



## Spring 2023 eNewsletter

### UCLA CART Message from Our Director

Dear Friends:

In Spring, we celebrate April as Autism Awareness and Acceptance Month and April 2nd as World Autism Day. During World Autism Day and throughout the month of April, we recognize the incredible spectrum of autistic individuals in our society, celebrate diversity, and envision a world where the cause of autism spectrum disorder (ASD) is identified in each patient, and that patient is offered therapy tailored to his or her specific form of ASD in a way that leads to the best possible outcome – the dream of Precision Health in ASD. In recognition of this important day and month, I share with you some interesting statistics to help you put into context a condition and disorder that can affect the whole body and affects all ethnic and socioeconomic groups across the lifespan:

- Approximately 1 in 40 children aged 8 years old are identified with an autism spectrum disorder in the U.S. according to the most recent C.D.C. estimate
- Autism is 3.8 times more prevalent in boys than in girls
- More than 2% of adults in the U.S. are estimated to have autism
- Each year, an estimated 70,000 autistic teens will enter adulthood
- About 20% of young adults with autism will "interact with a police officer" before they turn 21, and people with disabilities including autism are five times more likely to be incarcerated
- More than 70% of autistic adults are unemployed or underemployed
- An estimated 40% of autistic people are nonverbal

(Sources: [CDC](#), [Autism Speaks](#), [Autism Society of America](#))

This March, the Centers for Disease Control and Prevention (CDC) reported that it is now estimated that 1 in 36 8-years-olds in the United States has autism spectrum disorder. This is from surveillance at 11 sites, so I think it is still within the range of 1/44, which was last estimate in 2018. Overall, prevalence has increased over the last decade, but seems to be relatively stable at around 1/40 in the United States. Much of the prevalence increases is likely due to better diagnostic tools and an increase in diagnosing children who may have shown signs for autism, but may not have previously had access to care.

We know that there is no single cause of ASD. Research suggests that ASD has primarily a genetic etiology. But, there are also nongenetic, or environmental influences as well. Now, genetic variants that cause ASD can be identified in nearly a fifth of individuals with ASD. This knowledge has allowed CART investigators to begin to understand and explain the biological basis of autism, and it provides important clues as to ASD's molecular and cellular origins. Although rates of autism have been increasing over the years, much of this is due to the availability of better diagnostic tools and increased identification of children. Yet most children are still being diagnosed after age 4, though autism can be reliably diagnosed as early as age 2. Early intervention is essential and can improve learning, communication, and social skills, so early diagnosis can have a major positive impact on outcome and is an imperative!

CART investigators have developed some of the best evidence-based interventions for ASD, such as the Joint Attention, Symbolic Play, Engagement, and Regulation (JASPER) therapy, proven to address core deficits in ASD in many rigorous studies. Developed by Dr. Connie Kasari, the JASPER intervention is recognized as one of the most significant advances in early autism intervention over the past 30 years. She and her team have recently published a manual on the JASPER intervention, [The JASPER Model for Children with Autism: Promoting Joint Attention, Symbolic Play, Engagement, and Regulation](#). This clinician-friendly guide is a treatment approach based on a combination of developmental and behavioral principles, and is a targeted intervention in the domain of social communication. The Kasari team is also offering certified JASPER trainings. For more information on the manual and the trainings, please visit the [JASPER Training website](#).

