



Infectious Diseases and Immunity in Global Health IDIGH PROGRAM



RESEARCH DAY

April 21st, 2017

WELCOME MESSAGE FROM DR. BRUCE MAZER

Interim Executive Director and Chief Scientific Officer of the McGill University Health Centre

Dear colleagues,

Welcome to the 2017 Research Day of the Infectious Diseases and Immunity in Global Health (IDIGH) Program.

IDIGH Research day is a fantastic opportunity to interact and connect with our colleagues and peers as well as facilitate the exchange of ideas and highlight the exciting work being done in the IDIGH program and within the RI-MUHC. Let's take this occasion to recognize the myriad of studies across the breadth of the IDIGH program, from basic biomedical, clinical and health outcomes research.

I wish you a successful event, full of prospects and productivity that will spark novel discussions and collaborations in the coming year.

Thank you for your attendance and participation.

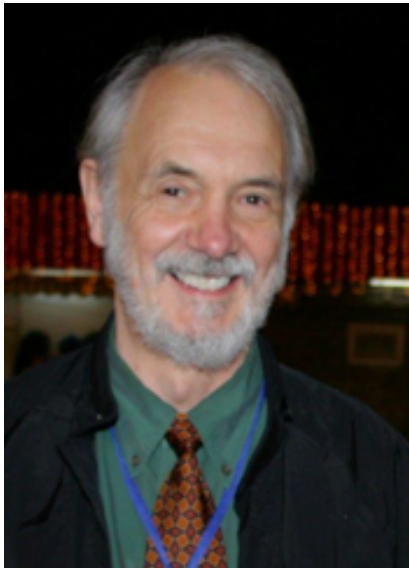
Enjoy the day!

Bruce Mazer, MD
Executive Director & Chief Scientific Officer (Interim)
RI-MUHC



WELCOME MESSAGE FROM DR. ERWIN SCHURR

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



Dear IDIGH Research Day Attendees,

At last, the spring is around the corner. What a better time to get together to celebrate the two-year anniversary of our IDIGH program! A big thanks to the trainee committee members (headed by Marwan Ghanem and Sanket Kant) who have worked tirelessly in putting this event together. To all of them, kudos!

The objective of this Research Day is to showcase the accomplishments of our trainees, and to gather our program members under the same roof 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 187 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 45 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. Evan Snitkin, who kindly accepted an invitation by our trainee committee. His presentation of late-breaking discoveries, perspectives on bridging the basic with the clinical realm, 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.

Last but not the least, training of the highly qualified 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!



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 this year's IDIGH Research Day. The RI²GHT Committee and our volunteers have worked hard to ensure that this day will be helpful and enjoyable for all of you.

This trainee-centered, day-long conference provides a great opportunity for IDIGH members from all four pillars to learn about the wide variety of projects taking place within our program. It will also afford the trainees important feedback from the more experienced scientists within our groups.

We would like to take this opportunity to thank our sponsors, without whom this event would not be possible. We would also like to thank our oral and poster judges for taking the time to grade the presentations.

Finally, we would also like to extend a special thanks to Dr. Jing Lu and Ms. Joanne Krief, as well as former IDIGH Trainee Committee Co-Presidents Alessandra Ricciardi and Tina Boikos for their invaluable guidance and advice throughout this process.

We are very excited to see you all this Friday!



Marwan Ghanem
Co-President of the IDIGH
Trainee Committee



Sanket Kant
Co-President of the IDIGH
Trainee Committee

SCHEDULE

ACTIVITY	TIME
REGISTRATION, POSTER SETUP, BOOTH SETUP	9:00 to 9:45am
OPENING REMARKS Dr. Bruce Mazer (Executive Director of the RI-MUHC)	9:45 to 10:00am
KEYNOTE ADDRESS Dr. Evan Snitkin (University of Michigan)	10:00 to 11:00am
COFFEE BREAK, POSTER & BOOTH VISIT	11:00 to 11:30am
ORAL PRESENTATIONS - Round 1	11:30 to 12:45pm
LUNCH, POSTER AND BOOTH VISIT	12:45 to 1:45pm
ORAL PRESENTATIONS - Round 2	1:45 to 3:00pm
POSTER JUDGING , BOOTH VISIT, COCKTAILS	3:00 to 4:30pm
AWARDS AND PRIZES, CLOSING REMARKS Dr. Erwin Schurr (Leader of the IDIGH Program)	4:30 to 5:00pm

