

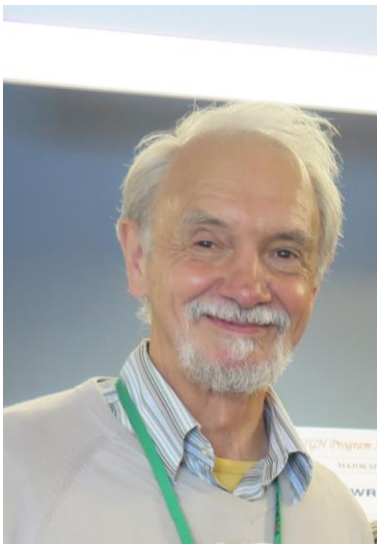
Infectious Diseases and Immunity in Global Health Research Day Program



April 20th, 2018

Welcome Message from Dr. Erwin Schurr

Leader of The Infectious Diseases and Immunity in Global Health (IDIGH) Program



Dear IDIGH Research Day Attendees,

It is a pleasure to introduce the 2018 IDIGH Research Day. As in the past, the event has been organized by our trainees. A big thanks to the trainee committee members (headed by James Stewart and Roman Istomine) who have worked tirelessly in putting this event together. I also want to thank Sabrina Bartolucci and Maxime Lemieux for being the organizers of the very successful and popular “Work in Progress” seminar series. To all of them, kudos!

The objective of the Research Day is to showcase the accomplishments of our trainees, and to gather our program members to create a setting for a truly collaborative event across all IDIGH groups. The trainee committee has impressively succeeded in making this happen! This Research Day will bring together 199 participants, including trainees, PIs, and research staff of our IDIGH Program, representatives from pharmaceutical companies as well as vendors and service providers.

The Research Day features 42 presentations (both oral and poster) from trainees of the four pillars of the IDIGH program and from members of the technology platforms of the RI-MUHC. The talks and posters provide an opportunity for our trainees to display their research findings and to receive valuable feedback on their results. I have little doubt that this will also provide a platform to interact and exchange research ideas in infectious diseases, immunity and global health among the diverse set of attendees.

As in the past, the Research Day offers a chance to win one of several best poster and oral presentation awards. Besides their monetary value, these awards will help to improve the resumes and increase the competitiveness of our students for outside fellowship competitions.

I am grateful for the participation of our keynote speaker Dr. Polly Matzinger, who kindly accepted an invitation by our trainee committee. Her presentation of late-breaking discoveries, perspectives on the research enterprise, and advice to our trainees will be greatly appreciated.

We thankfully acknowledge our sponsors and partners. Without their generous financial support this Research Day would not have been possible. I strongly encourage all of you to take advantage of their presence and to discuss with our sponsors how new developments can help you to better succeed in your research efforts.

Last but not the least, I want to thank all PIs of the IDIGH program. Training of the next generation of researchers, who recognize the importance of integrating basic and clinical research, teamwork and leadership, has been a major focus of the IDIGH program. Kudos to our PIs for making it happen and thank you all for your support!

Enjoy the Research Day!

A handwritten signature in black ink, appearing to read 'Erwin Schurr'.

Erwin Schurr
IDIGH Program Leader

Welcome Message from the IDIGH Trainee Committee

On behalf of the IDIGH Trainee Committee, we would like to welcome and thank you all for participating in the 2018 IDIGH Research Day. The RI²GHT Committee and volunteers from the IDIGH program have worked very hard to ensure this day is enjoyable and beneficial to all those involved.

The focus of this day-long conference lies on trainees from McGill and the RI-MUHC, providing them an opportunity to share their hard work and discoveries in the fields of infection and immunity, epidemiology, translational research and global health. It will also allow trainees to receive important feedback from more experienced scientists, to develop their ideas and help them further their research goals.

We would like to thank our sponsors for their generous support, without whom this event would not be possible. We would also like to thank oral and poster presentation judges for taking the time to provide valuable feedback to those presenting. We would like to thank our keynote speaker, Dr. Polly Matzinger for traveling to Montreal to share her world-renowned research with the McGill and RI-MUHC community.

Finally, we would like to extend a special thank you to Dr. Eric Beliveau and Ms. Joanne Krief, who have helped so much with their invaluable guidance and support throughout this process.

We very much look forward to seeing you at the 2018 IDIGH Research Day this Friday!



