

CART Connection

News from the UCLA Center for Autism Research and Treatment

Spring 2016, Vol. 8

A Community of Care: A Family's Journey

By: AJ's Parents

We came to the CAN Clinic because we were looking for answers. Our daughter AJ was diagnosed with autism a few months before her third birthday. Later that year, she was also diagnosed with apraxia of speech and epilepsy (which is defined by having unprovoked seizures). Yet despite working numerous hours with dedicated therapists, educators and medical professionals, AJ's progress was slow. She would lose skills if we did not revisit them frequently. She could say almost 100 words, but she could not put two words together to communicate anything. She was hyperactive, and the frequency of her seizures was increasing. Though she had three diagnoses, it seemed like we were missing the big picture. We hoped that the multidisciplinary team at CART could find the underlying connections between her conditions and formulate a better treatment plan.

We first saw Dr. Shafali Jeste, neurologist and autism researcher. She suspected that AJ had a rare form of epilepsy called ESES (Electrical Status Epilepticus of Slow-Wave Sleep) that significantly impairs learning and



AJ

language development and is often also associated with seizures, which AJ had. The diagnosis was confirmed via an overnight EEG by the neurology team at Mattel Children's Hospital. This discovery was life-changing! Dr. Jeste started AJ on a new medication regimen to manage her seizures and a short-term treatment for the ESES. The treatment worked, and AJ's latest EEG shows no signs of ESES!

However, during the initial months of treatment, AJ experienced a devastating regression. She lost language and skills,

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Did you know?

People with ASD often have problems with social, emotional, and communication skills. They might repeat certain behaviors and might not want change in their daily activities. Many people with ASD also have different ways of learning, paying attention, or reacting to things. Signs of ASD begin during early childhood and typically last throughout a person's life.

Mission Statement

The mission of the UCLA Center for Autism Research and Treatment is to continue to play a leading role, both nationally and internationally, in efforts to develop an improved understanding of the biological basis of autism, so as to improve diagnosis and to develop new, more effective treatments for autism spectrum disorders across the lifespan. We hope to achieve these goals by fostering a strong collaborative environment for basic and applied research, as well as a challenging, but supportive environment for trainees.

Ask an Expert with Shafali Spurling Jeste, MD

QUESTION: My child was diagnosed with ASD....What type of medical workup does he/she need?

ANSWER: After a child receives a diagnosis of autism, many families are left with a feeling of uncertainty regarding next steps in the evaluation process. It seems that there are hundreds of tests that can be performed for ASD, but very few actually need to be performed to help guide a child's care. Your physician (either pediatrician, psychiatrist, or neurologist) should first evaluate your child to determine if there are any medical or developmental concerns that require testing or referrals to specialists.

There are some basic guidelines regarding medical workup that have been generated by the American Academy of Neurology (AAN), the American Academy of Pediatrics (AAP), and the American College of Medical

Genetics (ACMG). Genetic testing is the only routinely recommended medical workup for all individuals with ASD. The exact type of genetic testing will depend on the sex of the child, associated symptoms and, sometimes, family history, but in general all children should at least be tested with a chromosomal microarray (CMA). The CMA test is now covered by most insurance providers, and at UCLA our genetics team can help you with the insurance authorization process before testing is performed. Through this testing, we are identifying many genetic syndromes that are associated with ASD, and when we identify a genetic syndrome we can better define the clinical issues a child may face and also identify specific treatment options for that syndrome. At UCLA, we have developed a clinic called the Developmental Neurogenetics

Clinic (DNG) that evaluates and clinically manages children with ASD and an associated genetic syndrome in a multidisciplinary setting, and it includes specialists in child neurology, genetics, and psychiatry. If you would like to make an appointment, please call the CAN clinic at 310-794-4008.