KEYNOTE ADDRESS BY DR. EVAN SNITKIN

Assistant Professor, Department of Microbiology and Immunology, University of Michigan
esnitkin@med.umich.edu || <http://thesnitkinlab.com/>

Dr. Evan Snitkin is an assistant professor in the Department of Microbiology and Immunology at Michigan University Medical School. After having finished a BSc in Computer Science with a minor in Biology at SUNY Binghamton (Binghamton, NY), he went on to acquire a PhD in Bioinformatics and Systems Biology at Boston University (Boston, MA). He then completed his postdoctoral fellowship in the Laboratory of Dr. Julie Segre (2009-2014) in the National Human Genome Research Institute (Bethesda, MD).



During his postdoctoral work, his close collaboration with clinical microbiologists and hospital epidemiologists provided him with the perspective required for him to be one of the first scientists to successfully apply whole-genome sequencing to molecularly define hospital outbreaks of multi-drug resistant *Acinetobacter baumannii* and *Klebsiella pneumoniae*.

Since 2014, Dr. Snitkin's lab at University of Michigan has focused on the application of omics approaches to study the evolution, epidemiology and physiology of important nosocomial pathogens. More specifically, his lab has been focused on the transmission of drug resistant organisms within and between nursing homes and in long-term acute care hospitals. His lab is also actively collaborating on multiple other related projects.

Dr. Snitkin holds many honors including an NIH Fellow Award for Research Excellence in 2012 and a Service to America Medal for Top Federal Government Employees for his work on *Klebsiella pneumoniae* in 2013.

We look forward to seeing what Dr. Snitkin has in store for us for this year's edition of The IDIGH Research Day!

PRESENTATION TITLES AND SESSIONS

Format	Session	Name	Abstract Title
ORAL	1 11.30-12.45	Alexandra Tremblay-McLean	<i>Activating NK Receptor Ligand Expression Profile of HIV-1 Infected CD4+ T Cells</i>
ORAL	1 11.30-12.45	Mathieu Mancini	<i>An ENU-induced mutation in Rel drives elevated viral replication and neuroinflammation in a mouse model of herpes simplex encephalitis</i>
ORAL	1 11.30-12.45	Hannah Ostapska	<i>Exopolysaccharides in co-operative biofilm formation</i>
ORAL	1 11.30-12.45	Kim Engler	<i>Barriers to antiretroviral therapy adherence: a qualitative synthesis and framework for a new patient-centered outcome measure</i>
ORAL	1 11.30-12.45	Genelle Harrison	<i>Evidence that the advent of agriculture shaped innate immune responses to pathogens</i>
ORAL	2 1.45-3.00	François Le Mauff	<i>Comparative analysis of three diverse glycoside hydrolases with activity against the fungal biofilm exopolysaccharide galactosaminogalactan</i>
ORAL	2 1.45-3.00	Alanna Crouse	<i>A Syst-OMICs Approach to Ensuring Food Safety and Reducing the Economic Burden of Salmonellosis</i>
ORAL	2 1.45-3.00	Fernando Alvarez	<i>IL-1 Family Cytokines Mediate Regulatory T Cell Functional Adaptation To The Local Environment</i>
ORAL	2 1.45-3.00	Syim Salahuddin	<i>The lungs as anatomical reservoirs of HIV in adults under suppressive ART</i>
ORAL	2 1.45-3.00	Vinicius Fava	<i>Deep resequencing identifies enrichment of nonsynonymous variants in leprosy susceptibility genes</i>
POSTER	3 3.00-4.30	Wusiman Aibibula	<i>Food Insecurity May Lead to Incomplete HIV Viral Suppression and Less Immune Reconstitution Among HIV-HCV Co-Infected People in Canada</i>
POSTER	3 3.00-4.30	Cristina Mitric	<i>Quality of Life Assessment in Tuberculosis and Chronically Ill Patients at a Rural Rehabilitation Centre in Peru</i>
POSTER	3 3.00-4.30	Michelle Le	<i>Mastocytosis: Review of natural history and recommended treatments</i>
POSTER	3 3.00-4.30	James Stewart	<i>Reducing Aspergillus fumigatus Virulence Through Targeted Dysregulation of the Conidiation Pathway</i>
POSTER	3 3.00-4.30	Sahar Saeed	<i>Disparities in the Uptake of Direct Acting Antivirals in HIV-Hepatitis C Co-infected Populations in Canada</i>

