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McGill University
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Infectious Diseases and Immunity in Global Health Program
Programme en maladies infectieuses et immunité en santé mondiale

4th Annual IDIGH Research Day 4e Journée de la recherche IDIGH



April 12, 2019
Le 12 Avril 2019



Elsbeth McConnell Atrium of the RI-MUHC
Atrium Elspeth McConnell de l'IR-CUSM



8:45 AM to 5:30 PM
8h45 à 17h30

Keynote Speaker / Conférencier d'honneur



11:45 -12:30 PM / 11h45 à 12h30



Ross Kedl, Ph.D.

*Professor of Immunology & Microbiology
University of Colorado*

*Professeur d'immunologie et de microbiologie
Université du Colorado*

*"Memory without experience: Heterogeneity in the
"naïve" CD8⁺ T cell repertoire"*

*"Mémoire sans expérience: hétérogénéité dans le
répertoire "naïf" des lymphocytes T CD8⁺"*

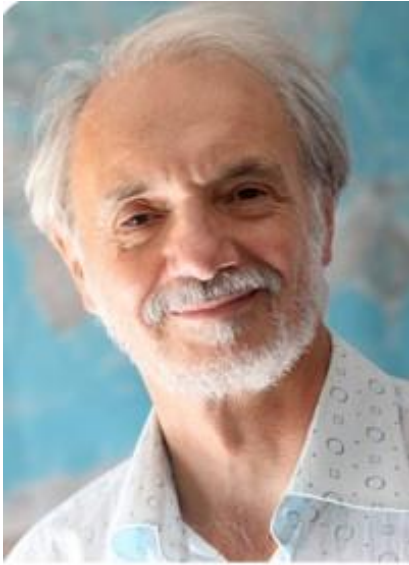


Organized by the **Infectious Diseases and Immunity in
Global Health (IDIGH)** Program Trainee committee

Organisé par le comité des stagiaires du **Programme en
maladies infectieuses et immunité en santé mondiale**

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 2019 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 Hanna Ostapska and Sanket Kant) who have worked tirelessly in putting this event together. I also want to thank Roman Istomine and Tho-Alfakar Al-Aubodah for being the organizers of the very successful and popular “Work in Progress” seminar series and also Andrea Vucetic, Nowrin Hoque and Pierre-Guy Millette for organizing much appreciated social events. To all of them, kudos!

The objective of the Research Day is to showcase the accomplishments of IDIGH 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! We expect that the 2019 Research Day will bring together around 200 participants, including trainees, PIs, and research staff of the 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. 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 sets 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 IDIGH students for outside fellowship competitions.

I am grateful for the participation of our keynote speaker Dr. Ross Kedl, who kindly accepted an invitation by our trainee committee. His 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 happens and thank you all for your support! Enjoy the Research Day!

A handwritten signature in black ink, appearing to read 'Erwin Schurr'. The signature is fluid and cursive.

Erwin Schurr
IDIGH Program Leader

Welcome message from the IDIGH Trainee Committee

On behalf of the IDIGH Trainee Committee (RI²GHT), it is a privilege to welcome you to participate in the 2019 4th Annual IDIGH Research Day. The RI²GHT Committee and volunteers from the IDIGH program have dedicated their time over the past year to ensure the day-long conference is enjoyable and beneficial to all those involved.

The focus of this trainee-led conference lies on trainees from McGill and the RI-MUHC, to provide them an opportunity to share their hard work and discoveries in the fields of infection and immunity, epidemiology, translational research and global health. The great value in this day is in the feedback that the trainees receive from more experienced scientists and in the subsequent discussions that are generated, that help them to advance their research goals.

First and foremost, we would like to thank our industry sponsors and academic partners to whom we are very grateful for their generous support, without which this event would not be possible. We sincerely thank our oral and poster presentation judges for taking the time to use their expertise from their fields to challenge presenters and to provide them with valuable feedback. With great pleasure we thank our program leader Dr. Erwin Schurr for starting off the day with the opening remarks. We are grateful to the presenters for sharing their progress with our community, as well as the attendees for engaging in discussions. We would like to thank our keynote speaker Dr. Ross Kedl who is a world-recognized expert on memory CD8⁺ T-cells for accepting our invitation and delivering an inspiring talk as well as sharing his experience in both the academic and industrial sector.

