

## PROGRAMME DE STAGES D'ÉTÉ

Initiation à la recherche biomédicale au Centre de recherche du CHU Sainte-Justine Été 2019

Anemia in children with inflammatory bowel disease: relationship with disease activity, joint diseases and physical activity

Numéro de l'offre de stage : No. 29

### Équipe de recherche

Prévost Jantchou, M.D., Ph.D., M.B.A
Professeur Agrégé
Gastro-Hépatologie et Nutrition Pédiatriques CHU Sainte-Justine
Axe de recherche : Santé métabolique et cardiovasculaire

#### Coordonnées

prevost.jantchou@umontreal.ca

Centre de recherche du CHU Sainte-Justine 3175 Chemin de la Côte-Ste-Catherine Montréal, Qc, H3T 1C5

#### **Description du projet**

Background: Anemia is a frequent complication of inflammatory bowel disease (IBD), and is present in up to 74% of patients at time of diagnosis {Wilson, 2004 #1949}. While anemia is associated with disease activity due to active intestinal inflammation, the prevalence and consequences of anemia in children with IBD in clinical remission remains understudied. Joint diseases are a common manifestation in children with IBD. In fact 12 % of children with CD were reported to having had arthritis and 14.6% had arthralgia at diagnosis. The importance of physical activity in subjects with chronic diseases has been well established. Physical activity has several benefits on health and wellness. It has been found that physical activity prevents the development of a multitude of chronic diseases in patient already suffering from one chronic disease. In addition, physical activity might contribute to the control of inflammation. Higher level of physical exercise has been associated with reductions in inflammatory serum markers, especially C-reactive protein.

The relationship between the existence of joint diseases and the levels of physical activity in children with IBD have been underexplored. Thus the aim of the present study will be to



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investigate the association between hemoglobin level, disease activity, quality of life and physical activity in children with Crohn's disease (CD) or ulcerative colitis (UC).

#### Aims:

The primary aim of this study will be to determine the level of physical activity in children with CD or UC and compare those levels with data from the population of healthy children in Canada.

The secondary aims will be to investigate the association between: (a) the level of physical activity and anemia, (b) the level of physical activity and extraintestinal manifestations of IBD such as arthritis.

Student role: the research student will be involved data collection using specific forms designed on Filemaker software. He/she will administer the questionnaires to children during the usual outpatient visit. In addition he/she will participate under supervision of the principal investigator in data cleaning, data analysis and draft of an abstract for Canadian conference meeting.