Roman Istomine

Co-President of RI²GHT



James Stewart

Co-President of RI²GHT

Research Day Schedule

| ACTIVITY | TIME |
|--|-------------------|
| Registration, Booth Setup | 8:45 to 9:30 am |
| Opening Remarks - Dr. Don Sheppard (Director of the Division of Infectious Diseases, McGill University) | 9:30 to 9:45 am |
| Oral Presentations - Round 1 (MSc & PhD) | 9:45 to 11:00 am |
| Coffee Break, Poster & Booth Visit | 11:00 to 11:30 am |
| Keynote Speaker - Dr. Polly Matzinger (Chief of the Division of T-cell Tolerance & Memory, NIH-NIAID) | 11:30 to 12:30 pm |
| Lunch, Poster & Booth Visit | 12:30 to 1:30 pm |
| Oral Presentations - Round 2 (PhD & Post-Docs) | 1:30 to 2:45 pm |
| Poster Judging, Booth Visit & Cocktails | 2:45 to 4:30 pm |
| Awards & Prizes, Closing Remarks - Dr. Erwin Schurr (Director of the IDIGH Program, McGill University) | 4:30 to 5:00 pm |
| Wine and Cheese | 5:00 to 5:30 pm |



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Programme en maladies infectieuses et immunité en santé mondiale

Keynote Address by Dr. Polly Matzinger

Chief, T-Cell Tolerance and Memory Section, Laboratory of Immunogenetics, NIH-NIAID



Dr. Polly Matzinger is currently Chief of the T-Cell Tolerance and Memory section of the Laboratory of Immunogenetics at the NIH National Institute of Allergy and Infectious Diseases (NIAID). With over 40 years of experience and notably as section head at the NIH, Dr. Matzinger's groundbreaking research on self-nonself discrimination has transformed the field of immunology. Early in her career at the NIH, she proposed the Danger Model which suggests that the immune system is far less concerned with things that are foreign than with those that do damage. This model explains most of what the immune system seems to do right, as well as much of what it appears to do wrong, covering such areas as transplantation, autoimmunity, and the immunobiology of tumors.

To date, she has published approximately 100 highly cited and peer-reviewed research articles based on the Danger Model. Her work has received countless awards including an honorary doctorate from the Limburg's Universitaire Centrum, an honorary lifetime member of the Scandinavian Society of Immunology and her name was listed as one of The 50 Most Important Women in Science by Discover magazine.

In parallel to her publications in highly specialized scientific journals, Dr. Matzinger transmitted her discoveries to lay communities by giving many courses, international conferences and producing award winning movies. Without any doubt, she has inspired a whole generation of scientists that now conduct their own research at institutions across the world. Dr. Matzinger is still very active in this area and in her research program in the T-Cell Tolerance and Memory Section.

We look forward to seeing Dr. Matzinger at our 2018 IDIGH Research Day and learning about the research advances she has made over the years in the fields of immunology and her current topics of interest. We hope that you will be inspired by her work.

Research Day Student Presentations

Oral Presentations – Morning Session – 9:45 AM – 11:00 AM

| Name | Presentation Title |
|-----------------|--|
| James Stewart | Reducing <i>Aspergillus fumigatus</i> virulence through targeted dysregulation of the conidiation pathway |
| Syim Salahuddin | HIV persistence within the lungs of adults under long-term suppressive ART |
| Breanna Hodgins | Different routes of administration of H1 virus-like-particle plant-made vaccines changes frailty outcomes after a sublethal infection with H1N1 A/California/07/2009 |
| Hilary Hendin | Intrinsic adjuvant properties of plant-made virus-like particle vaccines for influenza |

Oral Presentations – Afternoon Session – 1:30 PM – 2:45 AM

| Name | Presentation Title |
|------------------|--|
| Hanna Ostapska | Exopolysaccharides in co-operative biofilm formation |
| Jean-Yves Dubé | Mycobacterial cell wall molecular patterns work in synergy to complete Freund's adjuvant |
| Sila Cocciolillo | Vitamin E as a treatment for severe fatty liver in HIV mono-infected patients (CTN-PT 024) |
| Nadine Kronfli | Decreased hepatitis C (HCV) treatment uptake among HIV-HCV co-infected patients with a history of incarceration: Missed opportunities for care |