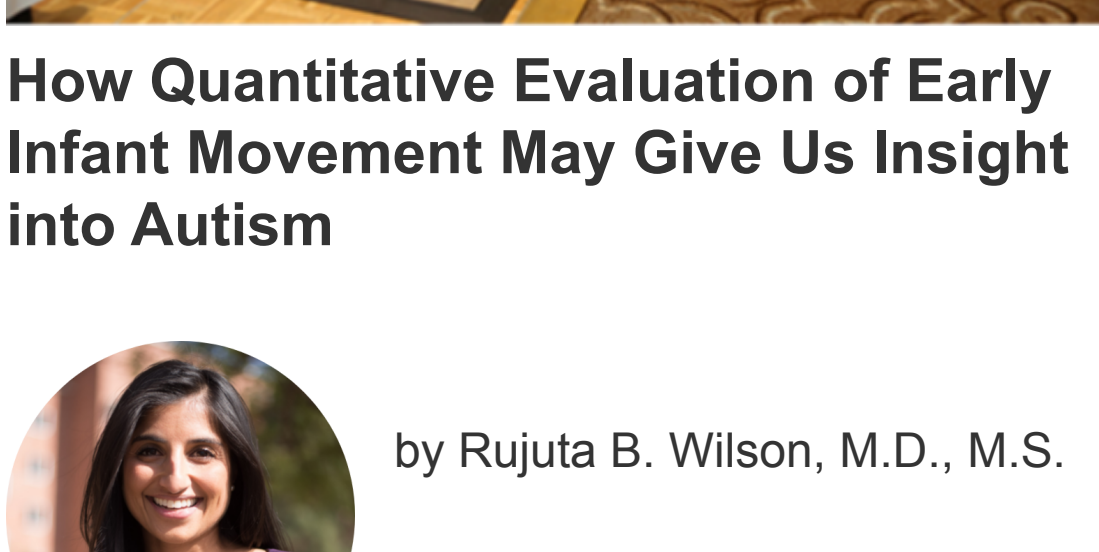
I invite you to join us at our annual scientific symposium, [Advances in Autism 2023](#), to be held on April 28. This year we introduce a hybrid format with both virtual and in-person seats available. This informative event is designed for all those interested in learning about the latest breakthroughs in research and treatment in ASD including health care providers, teachers, autism service providers, self-advocates and families and will feature informative talks and discussion with keynote speakers and some of CART's world-renowned faculty. For more information about this event and how to register, please visit the [event page](#).

*Never has there been a more opportune time to invest in CART.* Transformative changes in medicine and neuroscience, including genomics and big data provide unique opportunities for precision diagnosis and treatment development. Private philanthropy continues to be essential to advancing innovative research and clinical care. No matter where your passion or interest lies, when you invest in CART, your gift has an outside impact for CART and into the world. To learn more about how you can make an impact by investing in CART, please contact Chris Carbado, Senior Director of Development for UCLA Health Sciences at 310-562-6488 or [ccarbado@mednet.ucla.edu](mailto:ccarbado@mednet.ucla.edu).

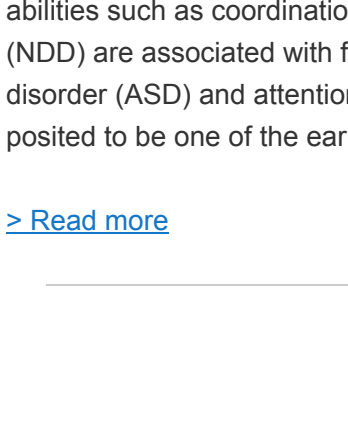
Best regards,

Daniel H. Geschwind, M.D., Ph.D.  
Gordon and Virginia MacDonald Distinguished Professor of Neurology, Psychiatry, and Human Genetics Director, UCLA Center for Autism Research and Treatment (CART) Senior Associate Dean and Associate Vice Chancellor, Precision Health David Geffen School of Medicine at UCLA

### UCLA CART HIGHLIGHTS



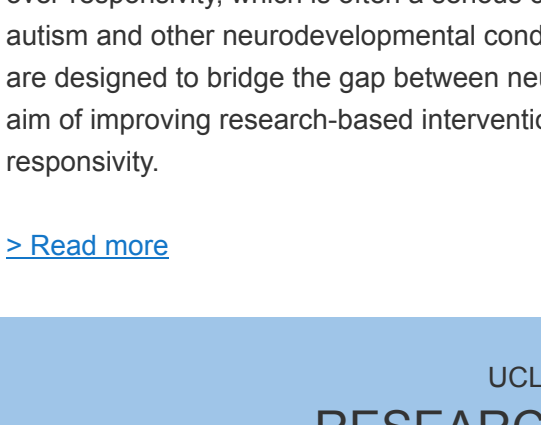
## How Quantitative Evaluation of Early Infant Movement May Give Us Insight into Autism



by Rujuta B. Wilson, M.D., M.S.

As a behavioral child neurologist and clinician-scientist, I witness daily the dynamic growth of infant motor skills in the first year of life. The development of motor skills allows an infant to build social and environmental experiences, receive sensory input from exploration of different surfaces and anti-gravity positions, and develop a range of complex motor abilities through movement mistakes and achievements. Conversely, when we witness dysfunction in infant movement, we see negative effects on the development of language, spatial and physical perception, and higher-level motor abilities such as coordination and balance. Several neurodevelopmental disorders (NDD) are associated with fine and gross motor delays, including autism spectrum disorder (ASD) and attention deficit/hyperactivity disorder. In ASD, motor delays are posited to be one of the earliest signs that may indicate concern for a later diagnosis.