Other forms of testing, such as an electroencephalography (EEG), which is a test of brain waves, or an MRI (magnetic resonance imaging), which is a detailed picture of the brain, are not routinely recommended in children with ASD. An EEG should only be obtained if there is a concern about seizures or if there is a significant developmental regression (loss of skills, especially language). An MRI should be obtained only if there is an abnormal neurological exam, concerns from

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the medical history of an injury to the brain, or a specific genetic finding that is associated with abnormalities in brain structure. A neurologist can evaluate a child and determine if an EEG or MRI is warranted.

Lastly, all individuals with ASD should be screened for insomnia and evaluated for any medical factors that may be contributing to the sleep disturbance. There are both behavioral and medical treatments for insomnia, and a neurologist, psychiatrist, or pediatrician can help initiate these treatments after an evaluation has been performed.

We recognize that there is a tremendous amount of information available regarding experimental evaluations and medical workups for children with ASD. We hope that here, at UCLA, we can inform and assist families through evidence-based best practices so that we minimize the financial and emotional burden that extensive and often unnecessary testing can bring.

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and she stopped participating during therapy sessions. She also began perseverating physically and verbally, at times uncontrollably. It seemed like we had lost our girl. But with Dr. Jeste's reassurance, we persevered, and as the medications were reduced from three to one, AJ began to emerge from the fog. As her brain healed, she began to pick up new words and skills. Her new speech therapist focused on functional communication, and AJ was learning to answer questions and use carrier phrases like "I want..." to express her needs. She was blossoming.

With her seizures managed, AJ was now able to participate in a CART research study for minimally verbal kids. Led by Dr. James McCracken, the study sought to determine if the drug Aripiprazole (Abilify) could enhance the benefits of JASPER (Joint Attention, Symbolic Play, Engagement and Regulation), a play-based intervention program that targets spontaneous speech developed by Dr. Connie Kasari of UCLA CART (see the article about minimally verbal children later in this newsletter). Of course, we had concerns about the safety of giving our daughter yet another drug, but Dr. Jeste was confident that AJ would benefit from the therapy and the medicine, and we trusted her. AJ loved the JASPER sessions, and with five weeks left in the study, AJ hit a tipping point - a huge increase in language that was obvious to everyone in her life. Her teachers, therapists and caregivers could not stop talking about how much she was talking! It felt like we were witnessing a



AJ



AJ and Marcella Mattos working together during a therapy session.

miracle. When the study ended, Dr. McCracken confirmed that AJ was taking Abilify rather than a placebo. She is still taking the medication, and her language and academic skills continue to improve dramatically. Just last week, she declared, "I want ponies paper!" to ask for a printout of My Little Pony characters so that she could practice cutting with scissors. Our "minimally verbal" girl used a four-word sentence to express an abstract want! It was a huge milestone, and we look forward to celebrating more advances in the years to come. We cannot adequately express our gratitude to Dr. Jeste, Dr. McCracken, Marcella Mattos and the rest of the study team for the impact they have had on our daughter's life. We came to them for answers. What they gave us was hope.

ASD and Minimally Verbal Children

By Charlotte DiStefano, PhD



Dr. Charlotte DiStefano and a research participant during a research session.

While social-communication difficulties are fundamental to the diagnosis of autism spectrum disorder (ASD), there is great variability in the language abilities of children across the spectrum. Some children develop fluent language and speak in full sentences, while other children struggle to communicate at all. Currently, it is estimated that approximately 30% of children with ASD do not develop functional language by age 5. We refer to these children as “minimally verbal”. This minimally verbal group includes children who are completely non-verbal, as well as those who use some language but have a very restricted ability to communicate.

Language in minimally verbal children is

typically characterized by a very small repertoire of single words or fixed phrases that are used at very low rates and are only in limited contexts (e.g. to request a preferred item within a familiar context).

