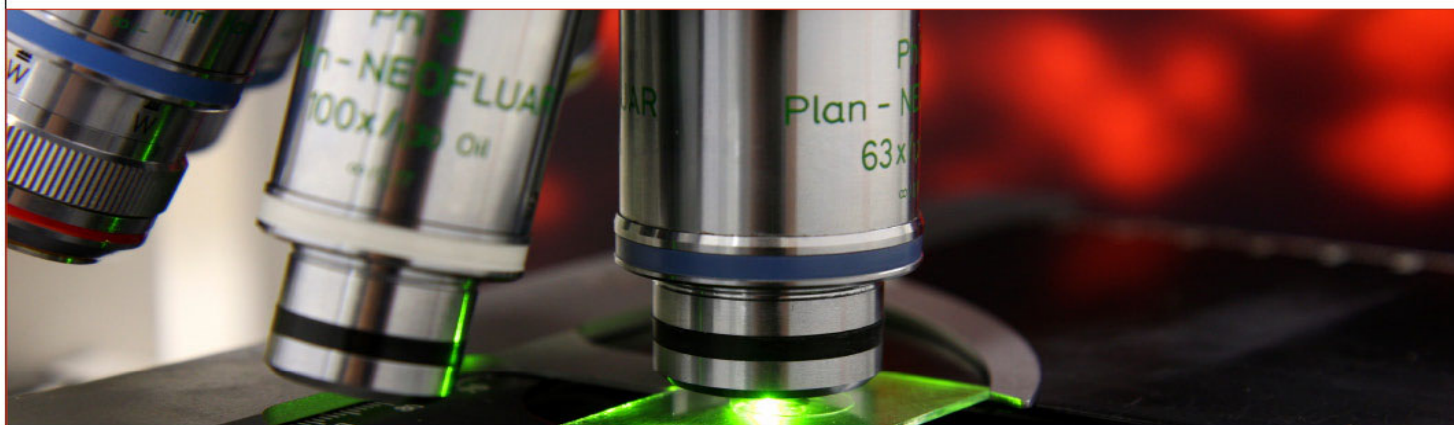


SÉMINAIRES ET CONFÉRENCES



Manuela Santos

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Laboratoire de Nutrition et Microbiome CRCHUM**

« The gut microbiome in colon carcinogenesis and intestinal healing: friend or foe? »

An imbalance in the gut microbial community, or dysbiosis, is associated with inflammation and colon carcinogenesis. Mechanisms by which the gut microbiota induces carcinogenesis include, among others, the production of genotoxins such as colibactin, the induction or heightening of existing inflammation, and the regulation of microbial-derived metabolites. The primary treatment for colorectal cancer (CRC) includes gastrointestinal resection of the tumor, which involves an anastomosis to rejoin the ends of the remaining bowel. One of the major complications in colorectal surgery is the so-called anastomotic leak (AL) that has been linked to poor healing of the anastomosis and occurs in up to 20% of operated patients. Our team aims to understand the association between dietary microelements, gut microbiota dysbiosis, inflammation, carcinogenesis, and postoperative intestinal healing. Here we present data on the modifying role of colibactin-producing bacteria in response to dietary fiber using a mouse model of CRC. We further show data on the potential role of the gut microbiota on intestinal healing. Using fecal microbiota transplantation in an established murine AL model followed by 16S mRNA sequencing, we identified both beneficial and detrimental bacterial species associated with post-surgery intestinal healing. We further validated the 16S sequencing data by testing bacterial candidates in mice undergoing anastomotic surgery. Finally, we evaluated the potential utilization of dietary fiber to prevent AL. These studies have the potential to benefit treatment outcomes in CRC patients and improve their quality of life.

Lien zoom: <https://umontreal.zoom.us/j/86346044006?pwd=bGRReE9SL245cVNSKzI3TFNPUkx2dz09>



Le lundi 18 octobre 2021, 11h30

Faculté de médecine
Département de biochimie
et médecine moléculaire

Université 
de Montréal

Invité de Pascale Legault