



NEW JERSEY
AUTISM CENTER
OF EXCELLENCE



Rutgers Brain Health Institute
Center for Autism Research, Education and Services



New Jersey Autism Center of Excellence (NJACE) & Rutgers University Center for Autism Research, Education, and Services (RUCARES)

Annual Conference

September 16, 2025

Douglass Student Center at Rutgers University

100 George Street, New Brunswick NJ, 08901

Collaborators of the NJACE

The New Jersey Autism Center for Excellence (NJACE) is sponsored through grant funding by the New Jersey Governor's Council for Medical Research and Treatment of Autism.

We developed the current NJACE to address the complex and unique features of autism spectrum disorder (ASD) by promoting increased communication and collaboration amongst autism researchers, educators, practitioners and autistic individuals and their families. This communication works to improve our understanding of and the ability to diagnose and treat ASD, decrease service disparities, and empower the lives of all New Jersey individuals and families affected by ASD.

The NJACE has three contributing organizations — **Children's Specialized Hospital, Rutgers University Center for Autism Research, Education, and Services**, and **Autism New Jersey** — as well as many individual researchers, practitioners, and stakeholders from across the state of New Jersey.

Children's Specialized Hospital (CSH)



With 15 locations throughout NJ, Children's Specialized Hospital (CSH) is the nation's leading provider of inpatient and outpatient care to children with special health needs. As a part of the RWJBarnabas Health system, CSH is the largest provider of services for children and adolescents with ASD in the geographic region, providing a wide array of diagnostic, therapeutic and recreation programs for children and teens with ASD including primary care services within a medical home model. CSH values a family-centered approach to care with an emphasis on early detection and treatment. CSH autism research includes focus on development of screening tools for underserved communities, medication studies, research on how ASD impacts brain functions and studies on the genetic causes of ASD, as well as multiple clinical trials and a distinguished lecture series.

Rutgers University Center for Autism Research, Education, and Services (RUCARES) at the Rutgers Brain Health Institute



Rutgers University Center for Autism Research, Education, and Services (RUCARES) at the Brain Health Institute (BHI) was developed to improve communication and collaboration between autism researchers, clinicians and educators across Rutgers University, and to develop needed programs not currently available at Rutgers or CSH. Since 2020, RUCARES has grown steadily. It has four NIH grants and one Autism Speaks grant generating over \$13 million in total research revenue. CSH-RUCARES, the clinical arm of RUCARES, has generated more than \$2.5 million in revenue and has grown to include more than 30 faculty, staff and trainees. Additionally, faculty and staff at RUCARES have produced 65 peer-reviewed publications in the 4 years that RUCARES has been open, with many more in preparation. The clinical programs produce excellent outcomes (e.g., a mean reduction of 96 percent in severe problem behavior at the end of treatment in comparison to baseline).

Autism New Jersey



Autism New Jersey (ANJ) is a nonprofit agency focused on supporting individuals with autism and their families through awareness, empirically based information, education and public policy initiatives. They work to guide families and caregivers to information, services, and support. They value dignity, compassion, accessibility, progress, collaboration and excellence. ANJ is committed to supporting individualized services for people with autism and ensuring that they live safe and fulfilling lives. For professionals, they work to enhance knowledge and skills to build a strong, qualified workforce. They recognize the autism community's many contributions to society and work to enhance their resilience, abilities, and quality of life by building communities that embrace and accept people and families with autism.

Keynote Speakers and Presenters

Keynote Speakers:



Dorothea Lerman, PhD, BCBA-D, LBA-TX

Dorothea Lerman is currently a Professor of Behavior Analysis at the University of Houston - Clear Lake, where she chairs the master's program in behavior analysis and serves as Director of the UHCL Center for Autism and Developmental Disabilities (CADD). She received her doctoral degree in Psychology from the University of Florida, specializing in behavior analysis. Her areas of expertise include autism, developmental disabilities, skill acquisition, functional analysis, teacher and parent training, and treatment of severe behavior disorders. She currently oversees several programs, including a focused intervention program for children with autism, a vocational program for adults with disabilities, a training program for healthcare professionals, and a teacher training program for local school districts. Dr. Lerman has published more than 125 research articles and chapters, served as Editor-in-Chief for *The Journal of Applied Behavior Analysis* and *Behavior Analysis in Practice* and has secured more than \$2 million in grants and contracts to support her work. She was the recipient of the 2007 Distinguished Contribution to Applied Behavioral Research Award and the 2001 B.F. Skinner Award for New Researchers, awarded by Division 25 of the American Psychological Association. She also was named a Fellow of the Association for Behavior Analysis-International in 2008. Dr. Lerman is a Licensed Behavior Analyst and a Board Certified Behavior Analyst.