POSTER	3 3.00-4.30	Alexia De Simone	<i>Evaluating type 2 immunity in a murine gastrointestinal nematode infection model by a STAT6 inhibitory peptide</i>
POSTER	3 3.00-4.30	Chris Leeks	<i>The effect of starting anti-retroviral therapy during HIV primary infection on plasma anti-HIV envelope gp120 specific IgG antibody concentrations</i>
POSTER	3 3.00-4.30	Kaitlin Winters	<i>Attenuated Salmonella typhimurium as a vaccine platform against Clostridium difficile</i>
POSTER	3 3.00-4.30	Lisa My Tien Lam	<i>Rapid Identification and Classification of E. coli and Shigella species by ATR-FTIR Spectroscopy</i>
POSTER	3 3.00-4.30	Steven Shao	<i>The function of FC receptor-like protein 3 in T cells</i>
POSTER	3 3.00-4.30	Wilian Macedo	<i>The impact of mycobacterial antigen stimulation on isoform expression in whole blood</i>
POSTER	3 3.00-4.30	Nadine Kronfli	<i>Does the Non-Alcoholic Fatty Liver Disease (NAFLD) Score Predict Liver Fibrosis Progression after Hepatitis C Virus (HCV) Treatment in Human Immunodeficiency Virus (HIV)-HCV Co-infected Patients?</i>
POSTER	3 3.00-4.30	Jean-Yves Dubé	<i>Identification of host molecules that mediate the unique recognition of the mycobacterial cell wall fragment N-glycolyl muramyl dipeptide</i>
POSTER	3 3.00-4.30	Sophie Huddart	<i>Operational Costs for Upfront GeneXpert Testing of Suspected Pediatric Tuberculosis Patients in India</i>
POSTER	3 3.00-4.30	Emily MacLean	<i>Tuberculosis diagnostic and treatment availability in 14 highest burden countries</i>
POSTER	3 3.00-4.30	Melanie Perik	<i>Impact of Apolipoprotein E Binding on Malarial Hemozoin-Induced Macrophage Functions.</i>
POSTER	3 3.00-4.30	Sabrina Bartolucci	<i>gp130 Signaling Pathway Limits Regulatory T cell Suppressive Function</i>
POSTER	3 3.00-4.30	Brendan Snarr	<i>Microbial glycoside hydrolases as antibiofilm agents with cross-kingdom activity</i>
POSTER	3 3.00-4.30	Sanket Kant	<i>Characterization of Fc dependent anti-gp120-specific antibody functionality in Elite Controllers associated with HIV control.</i>
POSTER	3 3.00-4.30	Marwan Ghanem	<i>Identification of Virulence- and Anti-Virulence-Related Genes Within the M. kansasii Genome to Understand the Evolution of Mycobacterial Pathogenesis.</i>
POSTER	3 3.00-4.30	Breanna Hodgins	<i>Comorbidities and the Effectiveness of Different Influenza Vaccine Formulations</i>
POSTER	3 3.00-4.30	Sofianne Gabrielli	<i>Drug-induced anaphylaxis visits: disparities between 4 Emergency Departments across Canada</i>

