Role and mechanisms of action of FFA4 (GPR120) in the function of the endocrine pancreas.* **Laura Reininger.** Postdoctoral Fellow, Poitout Lab, CR-CHUM.

11:50: *Combination treatment with harmine and exendin-4 markedly expands human β -cell mass in diabetic mice.* **Kara Beliard.** Postdoctoral Fellow, Garcia-Ocana Lab, Icahn School of Medicine at Mount Sinai.

12:00: *Dissecting the acinar-to- β -cell crosstalk: the role of pancreatic elastase in regulating β -cell viability.* **Giorgio Basile.** Postdoctoral Fellow, Kulkarni Lab, Joslin Diabetes Center.

12:10: *Maladaptive positive feedback production of ChREBP β underlies glucotoxic β -cell failure.* **Liora Katz.** Research Associate, Scott Lab, Icahn School of Medicine at Mount Sinai.

12:20-1:30 pm: Lunch (Sponsored by Novo Nordisk)

1:30-2:50 pm: SESSION III: Even β -cells Care About the Environment

(Chair: Tara MacDonald)

1:30: *Dietary ketosis improves obesity and reduces glucose stimulated insulin secretion in isolated islets.* **Cassie Locatelli.** Graduate Student, Mulvihill Lab, University of Ottawa.

1:50: *Vitamin K-dependent carboxylation of junctate modulates calcium flux and adaptation to metabolic stress in β -cells.* **Kevin Guo.** Graduate Student, Ferron Lab, Institut de recherches cliniques de Montréal.

2:10: *Heterogeneity in macronutrient-stimulated insulin release from human islets.* **Jelena Kolic.** Postdoctoral Fellow, Johnson Lab, University of British Columbia.

2:30: *m6A mRNA methylation regulates the innate immune response in human β -cells.* **Dario F De Jesus.** Postdoctoral Fellow, Kulkarni Lab, Joslin Diabetes Center.

2:50-3:10 pm: Coffee break (Sponsored by Novo Nordisk)

3:10-4:50 pm: SESSION IV: Dysfunction, Death and Diabetes

(Chair: Marie-Lyne Peyot)

3:10: *Pax6-Cre-driven conditional Gclc gene deletion results in a severe diabetes phenotype.* **Emily Davidson.** Graduate Student, Vasiliou Lab, Yale University.

3:30: *CYP1A1 induction as a biomarker of pollutant-induced β -cell dysfunction.* **Myriam Hoyeck.** Graduate Student, Bruin Lab, Carleton University.

3:50: *A peripherally restricted cannabinoid-1 receptor inverse agonist promotes insulin secretion and protects from cytokine toxicity in human pancreatic islets.* **Anindya Ghosh.** Postdoctoral Fellow, Prentki Lab, CR-CHUM.

4:10: *Role of the interaction between Nck1 and PERK in pancreatic β -cell function and survival.* **Laure Monteillet.** Postdoctoral Fellow, Estall Lab, Institut de recherches cliniques de Montréal.

4:30: *The calcium dynamics in islet α and β -cells in NOD mice during the natural course of T1D development.* **Ya-Chin Huang.** Postdoctoral Fellow, Rupnik Lab, Medical University of Vienna.

4:50 pm: Business Meeting

**** Free shuttle** can drive participants from the IRCM to Les 3 Brasseurs for the dinner. There will be two departures: around **5:00 pm** and around **5:45 pm** ******

6:00 pm: Dinner and Drinks at: 3 Brasseurs Saint-Paul,

105 St-Paul Est,

Montréal, QC, H2Y 1G7

SUNDAY, MAY 15th

9:00 am: Continental breakfast

9:30-10:30 am: SESSION V: Just Can't Get Enough...of β -cells!

(Chair: Julien Ghislain)

9:30: *Implication of senolysis in β -cell mass and replication.* **Nadine Bahour.** Undergraduate Student. Aguayo-Mazzucato Lab, Joslin Diabetes Center.

9:50: *The role of RGS9 in insulin secretion and β -cell proliferation.* **Scott Campbell.** Postdoctoral Fellow, Poitout Lab, CR-CHUM.

10:10: *Nrf2 is essential for expanding neonatal pancreatic β -cell mass.* **Sharon Baumel-Alterzon.** Instructor, Scott Lab, Icahn School of Medicine at Mount Sinai.

10:30-10:50 am: Coffee Break

10:50-11:50 am: SESSION VI: Keeping the Pancreas Fit and Healthy

(Chair: Laure Monteillet)

10:50: *Aligning dietary intake to islet metabolism in experimental models of the HNF-1 α G319S variant.* **Taylor Morriseau.** Graduate Student, Doucette Lab, University of Manitoba.

11:10: *Elucidating mechanisms of endocrine-exocrine signaling in obesity-driven pancreatic cancer.* **Cathy Garcia.** Graduate Student, Muzumdar Lab, Yale University.

11:30: *MtGTP rewriting of β -cell metabolism.* **Rebecca Cardone.** Research Associate, Kibbey Lab, Yale University.

11:50 am: Islet Club awards and concluding remarks

12:20 pm: Lunch box and depart