



EXCELLENCE IN GENETICS & IMMUNOLOGY SEMINAR SERIES



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Title: “The gut microbiome and the etiology of Colon Cancer”

Monday, May 2, 2016

MARTIN Amphitheater | Room 504 | 12:00 PM

McIntyre Medical Sciences Building

“The etiology of colorectal cancer (CRC) has been linked to deficiencies in mismatch repair and adenomatous polyposis coli (APC) proteins, diet, inflammatory processes, and gut microbiota. However, the mechanism through which the microbiota synergizes with these etiologic factors to promote CRC is not clear. We found that altering the microbiota composition reduces CRC in APC^{Min/+}MSH2^{-/-} mice, and that a diet reduced in carbohydrates phenocopies this effect. Gut microbes did not induce CRC in these mice through an inflammatory response or the production of DNA mutagens but rather by providing metabolites that fuels the hyperproliferation of mismatch repair-deficient colon epithelial cells. Further, we provide evidence that the mismatch repair pathway has a role in regulating stem cell differentiation. Our work might provide an explanation for the interaction between microbiota, diet, and mismatch repair deficiency in CRC induction.”

This seminar is mandatory for Biochemistry Graduate students

LOCATION: McIntyre Medical Sciences Building, Room #504, 12:00 PM

HOSTED BY: Drs ANA NIJNIK and SILVIA VIDAL