Finally, we would like to extend a heartfelt special thank you to our program manager Dr. Eric Béliveau and program assistant Ms. Joanne Krief, who have trained and helped us with their invaluable guidance, experience and support throughout the organization and execution of this day.

We are excited to see all of you at the 2019 Annual IDIGH Research Day on the 12th of April!



Hanna Ostapska
co-President of the RI²GHT



Sanket Kant
co-President of the RI²GHT

Welcome message from the IDIGH Trainee Committee



Jean-Yves Dube
VP-Administration



Andrea Vucetic
VP-Social



Nowrin Hoque
VP-Social



Pierre-Guy Millette
VP-Social



Tho-Alfakar Al-Aubodah
Work in Progress organizer



Roman Istomine
Work in Progress organizer



Monica Dallman-Sauer
Photographer



Sarah Danchuk
Member



Hilary Hendin
Member



Fatima Hubaishi
Member



George Dong
Member



Mikhael Attias
Member



Emily Maclean
CORE Representative
- Recent recruit -

Research Day schedule

Event	Time
Registration, booth setup and poster setup	8:45 - 9:30 am
Opening remarks – Dr. Erwin Schurr Leader of the Infectious Diseases and Immunity in Global Health (IDIGH) program	9:30 - 9:45 am
Oral presentations – Morning session (BSc & MSc)	9:45 - 11:00 am
3-minute Thesis competition	11:00 - 11:20 am
Coffee and booth visits	11:20 - 11:45 am
Keynote speaker – Dr. Ross Kiedl Professor of Immunology and Microbiology, University of Colorado Anschutz Medical Campus	11:45 - 12:30 pm
Lunch, booth visits, and poster visits	12:30 - 1:30 pm
Poster judging and booth visits	1:30 - 3:00 pm
Oral presentations – Afternoon session (PhD & Post-Doc)	3:00 - 4:15 pm
Awards and prizes with closing remarks – Sanket Kant – Hanna Ostapska Co-Presidents of the IDIGH Trainee Committee	4:15 - 5:00 pm
Networking over wine and cheese	5:00 - 5:30 pm

Keynote address by Dr. Ross Kedl

Professor of Immunology and Microbiology, University of Colorado Anschutz Medical Campus



Dr. Kedl received his PhD in 1997 in the Department of Laboratory Medicine and Pathology at the University of Minnesota in Minneapolis. Before joining the Faculty at the University of Colorado, Dr. Kedl was at 3M Pharmaceuticals working in their small molecule immune response modifier program. In his three years there, he spearheaded efforts at developing novel vaccine adjuvants, resulting in numerous publications and patents in the area of vaccine technology.

Dr. Kedl returned to the academic sector in 2004 by joining the faculty in the Integrated Department of Immunology at the University of Colorado Health Sciences Center and National Jewish Medical Research Center where he continues to pursue the discovery and development of novel and clinically applicable vaccine technology.

He is also the founder of a start-up pharmaceutical company, ImmuRx Inc., which focuses on developing therapeutic vaccines against chronic infectious diseases, such as HIV and cancer.

We look forward to meeting Dr. Kedl at our 2019 IDIGH Research Day and learning about the research advances he has made over the years in the fields of immunology and his current topics of interest.

We hope that Dr. Ross Kedl's work and experience in both the academic and industrial sectors will inspire our trainees to explore multiple career paths.

