



DISCOVERY

Fall 2022 Research Newsletter

Publication by



Thompson Center for
Autism & Neurodevelopment
University of Missouri

The Early Years Study: A New Look Into Infant Cry

The Early Years Study is the latest project to begin the recruitment phase at the Thompson Center for Autism and Neurodevelopment. This project will utilize audio recordings of infant cries in search of a new way to identify early signs for autism and developmental disabilities.

Researchers have been studying infant cry since the 1950s, but Dr. Stephen Sheinkopf is among the first to focus on it as a predictor of autism. Dr. Sheinkopf, who joined the Thompson Center as its Executive Director in 2021, began studying atypical vocalizations in young children with autism in the late 1990s and released his first paper on the subject in 2000. Following that, he began to use infant cry to study vocalizations in

young infants. A paper published in 2012 led to funding from the National Institutes of Health (NIH) to develop the analytical algorithm used for the current iteration of Dr. Sheinkopf's infant cry research.

The Rhode Island Neurobehavior Observation Study (RHINOS) was funded by the National Institutes of Mental Health (NIMH) in late 2019 and with the goal of following children in a longitudinal

Continued on page 5

What's Inside?

- Early Years Infant Cry Study
- Clinical Collaboration
- Researcher Spotlight: Dr. Stephen Sheinkopf
- Therapy Dogs
- Trainee Spotlight: Dr. Erin Andres
- Epigenetic Biomarkers

Measuring Sound in Cries



- *Fundamental Frequency*: also known as pitch, the highness or lowness of a sound
- *Force*: the loudness of a sound, commonly referred to as volume
- *Resonance*: secondary vocal vibrations that cause the sound to be louder or last longer
- *Phonation*: amount of tension in the vocal tract

Clinical Collaboration
Thompson Center Researchers Partner with
MU Health Care Clinics

The summer before David Beversdorf began his fellowship, he attended a workshop where one message rang clear: research should be driven by a question, not a technique. Having a clinic at his fingertips as a researcher at the Thompson Center for Autism and Neurodevelopment is a helpful recruitment asset in many contexts, but was not the right technique for the job when he wanted to study the effects of stress during pregnancy on microRNA biomarkers that could be used as an indicator of autism. “We already know that there is some association between prenatal stress and autism,” said Beversdorf, “but we hope to better understand the link so we can hone in on the risk factor.”

The methodology for this study involves administering surveys about stress to pregnant women and collecting saliva samples from which concentrations of microRNA can be measured. The key to accomplishing this is recruiting pregnant women, a demographic that the Thompson Center clinic does not provide services for.

“So, this research question led us to collaborate with Dr. Goodman’s clinic,” said Beversdorf, “they have the population we don’t have that’s needed to explore this question.” Dr. Jean Goodman is the Griffin Endowed Chair and Professor in the University of Missouri’s Department of Obstetrics, Gynecology, and Women’s Health as well as the director of MU Health Care’s Maternal Fetal Medicine clinic, which sees roughly 1,500 patients annually. This study aims to collect survey data and saliva samples from 150 participants at their second trimester ultrasound appointment during its one-year pilot phase funded by BioNexus, a private academic research partnership in Kansas City.

“We here at the University of Missouri - Columbia are working to improve pregnancy outcomes for our mothers and their babies,” said Dr. Goodman. “Doing so in a multidisciplinary, collaborative way - like this study - allows expertise from varied specialties to come together in a unified way with the common goal of improving maternal-child health.”

The BioNexus study is not the first time Thompson Center researchers have sought partnerships with other clinics for recruitment. The Thompson Center has been testing REACH, a mobile-based screening tool for early identification of autism,



Dr. David Beversdorf collaborates with MU Health Care’s Maternal Fetal Medicine Clinic as the principal investigator on the BioNexus study.

since November 2021 and will be concluding trials in October 2022. The goal is to develop a tool that families can use for at-home screening; however, in its current form, the screening tool must be administered by professionals.