[> Read more](#)

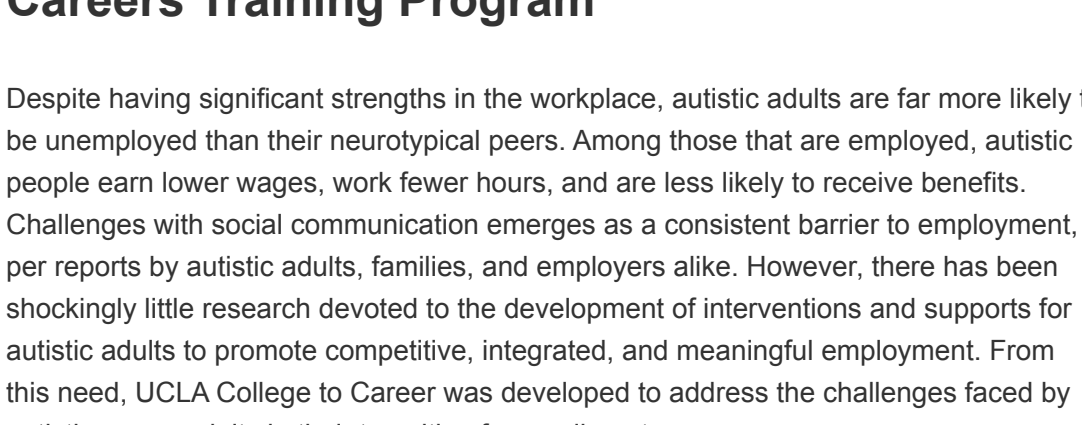


## Dr. Shulamite Green Named the Friends of Semel Endowed Term Chair in Translational Mental Health Research

Dr. Shulamite Green, CART assistant professor, is the recent recipient of the Friends of Semel Endowed Term Chair in Translational Mental Health Research. The chair was established to support early career faculty who are conducting groundbreaking research to understand mental health challenges and create innovative treatments. This appointment recognizes Dr. Green's work in identifying the brain mechanisms of sensory over-responsivity, which is often a serious challenge to quality of life for individuals with autism and other neurodevelopmental conditions. Dr. Green's current research studies are designed to bridge the gap between neuroscience research and treatment, with the aim of improving research-based intervention options for individuals for sensory over-responsivity.

[> Read more](#)

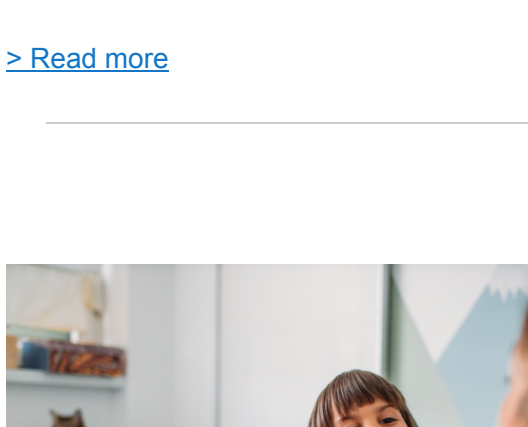
### UCLA CART RESEARCH UPDATES



## College to Career Shows Significant Gains for Autistic Adults Through the PEERS® for Careers Training Program

Despite having significant strengths in the workplace, autistic adults are far more likely to be unemployed than their neurotypical peers. Among those that are employed, autistic people earn lower wages, work fewer hours, and are less likely to receive benefits. Challenges with social communication emerges as a consistent barrier to employment, per reports by autistic adults, families, and employers alike. However, there has been shockingly little research devoted to the development of interventions and supports for autistic adults to promote competitive, integrated, and meaningful employment. From this need, UCLA College to Career was developed to address the challenges faced by autistic young adults in their transition from college to career.