POSTER	3 3.00-4.30	Nikola Kokinov	<i>Impact of HIV infection on Mucosal-Associated Invariant T (MAIT) Cells in Blood and Intestine</i>
POSTER	3 3.00-4.30	Megan Eva	<i>Transcriptional coactivator NCOA7 regulates inflammation and immunity to typhoid-like disease</i>
POSTER	3 3.00-4.30	Rayoun Ramendra	<i>Plasma levels of (1→3)-β-d-Glucan as An Alternative Biomarker of Epithelial Gut Damage and Microbial Translocation in Early and Chronic HIV Infected Patients</i>
POSTER	3 3.00-4.30	Yong Zhong Xu	<i>Genome-editing of the LRRK2 gene in a mouse macrophage cell line</i>
POSTER	3 3.00-4.30	Nicolas Zelt	<i>Salmonella YS1646 delivering Sm-Cathepsin B as an oral vaccine against Schistosoma mansoni</i>
POSTER	3 3.00-4.30	Janna Shapiro	<i>Phrenic Nerve Paralysis Following Immunization with Gardasil</i>
POSTER	3 3.00-4.30	Liam Whalen-Brown	<i>The role of Ebola virus glycoprotein-induced exosomes in the promotion of inflammation during viral infection of macrophages</i>
POSTER	3 3.00-4.30	Alonso Lira Filho	<i>Immunocellular Recognition of Leishmania-derived Exosomes and its Impact in the Development of Cutaneous Leishmaniasis</i>

POSTER	3 3.00-4.30	Matthieu Simard	<i>Services offered by Small Animal Imaging Labs (SAIL)</i>
POSTER	3 3.00-4.30	Marie-Helene Lacombe	<i>Creating new research opportunities through advances in cell sorting and analytical flow cytometry</i>
POSTER	3 3.00-4.30	Emily Bell	<i>The Desjardins Centre for Advanced Training: Professional and Career Development for Trainees</i>
POSTER	3 3.00-4.30	Fazila Chouiali	<i>Histopathology - Going beyond standard histological evaluation</i>
POSTER	3 3.00-4.30	Amy Wong	<i>Application of Mass Spectrometry Based Proteomics to Clinical, Genomics and Biological Research</i>

ACKNOWLEDGEMENTS

Supporting RI²GHT Committee Members



Rosalie Ponte, Alessandra Ricciardi, Zahra Kiani, James Stewart, Maxime Lemieux, Sabrina Bartolucci, Tho al Aubodah, Roman Istomine, Alexia De Simone, Nicolas Zelt, Nneoma Igbokwe, Vikram Mehraj, Madlen Nash, Hilary Hendin and Breanna Hodgins



Dr. Jing Lu
IDIGH Program Manager



Ms. Joanne Krief
IDIGH Program Assistant

IDI GH Program 2017 Research Day

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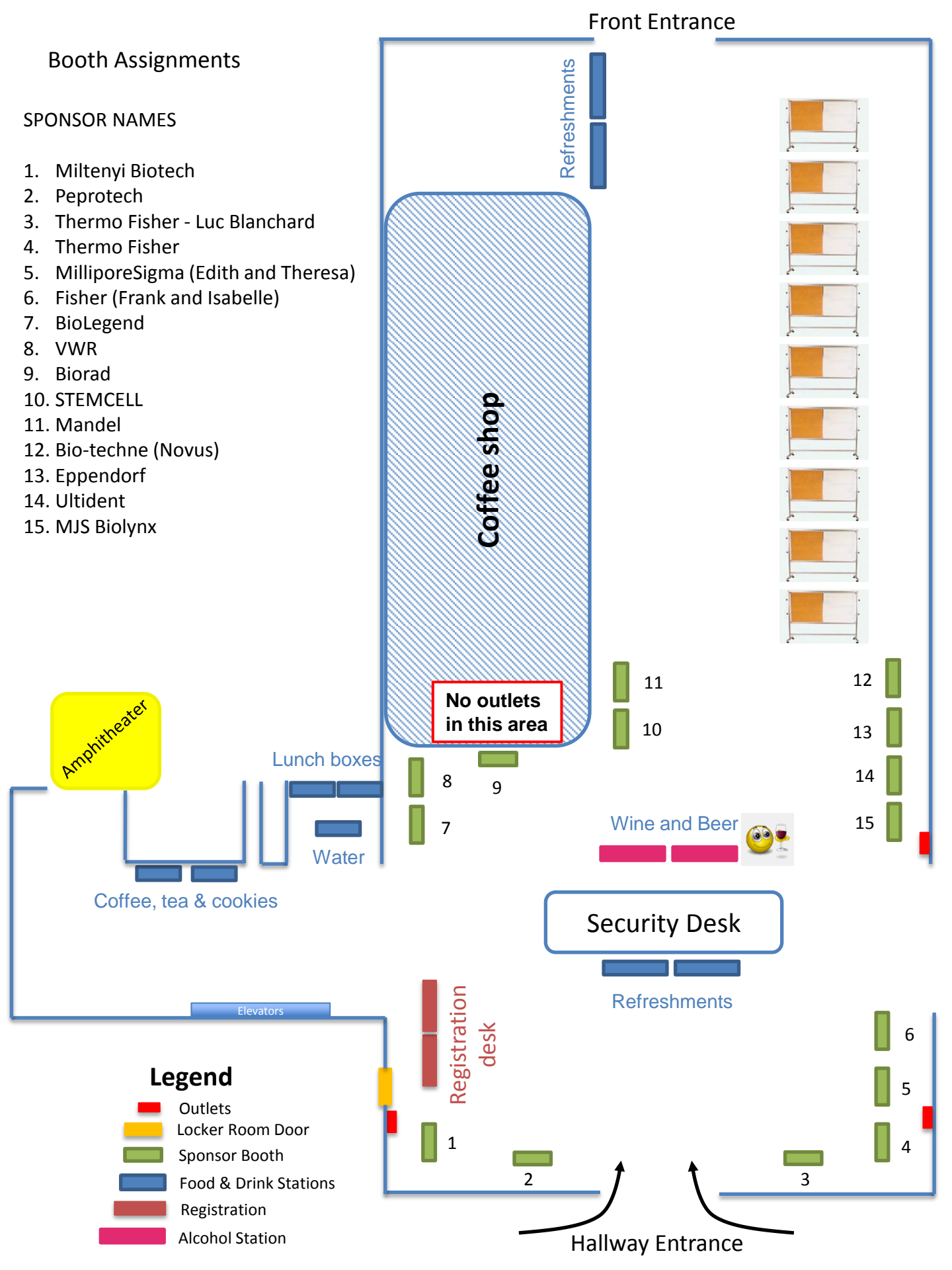
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Legend