Sara Jane Webb, Ph.D.

Sara Jane Webb is a developmental cognitive neuroscientist at Seattle Children's Research Institute in the Center for Child Health Behavior and Development. My research program is focused on the development of lifespan neurological biomarkers assessing the contributions of attention, perception, and cognition to social attention, social ability, and social disability. Our goal is to develop neural biomarkers that can predict which interventions will work for children with autism or neurodevelopmental disorders.

Presenters:



Vanessa Bal, Ph.D.

Dr. Vanessa H. Bal earned her MSc in Neuroscience from the University of Oxford and her PhD in Psychology from the University of Michigan. She also completed her clinical Psychology internship at UM and a Postdoc in Genetics/Psychiatry at the University of California San Francisco.

Currently, Dr. Bal is the Karmazin and Lillard Chair in Adult Autism and an Associate Professor at the Graduate School of Applied & Professional Psychology at Rutgers University. She is a licensed clinical psychologist and Co-Director of research at the Rutgers Center for Adult Autism Services. She also leads the LifeSPAN Autism lab, which aims to advance understanding of autism in adulthood. She has current projects focusing on diagnostic assessment and characterization of strengths, as well adaptation of interventions and supports to address adult mental health concerns and foster well-being. Outside of research, she aims to promote equitable access to services through provision of graduate and professional training about autism in adulthood. She is Vice President of the International Society for Autism Research and Member-at-Large on the Executive Committee of Division 33 (Intellectual & Developmental Disabilities and Autism) of the American Psychological Association.



Anna Malia Beckwith, MD

Dr. Beckwith is a graduate of the University of Missouri- Kansas City School of Medicine. She completed her Pediatrics Residency and Developmental Behavioral Pediatrics Fellowship at the Children's Mercy Hospital in Kansas City, Missouri, before her move to the East Coast. Dr. Beckwith joined the staff of Children's Specialized Hospital (CSH) in 2011, providing clinical services as a Board-Certified Developmental Behavioral Pediatrician.

Dr. Beckwith holds various leadership roles at CSH. She served as Medical Staff President 2020-2023, and is currently the AVP of Ambulatory Medical Practices and Section Chief of Developmental and Behavioral Pediatrics at Children's Specialized Hospital (CSH). Dr. Beckwith is an Assistant Professor of Pediatrics at Rutgers Robert Wood Johnson Medical School and serves as Fellowship Program Director for the Rutgers Robert Wood Johnson Medical School Fellowship in Developmental Behavioral Pediatrics.

In her Section Chief role, Dr. Beckwith oversees the nation's largest Section of Developmental Behavioral Pediatrics, which includes 18 physicians and 15 nurse practitioners. This role provides an opportunity to significantly impact the quality of care provided to children with special needs across the state through development of innovative care models and quality initiatives.

A large portion of her clinical practice and special interest is work with children with autism and their families. Dr. Beckwith has published on nutritional concerns and obesity risk for children with autism spectrum disorder, in addition to the developmental outcomes of children with prenatal opiate exposure. She participated in the initial design for Social Determinants of Health (SDOH) Screening at CSH, and continues to be a champion for SDOH-informed care.



Eric Levine, PhD.

Eric S. Levine, PhD is a Professor of Neuroscience at the University of Connecticut School of Medicine. His current research focuses on neurodevelopmental disorders, in particular, the use of human induced pluripotent stem cell (iPSC) models to study the neuronal and synaptic pathophysiology of Angelman syndrome, Dup15q, and related syndromes. Experimental approaches used in the laboratory include patch clamp electrophysiology, multi-electrode array recordings, calcium imaging, morphological analysis, and biochemical and molecular techniques. Other research projects investigate the roles of BDNF and endogenous cannabinoids in synaptic plasticity and learning and their interactions in the cerebral cortex and hippocampus.