Research Day trainee presentations

Oral presentations

Morning session – Oral presentations – 9:45 - 11:00 am

Name	Presentation title
Rayoun Ramendra	Plasma CXCL 13 as a marker of HIV disease progression and systemic immune activation
Nikola Kokinov	Early ART do not Recover MAIT cells in HIV
Nowrin Hoque	Drug Discovery for Nontuberculous Mycobacteria Using a Novel Anti-TB Drug Target
Vaidehi Nafade	Over-the-counter antibiotic dispensing in India: a standardized patient study

Morning session – 3-minute Thesis competition – 11:00 - 11:20 am

Name	Presentation title
George Dong	Exosomes produced by different <i>L. mexicana</i> clones exhibit diverse protein expression
Rutherford Exius	The use of oral challenge to diagnose amoxicillin allergy in children
Rose Nadege Mbaye	Syndemic burden and prevalence of STIs among men who have sex with men

Afternoon session – Oral presentations – 3:00 - 4:15 pm

Name	Presentation title
Zahra Kiani	Ligation of KIR3DS1 by HLA-F on iCD4 activates primary NK cells for anti-HIV activity
Emily MacLean	Stool Xpert for diagnosing childhood TB: a systematic review and meta analysis
Mathieu Mancini	Divergent control of inflammation by c-Rel in viral infections of the heart and brain
François Le Mauff	Galactosaminogalactan synthesis requires the cooperation of two glycosyltransferases

Research Day trainee presentations

Poster presentations

Afternoon session – Poster presentations – 1:30 – 3:00 pm

Poster number	Name	Presentation title
1	Lydia Labrie	STAT6-IP dependent protection in a combined RSV – house dust mite asthma model
2	Georgia Stavrakis	Attenuated <i>S. typhimurium</i> as a novel vaccine vector for hypervirulent <i>C. difficile</i>
3	Jordan Kruisselbrink	An Outsider's View of Virulence: Understanding ESAT-6 in <i>Mycobacterium kansasii</i>
4	Shannon Duffy	Investigating the prevalence of zoonotic TB in Vellore, India
5	Sarah Danchuk	Utilizing oligo-mediated recombineering to explore variability among BCG strains
6	Jaryd Sullivan	A Novel Screening Platform for Non-Tuberculous Mycobacteria Drug Discovery
7	Thomas Krahn	NAFLD increases risk of cardiometabolic comorbidities and mortality in HIV+ persons
8	Mohamed Shengir	Prevalence and associated factors of NAFLD in women with polycystic ovary syndrome
9	Aretha Chan	Leishmania GP63 modulation of host innate inflammatory response
10	Andrea Vucetic	Characterizing Inflammatory Responses Following Ebola Virus and Host Cell Interaction
11	Alonso Lira	Immune Modulation by Leishmania-derived Exosomes is Annexin A1-driven
12	George Dong	Exosomes produced by different <i>L. mexicana</i> clones exhibit diverse protein expression
13	Minh Phuong Phan	Impact of hemozoin-induced cell exosomes on modulation of pro-inflammatory mediators
14	Ellen Heirwegh	Innate inflammatory response modulation by phlebovirus during Leishmania co-infection
15	Morgan Gold	Development of A Diagnostic Assay for Sylvatic <i>Echinococcus granulosus</i> Infections
16	Rutherford Exius	The use of oral challenge to diagnose amoxicillin allergy in children
17	Dilhan Perera	Comparing Cathepsin B Vaccine Formulations in a Pre-Clinical Schistosomiasis Model
18	Jamie Kim	Functional characterization of Fam49b a novel Salmonella susceptibility gene
19	Natasha Barone	Identifying the role of GNL1 in Natural Killer cell survival and homeostasis
20	Salma Chehboun	Role of STAT5a subunit in NK cell function
21	Elaine Thomson	The role of alveolar macrophages in HIV persistence in lungs under suppressive ART
22	Wilian Macedo	Impact of mycobacterial antigen stimulation on transcript expression in whole blood
23	Monica Dallmann-Sauer	Association study of leprosy and classical HLA genes by next generation sequencing

