World Congress of Gastroenterology
Canadian Digestive Health Education Exchange Program

Program Director's Name:	Paul Moayyedi
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In the space below provide a brief summary of the proposed clinical and/or research educational program, including specific objectives:

This exchange program will enhance the ongoing collaboration between McMaster University for both basic and clinical science research groups at the at the National University of La Plata and the University of Buenos Aires, Argentina.

The basic science project aims at investigating the role of altered gastrointestinal function in the pathogenesis of type I Diabetes and is being conducted in collaboration with Dr. Fernando Chirdo, at the "Laboratorio de Investigacion del Sistema Inmune" (LISIN) at National University of La Plata. The study examines the role of altered intestinal permeability and increased uptake of gut luminal antigens in the development of pancreatic islet inflammation (**insulitis**). It exploits Non-Obese Diabetic mice transgenic for HLA-DQ8 class II molecule, that are predisposed to specific immune and physiological responses to gluten, as a model for examining the role of luminal antigens in the development of insulitis. The elucidation of a gut pathway leading to insulitis opens the possibility of new therapeutic approaches for type I Diabetes Mellitus. Exchage of fellows from Dr. Chirdo's lab to Dr. Verdu's laboratory would expand the current collaboration currently restricted to morphological analysis of dendritic cells in tissue sections, to in vivo and functional analyses.

The clinical science project will use an established database by Dr. P. Moayyedi, to identify patients with diarrhea-predominant Irritable Bowel Syndrome with symptoms of anxiety and depression. All patients with concurrent systemic disease, organic GI pathology or patients treated with antidepressants/anxiolytics will be excluded. Dr. P. Bercik has exploited the mentioned database for an open label study investigating effects of probiotic Bifidobacterium longum N3001 on symptoms of depression/anxiety in patients with diarrhea-predominant IBS. An MD fellow from the University of Buenos Aires, Argentina has recently initiated research in this project. The current program will facilitate further exchange.

List all mentors who will be involved in the program along with their departmental affiliation, University rank and area(s) of expertise:

Elena Verdu, Dep. Medicine, Assistant Prof. McMaster University. *Animal models of gut dysfunction, food intolerance, gluten sensitivity, probiotics.*
Premysl Bercik, Dep. of Medicine, Assistant Prof. McMaster University. *Gut-brain axis, IBS.*
Paul Moayyedi, Dep. Medicine, Prof. *Clinical trials, meta-analysis.*
Fernando Chirdo, Prof.; National University of La Plata, Argentina. *Mucosal Immunology.*