This study requires a sample of children from the general population to determine the effectiveness of the app. “If kids are coming to the Thompson Center, someone is already concerned, and they’re more likely to screen positive,” said Dr. Kerri Nowell, the principal investigator on REACH at the Thompson Center. To this end, the team of researchers partnered with MU South Providence Pediatrics, which sees approximately 2,000 children ages 0-3 for well child visits annually.

Research Specialist Julie Muckerman said this partnership created a new question: “What does it look like to do a research visit at a pediatric appointment?” The answer involved collaborating with every pediatrician and resident at the clinic in order to reach the most families with information about the study. Outreach through practitioners will continue to be a key tool as REACH evolves from its current testing phase to a ready-to-use screening tool. “We want to identify high-risk kids without requiring them to come to a specialty clinic,” said Muckerman, “and one of the best ways to reach them is through their pediatrician.”

The Thompson Center will soon be bringing another study into its collaboration with the Maternal Fetal Medicine clinic. The Early Years Study will be looking at characteristics of infant cry as early indicators of autism and other developmental disabilities. This study funded by the National Institute of Mental Health was brought to the Thompson Center by Dr. Stephen Sheinkopf when he became the Executive Director in September 2021.

“If we want to know about development in early infancy, we need to make contact with families early on,” Dr. Sheinkopf said, explaining the need for clinical partnership. “We don’t serve infants at the Thompson Center, yet.”

The Early Years Study is the Missouri site of this NIMH-funded study. The initial location, called the Rhode Island Neurobehavior Observation Study (RhINOS), involves a partnership between Women and Infants Hospital of Rhode Island, Brown University, and the University of Rhode Island. The methodology for RhINOS is based around reaching out to parents and offering the opportunity to enroll while mothers are still in the mother-baby unit after delivery. When adapting the study for recruitment in Missouri, Maternal Fetal Medicine stood out as a centralized location for many expecting parents, so the project adapted so that the Early Years team could approach mothers during their prenatal visits.

“There is a natural synergy between Early Years

and Dr. Beversdorf’s work on the BioNexus project,” Dr. Sheinkopf added in his reasoning for working with Maternal Fetal Medicine. Both studies are contingent on recruitment at the earliest stages of development and have a common goal of ultimately gaining insight into early identification of autism and other neurodevelopmental disorders.

Despite their shared recruitment source, the eligibility standards vary between the two studies. Early Years has its sights set on the general population. “We’re looking to recruit a broad group of parents to participate,” said Dr. Sheinkopf. “Most newborns will be eligible for this study.”

The BioNexus study will be recruiting from a narrower subset of patients at Maternal Fetal Medicine: Black and African American women. As a historically marginalized group, these women of color are underrepresented in research. They are also at a higher risk of experiencing stress factors during pregnancy. Dr. Goodman echoed the need for this nuance in research. “The association between mental well-being and pregnancy-related outcomes is particularly evident in our most vulnerable populations, those patients of color.”

“Clinical partnerships go beyond the research relationship,” Dr. Nowell said of the experience she had working with South Providence Pediatrics. Working closely with providers and staff at other practices creates opportunities to discuss when a child should be referred for an autism evaluation and a deeper understanding of the Thompson Center’s processes and services. “We now have advocates there.”

Muckerman explained that recruitment for REACH has already made an impact on the clinic at the Thompson Center. “Many of the participants that screened positive have joined our waitlist,” she said. “They are starting on a path to receive services.”

Researcher Spotlight:
Dr. Stephen Sheinkopf



Dr. Stephen Sheinkopf joined the Thompson Center as Executive Director and Thompson Endowed Chair in Child Health in September 2021.

What brought you to the Thompson Center?

I came to the Thompson Center last September for the opportunity to lead an integrated team focused on the population that I have spent by career caring for and about.

What are your research interests?