Jennifer Mulle, Ph.D.

Dr. Mulle is a Professor in the Department of Psychiatry in the Robert Wood Johnson School of Medicine at Rutgers University. She earned her undergraduate degree from Johns Hopkins University, her Masters degree in genetic epidemiology from the Johns Hopkins School of Public Health, and her PhD in Human Genetics from the Johns Hopkins School of Medicine. At Hopkins, she worked on genetic studies of schizophrenia with Ann Pulver and Aravinda Chakravarti, then she moved to Emory University for her Postdoctoral fellowship with Steve Warren, continuing to work on the genetic of schizophrenia. As a postdoc, she made two major genetic discoveries, finding that the 7q11.23 duplication and the 3q29 deletion are both associated with schizophrenia. The 3q29 deletion has the highest effect size for schizophrenia of any variant yet identified, with an estimated 40-fold increased risk for individuals with the deletion. While this discovery was exciting, it also highlighted an immediate challenge: very little was known about the 3q29 deletion in 2010. As a faculty member at Emory University, Dr. Mulle formed the 3q29 Project, an interdisciplinary collaborative designed to understand the phenotypic spectrum, natural history, and molecular mechanism of 3q29 deletion syndromes. In 2021 Dr. Mulle joined the faculty at Rutgers, establishing New Jersey and Rutgers as the new home of The 3q29 Project. Dr. Mulle uses the 3q29 deletion as a model to identify the molecular and cellular underpinnings of schizophrenia, autism, and associated neurodevelopmental and psychiatric disorders.



Ralf Schlosser, Ph.D.

Ralf Schlosser, Ph.D. is a tenured Professor in the Department of Communication Sciences and Disorders at Northeastern University and currently serves as Assistant Dean for Research in the School of Clinical and Rehabilitation Sciences. He also holds an appointment as Extraordinary Professor at the Centre for Augmentative and Alternative Communication at the University of Pretoria. Dr. Schlosser is a Research Design Consultant for the Autism Language Program and the Augmentative Communication Program at Boston Children's Hospital. His work focuses on augmentative and alternative communication (AAC) supports for children with autism spectrum disorder and other developmental disabilities. He has published 113 peer-reviewed articles, approximately 30 book chapters, and three books. His research has been funded by federal agencies such as NIDILRR, HRSA, SSHRC, and OSEP, as well as by state agencies. He is the recipient of Honors from the American Speech-Language-Hearing Association and is a Fellow of the American Association on Intellectual and Developmental Disabilities and the International Society for Augmentative and Alternative Communication. Dr. Schlosser was the founding Editor-in-Chief of Evidence-Based Communication Assessment and Intervention and is the immediate past Editor-in-Chief of Augmentative and Alternative Communication.

2025 NJACE & RUCARES Conference

September 16, 2025

Program Overview

8:30 a.m. Dr. Wayne Fisher: Introduction and Welcome

8:55 a.m. Keynote Address: *Scaling Up! What Behavior Analysts Can Learn From Implementation Science*

Presented by: Dr. Dorothea Lerman

Our behavioral technologies have the power to solve problems on a broad scale. Nonetheless, research and practice in behavior analysis have resulted in relatively limited adoption of our technologies outside of the discipline. Barriers to large-scale adoption include the cost and complexity of our most effective interventions and training modalities, which may prohibit the dissemination of our science to large numbers of people. More than 60 years of research in the field of implementation science has identified factors that impact the adoption of evidence-based practices in community settings. This voluminous literature has much to offer behavior analysts. In this presentation, Dr. Lerman will describe some of our research on disseminating behavior-analytic technologies to large numbers of professionals and present a tentative blueprint for success. Dr. Lerman will then summarize some of the major findings from the field of implementation science, compare them to the recommended blueprint, and provide suggestions for further research and practice in behavior analysis.

