About this seminar: The Battle lab examines digestive diseases through a developmental biology lens. Reactivation of pathways used during embryonic organ development to pattern tissues and specify cell fate and function often plays a role in disease. Therefore, investigating organ development can provide a unique window into the mechanisms of human diseases. Using cutting-edge molecular and cellular biology tools in the context of animal and organoid model systems, we seek to delineate fundamental mechanisms of gastrointestinal epithelial tissue patterning, epithelial cell specification and differentiation, and epithelial tissue morphogenesis. Today, I will discuss how GATA family transcription factors regulate gastrointestinal organ development and how alterations in GATA factor function contribute to GI diseases.

Reference(s): PMCID: PMC8479485 and PMC5404030