My research is focused on autism as well as neurodevelopment more broadly. A lot of my work has been about studying the differences in development and outcomes amongst children with autism and those without autism. Currently I lead the Early Years Study here at Mizzou that is testing ways to identify likelihood for autism beginning in infancy. But I am also interested in the experiences of people with autism across development. We have additional research that is following adolescents into early adulthood.

What is something you hope to better understand by the end of your career?

There are two major things I want to explore. First, I want to understand how we can predict autism from the earliest stages of development so we can provide supports as early as possible. Intellectually, I am fascinated by the way autism presents differently as children age. I want to know more about why signs of autism are often so subtle in infants but grow to be more pronounced in toddlerhood and beyond.

What’s the best thing about working in this field?

The type of relationships I get to develop with my patients and their families is unique in this population. With the nature of my research and clinical practice, I often work with the same patients for many years through the course of their development. It is truly gratifying to create these ongoing connections.

What study have you been most excited about?

I love infancy. The Early Years study allows me to bring together my two passions of studying infants and studying autism.

Now that you have been with the Thompson Center for a year, what is your vision for moving forward?

After immersing myself in the Thompson Center’s work firsthand, I have an even deeper commitment to making our center a model for team-based care that brings together research, training, and clinical service to have the greatest impact for our patients and their families.

Therapy Dogs Aren't Always the Answer to Help Children with Autism

MU Study Finds Some - But Not All - Children with Autism Respond Favorably to Therapy Dogs as a Motivator to Complete Tasks, Learn New Skills

Some children with autism spectrum disorder struggle with anxiety or have difficulty communicating in certain social situations. To help alleviate those struggles, researchers have studied various interventions, including therapy dogs, which are often cited as a popular social catalyst or stress reliever for children with autism.

But a study at the University of Missouri found that while some children with autism enjoy interacting with dogs, they are not preferred by all children with autism. The finding highlights the importance of first identifying the preferences of individual children before investing heavily in an intervention, such as a therapy dog, that might not be in a child's best interest.

Emma Keicher, an applied behavior analyst at the MU Thompson Center for Autism and Neurodevelopment, collaborated with former MU faculty member and primary investigator Casey Clay, to see if children with autism preferred to interact with Rhett, a black Labrador retriever who served as the Thompson Center's facility therapy dog.

In the study, boys with autism between the ages of four and nine were told that if they completed certain tasks, their reward would be a choice to play with Rhett or some other form of entertainment, such as playing with various toys. The researchers found that after completing the tasks, some boys enjoyed interacting with Rhett far more than playing with the toys, while some were indifferent toward the dog and mainly played with the toys, and others did not want to interact with the dog at all.

"People often assume that dogs are positive reinforcers for kids with autism, and while that may be true for some kids, the research shows that not all kids with autism spectrum disorder respond favorably to dogs," Keicher said.

While the children in the study were familiar with the tasks they were asked to perform, the research shows that identifying what motivates a child with autism — whether it's time to play with a therapy dog or a favorite toy — can be used as a reward to motivate that same child to practice new skills, such as communicating effectively in social situations.

"We like to say in the autism research community

that if you have met one child with autism, you have really just met one child with autism, and it is important not to paint with a broad brush and assume that all kids with autism will respond favorably or unfavorably to the same stimuli," said Clay, who now works as the director of the Behavior Program at the Thompson Autism Center in Orange County, California. "The key takeaway from this study is to tailor interventions according to the specific individual, because the autism spectrum is incredibly broad, and applied behavior analysis, or ABA, is the best evidence-based approach to do this."

"Advancing Methods in Animal-Assisted Intervention: Demonstration of Starting Points in Clinical Practice for Children with Autism Spectrum Disorder" was published in Behavior Analysis in Practice. Co-authors on the study include Brittany Schmitz, Anna Hogg, Anne Clohisy and SungWoo Kahng.

*Story Contributor:
Brian Consiglio, MU News Bureau*



After eight years of service, Rhett retired from the Thompson Center in September



Thompson Center for Autism & Neurodevelopment

Continued from page 1

study starting in March 2020. Dr. Sheinkopf, the principal investigator, was at Brown University and Women and Infants Hospital in Rhode Island at the time. He partnered with researchers at the University of Rhode Island on the project.