Research Day Student Presentations

Poster Presentations - 2:45 PM – 4:30 PM

| Name | Presentation Title |
|----------------------------|--|
| Shane Baistrocchi | Drug penetration and distribution within pulmonary tissue in a mouse model of chronic fungal infection |
| Guoyue Xu | From Mice to Human, Bisphosphoglycerate Mutase: New Target in Malaria Pathogenesis |
| Adam Hassan | Development of a live, attenuated Salmonella-based vaccine against Schistosoma mansoni |
| George Dong | Disruption of the Vps36 Gene Disrupts Exosome Secretion by Leishmania Panamensis |
| Sabrina Bartolucci | gp130 Signaling Pathway Limits Regulatory T cell Suppressive Function |
| Lydia Labrie | Dual Action Mechanism of STAT6-Inhibitory peptide in Airway Hyperresponsiveness |
| Sarah Danchuk | The role of the SigK regulon in Mycobacterium tuberculosis virulence, persistence and infection outcome |
| Nowrin Hoque | Leveraging Drug Discovery for Nontuberculous Mycobacteria Using Novel Anti-Tuberculosis Drug Target |
| Janna Shapiro | Seroprevalence Of Rubella Antibodies and Determinants Of Susceptibility To Rubella In Canadian Pregnant Women, 2008-2011 |
| Fernando Alvarez | Dichotomous expression of ST2 or IL1R1 on TREG cells dictate their function and stability in infectious disease |
| Alonso da Silva Lira Filho | GP63-Enriched Leishmania Exosomes Concur to Cutaneous Leishmaniasis Development. |
| Genelle Harrison | Pathogen Driven Evolution of Immune Response: A comparison of hunter-gatherer and Agrarian populations in Uganda. |
| Marija Landekic | The CARD9/GM-CSF Axis in Anti-Candida Immunity |
| Wilian Macedo | The impact of mycobacterial antigen stimulation on isoform expression in whole blood |
| Brendan Snarr | Galectin-3 aids in neutrophil recruitment to the airways during pulmonary infection by Aspergillus fumigatus |
| Kaitlin Winter | Attenuated Salmonella typhimurium as a vector for a novel Clostridium difficile vaccine |
| Sahar Saeed | Reductions in Healthcare Services Usage Following Direct Acting Antiviral Therapy Among HIV-HCV Coinfected Individuals |
| Jaryd Sullivan | A Novel Screening Platform for Non-Tuberculous Mycobacteria Drug Discovery |

Research Day Student Presentations

Poster Presentations - 2:45 PM – 4:30 PM

| Name | Presentation Title |
|----------------------|---|
| Monica Dallmann | Whole genome sequencing of a family with monozygotic twins displaying early-onset leprosy |
| Yong Zhong Xu | LRRK2 is involved in host response to pathogens |
| Aurelie Le Page | High-Fat Diet-Induced Obesity and Anti-Tumor Immune Response in Prostate Cancer |
| Yujian Harry Yang | The Role of a Salt-sensing Protein SGK1 in Modulating Treg/Th17 Differentiation Axis |
| Vinicius Fava | A pleiotropic effect for Parkin and LRRK2 in leprosy and Parkinson's disease |
| Sofianne Gabrielli | Skin prick test in milk allergic patients undergoing oral immunotherapy |
| Rayoun Ramendra | Role of Systemic (1→3)-β-d-Glucan as A Key Player of Microbial Translocation and Immune Activation in Primary and Chronic HIV-infection |
| Carolyn Jack | Regulation of IL-13 production by human Th2 cell and Tc2 T cells from peripheral blood and atopic lesional skin by <i>S.aureus</i> and their cell-wall products |
| Audrey Kassardjian | Macrophage responses to a live <i>Salmonella typhimurium</i> vaccine candidate in vitro |
| Mackenzie Hamilton | Draining lymph node responses to a plant-made Influenza H5 Virus Like Particle Vaccine |
| Megan Eva | TCP Infection & Inflammation Core |
| Mathieu Simard | Small Animal Imaging Labs - Research Services Offered |
| Marie-Helene Lacombe | Creating new research opportunities through advances in cell sorting and analytical flow cytometry |

Acknowledgments

The IDIGH Trainee Committee (RI²GHT)



