Today’s piece was prepared by Paul Homer, MD, based on a story in the Economist [Gut Feelings](http://www.economist.com/news/science-and-technology/21700622-theory-bacteria-are-involved-some-cases-autism-gets-boost-gut)

This article outlines research on the effect of maternal obesity in mice on the microbiome of their offspring causing autism like behaviors, noting that obese mothers are 50% more likely to have a child who develops autism (a recent study in California citing 67%). In the study, one group of female mice was fed a high fat diet to create obese mothers and the other a normal diet. The pups in the obese group were less social with their peers and preferred playing with a cup over playing with another pup. Feces of offspring of obese mothers lacked a bacterium, *Lactobacillus reuteri*. When offspring of obese mothers were fed water with *L. reuteri*, the issues with socializing were not apparent. *L. reuteri* promotes oxytocin release in the developing brain, associated with social behaviors.

Previous research has shown maternal obesity increases the risk of behavioral disorders such as ADHD, low IQ, schizophrenia, and ASDs, arguing that they decreased behavior issues with the addition of this bacterium into the microbiome of the pups by decreasing the loss of oxytocin receptors in the brain. However, in children with ASDs, there are several key changes to various areas of the brain and neurons affecting behaviors and motor skills. This article and research is stating the anti-socializing aspect observed was similar to that seen in autism spectrum disorders (ASDs). Although, the social aspect of ASDs is obvious, there is an array of other behaviors that occur in these children. This article leads readers to infer a way to prevent ASDs, but association is not causality and, importantly, these are mice, not humans, so that what appears “autistic” behavior in a mouse may have no relation to human autistic behavior.

**RESOURCES ON AUTISM:**

Book from AAP about ASDs: Rosenblatt, Alan I., Paul S. Carbone, and Winnie Scherer. *Autism Spectrum Disorders: What Every Parent Needs to Know*.

**RESOURCE FOR HEALTHCARE PROFESSIONALS ON PARENT OBESITY & ASD:**

Norwegian study of children of mothers with obesity: Parental Obesity and Risk of Autism Spectrum Disorder." *Pediatrics* 133.5 (2014)

And that’s today’s Developmental & Behavioral Pediatrics: IN THE NEWS!