The original methodology involved recording cries in a clinical setting; however, the onset of the COVID-19 pandemic forced the research team to redesign the study so parents could submit recordings using a smartphone. While allowing for remote recording posed some technical challenges, the data collection process became more convenient for participants, thus creating the opportunity to gather even more audio samples for the study.

After completing a postpartum survey with demographic information and family history, parents are asked to create recordings of their infant's cry when they are 2-6 weeks old. The recordings are submitted to the research team via a mobile app for analysis. The team then uses specialized software to measure a large number of features for each cry sample, some of which are indistinguishable to the human ear.

Researchers ultimately hope their analysis will show patterns in the cries that can be used to identify infants with a high risk of autism. "We want to know how we can translate our findings into care," said Dr. Sheinkopf. The sooner autism is diagnosed, the faster children and their families can be connected with therapies and support services.

The RhINOS and Early Years studies plan to follow 2,700 children from birth to age three. Nine hundred mothers of infants and pregnant women have been recruited in the first year.

Trainee Spotlight: Dr. Erin Andres



Dr. Erin Andres joined the team at the Thompson Center in July 2022 as a postdoctoral fellow. In this role, she will primarily focus on the research projects brought to the Thompson Center by Dr. Stephen Sheinkopf, including the Early Years Study.

Tell us about your educational background.

After earning my BS in Neuroscience from Regis University in Denver, I entered the Child Language program at the University of Kansas-Lawrence, where I completed my master's and Ph.D. The doctoral program used a multidisciplinary lens to study child language acquisition, including approaches from the fields of linguistics, psychology, genetics, and speech/language pathology.

What's the biggest milestone you've achieved in your career so far?

As part of my Ph.D. program, I was involved with a longitudinal, family-based study that focused on Specific Language Impairment (SLI). We compared the genetic profiles of family members with and without SLI. A pattern emerged in the data I analyzed for one of the families and I was able to identify three genes for follow-up analysis in the larger sample. In the larger sample, variants were identified in 15 additional families on the gene BUD13. Given this finding, we can now look to this gene and its function as a focus for future investigation of the biological basis of language. The goal of this is ultimately to predict someone's likelihood of having SLI and more quickly connecting high-risk individuals with early intervention services.

What's your favorite thing about research?

I like developing research questions and coming up with ways to answer those questions. My goal for my career is to continue answering questions about early development.

What are your research interests?

Thus far, I have focused on investigating language development through the lens of genetics. The larger question guiding most of my research is "Is language innate to humans?" As I take this next step in my career at the Thompson Center, my ultimate goal is to contribute to developing strategies for earlier identification of autism and developmental delays, and therefore earlier intervention. We know that early intervention leads to improvements in academic outcomes, which are linked to overall quality of life; so, this work is really all about making peoples' lives better.

What do you hope to gain from your time at the Thompson Center?

The Thompson Center is known for its interdisciplinary collaboration and I hope to incorporate this approach into my future work. As a researcher, having a partnership with a clinic is invaluable. Not only does is the clinic a source for study recruitment, but it also serves as an avenue to connect directly with our biggest stakeholders: patients and their families.



Thompson Center
Research Core staff, Spring 2022

MU Scientist Links Epigenetic Biomarkers to Gastrointestinal Issues for Kids with Autism

Findings could have future implications for precision medicine, lead to individualized treatments

As a clinician at the University of Missouri Thompson Center for Autism and Neurodevelopmental Disorders, David Beversdorf helps patients with autism spectrum disorder (ASD), many of whom may also be struggling with gastrointestinal or digestive issues, including constipation and diarrhea. These symptoms are experienced by children with ASD at a higher rate than their neurotypical peers, although some individuals might not respond favorably to traditional treatments, such as laxatives.

