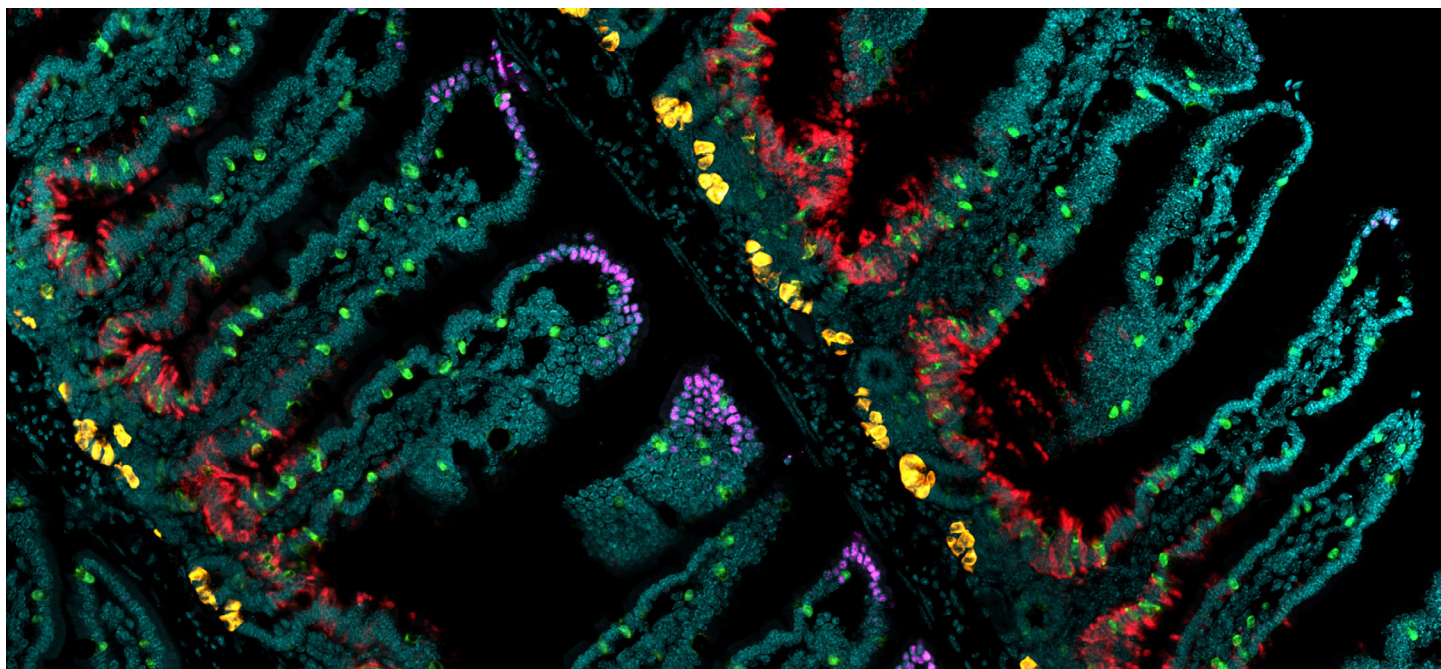


# Mucosal tissue barrier functions – from early-life development to immunity to infection



## Abstract

Our intestines are tasked both with the uptake of nutrients while also preventing pathogens from crossing this same barrier. These somewhat conflicting functions are performed through an interplay between epithelium, immune cells, and the commensal microbiota. For example, commensal microbiota breaks down hard-to-digest food so that epithelium can take up the nutrients, while immune cells display tolerance to the commensal microbiota (i.e. immune cells don't perceive the microbiota as 'foreign'). Early in life, in the first year or so, this delicate balance is set up. Indeed, the microbiota changes from a few pioneering species to a complex ecosystem, epithelium matures so that it can handle the change from milk to solids, and immune cells are educated by the microbiota to provide tolerance throughout life. Me and my team are specifically interested in the role of the epithelium in these processes. We study how epithelium develops in this early-life stage, and what factors are responsible for its transition. In addition, we study how epithelium changes during an infection where, in concert with immune cells, they provide protection by producing effector molecules such as antimicrobials. In this presentation, I will highlight our work within this rapidly evolving and exciting field of science.



## Presenter

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## When

**Date:** Oct 20, 2022  
**Time:** 12:00 PM

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