

PhD position

The Nutrition and Microbiome Laboratory at the CRCHUM, Université de Montréal, is offering training opportunities for PhD candidates to study host-pathogen interactions and iron metabolism.

The candidates will participate in several ongoing projects, combining both *in vivo* and *in vitro* approaches to study the interplay of iron, microbiota and the host at the mucosal interface.

Lines of investigation include:

1. Understanding how competition for the uptake of dietary microelements affects the composition of the gut microbiota and may promote inflammation and carcinogenesis;
2. Identification of microbiota biomarkers and regulators in order to manipulate and restore a healthy microbiota after cancer treatments;
3. Identification of the underlying mechanisms by which the host controls gut microbial ecology;
4. Investigation of how pathogens and pathobionts alter the microbiota in a manner leading to carcinogenesis;
5. Evaluation of the protective role of probiotics.

Essential requirements:

- Master's degree in biology, microbiology, or similar disciplines
- Hands-on experience in experimental lab work (routine cellular and molecular biology laboratory techniques) and mouse handling
- Computational skills (using R, PRISM or similar) is a plus
- Open minded, self-driven and curious person, willing to work in a complex, interdisciplinary and international environment
- Excellent academic track record

Application procedure:

Interested and qualified candidates are invited to send their CV, copies of their grades, letter of intent, and two references to Dr. Manuela Santos (manuela.santos@umontreal.ca). Incomplete applications will not be considered.