In a recent study, Beversdorf collaborated with a researcher at Penn State University to identify specific RNA biomarkers linked with gastrointestinal issues in children with autism. The findings could help one day lead to individualized treatments aimed at easing the pain of these individuals.

Saliva samples were collected from nearly 900 children, some of whom had autism and experienced gastrointestinal disturbances, at several academic medical centers across the country. After analyzing the samples, the researchers identified specific RNA biomarkers linked to children who had autism and experienced gastrointestinal symptoms.

“We wanted to understand how a child’s body responds to the various bacteria living

in the mouth and determine if these interactions contribute to gastrointestinal symptoms,” said Steve Hicks, an associate professor of pediatrics at the Penn State College of Medicine, who collaborated with Beversdorf on the study. “By identifying these specific microRNAs in the saliva of children with autism, these molecules may serve as future targets for developing novel treatments or tracking medication effectiveness in children with autism-related gastrointestinal conditions.”

Beversdorf added that RNA have regulatory properties throughout the human body, and the specific RNA identified in the study may have regulatory effects on biological pathways related to metabolism, digestion, depression and addiction.

“It’s one of those ‘chicken or the egg’ cases where we still don’t know if it is the RNA potentially contributing to the gastrointestinal issues, or if the gastrointestinal issues are causing the RNA to be expressed differently, but we have identified a relationship, which will be useful to further explore going forward,” said Beversdorf, who also has appointments in the MU College of Arts and Science and MU School of Medicine. “This research can potentially help contribute to precision medicine one day, where we can follow children with autism and gastrointestinal symptoms

over an extended period of time and assess how they might respond to personalized treatments, with the ultimate goal of reducing their symptoms and improving their quality of life.”

“Saliva RNA biomarkers of gastrointestinal dysfunction in children with autism and neurodevelopmental disorders: Potential implications for precision medicine” was recently published in *Frontiers in Psychiatry*. Funding for the study was provided by the National Institutes of Health. Co-authors on the study include Kristin Sohl, David Levitskiy, Priscilla Tennant, Robin Goin-Kochel, Rebecca Shaffer, Alexandra Confair and Frank Middleton.

Highlighting the promise of personalized health care and the impact of large-scale interdisciplinary collaboration, the NextGen Precision Health initiative is bringing together innovators from across the University of Missouri and the UM System’s three other research universities in pursuit of life-changing precision health advancements. It’s a collaborative effort to leverage the research strengths of Mizzou toward a better future for Missouri’s health. An important part of the initiative is its anchoring facility, the Roy Blunt NextGen Precision Health building, opened in October 2021, which expands collaboration between researchers, clinicians and industry leaders in a state-of-the-art research facility.

Story Contributor:
Brian Consiglio, MU News Bureau

Recent Publication Highlights

Beversdorf, D. Q., Nagaraja, H. N., Bornstein, R. A., & Scharre, D. W. (2021). The Effect of Donepezil on Problem-solving Ability in Individuals With Amnesic Mild Cognitive Impairment: A Pilot Study. *Cogn Behav Neurol*, 34(3), 182-187.

Beversdorf, D. Q., Shah, A., Jhin, A., Noel-MacDonnell, J., Hecht, P., Ferguson, B. J., Bruce, D., Tilley, M., & Talebizadeh, Z. (2021). microRNAs and Gene-Environment Interactions in Autism: Effects of Prenatal Maternal Stress and the SERT Gene on Maternal microRNA Expression. *Front Psychiatry*, 12, 668577.

Beversdorf, D. Q., Sohl, K., Levitskiy, D., Tennant, P., Goin-Kochel, R. P., Shaffer, R. C., Confair, A., Middleton, F. A., & Hicks, S. D. (2021). Saliva RNA Biomarkers of Gastrointestinal Dysfunction in Children With Autism and Neurodevelopmental Disorders: Potential Implications for Precision Medicine. *Front Psychiatry*, 12, 824933.

Black, B. (2021). Sleep and autism: an impactful and complex relationship that requires a personalized medicine approach. *Sleep*, 44(9).