Maxime Lemieux, Brendan Snarr, Marwan Ghanem, Breanna Hodgins, Hanna Ostapska, James Stewart, Roman Istomine, Tho Alfakar, Hilary Hendin, Sanket Kant, Janna Shapiro, Rosalie Ponte, Sabrina Bartolucci



Dr. Eric Béliveau
IDIGH Program Manager



Ms. Joanne Krief
IDIGH Program Assistant

Our Research Day was made possible due to financial support from:

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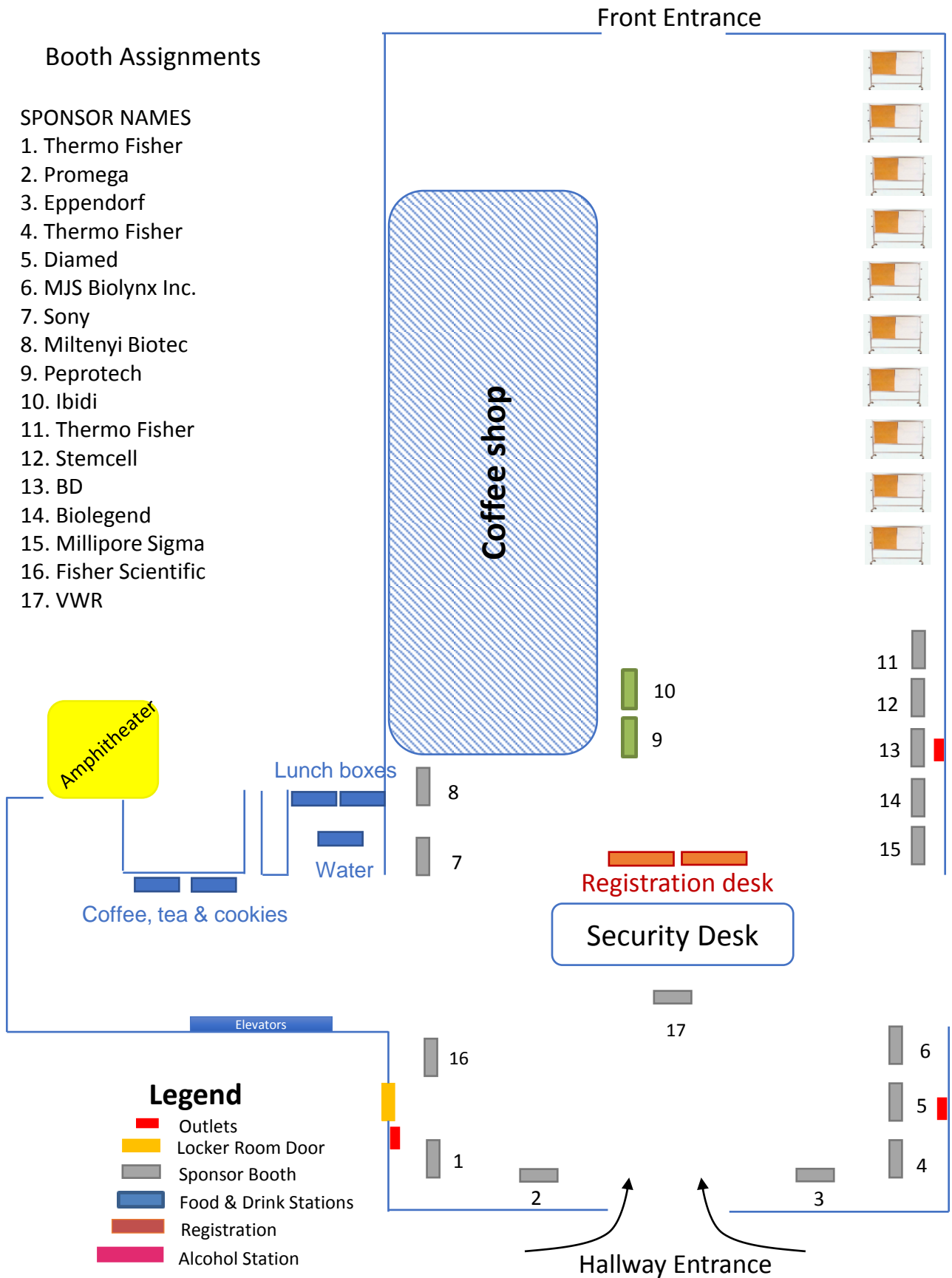
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Research Day Layout

