Comprehensive Research Experience for Medical Students
Summer Research Program 2021
Supervisor/Project Information Form

Due February 24, 2021 by email to crems.programs@utoronto.ca

**Supervisor Name:**  Jessie Hulst / Peggy Marcon

**Project Title:**  Patient Characterization and Assessment of Nutritional Status and Remission Rate in Children with Eosinophilic Esophagitis During the First Year after Diagnosis.

**Hospital/Research Institution:**  The Hospital for Sick Children

**Email:**  jessie.hulst@sickkids.ca

**Field of Research (2 keywords):**  eosinophilic esophagitis, pediatric gastroenterology

**Department:**  Pediatrics, Division of Gastroenterology, Hepatology and Nutrition.

**School of Graduate Studies Appointment (IMS, LMP, IHPME etc)? Yes/No:**  YES (Jessie Hulst)

**If YES, please name:**  Department of Nutritional Sciences.
**Brief Project Description (<300 words):**

**Background:** Eosinophilic esophagitis (EoE) is a chronic immune-mediated disease associated with significant morbidity, including dysphagia, food impactions and faltering growth. Management is challenging and treatment options include dietary elimination, topical steroids, and proton pump inhibitors. Management requires serial upper endoscopies with biopsies to assess response to treatment.

The incidence of EoE has increased over the past 2 decades. Despite advances in understanding its pathogenesis, the cause is unknown; however genetic susceptibility and early environmental exposures play an important role.

The Division of Gastroenterology, Hepatology and Nutrition of SickKids has a specialized EoE Clinic which provides dedicated medical support to children with EoE. An increasing number of patients (currently n=130) with great ethnic diversity are seen in this clinic. An REB approved Registry (EoE-AHEAD Study) is underway, providing a unique opportunity to generate longitudinal data on important clinical questions and research gaps to advance the field of pediatric EoE forward.

**Aims of this project:** To use the data obtained through the EoE-AHEAD Registry to:

a) Characterize patients in terms of early life, environmental, and demographic factors, presenting symptoms, comorbidities and complications in first year after diagnosis

b) Assess growth and nutritional status at diagnosis and 1 year after diagnosis

c) Assess clinical and histological remission rate 1 year after diagnosis

**Patients:** subset of the cohort of children participating in the EoE-AHEAD Registry Study; age 6 months-18 years with a confirmed diagnosis of EoE.

**Methods:** Available clinical data will be collected both retrospectively and prospectively from the patient’s electronic medical record and entered into the REDCap EDC system. Aims will be assessed using descriptive statistics and parametric and non-parametric statistical methods.

**Tasks for student:** To assist in inputting data in database from the patient chart, perform analysis, describe results in poster format.

**Other possible activities during summer program:** Observe EoE Clinic and upper GI endoscopy in patients with EoE, attend (virtual) Pathology rounds where EoE biopsies are discussed, and attend (virtual) EoE Team Meetings.