10:00 a.m. *3q29 deletion syndrome: harnessing a rare variant to understand common neurodevelopmental phenotypes*

Presented by Dr. Jennifer Mulle

In this presentation, Dr. Mulle will discuss 3q29 deletion syndrome. 3q29 deletion syndrome is associated with neurodevelopmental and psychiatric morbidity, including a ~20 fold increased risk for autism spectrum disorders. The 3q29 deletion is 1.6 Mb and contains 21 genes, but it is not yet known which genes are responsible for the phenotypic consequences. In preliminary studies, we now show that two genes within the interval may interact with one another, either directly or within a larger complex. We further show that deletion of these two genes alone is sufficient to recreate cellular characteristics seen with the full deletion. These data may provide a roadmap for developing personalized interventions for 3q29 deletion syndrome.

10:45 a.m. *Innovative technologies for AAC interventions in minimally-speaking autistic children*

Presented by: Dr. Ralf Schlosser

In this presentation, Ralf Schlosser will explore emerging technologies—such as animation, artificial intelligence, augmented reality, and wearable devices—that are being applied to support language and communication development in minimally-speaking autistic children. He will highlight how wearable technologies, grounded in just-in-time intervention principles, and the creative adaptation of mainstream mobile devices, serve as key conceptual drivers in this work. A focal point of the talk will be the Visual Immersion System, a comprehensive assessment and intervention model developed by his team. Schlosser will present results from a classroom-based coaching study demonstrating its effectiveness in real-world educational settings. He will conclude by discussing ongoing initiatives aimed at strengthening the infrastructure for evidence-based practices in the field of augmentative and alternative communication (AAC) and communication sciences and disorders, more broadly.

11:30 a.m. Lunch & Poster Session

1:05 p.m. Keynote Address: *Using EEG to predict development in infants at elevated risk for ASD and autistic youth*

Presented by: Dr. Sara Jane Webb

EEG is a non-invasive, flexible, and low-cost neuroimaging method that can be implemented from birth to aging, with similar rigor. One of the most pressing questions for parents and clinicians is symptom progression. Utilizing data from two areas of research, I will examine the potential for EEG signals to predict language, cognition, and autistic social symptoms in: (1) a sample of 6 and 12 month old infants at elevated risk for ASD and the relationship to 3 year outcomes; and (2) a sample of youth age 5 to 11 years with autism and the relation to +4 year outcomes.

2:10 p.m. *Contributions of UBE3A and Non-Imprinted Genes to Angelman Syndrome and Dup15q Syndrome Pathophysiology.*

Presented by: Dr. Eric Levine

My laboratory uses human neurons derived from patient-specific stem cell lines to study how synaptic function, receptor activity, and neuronal excitability are altered in Angelman and Dup15q syndromes. These autism-related syndromes are caused by the deletion or duplication of the maternal chromosome 15q11-q13 region. While loss or duplication of the ubiquitin ligase UBE3A appears to play a central role in these syndromes, other genes in the region, including a cluster of GABA-A receptor subunit genes, also contribute to disease severity. By understanding how these genes interact with UBE3A, we hope to identify novel therapeutic targets for treating individuals with Angelman or Dup15q syndrome.

2:55 p.m. *Parsing heterogeneity of autism in adulthood*

Presented by: Dr. Vanessa Bal

This talk will focus on measurement and quantification of behavioral phenotypes in autism research, particularly confounds that affect autism assessment tools. I will briefly cover factors affecting interpretation of autism measures, brief assessments for case confirmation, evaluation of strengths / broadening how we conceptualize and measure autistic features.

3:40 p.m. *Autism Care Team (ACT) Model: A Multidisciplinary Approach to Improve Care Quality and Access*

Presented by: Dr. Anna Malia Beckwith

With a national ASD prevalence of 1 in 31 children, the demand for evaluation far exceeds current resources. As of 2023, there were only 758 board-certified Developmental-Behavioral Pediatricians (DBPs) in the United States. Other specialists, including Child Psychologists, Psychiatrists, and Neurologists may evaluate for ASD, but workforce numbers are also limited in these fields. Children's Specialized Hospital (CSH) has a large DBP Section, with 17 physicians and 16 APNs, but patient waits for initial evaluation often exceeded 6 months. In this presentation, Dr. Beckwith will discuss the CSH ACT model and its successes with improving DBP access for initial evaluations, while offering patients and parents valuable behavior management and resource navigation support, and success with reducing reliance on the DBP for follow up care.

