Centre de recherche
CHU Sainte-Justine
Le centre hospitalier universitaire mère-enfant

Université de Montréal

PROGRAMME DE STAGES D'ÉTÉ
Initiation à la recherche biomédicale
au Centre de recherche du CHU Sainte-Justine
Été 2020

The Treatment of Congenital Infectious Diseases In Children

Numéro de l'offre de stage : No. 24

Équipe de recherche

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Coordonnées

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Description du projet

Congenital infectious diseases, transmitted from mother-to-child during pregnancy, affect an estimated 1/100 newborns worldwide. These chronic viral infections (HIV, Hepatitis B, C, Cytomegalovirus, Zika virus, Syphillis, Toxoplasmosis) vary in the degree to which they affect the developing fetus and newborn, however their long-term effects on infected children is such that globally, they represent one of the major causes of pediatric morbidity and mortality. Added to this is now COVID19, with suspected cases of congenital infection.

The focus of the clinical research team at the Centre d'Infectiologie Mère Enfant (CIME) is the prevention, diagnosis, and treatment of congenital infections in children. Many unanswered questions remain regarding prognosis and long-term outcomes, response to therapy, and the effects of in utero exposure to infectious pathogens. In addition, children who are exposed, yet

uninfected, may still suffer from the consequences of exposure to infectious pathogens, or to the drugs given to treat pregnant women and prevent in utero transmission.

Two research projects are proposed for summer 2021, with a possibility to begin earlier include:

1) Effects of antiviral therapy in newborns. The student will assess the hematological toxicity of antiviral therapy given to newborns (antiretrovirals used to treat HIV, Acyclovir used to treat HSV, and Valganciclovir used to treat CMV) using the database from the CIME, and through retrospective chart review.

2) "Uninfected but not unaffected": Effects of in utero exposure to maternal COVID-19, HIV, CMV, and other infections during pregnancy on newborn growth and development

During the research stage, the students` will be encouraged to spend 1-2 half days of observation in the congenital infectious diseases clinic, to better understand the population under study.

Mots clés

Infections, congénitales, Mère-Enfant, Développement, Clinique