

Autism Spectrum Disorder

New Possibilities for Children with Autism and Their Families

One in 36 children in the United States is impacted by autism, and the number of diagnoses is on the rise. It will take all of us, working together, to better understand this condition and provide effective treatments to children and resources to their families.

Unlocking the Mystery of Autism

An autism diagnosis can be overwhelming for parents, who suddenly must confront what it means for their child and for the rest of the family. Or, sometimes, the diagnosis may be a relief and an answer to questions the family has had over time. Either way, a diagnosis is just one early step on a long journey for children and their families.

The Stanford Autism Center brings together faculty and staff from multiple disciplines across the university to help families navigate the array of medical, psychiatric, social, and educational resources available to help. Early intervention is key, but when it comes to treatment, care providers' hands are often tied. No medications are approved to target the social deficits of autism.

Behavioral therapy can help some children, but it's still unclear why some respond while others do not.

In truth, every child with autism presents differently, which means there is no one-size-fits-all treatment and underscores the need for more research into autism's causes and treatments.

Stanford is making strides toward finding answers—multiple researchers are conducting a variety of studies and clinical trials to better understand autism and develop effective interventions and new drug therapies to address the core features of the disorder. What they discover will help children with autism reach their highest potential!

Boys are nearly 4 times as likely as girls to be diagnosed with autism.

Autism occurs in **all racial, ethnic, and socioeconomic groups**, according to the Centers for Disease Control and Prevention.

1 IN 22 children in California has been identified with autism, which is higher than the national average.



Opportunity for Impact

Pioneering new treatments for children with autism is not possible without philanthropy. Your gifts can help us:



Leverage machine learning in Stanford's Preschool Autism Lab (PAL). This unique classroom is a working laboratory. Cameras document each child's behaviors, such as smiling, eye contact, and speech, which are later analyzed to gain insights into their development and response to therapies. Thanks to advances in technology, researchers will be able to quickly assess children's behaviors.



Launch a second preschool, modeled after PAL, in partnership with The Creekside School in San Jose. With your help, we can reach more children and our researchers can evaluate more early interventions for effectiveness in treating autism.



Develop new, targeted drug therapies to treat the social deficits of autism. Early research shows that rhesus monkeys with low sociability have low levels of the hormone vasopressin, as do children with autism. Help us start clinical trials to see if vasopressin treatment or other innovative compounds benefit children with autism.



Create computerized tests to assess autism symptoms in children. These tools are critically needed to evaluate symptoms and track them during a child's development and throughout clinical trials.



Understand the neurobiology of restricted and repetitive behaviors (RRBs). Common in children with autism, these behaviors can also be some of the most disabling. Support Stanford clinical trials to examine the effects of a nutritional supplement called N-Acetylcysteine.

We are **on the brink of exciting discoveries** that have the potential to drastically improve the lives of children with autism. We need your help to achieve this goal.

MEET SOME OF OUR RESEARCHERS



Antonio Hardan, MD, is the principal investigator of the Autism and Developmental Disorders Research Program, which is developing effective treatment strategies and identifying the causes of autism.



Grace Gengoux, PhD, BCBA-D, is a licensed clinical psychologist and leads the Stanford Autism Intervention Programs, with a focus on increasing access to evidence-based care for families and building scalable models for sharing best-practices in autism treatment.



John P. Hegarty II, PhD, conducts research focused on improving our understanding of neurodevelopment. He uses neuroimaging (for example, MRI) to study people with neurodevelopmental disorders and examines the effects of different drugs and behavior interventions on the brain.



Karen J. Parker, PhD, is investigating biomarkers that indicate someone has autism. This will enable her to develop lab-based methods to detect autism as well as to identify new biological targets for drug development—ultimately leading to personalized treatments.



Mirko Uljarević, MD, PhD, is interested in developing new assessments for the screening and diagnosis of autism. He helped develop a questionnaire called the Dimensional Assessment of Restricted and Repetitive Behaviors, which characterizes RRBs in children with autism.

Please contact: Michael Tomura

Associate Director, Major Gifts
Lucile Packard Foundation for Children's Health
(650) 461-9897 / Michael.Tomura@LPFCH.org