Is There a Temporal Association Between Gut Microbiota and Neurodevelopment?

405 infants from the Canadian Healthy Infant Longitudinal Development cohort study

**Neurodevelopmental outcomes (2 years)**
(Bayley Scale of Infant Development-III)

**Fecal microbiota profiling (1 year)**
(16S rRNA gene sequencing)

*Bacteroides* species in the gut and associated sphingolipid synthesis influence neurodevelopmental outcomes during late infancy, particularly in male infants

Gut microbiota influences neurodevelopmental outcomes in a sex-dependent manner during late infancy

Adapted from peer-reviewed research article:
*Bacteroides*-dominant gut microbiome of late infancy is associated with enhanced neurodevelopment