



# Séminaire / Seminar

2 décembre / December 2 (12:00)

Connectez-vous à / Join the webinar at: [idigh.ca/webinars](http://idigh.ca/webinars)



**Cecilia  
Costiniuk** MD, MSc, FRCPC

IDIGH Program, RI-MUHC

Division of Infectious Diseases and Chronic Viral Illness Service,  
McGill University Health Centre

Department of Microbiology & Immunology, McGill University

## Disrupted pulmonary immunity and HIV reservoirs: Potential implications for Chronic Obstructive Pulmonary Disease

People living with HIV (PLWH) suffer from high rates of lung infections and Chronic Obstructive Pulmonary Disease (COPD) despite suppressive ART and smoking status. However, the interplay between the lung HIV reservoir, intrapulmonary inflammation and their contribution to respiratory comorbidities, remains unexplored. Using over 50 bronchoalveolar lavage (BAL) fluid specimens from asymptomatic ART-treated PLWH and uninfected controls, we characterized T-cell and alveolar macrophage subsets and we showed that CD4<sup>+</sup> and CD4-CD8<sup>-</sup> (DN) T-cells from BAL fluid of PLWH contained HIV DNA, notably 13X higher in BAL CD4<sup>+</sup> cells versus matched blood. Furthermore, we demonstrated that BAL CD8 T-cells in PLWH showed significantly less degranulation and HIV-specific cytotoxicity than blood CD8 T-cells. Overall, we demonstrated that pulmonary mucosa is an HIV sanctuary tissue along with peculiar phenotypic and functional immune signatures which, in turn, may contribute to higher rates pulmonary comorbidities and COPD in PLWH.

I

G

I

D

I



[idigh.ca](http://idigh.ca)



@IDIGHProgram