

The Farncombe Family Digestive Health Research Institute was established at McMaster University in 2008. The Institute maintains a philosophy of interdisciplinary collaboration in which there is an iterative relationship between basic and clinical research. We use this integrated approach to understand how changes in the gut environment can lead to chronic diseases in the gastrointestinal system and beyond. The Institute has a strong commitment to education, providing an innovative and nurturing environment to train the next generation of ground-breaking investigators. Fellows will work closely with a primary mentor and co-mentors to gain new skills, develop their personal research programs, and contribute to existing projects.

The Baby & Mi and Baby & Pre-Mi studies are investigating predictors of gut microbiome colonisation patterns in infancy through the collection of fecal samples and clinical data from ~300 full- and pre-term mother-infant pairs over the first three years of life. These cohorts were formed by an interdisciplinary team comprised of members from Medicine, Obstetrics & Gynecology, Pediatrics, Biochemistry and Health Research Methodology.

Example areas of research include:

- Examining the impact of early life dietary events, such as the introduction of solids foods, on gut microbiome community structures and function among infants born pre-term.
- Investigating the relationship between the gut microbiome and clinical outcomes in infancy and childhood.
- Describing the longitudinal patterns of gut microbiome colonisation in pre-term infants.

This fellowship will provide the opportunity to gain experience in 16S, metagenomic and metabolomic analyses as well as targeted bacterial culturing. The fellow will also gain skills in working with clinical and nutritional datasets, with particular focus on obstetrical, infant diet and early life exposure information.

**DURATION**

1 year with possibility of extension

**SALARY**

\$45,000 per year (plus benefits)

**POSITION TYPE**

Full-time

**HOW TO APPLY**

To apply, applicants should submit a current CV and letter of interest to Dr. Jennifer Stearns (stearns@mcmaster.ca).

**REQUIREMENTS**

- PhD (or planned defense at time of application)
- Good publication record
- Strong interest in microbial ecology

We are looking for candidates with expertise in bioinformatics interested in applying it to answer infant health questions.

**LOCATION**

The Farncombe Institute is located at McMaster University in Hamilton, Ontario. These projects may be completed virtually in light of the COVID-19 pandemic.