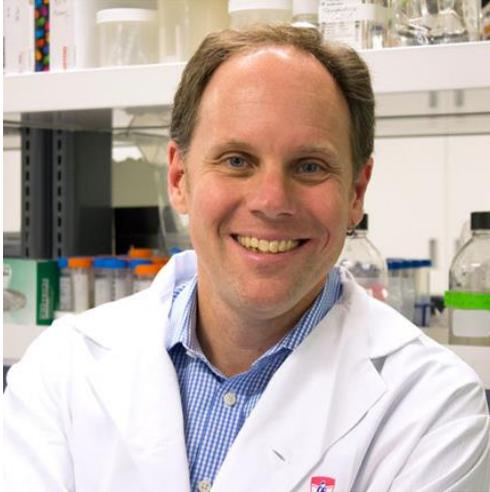


SPEAKER PROFILES

Living in a Covidian world: The McGill response

Friday, March 19, 2021

8h30-12h30 EST



Donald Sheppard MD, FRCPC.

Chair, Department of Microbiology and Immunology

Director, McGill Interdisciplinary Initiative in Infection
and Immunity (MI4)

McGill University

Keynote title: **McGill Mobilizes! Tackling the COVID-19 Pandemic**

Key messages

McGill researchers have been at the forefront of the response to the COVID-19 pandemic. From launching innovative research studies that have revealed why some individuals develop severe COVID, to developing critical research platforms such as the Clinical Trials Platform Biocontainment Facilities, and the Quebec Biobank, the McGill community mobilized early and effectively to tackle this global threat. This presentation will review how McGill has pivoted to meet the threat of COVID-19, highlighting the key successes and lessons learned in the first year of the pandemic.

Biography

Dr. Sheppard is Chair of the McGill University Department Microbiology & Immunology, and the founding Director of the McGill Interdisciplinary Initiative in Infection and Immunity (MI4). An infectious diseases clinician and researcher with more than 150 scientific publications, he draws on his experience as a Scientific Advisor on the Canadian Therapeutic Task Force to inform and educate healthcare providers and the public during the COVID-19 pandemic. He appears frequently on CBC, CTV, Global News and in the Canadian Press, helping make the evolving science surrounding COVID-19 more accessible and understandable to the general public.



Jerry Pelletier, Ph.D.

Professor, Department of Biochemistry

McGill University

Talk Title: Defective Viral Genomes of SARS CoV-2

Key Messages

Defective viral genomes (DVGs) are generated during viral replication and unable to carry out critical functions to replication. However, in the presence of parental virus, some DVGs can interfere with standard virus replication. We will describe our initial characterization of DVGs in SARS CoV2 infected cells.

Biography

My research interest is in applying chemical biology tools to probe gene expression pathways. I have amassed much experience in transcription, translation, and eIF4F biology. During my PhD training, I worked on translation initiation focusing on mRNA structure/function relationships. During this period I discovered the IRES while studying poliovirus replication. During my PDF, I characterized the WT1 tumor suppressor gene, a zinc finger transcription factor, in D. Housman's lab (MIT) and worked on this for 10 years when I started my lab. Therefore, I have extensive experience in the field of transcriptional control, translational control, and virology. Over the last 15 years, my research interest has been focused on targeting deregulated translational control and to this end, we have amassed extensive experience in translational control. We designed and prosecuted four HTS assays in search of novel small molecule inhibitors of translation, and identified and characterized three potent natural products that target this process, among which were rocaglates. We have studied the mode of action of these compounds on MYC-driven cancers, focusing on a tractable mouse lymphoma mouse and multiple myeloma. We have also studied the consequences of these compounds on viral replication in HSV, Sinbis, and coronavirus.



Donald C. Vinh, MD, FRCP(C)

Section head, Immunocompromised Host clinical program

Director, Host-directed Immunotherapy to Fight Infectious disease (HI-FI) research program

Director, MUHC COVID Biobank

Associate Professor, FRQS Clinician-Scientist
Dept of Medicine (Division of Infectious Diseases)

Talk title: Human Inborn Errors of Immunity and Severe COVID-19

Key messages

Following infection with SARS-CoV-2, susceptibility to severe COVID-19 disease varies significantly from one person to another. Establishing why is a key priority in the fight against the pandemic. An international collaborative consortium, the COVID Human Genetic Effort, has identified that genetic or serologic-mediated defects in the type I interferon pathway underlie severe disease in ~13.5% of patients evaluated. These findings potentially open new avenues into pathophysiology and treatments.