[> Read more](#)



## SPARK Launches a Spanish Version of Their Nationwide Study - SPARK en Español

We are excited to announce that SPARK (Simons Foundation Powering Autism Research and Knowledge) has launched a Spanish version of their nationwide study. SPARK is a landmark national autism research study designed to speed up research and advance our understanding of autism to help improve lives. SPARK will collect unique information from thousands of individuals affected by autism to give researchers the information they need to improve treatment and achieve scientific advances as rapidly as possible. More participants in SPARK means more good data for research. This has been a highly anticipated addition since SPARK's start 7 years ago, and one pushed for by UCLA's very own Dr. Amanda Guisrud since she joined the study team.

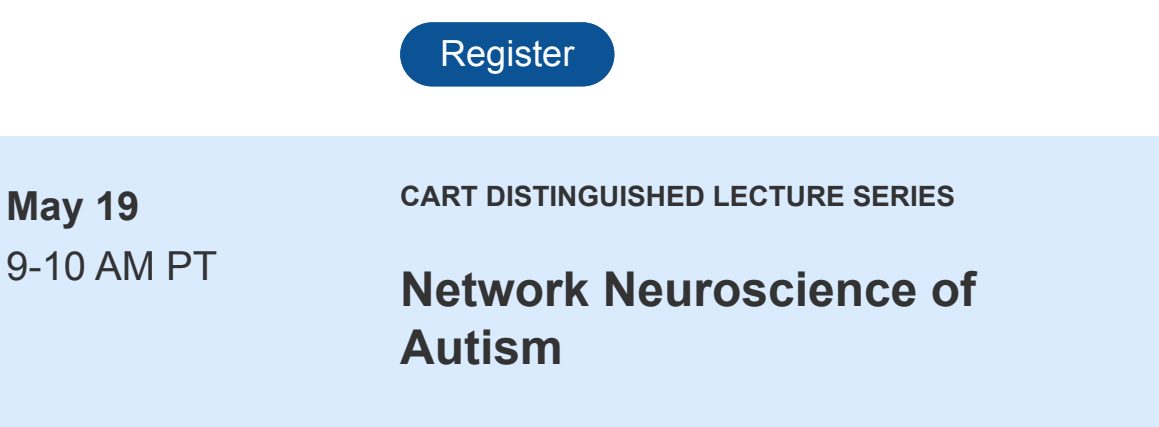
[> Read more](#)



## Spanish ADOS Training will be Held March in Preparation for a New Bilingual ADOS Study

Dr. Catherine Lord and her lab are preparing for a new ADOS (Autism Diagnostic Observation Schedule) study with bilingual individuals, where participants will be tested in both Spanish and English in order to validate the ADOS. Dr. Marisela Huerta will be coming from New York to train the Lord Lab in administering the ADOS in Spanish. The training is taking place in March, with plans to start testing over the summer.

[> Read more](#)



### April 28

9:45 AM -  
2:30 PM PT

### CART ANNUAL SCIENTIFIC SYMPOSIUM

## Advances in Autism 2023 Co-occurring Conditions and Mental Health for Autism Spectrum Disorder

This annual symposium, now hybrid, is designed for all those interested in learning about the latest breakthroughs in research and treatment in autism spectrum disorder (ASD), including health care providers, teachers, autism service providers, and families.

Hosted by the acclaimed researcher, Dr. Daniel Geschwind, nationally renowned UCLA Center for Autism Research and Treatment (CART) faculty and guest speakers will present the most up-to-date information about ASD for this year's theme: "Co-occurring Conditions and Mental Health for Autism Spectrum Disorder."

[Register](#)

### May 19

9-10 AM PT

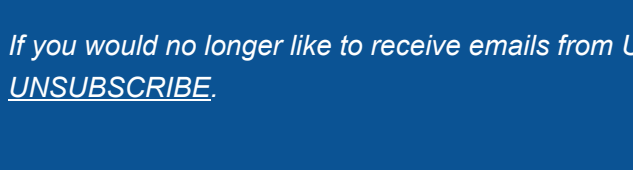
### CART DISTINGUISHED LECTURE SERIES

## Network Neuroscience of Autism

Guest speaker:  
**Lucina Uddin, PhD**  
UCLA

*Recent advances in network neuroscience have paved the way for discoveries into the neurobiology of autism. Hear a review of Dr. Uddin's recent functional neuroimaging studies investigating functional brain connectivity in autism through a developmental lens.*

[Register](#)



## ADVANCES IN AUTISM 2023

UCLA CART'S IN-PERSON & VIRTUAL  
SCIENTIFIC SYMPOSIUM

APRIL 28, 2023

[REGISTER NOW!](#)



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