Minimally verbal children with ASD and their families face a variety of challenges. Despite the many advances researches have made in understanding ASD, there has been relatively little focus on minimally verbal children. As a result, parents are faced with limited information about their child’s prognosis, and few specialized treatment options. Charlene is the mother of C.S., who is a non-verbal child with ASD. She shared her experiences and concerns for his future: “We have a child

who may never live on his own, take care of himself on his own...my biggest fear and worry [is] what will happen to C.S. when I am no longer alive. We spend all of our money, resources...and free time trying to find the best treatments for C.S., often with limited success. When you originally get the diagnosis, no one lays out a plan of attack, a strategy for you...you have to figure it out yourself as you go along.” In addition to the practical challenges that families face, there are false assumptions made about minimally verbal children with ASD, which present additional challenges to be overcome.

Minimally verbal children with ASD are often referred to as “low functioning”, implying that they have consistently impaired skills across domains. However, this is not accurate. There is great variability within the minimally verbal group, with some children showing strong abilities in other domains, despite limited expressive language. In a recent study conducted at UCLA by Dr. Connie Kasari (CCNIA; Kasari et al., 2014; DiStefano et al., 2016), we studied a group of 61 minimally verbal children with ASD, ages 5-8. While all of the children in the study had very limited spoken language, they varied greatly in terms of their receptive language (ability to understand language) and non-verbal cognitive skills. The non-verbal IQ scores in this group ranged from 36-123, indicating that while some children had very limited abilities, other children showed average or even above average non-verbal cognitive skills

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(an average score is 100). Another common assumption made about minimally verbal children with ASD is that if they have not developed language by age 5, they will never learn to speak. We now know that this is untrue, and many children with ASD can continue to develop language skills in later childhood. Researchers are now beginning to study the best ways to support language development in the minimally verbal group. In Dr. Kasari's study mentioned above, researchers studied the effects of incorporating a speech-generating device (SGD) into a play-based intervention that encouraged engagement with the therapist (Joint Attention, Symbolic Play, Engagement and Regulation, JASPER, developed by Dr. Connie Kasari of UCLA) along with specific strategies to encourage spoken language (Enhanced Milieu Teaching, EMT). After receiving intervention sessions for six months, all children had made gains in spoken language. They used words more often, and engaged in more communication with a social partner. The children who received intervention sessions with the SGD had made even greater gains in spoken language. These findings are very important, given that clinicians and parents are often concerned that the introduction of an SGD will impede a child's language development. In reality, access to an SGD along with a developmentally appropriate intervention has the potential to support expressive language development in minimally verbal children.

Despite these exciting advances in recent research, we still have a limited understanding of why some children with ASD remain minimally verbal. Learning language is a complex task, involving a multitude of neural circuits and cognitive skills. Impairments in any of these components could potentially contribute to the language deficits observed in minimally verbal children with ASD, and different clusters of impairment could lead to similar deficits across different individuals. Although standardized assessments can document the degree and type of language impairment, they have limited utility in revealing the underlying cause of these impairments. Additionally, there are a limited number of assessments that are valid, reliable and appropriate for minimally verbal children. In order to better understand abilities in minimally verbal children with ASD, research has begun to use novel methods including eye tracking and neurophysiological methods.

One such method is electrophysiology (EEG), which records the electrical activity within the brain and provides information about brain processing in real-time. EEG gathers information on internal processing in a way that is minimally invasive, does not rely on children's ability to understand directions and requires no overt behavioral response, making it an ideal method for minimally verbal children. Recent research from UCLA's Dr. Shafali Spurling Jeste has demonstrated that minimally verbal children with ASD show unique neural patterns in



A research participant in a "brain net."

"resting state" EEG (when the child is not engaged in a task), as well as during a visual statistical learning task. Although researchers are just beginning to explore these methodologies with minimally verbal children with ASD, they represent an exciting development in our field, with the potential to greatly increase our understanding of this population. CART researchers are currently conducting a range of research studies focused on minimally verbal children with ASD, focused on intervention as well as understanding the neural correlates underlying language impairment.