Research Day trainee presentations

Poster presentations

Afternoon session – Poster presentations – 1:30 - 3:00 pm

Poster number	Name	Presentation title
24	Rose Nadege Mbaye	Syndemic burden and prevalence of STIs among men who have sex with men
25	Ahmed Fouda	ROR γ t: a drug target in organ transplantation
26	Marija Landekic	The Role of the CARD9/GM-CSF Axis in Immunity to <i>Candida albicans</i>
27	Khlood Alsulami	Cytomegalovirus seropositive HIV-infected subjects and adaptive NK cells
28	Lauren Nagel	Slope of Change in Anti-HIV Env Specific Antibody Concentrations after ART Initiation
29	Aur�lie Le Page	High-fat diet-induced obesity and anti-tumor immune response in prostate cancer
30	Andrei Feldiorean	Immune checkpoint ligand expression in prostate cancer
31	St�phane Isnard	Plasma β -D-glucan and immune activation in people living with HIV
32	Sophie Huddart	Case fatality among Indian tuberculosis patients: A systematic review
33	Ayoub Abulkhir	Barriers to Hepatitis C treatment with DAAs: a review of reviews
34	Roman Istomine	USP11 facilitates TGF- β signalling in CD4 ⁺ T cells to augment the Treg and TH17 differentiation axis
35	Harry Yang	Salt-sensing by SGK1 instructs a Th17 phenotypic program in regulatory T cells
36	Tho-Alfakar Al-Aubodah	Acute kidney injury drives phenotypic heterogeneity of renal regulatory T cells
37	Asma Aqib	Feasibility and applicability of Platform Trials design for the development of HIV specific Electronic Patient Reported Outcomes: A Scoping Review
Technology platform	Sanjoy Kumar Das Andr�e Gravel Carine Bourguet Nidia Lauzon	Drug Discovery platform
Technology platform	Min Fu	Molecular Imaging platform

Acknowledgements

Our Research Day was made possible with the guidance and help of:



Dr. Eric Béliveau

IDIGH Program manager



Ms. Joanne Krief

IDIGH Program assistant



James Stewart, MSc.

2018 co-President of the RI²GHT
committee

Acknowledgements

We would like to thank our Oral and Poster presentation judges:

Oral and 3-MT Judges

Dr. Erwin Schurr

Dr. Marcel Behr

Dr. Marina Klein

Dr. Joseph Cox

Dr. Danielle Malo

Poster Judges

Dr. Kim Engler

Dr. Vinicius Medeiros Fava

Dr. Diane Singhroy

Dr. Vladimir Andrey Giménez Rivera

Fiona McIntosh

Dr. Marina Avila Machado

David Lessard

James Stewart

Dr. Brendan Snarr

Dr. Mikashmi Kohli

Dr. Makan Golizeh

Dr. Andréanne Lupien

Acknowledgements

Our Research Day was made possible with the generous financial support of our sponsors:

IDIGH Program 2019 Research Day

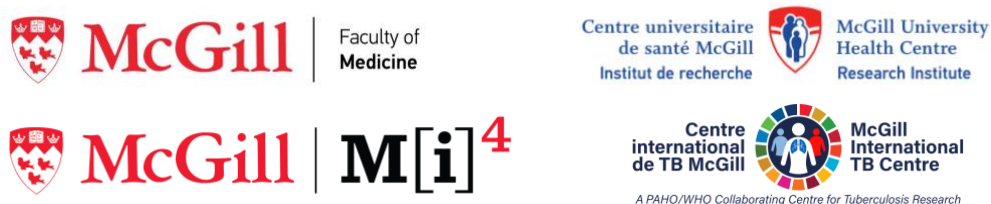
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Research Day list of attendees