Biography

Dr. Vinh completed his training in Internal Medicine, Infectious Diseases, and Medical Microbiology, before completing a post-doctoral research fellowship at the NIH studying inborn errors of immunity that underlie human susceptibility to infectious diseases. Since 2011, he has established at the MUHC a unique translational research program to define the genetic and immunologic bases underpinning patients with severe, recurrent, or refractory infections.



Nadine Kronfli, MPH MD FRCP(C)
DTM&H

Assistant Professor, Department of Medicine,
Division of Infectious Diseases

McGill University

Talk Title: COVID-19 behind Canadian prison walls

Key messages

1. Several large COVID-19 outbreaks have occurred in federal and provincial prisons, affecting both inmates and correctional staff.
2. Seroprevalence of SARS-CoV-2 in prisons is expected to be several-fold higher than surrounding communities.
3. Education may improve COVID-19 vaccine uptake rates among people in prison.

Biography

Dr. Nadine Kronfli is an Infectious Diseases specialist at the McGill University Health Centre and a Scientist in the Infectious Diseases and Immunity in Global Health Program at the Research Institute of the McGill University Health Centre. She is also Vice-Chair of the International Network on Health and Hepatitis in Substance Users - Prisons (INHSU-Prisons). Dr. Kronfli is supported by a career award from the Fonds de Recherche Québec – Santé (FRQ-S; Junior 1). She conducts implementation science research by designing, deploying, and evaluating evidence-based models of care that aim to improve access to health care for Canadian prison populations. She has recently expanded her work from hepatitis C elimination to understanding COVID-19 seroprevalence and improving COVID-19 vaccine uptake in Canadian prisons.



Christina Wolfson, PhD

Professor, Department of Epidemiology and
Biostatistics and Occupational Health and Department
of Medicine

McGill University

Talk Title: COVID-19 Research within the Canadian Longitudinal Study on Aging

Key Messages

The Canadian Longitudinal Study on Aging (CLSA) is a national research platform which includes more than 50,000 participants aged 45-85 when recruited (2010-2015). In this presentation I will describe the implementation of both a COVID questionnaire survey and a seroprevalence study within the CLSA.

Biography

Dr. Christina Wolfson is a Professor in the Department of Medicine and in the Department of Epidemiology, Biostatistics & Occupational Health at McGill University. She is an Associate Member in the Departments of Neurology & Neurosurgery and the Department of Mathematics & Statistics at McGill University. A senior scientist in the Brain Repair and Integrative Neuroscience Program at the Research Institute of the McGill University Health Centre, her program of research lies in population-based research in neurodegenerative disorders including multiple sclerosis, Parkinson's disease, and epilepsy. She is one of the three principal investigators on the Canadian Longitudinal Study on Aging, a 20-year study of 50,000 participants aged 45-85 at enrolment in which she leads the Neurological Conditions Initiative and the Veterans' Health Initiative.



Jerry Zaharatos, MD, FRCP(C)

Associate Professor, Department of Medicine, Division of
Infectious Diseases

Jewish General Hospital

Talk Title: SARS-CoV-2 Wars: Vaccines Versus The Variant Menace

Key Messages

The presentation will provide a brief update on the COVID-19 vaccine landscape. This will include a summary of efficacy data from vaccines that have obtained emergency use approval, a review of other promising vaccines on the horizon, and an examination of the potential impact of mutations in the spike protein on vaccine efficacy.

Biography

Dr. Zaharatos is an Infectious Disease physician, HIV clinician, Medical Microbiologist and research scientist working at the Jewish General Hospital and the Lady Davis Institute. Since 2017, he has served as the Chief of Medical Microbiology for the OPTILAB Montréal – MUHC laboratory cluster and serves as the Director of Medical Microbiology, in the Department of Clinical Laboratory Medicine for both the Jewish General Hospital & the McGill University Health Centre. Dr. Zaharatos obtained his MD at McGill University, and then pursued subspecialty training in Internal Medicine at the Montreal General Hospital and in McGill's Infectious Diseases and Medical Microbiology Fellowship Program. He subsequently did a research fellowship with Dr. David Ho at the Aaron Diamond AIDS Research Center in New York City, and then joined the Clinical Scholars Program at Rockefeller University as an instructor in clinical investigation with the Ho Laboratory. His training and expertise span fundamental HIV research, HIV vaccine development and clinical and translational research methods. He has participated in Phase I trials of HIV vaccines based on DNA and vaccinia vectors. Dr. Zaharatos' research has focused on using DNA vaccines as a flexible platform for vaccine innovation and he has a specific interest in understanding the basic mechanisms underlying DNA vaccine immunogenicity including the innate immune responses to foreign DNA.