- Outlets
- Locker Room Door
- Sponsor Booth
- Food & Drink Stations
- Registration
- Alcohol Station

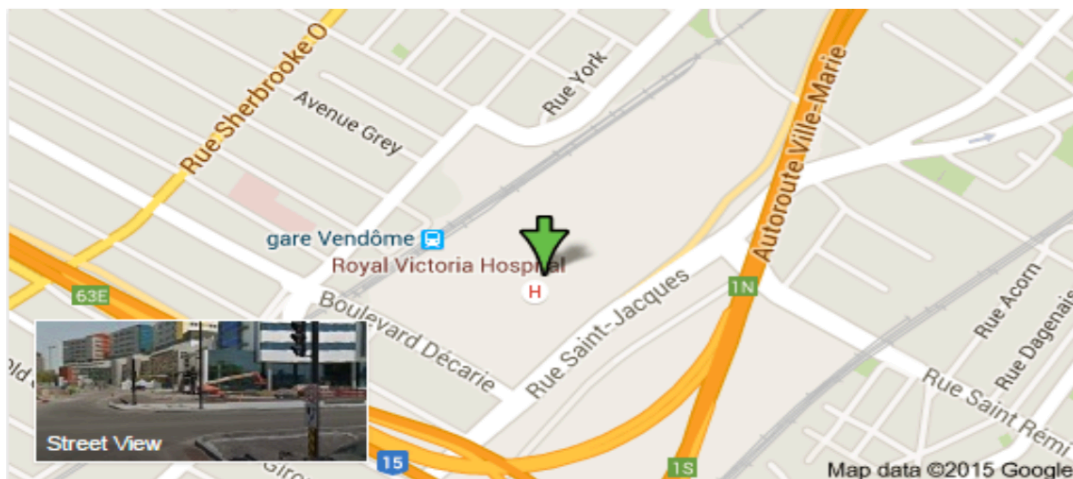
VENUE & HOW TO GET HERE

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)



