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| Name of principal applicant and amount requested (1st year) Nom du principal candidat et somme demandée (1 ^{re} année) | |
| GENDRON, Fernand-Pierre | \$149,958 |
| Simplified/Lay short title of research Titre concis de la recherche Symptoms of IBD are aggravated by nucleotides receptors | |
| Abstract (Suitable for lay readers) / Résumé (formulé en termes usuels) NO ATTACHMENTS TO THIS PAGE / NE JOINDRE AUCUNE ANNEXE À CETTE PAGE | |
| <p>P2 receptors are actively involved in multiple inflammatory diseases with an inflammatory component. In the intestine, the activation of these receptors by extracellular nucleotides normally regulates the secretion and absorption of electrolytes. However, the role of these receptors in the etiology of inflammatory bowel diseases is not known. We showed that the expression of P2Y₂ and P2Y₆ receptors was increased in the colonic epithelium of mice having colitis-like symptoms and in colonic tissues of patient suffering from IBD. The exact cellular and molecular mechanisms regulating the expression of these receptors are not yet determined. We have showed that the activation of P2Y₆ receptor stimulates intestinal epithelial cells release of CXCL8, a molecule involved in the recruitment of leukocytes. The objective of this research project is to unravel P2 receptors contribution to the epithelial cells inflammatory responses that could lead to the dysfunction of the intestinal mucosa. By combining various techniques of molecular and cellular biology and by the use of various cell and animal models, we will delineate the exact roles of P2 receptors in both a physiological context of mucosa homeostasis maintenance and in pathological conditions as found in intestinal inflammation. Hence, this proposed research project will serve as a stepping stone to establish the modalities of targeting P2Y₆ receptor signalling as a therapeutic tool for the treatment of IBD.</p> | |
| Place and date/Lieu et date Sherbrooke | Signature |