Emily G. McDonald, MD MSc (Epi) FRCPC

Associate Professor of Medicine; Division of General Internal Medicine; Department of Medicine; McGill University Health Centre

McGill University

Talk Title: Controversies in COVID-19 Outpatient Treatment Studies: Bringing Hope to the Planet?

Key messages

Participants will have a chance to reflect back on some of the pivotal outpatient treatment studies for COVID-19 and examine where the main challenges lie, what controversies emerged, lessons learned, and where we should go from here.

Biography

Dr. Emily G. McDonald is an Associate Professor of Medicine in the Division of General Internal Medicine at the McGill University Health Centre, Vice President of Research for the Canadian Society of Internal Medicine and Director of the MUHC Clinical Practice Assessment Unit (CPAU). Dr. McDonald's research centers on High Value Medical Practice, Quality Improvement and Patient Safety. As the Director of the CPAU, she led several outpatient trials of repurposed medications for the treatment of COVID-19, published in high impact journals.



Brett Thombs, Ph.D.

Professor and Canada Research Chair, Department of
Psychiatry, McGill University

Senior Investigator, Lady Davis Institute of Medical Research,
Jewish General Hospital

Talk Title: Mental health in COVID-19: a living systematic review

Key Messages

- There are concerns that the COVID-19 pandemic has caused a secondary mental health “pandemic” and this has been supported by anecdotal reports and surveys that use non-validated, often single-item questions.
- Evidence from a living systematic review of studies that have compared mental health pre-COVID-19 to during the pandemic suggest only small increases in symptoms, although some vulnerable groups may be affected more than others.
- Several mental health intervention trials have been conducted, including the SPIN-CHAT trial, which was led by our team at the Lady Davis Institute.

Biography

Dr. Thombs is a Canada Research Chair and Professor, Department of Psychiatry, McGill University and Senior Investigator, Lady Davis Institute, Jewish General Hospital. His team conducts research on strategies to improve quality of life among people living with the rare autoimmune disease scleroderma, on the identification and management of depression, and on improving research conduct and reporting. He directs the Scleroderma Patient-centered Intervention Network (SPIN), which maintains an ongoing cohort of people with scleroderma from 50 sites in 7 countries and conducts embedded trials of patient-centered programs, and the DEPRESSD Project, a large international collaboration of over 350 investigators that conducts individual participant data meta-analyses of depression screening tool accuracy. Dr. Thombs is the Chair of the Canadian Task Force on Preventive Health Care.



Fabian Lange, Ph.D.

Department of Economics, McGill University

Canada Research Chair in Labour and
Personnel Economics

Industrial Relations Program Director

Talk Title: Job Search and Hiring During the COVID pandemic

Key Messages

This project tracks labor market tightness during the Covid recession.

Biography

Fabian Lange is the Canada Research Chair in Labour and Personnel Economics at McGill University and a Research Associate in the NBER's Labor Studies Program, and a co-editor of the Canadian Journal of Economics and the Journal of Labor Economics. He is the recipient of the John Rae Prize of the Canadian Economic Association for the most distinguished research record of a Canada-based economy over the period 2011-2016.

His research interests concern how careers are shaped by processes of information revelation. In particular, he focuses on the role of performance management systems in modern corporations and on employer learning. He received the H. G. Lewis prize 2008 and the IZA Young Labor Economist Award for his work in this area. Fabian Lange also studies mobility in the labor force, in particular between labor force states. He studies how changing mobility in the labor force interacts with the business cycle and the process by which individuals get shut out of the labor market.

He completed his Ph.D. in economics at the University of Chicago in 2004 and subsequently joined the Department of Economics at Yale University. In 2012, he moved to Montreal with his wife and new-born daughter to join the department of economics at McGill University. At McGill he is the director of the Industrial Relations program and the founder of the Montreal Partnership for Human Resource Management (mPHRM) which brings together researchers and practitioners to foster cooperation across the academic-corporate divide.