

CFTRc Seminar Series



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Sexual dimorphism and estrogen actions in cystic fibrosis

A sex disparity has been observed in cystic fibrosis with girls having an earlier onset of lung disease at puberty, more frequent pulmonary exacerbations and shorter life span than men in adulthood (the so-called “CF gender gap”). Because of the complexity of CF multi-organ disease, no single straightforward mechanism can explain the sex differences found in cystic fibrosis. In this seminar I will discuss the evidence for sexual dimorphism in CF underpinned by estrogen actions on CFTR, ENaC and K⁺ channels, and estrogen regulation of airway surface liquid dynamics and *Pseudomonas aeruginosa* mucoidy. In the latter half of the seminar we will focus on the influence of estrogen on CF pulmonary clinical outcomes from *in vitro* to *in vivo* studies on how estrogen might modify airway mucociliary clearance, immunity and bacterial infection in the CF airways.

Date: Tuesday, October 25, 2022

Time: 4:00 p.m.

In person: McIntyre Building, 3rd Floor, Room 336

Online via Zoom:

<https://mcgill.zoom.us/j/81124851078?pwd=NmpyWEJCWXZ4amhNdDNibzRnSzYyZz09>

Meeting ID: 811 2485 1078

Password: CFTRcsem