

Public Abstract

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Title: SEROTONIN TRANSPORTER POLYMORPHISM AND STRESS EFFECTS ON GUT MICROBIOTA AT VARIOUS TIME POINTS IN PREGNANCY

Prenatal stress (stress experienced by the mother while pregnant) has been shown to greatly affect the health of a child. Still, not all offspring who experience prenatal stress will suffer poor outcomes. Maternal genetics and the timing of adverse events have been shown to interact to affect the likelihood that a child will be affected by prenatal stress. However, we do not fully understand precisely how this happens. One potential area of research is the maternal gut microbiome (the community of bacteria residing in the mother's gut). The current study used a mouse model of genetic stress susceptibility, combined with daily stress during pregnancy to examine changes in the maternal gut microbiome due to differences in genetic susceptibility to stress and stress itself. While pregnancy was found to alter the microbiome differently at various time-points in pregnancy, there was no significant interaction between genes and stress. However, we believe there is good evidence to continue exploration of the effects of stress and genetics on the maternal microbiome. ?