Adam Hassan	Caitlin Zacharias	Elisa Llorente Pastor
Ahmed Fouda	Carine Bourguet	Elizabeth Ruiz Lancheros
Alexandra Gatto	Carolane Rheault	Ellen Heirwegh
Alexi Wloski	Caroline Martel	Emilie Lafrance
Ali Mehdi	Carolyn Jack	Emily MacLean
Alicia Jia	Céleste Pilon	Emma Darbinian
Alissa Rutman	Chad Poloni	Eric Béliveau
Alonso Lira	Chantal Burelle	Erwin Schurr
Andrea Vucetic	Chelsea Caya	Eshel Espaldon
Andréanne Lupien	Christian St-Pierre	Fabio Vasquez
Andrée Gravel	Christopher Gould	Fabrice Gravelat
Andrei Feldiorean	Christos M. Tsoukas	Fatima Hubaishi
Angela Brewer	Claire Fortin	Fernando Alvarez
Angela Karellis	Costas Pexos	Fernando Gonzales Aste
Angie Massicotte	Danielle Malo	Fiona McIntosh
Aretha Chan	Dilhan Perera	Franck Dupuy
Asma Aqib	Don Sheppard	François Le Mauff
Aurélie Le Page	Ciro Piccirillo	François Veilleux
Ayoub Abulkhir	Edith Belanger	George Dong
Ben Ralph	Edy Daou	Georgia Stavrakis
Bernard Bernard	Ekaterina Yurchenko	Giada Sebastiani
Brendan Snarr	Elaine Thomson	Giovanni (John) Di Battista

Research Day list of attendees

Hanna Ostapska	Joyce Rauch	Marie-Helene Lacombe
Harry Yujian Yang	Julia Luo	Marija Landekic
Helen Mason	Justin Chand	Marina Klein
Hélène Pagé-Veillette	Kaitlin Winter	Mathieu Mancini
Hetaben Patel	Karla Paez	Melanie Lehoux
Hilary Hendin	Ken Dewar	Melissa Vu
Isabelle Robichaud	Khlood Alsulam	Michael Faludi
Jade Lavoie-Routhier	Kim Engler	Mikashmi Kohli
James Stewart	Larbi Mokhtari	Mikhael Attias
James Vinnai	Laura Widawski	Milli Nath-Chowdhury
Jamie Kim	Lauren Nagel	Min Fu
Jaryd Sullivan	Lena Faust	Mina Youssef
Jean Tchervenkov	Leo Wong	Minh Phuong Phan
Jean-François Charland	Louis Cyr	Mohamed Shengir
Jean-Pierre Routy	Louise Gilbert	Momar Ndao
Jean-Yves Dubé	Luck Lukusa	Monica Dallmann-Sauer
Jessica Lumia	Lydia Labrie	Morgan Gold
Joanne Krief	Makan Golizeh	Nadine Kronfli
John Lin	Marc Rispler	Naizhuo Zhao
Jordan Kruisselbrink	Marcel Behr	Nandi Belinsky
Josée Chabot	Maria Fraraccio	Natalia Klimova
Joseph Cox	Marianna Orlova	Natasha Barone

Research Day list of attendees

Nathalie Martel	Sanjoy Kumar Das	Yuki Qin
Nathalie Paisible	Sanket Kant	Zahra Kiani
Nathalie Van	Sarah Danchuk	Ziad Saadé
Nidia Lauzon	Sarita Negi	Zoulfia Allakhverdi
Nikola Kokinov	Sean DeAllie	
Nowrin Hoque	Shannon Duffy	
Oluwasola Stephen Ayosanmi	Shi Bo Feng	
Pauline Cassart	Shouao Wang	
Pierre-Guy Millette	Silvia Vidal	
Priscilla Cabral	Sofianne Gabrielli	
Rachel Corsini	Sophie Huddart	
Rakan Okde	Stephan Laperriere	
Rayoun Ramendra	Stéphane Isnard	
Rebecca Subang	Tho-Alfakar Al-Aubodah	
Reynan Espaldon	Thomas Krahn	
Rohan Mahimkar	Tripti Pande	
Roman Istomine	Vaidehi Nafade	
Rose Mbaye	Vinicius Fava	
Ross Kedl	Vladimir Andrey Giménez Rivera	
Rutherford Exius	Wen Bo (Sam) Zhou	
Ryan Goyette	Wilian Macedo	
Salma Chehboun	Yong Zhong Xu	

Floor layout of the day

Legend

- Sponsor table
- Posterboard
- Food and beverage table
- Registration and stamp sheet
- Door prize table
- Window
- ★ RI info board
- ⚡ Electrical output
- 💧 Drinking fountain