4:20 p.m. Dr. Wayne Fisher: Closing Remarks

Poster Session

A Strength-Based Employment Maintenance Program for Individuals on the Autism Spectrum: KF-STRIDE Into Work

Authored by: Katarina Reduzzi, Mikayla Haas, Daniel Sullivan, Heba Elsayed, Maya Schwartzman, Michael Decanay, Helen Genova

Autism-Linked 3q29 CNV Deletion Disrupts Embryonic Cortical Development in Mice

Authored by: Lindsey Buchanan, Luna Wang, Sophia Toomey, Xiaofeng Zhou, Rebecca Pollak, Jennifer Mulle, Emanuel DiCicco-Bloom

Differential Reinforcement of Incompatible Behavior to Reduce Interfering Behavior: A Systematic Review of the Literature

Authored by: Chantal Taluba, Robert H. LaRue, Debra Paone, Jenna Budge, Robert W. Isenhower

Effects of manipulating various reinforcement parameters on responding during extinction

Authored by: Samantha Breeman, Brian Greer, Timothy Shahan, Wayne Fisher, Daniel Miteer, Casey Irwin Helvey

Excessive Collection in an Adult with Autism Spectrum Disorder

Authored by: Maneth Wijerathne, Jenna Budge

Further Evaluation of the Safety of Functional Analyses of Destructive Behavior

Authored by: Jessica French, Casey Helvey, Brian Greer, Kristin Forsstrom

Higher Concentration of Exosomes in Maternal Plasma During Pregnancy is Associated With Autism-Related Behaviors In Childhood

Authored by: Morgan Firestein, Serena Nencini, Delia McGowan, Rebecca Muhle, Anna Penn, William Fifer

Hospital TeleABA: Phase I Development and Early Feasibility of a Telehealth System for Behavioral Crisis Support in Hospitalized Autistic Youth

Authored by: Ron Oberleitner, Julez Gonzalez, Zacahary E. Warren, Elizabeth Wallace, Amy Swanson, A. Rajaraman, Pablo Juarez, Joy Pollard, Uwe Reisch

Interleukin-6 produces different ASD-like behaviors when increased before birth versus after birth in mice

Authored by: Fernando Janczur Velloso, Nicolas Rios, Steven W. Levison

Longitudinal Microanalysis of the Vineland Adaptive Behavior Scales in Autism Spectrum Disorder: Implications for Adult Outcome

Authored by: Elaine Clarke, Catherine Lord

Peer Mediated Instruction for Teaching College Autistic Students Job Interview Skills: Benefits to the Peer Instructor

Authored by: Nancy Podlog, Courtney Kenney, SungWoo Kahng

Postsynaptic mechanisms mediate hippocampal and memory alterations induced by perinatal IL-6 elevation

Authored by: Rouba Y. Houbeika, Sidra Ali, Jack Wright, Naia Marcelino, Simon Szotak, Corina Brito, Fernando Janczur Velloso, Ozlem Gunal, Steven W. Levison

Purkinje cell development, survival, and adaptive motor behavior in mice require the redundant function of the small GTPase Rab11a and Rab11b

Authored by: Jack DeLucia, Edward Martinez, Haniya Naveed, Michael W. Shiflett, Tracy S. Tran

The Effects of High and Low Affect Praise on Client Behavior During Work Tasks and Leisure Breaks

Authored by: Samantha Van Dean, Robery W. Isenhower, Robert LaRue, Kimberly Boley, Kathryn Prozzo-Bergenty, Chantal Taluba, Courtney Kenney

The maternal inflammation associated cytokine Interleukin-6 alters gene expression in neural progenitors

Authored by: Rebecca Zaritsky, Fernando Janczur Velloso, Steven W. Levison

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Special thanks to all NJACE and RUCARES collaborators for helping plan and implement this conference!



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