Booth Assignments

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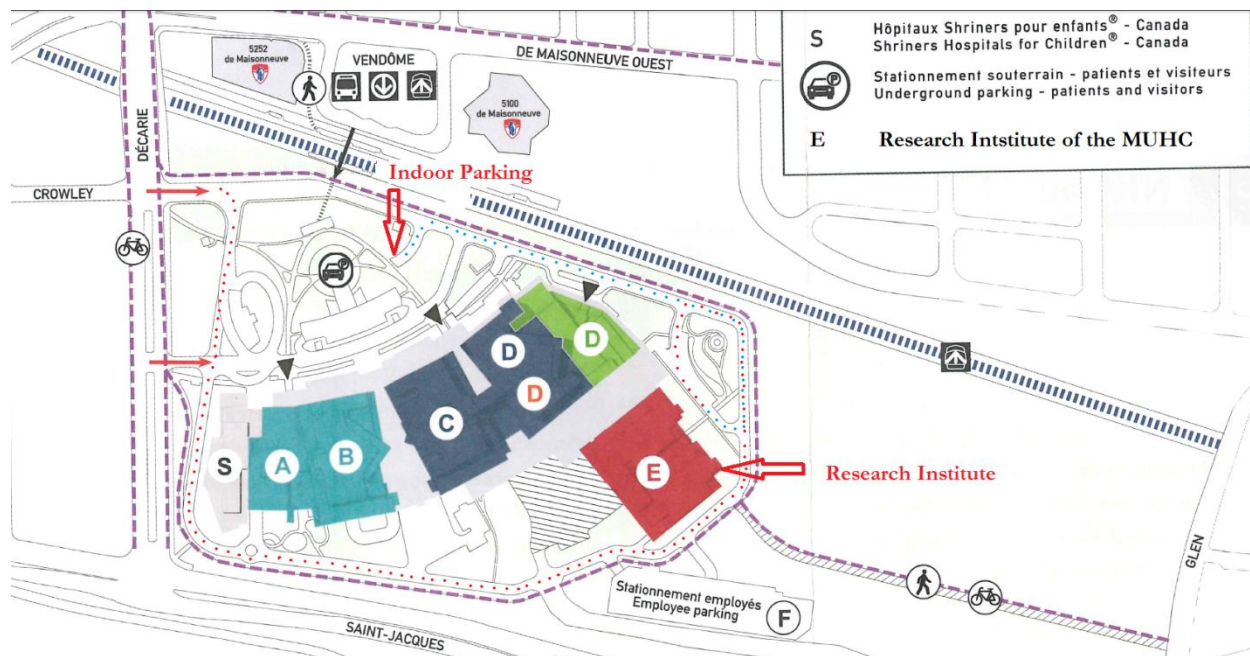
Venue and How to Get Here

VENUE OF THE EVENT

E-S1 of block E (seen below in red), 1001 Boul Decarie, Glen Site, Montreal, Quebec H4A 3J1

HOW TO GET HERE

- **Metro:** Vendôme station on the Orange Line is a few minutes walking distance
- **Bus:** 17, 37, 90, 102, 104, 105 and 124 stop at Vendôme station, and 78, 24 and 63 stop near the MUHC Glen site and 77 stops at the MUHC Glen site private road
- **Commuter trains:** Vendôme metro station connects to: Saint-Jérôme, Candiac and Vaudreuil/Hudson
- **Car:** easily accessible from highways 15, 20 and 720. The public Glen parking lot entrance is on Décarie Blvd- Parking: Entrance (seen below light blue arrow) cost: \$25 per day Elevator: press S1, and follow the signs to E block (seen below in red)



