



## CTS SCIENTIFIC PROGRAM 2021

**Monday October 18, 2021, 13:30 – 16:15 CDT**

Held in conjunction with CHEST Annual Meeting **Virtually**  
(Live Virtual and Pre-Recorded On-demand)

**Program Chair: Dr. François Maltais**

### “Live” Virtual Sessions

**13:30 – 14:30 Pro/Con Debate: Talc Pleurodesis vs Indwelling Pleural Catheter for the Management of Malignant Pleural Effusion**

*Pro-IPC: **Chrystal Chan**, MD, University of Alberta, Edmonton, AB*

*Pro Talc: **Marc Fortin**, MD, University of Laval, Quebec City, QC*

Malignant pleural effusions are an increasingly common cause of morbidity, most often in the form of dyspnea and chest discomfort. Patients with malignant effusions have a median survival in the span of several months, and as such, treatment is focused on palliation of symptoms while minimizing pleural drainage procedures. Indwelling pleural catheters and talc pleurodesis have emerged as two first-line options for symptomatic malignant effusions. In this pro/con debate, interventional respirologists will discuss the advantages and disadvantages of both strategies based on available data. At the end of this session, participants will be able to:

1. Compare talc pleurodesis and IPC for the management of MPE
2. Discuss risks associated with IPC and talc pleurodesis
3. Cost-effectiveness of IPC and talc pleurodesis

**Dr. Chrystal Chan** is a newly minted interventional respirologist having completed her training at the University of Calgary in June 2021. She then returned to and started practice at the University of Alberta, where she previously completed her respirology residency. Her interests include lung cancer screening, pleural diseases, and procedural teaching.

**Dr. Marc Fortin** completed his Pulmonary Medicine at Laval University in 2014, Interventional Pulmonary Medicine at University of Calgary in 2014-2015 and Hopital Nord of Marseille in 2016. He joined the pulmonary medicine department at Laval University in Quebec City in 2016 where he is the chief of IPM.

**14:30 – 15:15 Break**

**15:15 – 16:15 2021 CTS Honorary Lecture  
Irritant Asthma and Innate Immunity; a Neglected Area**  
***James Martin**, MD, McGill University, Montreal, QC*

Irritant induced asthma is a frequent but under-explored clinical problem. Preclinical models of asthma have focused predominantly on adaptive immune mechanisms of pathogenesis. In this talk, innate immune mechanisms will be examined in the context of chlorine-induced airway dysfunction. At the end of this session, participants will be able to:

1. appreciate the potential influences of irritants on the control of asthma
2. understand the innate immune responses to oxidative injury
3. consider the therapeutic implications of findings in preclinical models

**Dr James Martin** graduated with a BSc in physiology and an MB, BCh from University College Cork, Ireland. He received his training in internal medicine at John Hopkins University and in respiratory medicine at McGill University. He subsequently joined the faculty at McGill where he is currently a Professor of Medicine. He directed the Meakins Christie Laboratories at McGill University from October 1993 to October 2008. He is currently chair of the Department of Medicine and Physician-in-Chief of the McGill University Health Center. Dr. Martin has more than 300 publications in the area of asthma, with a particular focus on the use of animal models to explore the pathophysiologic basis of late allergic airway responses and airway remodeling, with a particular focus on airway smooth muscle.

## Pre-recorded On-demand sessions

### **Tuberculosis Symposium (60 mins)**

*Dr. Amrita Daftary, Dr. Faiz Ahmad Khan, Dr. Angela Lau,*

#### **Patients, Providers, and Health Systems: a Trifecta of Considerations for Equitable and Destigmatized TB Care.**

*Amrita Daftary, PhD, MPH, School of Global Health, York University, Toronto, ON (20 mins)*

This session will describe social and structural challenges facing three sets of stakeholders involved in TB care and service delivery or utilization and discuss ways to operationalize patient-centred approaches to TB care that balance the priorities, needs and boundaries of each. Attention will be drawn to equity-oriented de-stigmatizing approaches to TB care, and the meaningful inclusion of patient and community voices, as envisioned by the WHO End TB Strategy. The speaker will present on these issues from a global perspective. At the end of this session, participants will be able to:

1. appreciate key social and structural challenges in delivery and uptake of TB services.
2. reflect on TB programming with a view towards enhancing equity and mitigating stigma.
3. learn how challenges and remedial strategies from other settings may be applied to strengthen patient-centered service delivery in one's own setting.

**Dr. Amrita Daftary** is Assistant Professor at the School of Global Health and Dahdaleh Institute of Global Health Research at York University, Toronto. She applies social science frameworks and qualitative methods to study stigma and treatment adherence in tuberculosis (TB), particularly HIV-associated TB and drug resistant TB. She contributes to complex interventions in countries such as South Africa and India to help inform equity and person oriented approaches to TB care, and is involved in several projects that inform global TB policy and programming. Amrita holds adjunct appointments at the Centre for the AIDS Program of Research in South Africa at University of KwaZulu-Natal and Dalla Lana School of Public Health at University of Toronto. As Founder and Director of a new global centre, SSHIFTB, she helps to bring together TB social science scholars, learners and advocates from around the world to integrate and elevate the social science lens in global responses to TB.