Studies at CART:

AIM-ASD: Adaptive Interventions for Minimally Verbal Children with ASD

This study is recruiting 5-8 year old children with ASD who are minimally verbal. This

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from page 5.

study uses two interventions (JASP-EMT and CORE- DTT) that have shown promise for optimizing social communication and spontaneously spoken words in minimally verbal children with ASD. The study utilizes a novel design to evaluate and construct an optimal intervention path for each individual child. For more information, call (310) 206-1268.

Augmenting Language Interventions for ASD: A Translational Approach

This study is recruiting 5-11 year old children with ASD who are minimally verbal. This innovative project tests the hypothesized benefits of aripiprazole (ARI) versus placebo, along with play-based intervention (JASPER) on short-term social communication and language outcomes in children with ASD. The main outcome of this treatment is language acquisition. Findings from this study are hoped to inform an empirically based approach to intervention choices for school age children with ASD and low language ability. Sessions take place at UCLA and in the home. For more information, call (310) 794-2215.

EEG Biomarkers of Language and Literacy Abilities in Minimally Verbal Children with ASD

This study is recruiting 5-11 year old children with ASD who are minimally verbal or verbal. This study uses EEG along with standardized assessments to understand more about language processing in children with ASD, and how their written and auditory linguistic processing relates to their spoken language ability. For more information, call (310) 825-8219.

Research Study Spotlight

Treatment for Anxiety in Autism Spectrum Disorder

We are conducting a free 16-week treatment study for children with autism and anxiety (ages 7-13). We are looking for fluidly verbal children with autism that have a high level of anxiety or shyness for participation in a treatment study.

The treatment study is a randomized control trial examining two anxiety-related forms of treatment. Both treatments are cognitive behavioral therapy programs and are designed to help decrease anxiety. The treatment sessions are held once a week for an hour to an hour and half for a total of 16 weeks with an assessment portion, all of which would take place at UCLA. Families will receive \$25 for the initial assessment, \$50 for the post-treatment assessment and \$75 for the 6-month follow-up assessment.

Once enrolled, there is a 45% chance of being randomly assigned to receive standard cognitive behavior therapy (CBT), a 45% chance of being randomly assigned to receive an ASD-specifically modified CBT, and a 10% chance of being randomly assigned to be placed on a treatment-as-usual (TAU) waitlist for 16 weeks and then given the choice between the standard and modified CBT programs at the conclusion of the waiting period. If you are interested in our program, please contact us at (310) 882-0537 or ucla.autism.anxiety@gmail.com.

Autism Genetics and Human Diversity Study

The Autism Genetics and Human Diversity study aims to fill a significant gap in autism research by investigating genetic risk for Autism Spectrum Disorders (ASD) in families of African American descent. The study is actively recruiting families consisting of at least one African-American child between 3-21 years-old with a diagnosis (or symptoms) of ASD and at least one biological parent, preferably both biological parents. Siblings without ASD may also participate.

Study participation includes one 30-minute phone screen with a biological parent to determine eligibility and one in-person assessment visit with participating parents and children for up to 6 hours. In some cases, participation may span over multiple appointments. Participation in the study involves questionnaires, parent interviews, psychological testing, a brief physical exam, and blood collection. Diagnosis of ASD is confirmed during the study. As this is a genetic study, all participating family members are asked to provide a blood sample in order to analyze DNA that may indicate genetic risk for ASD. The majority of participants are assessed during weekend data collection events that occur approximately every two months in the South Los Angeles community, conveniently located near many of our participating families. There are also opportunities to participate during the week at the UCLA Child and Adult Neurodevelopmental

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A Visit from Macedonia

By Marina Mladenovic



Left to right: Tatjana Zorec, PhD; Valentina Duvovusa; Anastazia Zpasovusa, PhD

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(CAN) Clinic in Westwood.

The project is currently ongoing and recruitment will go through 2016, facilitated by an Autism Centers of Excellence (ACE) Network supplement grant from the National Institutes of Health (NIH) and a community partnership between the UCLA Center for Autism Research and Treatment (CART) and the Special Needs Network (SNN). For more information, please contact Erin Graham, PhD at (310) 794-4090.

