

**21st Annual
Meakins-Christie Laboratories
International Workshop**

Molecular Physiology of Respiratory Diseases



March 24 – 25, 2019

**Research Institute of the McGill University Health Centre
1001 Boul. Décarie, Montréal, QC
Block E – Cruess Amphitheatre**

DAY 1 - Sunday March 24, 2019

07:00 *Workshop Registration & Breakfast*

07:50 **Welcome Remarks: Workshop overview and objectives**
Dr. Basil Petrof

SESSION 1: Airway

Session Chairs: Larry Lands, Benjamin Smith

08:00 **Kelan Tantisira**, Associate Professor, Brigham and Women's Hospital
Circulating miRNA in Asthma

08:30 **Peter Castaldi**, Assistant Professor, Harvard
Identification and characterization of functional genetics variants in
COPD-associated loci.

09:00 **Benjamin Smith**, Assistant Professor, McGill University
Native airway tree structure and chronic obstructive lung disease

09:30 **Dara Torgerson**, Assistant Professor, McGill University
Genetics of asthma in diverse populations

10:00 *Health Break*

SESSION 2: Muscle

Session Chairs: Sabah Hussain, Basil Petrof

10:30 **Marco Sandri**, Associate Professor, University of Padova
Novel players in autophagy, mitochondria and ageing

11:00 **Susan Gunst**, Professor, Indiana University School of Medicine
Molecular mechanisms for the modulation of airway smooth muscle
phenotype in response to external stimuli

11:30 **Gilles Gousspillou**, Professor, Université du Québec à Montréal
Novel insights into the role of Parkin in skeletal muscle health, aging
and disease.

12:00 **Basil Petrof**, Professor, McGill University
Understanding the basis of ventilator-induced diaphragm dysfunction

12:30 *Lunch*

DAY 1 - Sunday March 24, 2019

SESSION 3: Lung Parenchyma

Session Chairs: Arnold Kristof and Ilan Azuelos

- 13:30 **Naftali Kaminski**, Professor, Yale School of Medicine
Understanding pulmonary fibrosis – lessons from single cells, disease microenvironments and translational models
- 14:00 **Inés Colmegna**, Associate Professor, McGill University
Current understanding of MSC functional properties
- 14:30 **Franco D'Alessio**, Assistant Professor, Johns Hopkins Medicine
Turning on Pro-repair cells to orchestrate lung repair
- 15:00 **Ilan Azuelos**, Assistant Professor, McGill University
Metabolic pathways regulating fibroblast collagen synthesis

15:30 *Health Break*

SESSION 4: Host-Pathogen Interactions

Session Chairs: Irah King and Maziar Divangahi

- 15:45 **Filip Swirski**, Associate Professor, Harvard Medical School
Lifestyle effects on inflammation and cardiovascular disease
- 16:15 **Amanda Jamieson**, Assistant Professor, Brown University
Stress Response: Understanding host tolerance to lung infection and damage
- 16:45 **Dao Nguyen**, Associate Professor, McGill University
Host-pathogen interactions in chronic *Pseudomonas aeruginosa* infections
- 17:05 **Maziar Divangahi**, Associate Professor, McGill University
Hematopoietic Stem Cells: The Target for Vaccine or Pathogen
- 17:25 **Irah King**, Associate Professor, McGill University
Helminth-induced modulation of the gut-lung axis

17:45 *Day 1 Adjourned*

18:30 *Speaker Dinner*

DAY 2 – Monday March 25, 2019

07:30 *Breakfast*

SESSION 5: Macklem Lecture

Session Chair: Basil Petrof

08:30 **Graham Barr**, Professor, Columbia University
Lumping and splitting chronic lower respiratory diseases

SESSION 6: Environmental Exposures

Session Chairs: Carolyn Baglole, James Martin

9:30 **Carolyn Baglole**, Associate Professor, McGill University
Discovering new translational targets against smoking-related lung disease

9:45 **Chengguo Xing**, Professor, University of Florida
The potential of kava, an old folk medicine, in mitigating tobacco use, associated lung carcinogenesis risk, and?

10:15 **Christopher Carlsten**, Professor, University of British Columbia
Controlled human exposures to inhalants: what, why and how do we learn from this?

10:45 **Jill Baumgartner**, Associate Professor, McGill University
Measuring exposures to household air pollution for studies of chronic diseases: a decade of surveys, measurements, and biomarkers

11:15 **James Martin**, Professor, McGill University
How the airways respond to inhaled organic dust (in the mouse)

11:30 **Qutayba Hamid**, Professor, University of Sharjah
Does Vitamin D play any role in asthma?

12:00 **Summary and Closing Remarks**

Dr. Basil Petrof

12:15 *Lunch*

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