LIST OF ATTENDEES

Aibibula Wusiman

Al-aubadah Tho-Alfakar

Aloosh Mehdi

Alvarez Fernando

Asbah Nimara

Atayde Vanessa

Baistrocchi Shane

Baron Christian

Bartolucci Sabrina

Beaule Martin

Behr Marcel

Belanger Edith

Bell Emily

Ben-Shoshan Moshe

Benmassaoud Amine

Bernard Nicole

Bin Dhuban Khalid

Blanchard Luc

Boisvert Annie

Bosan Rafia

Boudjemai Yacine

Brassard Paul

Brewer angela

Burelle Chantal

Burelle Chantal

Carabali Mabel

Caron Marc-André

Caya Chelsea

Chabot Josee

Chagnon Pierre

Cheng Anastasia

Chouiali Fazila

Costiniuk Cecilia

Coyne Erin

Crouse Alanna

Crouse Alanna

Daftary Amrita

de Castro Christina

De Simone Alexia

Delliere Sarah

Denis Marc-Andre

Dery Capes Lynn

Dewar Ken

Deziel Aliza

Di Battista John

Dion Stephane

Domenech Pilar

Dubé Jean-Yves

E. Dallmann Sauer Monica

Engler Kim

Eva Megan

Faludi Michael

Fava Vinicius

Fay Nikta

Feng Shi Bo

Fodil Nassima

Fu Min

Gabrielli Sofianne

Gavino Christina

Ghanem Marwan

Ghazisaeidi Shahrzad

Girard Martine

Girourad Josee

Gravelat Fabrice

Guarneri Frank

Guo Qinhua

Gyorkos Theresa

Harrison Genelle

Hodgins Breanna

Hogan Catherine

Huddart Sophie

Huq Fahmida

Igbokwe Nneoma

Ikonomovski Slagjana

Iqbal Asma

Istomine Roman

Jacques Jacques

Johnson Lyne

Jong Tamara

Joung Kwang-Bo

Kanagaratham Cynthia

Kant Sanket

Kim Harry

Kim Albert

Klein Marina

Klimova Natalia

Kokinov Nikola

Krief Joanne

Kronfli Nadine

Kronfli Nadine

Kwong Kelly

Lacombe Marie-Helene

Lafrance, Emilie

Lam Lisa My Tien

Landekic Marija

Le Michelle

LE MAUFF François

Leeks Chris

Lehoux Melanie

Leiva Gabriel Andre

Lemoyne Isabelle

Li Ailian

li lei

Lira Alonso

Lira Filho Alonso

Liu Jing

Lora Maximilien

Mabanga Tara

Macedo Wilian

MacLean Emily

Malo Danielle

Mancini Mathieu

Martel Caroline

MASON HELEN

Massicotte Angie

Mayaki Dominique

McIntosh Fiona

McKenzie Marcia

Mehraj Vikram

Menhem Nadine

Mitric Cristina

Morley Karen

Nadeau Katia

Nath-Chowdhury Milli

Ndao Momar

Ni Xiaoyan

Olivier Martin

Orlova Marianna

Osikowicz Maria

Ostapska Hanna

Patel Aakash

Peiris Hansi

Perik Melanie

Perik Melanie

Piccirillo Ciro

Ponte Rosalie

Ralph Ben

Ramendra Rayoun

Rauch Joyce

Restori Katherine

Ricciardi Alessandra

Ripa Annie

Rizk Maria

Roger Jonathan

Rossi Carmine

Roussy Jacinthe

Saeed Sahar

Salahuddin Syim

sanchez veronica

Sarker Hrishov

Schurr Erwin

Sebastiani Giada

Shao Steven

Shapiro Janna

Sheng Kai

Simard Mathieu

Snarr Brendan

Snitkin Evan

Sowmithran Arthi

St-Denis Kariane

Stdenis Theresa

Stewart James

Svadzian Anita

Takazono Takahiro

Taubner Anne

Toupin Isabelle

Tremblay-McLean Alexandra

Turcotte Bernard

Vadnais Caroline

Van Den Ham Kristin

Vu Melissa

Waheed Homeiraa

Whalen-Browne Liam

Winter Kaitlin

Wong Amy

Xing Li

Xu Yong Zhong

Yang Yujian Harry

Yurchenko Ekaterina

Zacharias Caitlin

Zelt Nicholas

Zelt Nicholas

Zelt Nicholas

Zeziel Sheena

ZHANG Jing

Zhang shizhu

Zheng Huaien