For two weeks in early February 2016, specialists from Macedonia visited the Kasari Lab at the UCLA Center for Autism Research and Treatment to observe the latest research and treatment practices for autism spectrum disorders (ASD). Dr. Connie Kasari, Director of the Kasari Lab, executive faculty of the UCLA Center for Autism Research and Treatment, and Professor of Human Development and Psychiatry at UCLA. Dr. Kasari first met the visitors from Macedonia: Tatjana Zorec, PhD, Clinical

Psychologist, Associate Professor of Medicine Faculty and National Coordinator of ASD; Anastazia Spasovusa, PhD, Psychologist; and Valentina Duvovusa, Special Educator and Rehabilitation Specialist at an Autism Speaks Conference in Eastern Europe five years ago. This collaboration began with a series of transatlantic webinars and conference calls to establish the foundations for the interventions developed by Dr. Kasari.

Macedonia was one of the countries represented at the Autism Speaks conference in Eastern Europe that had an early diagnosis program in place, but they lacked strong treatment program options. Tatjana Zorec said, "I recognized that

children were getting diagnosed with ASD at an early age (around 2 – 2.5 years), but little was being done in regard to early intervention." Some of the challenges faced with learning interventions overseas is that most education is provided via webinar or internet video call. This led to little face-to-face interaction, as well as a lack of daily communication and feedback.

Currently there is a great lack of resources and funding for an all-inclusive autism treatment center in Macedonia. As of now, Dr. Zorec's clinic at the University Children's Hospital Skopje in Macedonia is one of the only treatment centers for children with ASD in Macedonia. Due to the lack of quality services across the country of Macedonia, Tatjana and her group are grateful for all the support and education that Dr. Kasari and her team have provided. The team from Macedonia and Dr. Kasari's team have made drastic impacts on ASD diagnosis and treatment within the country of Macedonia. Dr. Kasari, Dr. Stephanie Shire, and two staff from the Kasari Lab visit Macedonia periodically to continue training session. Dr. Zorec and her team will continue to collaborate with Dr. Kasari into the future.

Research at CART

Are you interested in participating in a research study?

Research studies advance our knowledge of autism spectrum disorder (ASD), leading to earlier diagnosis and better treatment. Research at CART focuses on a variety of topics surrounding ASD, including early identification of brain and behavioral signs underlying autism and effective treatment and intervention practices for people with ASD.

Participation in research studies is free. When you participate, you will be assisting our researchers develop a better understanding and determine better treatment for ASD.

To learn more about our research projects, including how to enroll, please visit the CART website: www.autism.ucla.edu, contact the study coordinator directly, or call (310) 825-9041.



Studies currently at CART:

| AGE RANGE | STUDY NAME | CONTACT |
|-----------------------|--|----------------|
| Infants under 6 weeks | Identifying Early Signs of Autism in High-Risk Infants | (310) 825-3478 |
| 12 - 21 months | Joint Engagement in Infants at Risk for ASD: Integrating Treatment with Biomarkers | (310) 206-1268 |
| 12 - 36 months | Early intervention for infants with Tuberous Sclerosis Complex | (310) 825-8738 |
| 30-54 months | Early Communication Intervention for Children with Down Syndrome Study | (310) 206-1268 |
| 3 - 21 years | Autism Genetics and Human Diversity Study | (310) 794-4090 |
| 4 - 11 years | Autism Biomarkers for Clinical Trials | (310) 825-0180 |
| 5 - 8 years | Adaptive Intervention for minimally verbal children with ASD in the Community | (310) 825-0445 |
| 5 -11 years | Augmenting Language Interventions for ASD: A Translational Approach | (310) 825-0180 |
| 5 - 11 years | EEG biomarkers of language and literacy abilities in minimally verbal children with ASD | (310) 825-8219 |
| 5 - 11 years | Treatment with Aripiprazole and Behavior Intervention for Children with Autism who have Low Language Ability | (310) 825-6170 |
| 7 - 17 years | Brain Imaging in Children with Autism or Typical Developing Children | (310) 206-4482 |
| 8 - 13 years | Treatment Study for Children with Autism and Anxiety | (310) 882-0537 |
| 8 - 16 years | Treatment with Risperidone for Repetitive Behaviors in Children with Autism | (310) 825-6170 |
| 8 - 17 years | Brain Imaging Study for Verbally Fluent Children with ASD | (310) 825-5326 |
| 8 - 17 years | Sensory Over-responsivity in Children with Anxiety, ASD or in Typically Developing Children | (310) 825-5326 |
| 15 - 20 years | Brain Wave Study of Autism Spectrum Disorders | (310) 206-9012 |