Research Day Attendees

| | | |
|------------------------|------------------------|--------------------|
| Ayoub Abulkhir | Annie Cartman | Pilar Domenech |
| Jamilah Abusarah | Pauline Cassart | George Dong |
| Wided Akik | Josée Chabot | Jeffrey Downey |
| Tho-Alfakar Al-Aubodah | Jun Chen | Erin Downing |
| Zoulfia Allakhverdi | Anastasia Cheng | Jean-Yves Dubé |
| Khlood Alsulami | Fazila Chouiali | Nancy Elliott |
| Fernando Alvarez | Sila Cocciolillo | Kim Engler |
| Nimara Asbah | Sita Coenraads | Eshel Espaldon |
| Mikhae Attias | Casey Cohen | Reynan Espaldon |
| Mina Ayoub | Rachel Corsini | Megan Eva |
| Shane Baistrocchi | Cecilia Costiniuk | Michael Faludi |
| Sabrina Bartolucci | Alanna Crouse | Shi Bo Feng |
| Edith Belanger | Louis Cyr | Min Fu |
| Eric Béliveau | Monica Dallmann | Sofianne Gabrielli |
| Emily Bell | Sarah Danchuk | Dusan Garic |
| Natan Bensoussan | Francois-Gabriel David | Karina Gasbarrino |
| Nicole Bernard | Alexia De Simone | Marwan Ghanem |
| Sasha Bernatsky | Nandini Dendukuri | Vladimir Andrey |
| Martin Bourbonniere | Marc-Andre Denis | Gimenez Rivera |
| Angela Brewer | Stéphane Dion | Monica Gomez Palou |
| Chantal Burelle | Maziar Divangahi | Fabrice Gravelat |

Research Day Attendees

| | | |
|--------------------|-------------------|----------------------|
| Frank Guarneri | Nikola Kokinov | Tara Mabanga |
| Qinhua Guo | Joanne Krief | Wilian Macedo |
| Mackenzie Hamilton | Nadine Kronfli | Rohan Mahimkar |
| Genelle Harrison | Sanjoy Kumar Das | Helen Mason |
| Adam Hassan | Kelly Kwong | Polly Matzinger |
| Jinlei He | Lydia Labrie | Bruce Mazer |
| Hilary Hendin | Benoit Lachapelle | Christine McCusker |
| Lisa Hennemann | Marija Landekic | Fiona McIntosh |
| Shannon Hewgill | François Le Mauff | Marcia McKenzie |
| Ming-Kai Ho | Aurélie Le Page | Vikram Mehraj |
| Breanna Hodgins | Bertrand Lebouche | Simon Milette |
| Nowrin Hoque | Melanie Lehoux | Vanessa Moarbes |
| Fang Huang | Maxime Lemieux | Karen Morley |
| Fatima Hubaishi | Isabelle Lemoyne | Yousof Mostafavi |
| Sophie Huddart | Ailian Li | Yara Moussa |
| Nneoma Igbokwe | Lei Li | Marie Mutabaruka |
| Roman Istomine | Michael Libman | Nafiseh Naderi |
| Sanket Kant | Alonso Lira | Nadia Naderi |
| Audrey Kassardjian | Maximilien Lora | Milli Nath Chowdhury |
| Zahra Kiani | Lucy Lu | Momar Ndao |
| Natalia Klimova | Jessica Lumia | Martin Olivier |

Research Day Attendees

| | | |
|--------------------------|---------------------------|---------------------|
| Marianna Orlova | Syim Salahuddin | Isabelle Toupin |
| Maria Osikowicz | David Salem | Bernard Turcotte |
| Hanna Ostapska | Zahra Saneei | Tania Villeneuve |
| Karla Paez | Erwin Schurr | Don Vinh |
| Aakash Patel | Giada Sebastiani | Kaitlin Winter |
| Dilhan Perera | Ellen Seguin | Qing Wu |
| Anna Perez | Jichuan Shan | Li Xing |
| Chad Poloni | Janna Shapiro | Yong Zhong Xu |
| Rosalie Ponte | Mohamed Shengir | Guoyue Xu |
| Rayoun Ramendra | Don Sheppard | Yong Zhong Xu |
| Joyce Rauch | Mitra Shourian | Yujian Harry Yang |
| Michael Reed | Mathieu Simard | Ekaterina Yurchenko |
| Riccardo Ricciardi | Brendan Snarr | Caitlin Zacharias |
| Angela Rico de Souza | Karine Sonzogni-Desautels | Hualin Zhang |
| Annie Ripa | Nicoleta Staicu | Wei Zhao |
| Jonathan Roger | James Stewart | Huaien Zheng |
| Manon Rousseau | Giorgia Sulis | Sam Zhou |
| Lucie Roussel | Jaryd Sullivan | Victoria Zismanov |
| Elizabeth Ruiz Lancheros | Andrew Sullivan | |
| Alissa Rutman | Annegret Taubner | |
| Sahar Saeed | Sara Teimouri Nezhad | |