

GUSTO Test Copy

Fran

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Chapter 1

Introduction

Chapter 2

Information

2.1 Summary

This wiki includes information, notes and protocols on the BABLAB's secondary analysis of data from the GUSTO study.

2.1.1 Abstract

2.1.2 Aims

Taken from the proposal submitted by Bridget describing the project.

Aim 1a: Identify changes in the microbiome across the first 8 years of life.

Aim 1b: Determine how these changes vary as a function of maternal childhood adversity, maternal prenatal mental health, maternal postpartum stressful life events, and child stressful life events in a community sample.

2.1.3 Background

GUSTO (Growing Up in Singapore Toward Healthy Outcomes) is a large birth cohort study conducted in Singapore. The primary aim of GUSTO is to understand how conditions in pregnancy and early childhood influence the health and development of women and children. The study now includes data on the children up to 8 years of age. Bridget learned about this study through Michael Meaney, and the BABLab was granted access to some of the data to analyze.

Early life stress in both parents and children is associated with a higher incidence of youth mental health disorders, cognitive dysfunction, and altered neurobiology (Green et al. 2010; McLaughlin et al. 2010; Schickedanz et al. 2018;

Callaghan et al. 2016; Callaghan et al. 2019; Gee et al. 2013). Studies in animals have indicated that early life stress also influences the gastrointestinal microbiome (Bailey and Coe 1999; Pusceddu et al. 2015), which is itself associated with emotionality, cognition and the brain (Vuong et al. 2017). (from the proposal submitted by Bridget describing this project)