Cissne, M. N., Kester, L. E., Gunn, A. J. M., Bodner, K. E., Miles, J. H., & Christ, S. E. (2022). Brief Report: A Preliminary Study of the Relationship between Repetitive Behaviors and Concurrent Executive Function Demands in Children with Autism Spectrum Disorder. *J Autism Dev Disord*, 52(4), 1896-1902.

Clay, C. J., Schmitz, B. A., Hogg, A. D., Keicher, E. S., Clohisey, A. M., & Kahng, S. (2022). Advancing Methods in Animal-Assisted Intervention: Demonstration of Starting Points in Clinical Practice for Children with Autism Spectrum Disorder. *Behavior Analysis in Practice*.

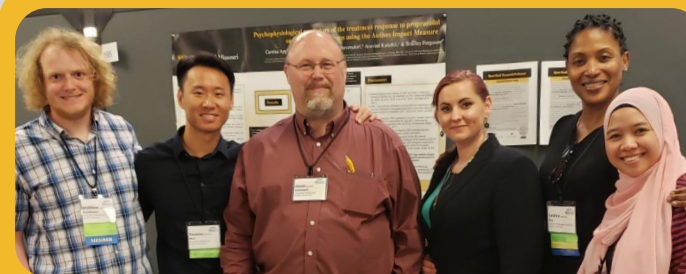
Lace, J. W., Seitz, D. J., Austin, T. A., Kennedy, E. E., Ferguson, B. J., & Mohrland, M. D. (2021). The dimensionality of the Behavior Rating Inventory of Executive Function, Second Edition in a clinical sample. *Appl Neuropsychol Child*, 11(4), 579-590.

Lyall, K., Ning, X., Aschner, J. L., Avalos, L. A., Bennett, D. H., Bilder, D. A., Bush, N. R., Carroll, K. N., Chu, S. H., Croen, L. A., Dabelea, D., Daniels, J. L., Duarte, C., Elliott, A. J., Fallin, M. D., Ferrara, A., Hertz-Picciotto, I., Hipwell, A. E., Jensen, E. T., . . . Environmental Influences On Child Health Outcomes, O. (2022). Cardiometabolic Pregnancy Complications in Association with Autism-Related Traits as Measured by the Social Responsiveness Scale in ECHO. *Am J Epidemiol*, 191(8), 1407-1419.

Nowell, K. P., Bernardin, C. J., Brown, C., & Kanne, S. (2021). Characterization of Special Interests in Autism Spectrum Disorder: A Brief Review and Pilot Study Using the Special Interests Survey. *J Autism Dev Disord*, 51(8), 2711-2724.

Stevens, M. A., Selders, K. J., Jeckel, O., Brownfield, V., & Nowell, K. P. (2022). An Evaluation of Parent and Teacher Discrepancies on an Adaptive Behavior Measure for Youth with Autism Spectrum Disorder, Intellectual Disability, and Global Developmental Delay. *J Autism Dev Disord*.

Zheng, S., Kaat, A., Farmer, C., Thurm, A., Burrows, C. A., Kanne, S., Georgiades, S., Esler, A., Lord, C., Takahashi, N., Nowell, K. P., Will, E., Roberts, J., & Bishop, S. L. (2022). Bias in measurement of autism symptoms by spoken language level and non-verbal mental age in minimally verbal children with neurodevelopmental disorders. *Front Psychol*, 13, 927847.



