

## CFTRc Seminar Series



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### Interrogating the constituents of airway surface liquid/sputum – friends and foes

The lungs are lined with a thin film of airway surface liquid (ASL) which contains a complex array of molecules that play a key role in innate defence and mediate communication between the epithelium, the immune cells, and the external environment. The ASL contains hundreds of proteins. Proteases and anti-proteases present in the ASL regulate the cleavage of these proteins and the generation of peptides. Our investigation of the sputum peptidome from people with and without Cystic Fibrosis (CF) has identified novel peptides with cellular, antimicrobial and antiviral bioactivity. In CF disease, changes to the relative abundance of proteases, anti-proteases and their activity alter the proteomic and peptidomic profile of sputum and modify the ion transport properties of the airway epithelium *in vitro*.

**Date:** Tuesday, January 18, 2022

**Time:** 11:00 a.m.

**Online via Zoom:**

<https://mcgill.zoom.us/j/83877380528?pwd=dmxINWdFV1I4bjJDZ00zbHlvQj9lUT09>

**Meeting ID:** 838 7738 0528

**Password:** semCFTRc