

Markers of Autism Risk in Babies--Learning Early Signs (MARBLES)

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Synopsis:

Autistic spectrum disorders are a group of neurodevelopmental disorders that significantly impair the development of communication and social skills of children and cause functional impairments that interfere with learning and social functioning. The cause of these impairments are largely unknown, but are thought to have both genetic and environmental components. The MARBLES study seeks to establish a cohort of pregnant women – and women planning a pregnancy - who already have a child with autism spectrum disorder (ASD) or who are carrying the child conceived with a man who is the biological father of a child with ASD. The overall goal is to prospectively study a high risk group of children (the offspring of these pregnancies) for early signs of ASD and establish the prenatal and postnatal exposures that will be predictive of the development of ASD. Exposures of interest include viral or other illnesses, pesticides and other contaminants in the environment with immune or neurodevelopmental toxicity, and medications and lifestyle factors. Early signs include genetic, genomic, proteomic, immunologic, metabolic, or behavioral markers. If successful, this study will provide essential data about the potential etiologic factors contributing to the growing number of children with ASD, and establish early markers of ASD in young children to facilitate earlier detection and intervention.