Several Thompson Center researchers attended the International Society for Autism Research (INSAR) Annual Meeting in Austin, TX in May, including Dr. David Beversdorf and a group of graduate students. Left to right: Matthew Prendergast, Taeseon Woo, Dr. Beversdorf, Carrina Appling, Candice King, Nanan Nuraini

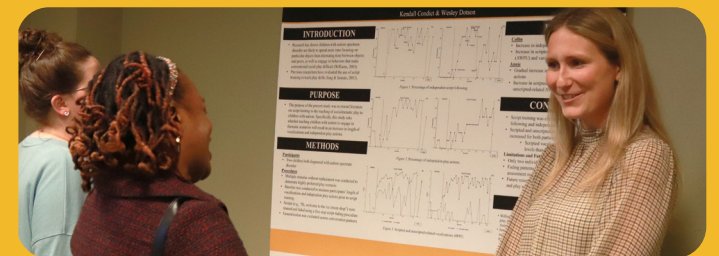


Scan for a full list of recent publications with DOI links

Researchers On The Go



Dr. Stephen Sheinkopf presented on current trends in autism research as part of the NextGen Precision Health Discovery Series in August. His lecture featured highlights from his experience with studying infant cry, including the Early Years study.



Students in several disciplines presented their research at the annual Student Poster Showcase

Join A Study

Prenatal Stress Study

The purpose of this study is to identify potential biomarkers for the effects of stress in pregnancy in African American/Black women.

- Eligibility: Age 18+ African American/Black women in 2nd or 3rd trimester of pregnancy
- Time required: 45-60 minutes
- Location: Maternal Fetal Medicine Clinic or Thompson Center
- Monetary Compensation: \$25

RI-CART Adolescent & Youth Study (RAYS)

Brown University researchers are conducting a study examining the challenges and problems that adolescent and young adults experience over the course of adolescence and young adulthood.

- Eligibility: age 12-24 with ASD and parent/guardian
- Time required: 4 study visits one year apart for 3 years
- Location: Online surveys and interviews
- Monetary Compensation: up to \$395 for youth/young adult and up to \$225 for parent/guardian

Clinical Trial for Social Communication

The purpose of this clinical trial is to explore the effects on social communication in adolescents and young adults 12-21 years old with autism.

- Eligibility: Age 12-21
- Time required: Up to 34 weeks
- Location: Thompson Center
- Monetary compensation: \$75 for each of 10 study visits

Early Years

The goal of this research study is to learn about how behaviors observed in newborns relate to meeting developmental milestones during the first years of life.

- Eligibility: Expectant parents age 18+
- Time required: Participants will submit newborn cry recordings and complete online surveys about baby's development through age 3
- Location: Online surveys, some families will be invited to the Thompson Center
- Monetary Compensation: up to \$265

Brain Imaging Study

The purpose of the study is to develop a multimodal brain imaging platform to target precision medicine in autism and to further understand the role of neurotransmitters (GABA, dopamine, and glutamate) in brain function.

- Eligibility: Age 18+ with diagnosis of ASD
- Time required: 4-6 hours over the course of 2 visits
- Location: Thompson Center, Cognitive Neuroscience Core, University Hospital
- Compensation: \$50 for visit 1, \$100 for visit 2

SPARK

SPARK is a free online study with a simple mission: to speed up research and advance the understanding of autism. By building a community of tens of thousands of individuals with autism and their biological family members who provide behavioral and genetic data, SPARK will be the largest autism research study to date.

- Eligibility: Diagnosis of ASD
- Time required: Complete a few questionnaires, provide a saliva DNA sample using collection kits sent directly to your home
- Location: Online surveys
- Monetary compensation: gift card up to \$50

Interested in these studies or others?

Call the Research Core at 573-303-8405 or email tcresearch@missouri.edu and ask to be contacted for future studies for which you or your child may be eligible

Learn about all of our current recruitment opportunities by scanning the QR code or visiting <https://thompsoncenter.missouri.edu/autism-research/join-a-study/>.



Thompson Center for Autism & Neurodevelopment

University of Missouri

205 Portland St.
Columbia, MO 65211
(573) 884-6052

thompsoncenter@missouri.edu

Stay Connected!



[/TheThompsonCenter](#)



[@mutcautism](#)



[@mutcautism](#)



Thompson Center for Autism and Neurodevelopment



thompsoncenter.missouri.edu



REACH Newsletter: to subscribe, email thompsoncenter@missouri.edu