#### **The Radiologic and Mycobacteriologic Correlates of Subclinical Pulmonary Tuberculosis in Canada**

*Angela Lau, MD, FRCPC, MSc, DTMH, University of Alberta, Edmonton, AB (20 mins)*

This session will report on the reason for assessment of subclinical cases, on their diagnostic radiographic and CT features and on those radiographic and CT features that correlate with higher bacillary burdens and/or metabolic activity of Mycobacterium tuberculosis. At the end of this session, participants will be able to:

1. describe the burden of subclinical TB in Alberta, one of four major immigrant-receiving provinces in Canada
2. describe the radiologic and mycobacteriologic correlates of subclinical pulmonary TB in a high-income country

**Dr. Angela Lau** completed her respirology fellowship at the University of Alberta and received a clinical faculty appointment in the Division of Pulmonary Medicine in October 2019. Since then, she has been working as a full-time respirologist and TB physician at the University of Alberta Hospital, Edmonton TB Clinic, and the Provincial (virtual) TB Clinic. Her initial interest in TB research, however, predates her entry into medical school. She completed a studentship with the Tuberculosis Program Evaluation and Research Unit (TB PE & RU) at the University of Alberta in 2008 and has continued in TB research over the past thirteen years. She completed her Master's in 2016 during her residency. During her training, she also completed clinical and research TB electives in Deschamps, Haiti, China, and South Africa. She aspires to become a TB clinician-scientist.

#### **AI-based CXR & TB: state of the evidence**

*Faiz Ahmad Khan, MDCM MPH, McGill University, Montreal, QC (20 mins)*

AI is transforming the field of radiology. Participants will hear about the latest high-quality evidence pertaining to deep learning-based software for detecting TB on CXR. At the end of this session, participants will be able to:

1. understand evidence on diagnostic accuracy of AI reading of CXR for TB
2. critically evaluate new studies and data on AI and diagnostic accuracy
3. learn new WHO recommendations on AI CXR analysis and TB diagnosis

**Faiz Ahmad Khan** is a clinician scientist at the Research Institute of the McGill University Health Centre. He has been at the forefront of studies evaluating the diagnostic accuracy of AI-based CXR analysis software for TB. His work has been funded by CIHR, and informed WHO guidelines. He splits his clinical and research time between Montreal and Nunavik

## **Post-COVID Outcomes and Implications for Pulmonary Rehabilitation (60 mins)**

*Dr. Marla Beauchamp, Dr. Alyson Wong*

### **Respiratory Outcomes After COVID-19**

*Alyson Wong, MD, FRCPC, MHSc, University of British Columbia (30 mins)*

A large percentage of patients have persistent symptoms after acute COVID-19 illness, with respiratory symptoms being a major burden of impairment. In this session, we will review long term respiratory outcomes after COVID-19 and management of common respiratory sequelae. At the end of this session, participants will be able to:

1. Describe the clinical, physiologic, and radiographic respiratory-related abnormalities after COVID-19.
2. Manage common respiratory sequelae after COVID-19.

**Dr. Alyson Wong** completed her core medical training at the University of British Columbia (UBC), followed by a Respiriology fellowship at Dalhousie University. She subsequently returned to UBC where she completed a 2-year Interstitial Lung Disease (ILD) clinical and research fellowship and Master of Health Science. Dr. Wong is currently a Clinical Instructor in the Department of Medicine at UBC and postdoctoral research fellow with the Centre for Heart Lung Innovation. Her research focuses on evaluating the economic burden of ILD and integrating health economics into clinical research. Dr. Wong co-led the design and implementation of the Post-COVID-19 Respiratory Clinic and Research Program at St. Paul's Hospital in Vancouver, BC which provides follow-up care to patients hospitalized with COVID-19.

### **Long-term Functional Recovery From COVID-19 and Implications for Pulmonary Rehabilitation**

*Marla Beauchamp, PT, PhD, McMaster University, Hamilton, ON (30 mins)*

Increasing evidence on the long-term sequelae after COVID-19 shows that many patients suffer from persistent bothersome symptoms including mobility problems, dyspnea, and fatigue. For this reason, most international organizations now recommend the provision of pulmonary rehabilitation for patients with post-COVID conditions. This session will describe emerging evidence on long-term functional recovery up to 1 year after hospitalization for COVID-19 and best practice recommendations for pulmonary rehabilitation. At the end of this session, participants will be able to:

1. Describe the evidence on the trajectory of functional recovery after hospitalization for COVID-19 in terms of mobility, physical function, cognition, and psychological outcomes.
2. Describe the international guidance on rehabilitation for COVID-19
3. Identify key modifications to pulmonary rehabilitation for patients with long COVID

**Dr. Marla Beauchamp** is a Physical Therapist and Assistant Professor in the School of Rehabilitation Science and Department of Medicine at McMaster University in Hamilton, Ontario, Canada. She holds a tier 2 Canada Research Chair in Mobility, Aging and Chronic Disease and an Early Researcher Award from the Ontario Minister of Colleges and Universities. Dr. Beauchamp's research program is focused on developing evidence-based strategies to improve mobility among older adults, including those with COPD. Her ongoing research includes a multi-site longitudinal cohort study on long-term outcomes after COVID-19.