CLSA Approved Project

Applicant
Dr. Peter Hall, University of Waterloo
Trainee: Mohammad Nazmus Sakib

E-mail Address
pahall@uwaterloo.ca

Project Title
Examining reciprocal relationships of cognition with BMI, diabetes and diet

Project Summary
Cognitive health is an utmost public health priority considering the growing burden of older people worldwide. Two prevalent chronic conditions, obesity and type 2 diabetes, are strongly associated with cognitive decline. In fact, the presence of these chronic conditions in early-age can significantly increase the risk of cognitive impairment and dementia in later life. In addition to these, diet is a crucial factor that not only related to obesity and type 2 diabetes but may exert a lasting effect on cognition. To date, very little is known about the prospective relation of cognition and obesity, type 2 diabetes and diet. In this study, we aim (i) to examine reciprocal associations between executive function and BMI over time, testing food consumption (hyperpalatable vs. healthy) as a mediator of any prospective associations identified, and (ii) to test whether the mediational model is supported in those with and without type 2 diabetes.

Keywords
BMI, Obesity, Diabetes, Hyperpalatable food, Calorie-dense food, Healthy diet, Hyperglycemia, Cognition, Cognitive function, Executive function, Cognitive impairment