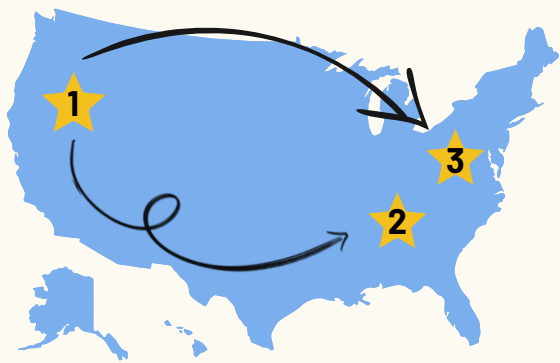


The Maternal Immune System & Autism



Maternal Autoantibody-Related Autism (MAR-ASD)

MAR-ASD is a subtype of Autism, which accounts for approximately 20% of all Autism cases. During pregnancy, a mother's autoantibodies (antibodies directed against the body's own proteins) mistakenly react to the proteins in the baby's brain, leading to behaviors linked to autism.



- 1 UC Davis- MIND Institute
- 2 Children's Hospital of Philadelphia (CHOP)
- 3 Arkansas Children's Hospital and Research Institute (ACHRI)

The number of ASD cases varies across the United States

Researchers from the University of California Davis partnered with 2 clinical sites with diverse populations from the DBPNet to see if MAR-ASD is consistent across the United States

*Developmental-Behavioral
Pediatrics Research Network
(DBPNet)*

68 mothers of autistic children aged 2 to 12 were included in this study. The following data was collected:



Blood Samples



Behavioral Questionnaires



Child's Diagnostic Autism Evaluations

16 of 68 blood samples were MAR positive (+MAR), affecting 23.5% of mothers

- Higher autism ratings in children of +MAR mothers
- No difference in IQ, daily living skills, or other behaviors
- MAR ASD may be linked to higher autism characteristics

There were similar rates of MAR-ASD in Northern California and the two other states

Testing for MAR ASD patterns has the potential to be used as a tool for earlier diagnosis of Autism

Further study is needed to find out why mothers develop these antibodies and how long these antibodies may continue to exist