



Treatment and Research Institute
for Autism Spectrum Disorders

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Research Networks



Simons Simplex Collection * Autism Treatment Network * Marino Autism Research Institute * Baby Siblings Research Consortium

TRIAD is a Vanderbilt Kennedy Center program dedicated to improving assessment and treatment services for children with autism spectrum disorders and their families, while advancing knowledge and training. Numerous TRIAD directed research programs and affiliated research partnerships examine the causes and treatment of autism spectrum disorders.

Simons Simplex Collection Project

Vanderbilt professors Jim Sutcliffe and Wendy Stone are conducting a new multi-site study designed to examine the genetic causes of autism spectrum disorders. Researchers at eleven sites in North America are collecting DNA samples from families with just one child affected by an autism spectrum disorder. This valuable data will be available to the best scientific minds in the world to search for clues that will lead to important breakthroughs.

Autism Treatment Network (ATN)

The ATN is a network of 15 centers in North America dedicated to improving medical care for children and adolescents with autism by offering comprehensive diagnosis, treatment, care and counseling. As an ATN site, we will provide children and families with access to coordinated care from a team of designated autism specialists that span the Vanderbilt medical community. Areas of emphasis include gastroenterology, genetics and sleep disorders, but extensive care will also include other medical conditions. ATN institutions benefit from access to standardized protocols and assessments, a national database, and a community of autism physicians and behavioral specialists who will develop and implement empirically derived treatment practices.

The Marino Autism Research Institute (MARI)

MARI is a joint partnership between the Vanderbilt Kennedy Center's TRIAD and the University of Miami. MARI was established by The Dan Marino Foundation in January 2006 and has brought together distinguished researchers in psychology, neuroscience, medicine, and special education from both universities who conduct cutting edge research to answer key questions regarding the causes of autism, the earliest behavioral and biological markers of autism, and the development of creative, evidence-based treatments designed to improve the lives of children with autism and their families.

Baby Siblings Research Consortium

The High Risk Baby Siblings Research Consortium was established in 2003 as a partnership between Autism Speaks and the National Institutes of Health with the goal of bringing together the major research groups in the field to discover the earliest behavioral and biomedical markers of autism spectrum disorder. The group currently consists of 17 research institutions across the United States, Canada, and Israel, who share a commitment to work collaboratively to improve the lives of those affected with autism and related disorders. These scientists are involved in rigorous, cutting-edge research that will lead to the identification of early markers, underlying neurobiological mechanisms, and the development of treatments for preventing or ameliorating symptom development and expression, optimizing developmental outcomes, and enhancing family adaptation.



Vanderbilt Kennedy Center for Research on Human Development

Research Projects

Baby Siblings



- **Early Social Orienting in Siblings of Children with ASD:** This project examines the early development of social orienting in younger siblings of children with autism spectrum disorders (ASD). PI: Wendy Stone, PhD
- **Executive Functioning, Theory of Mind, and Neurodevelopmental Outcomes in Siblings of Children with Autism:** This study examines a range of cognitive and behavioral outcomes of siblings of children with autism at school-age and the utility of early joint attention abilities in predicting later language and social outcomes. PI: Zack Warren, PhD
- **What Do Infants See in Faces?:** This study measures face processing of 9 month-old infant siblings of children with ASD using ERP and eye-tracking. PI: Alexandra 'Sasha' Key, PhD



Sensory

- **Multisensory Processing in Autism Spectrum Disorders:** This study examines differences in basic sensory and multisensory processes between children with ASD and those who are typically developing using psychophysics techniques. PI: Mark Wallace, PhD
- **Sensory and Reward Processes in Autism:** The purpose of this research is to investigate the brain basis of sensory processing and restricted interests in adults and adolescents with autism. Functional and structural neuroimaging are used in combination with controlled sensory stimulation to the tactile (touch), visual, and auditory systems. PI: Carissa Cascio, PhD



Genetics

- **The Simons Family Study:** This project is enrolling families with multiple children in which only one child has an ASD. All family members are asked to participate in the evaluation and blood drawing process. Cognitive/diagnostic testing and feedback/recommendations are provided as part of this study. PI: James Sutcliffe, PhD & Zack Warren, PhD
- **MET Receptor Tyrosine Kinase and Autism Spectrum Disorder:** This multidisciplinary effort is focused on understanding *MET* gene regulation and function, particularly in the context of clinically stratified subpopulations of individuals with ASD and other co-occurring medical and behavioral conditions. PI: Pat Levitt, PhD

Sleep



- **Sleep in Children with Autism:** This study aims to better characterize the sleep difficulties in children with autism spectrum disorders. PI: Beth Malow, MD, MS.
- **Sleep Characteristics and Neurocognitive Functioning:** We are interested in how sleep characteristics may affect brain responses to tasks requiring listening, attention, and memory in children with ASD and typical development. PI: Alexandra "Sasha" Key, PhD.
- **Melatonin for Insomnia in Children with Autism:** The goal of this study is to look at how a daily dose of melatonin affects sleep and daytime behavior in children with autism. PI: Beth Malow, MD, MS
- **Parent Education Classes for Children with Autism:** The goal of this study is to examine how parent education classes can improve sleep in children with autism. PI: Beth Malow, MD, MS



Early Intervention

- **Hanen More Than Words: Intervention for Children at Risk for Autism:** This study examines the potential benefits of a parent training program designed to improve social communication skills in young children (15-24 months) at risk for autism spectrum disorder. PI: Wendy Stone, PhD & Paul Yoder, PhD