“Research provides solutions for everyday problems.”

Consuelo Garcia
Lab Manager, Kasari Lab, CART

Treatment Services at CART

Read more about research and treatment programs at CART on the CART website: www.autism.ucla.edu.

Currently UCLA offers the following treatment programs and services:

All Ages

Child and Adult Neurodevelopmental Clinic (CAN Clinic)

The UCLA Child and Adults Neurodevelopmental Clinic (CAN Clinic) is our outpatient clinic located at UCLA's Westwood Medical Campus. The CAN Clinic provides a multidisciplinary evaluation and treatment for individuals with suspected disorders of social, cognitive, language, and motor development, including ASD.

The services provided at the CAN Clinic include:

- Evaluation
- Treatments
- Long-term medical and psychiatric care
- Referrals for genetic testing

Contact: 310-794-4008

Developmental Neurogenetics Clinic (DNG Clinic)

The Developmental Neurogenetics Clinic is a multidisciplinary clinic that evaluates and treats children with neurodevelopmental disorders (including autism, global developmental delay or intellectual disability) and a known genetic syndrome or variant. Directed by Dr. Shafali Jeste, a pediatric neurologist, the clinic provides comprehensive evaluations and care for children with complex needs, with the team of specialists including neurology, genetics, psychiatry and psychology.

Contact: 310-794-4008

Young Children

Early Childhood Partial Hospitalization Program

The ECPHP is a short-term integrated day treatment program for young children who have been diagnosed with, or may have, autism, developmental disabilities, and behavior disorders. ECPHP is a five-day a week, six-hour a day program. All aspects of the program are fully integrated and coordinated to create an individualized, comprehensive, consistent, interdisciplinary, and therapeutic environment.

Contact: (310) 206-2695

Elementary School & Early Adolescents

Parenting and Children's Friendship Program

The program offers parent-assisted social skills group programs for children in elementary school (beginning at end of 1st grade) who are having problems making and/or keeping friends. We also offer parent training/behavior modification programs for parents with children (starting at age 2) and early adolescents (age 12½-15½).

Contact: (310) 825.0142

Ages 6 - 12

ABC Partial Program

The Achievement, Behavior, Cognition (ABC) Child Programs in the Neuropsychiatric Hospital at UCLA provides psychiatric services through the Partial Hospitalization Program and the Intensive Outpatient Program. ABC Child Programs are time-limited, integrated programs dedicated to assisting children ages 6-12 and their families to promote positive emotional and behavioral health.

Contact: (310) 825-0415

Ages 8- 12

Secret Agent Society (SAS)

The Secret Agent Society (SAS) is evidence based social skills intervention program for children ages 8-12. This 10-week program has been validated as an effective program to teach social skills to children who have a variety of social challenges in a school setting.

Contact: (310) 206-2210

Preschool, Teens & Young Adults

Program for the Education and Enrichment of Relationship Skills (PEERS)

PEERS is a manualized, social skills training intervention for adolescents and young adults. It has a strong evidence-base for use with teens and young adults with autism spectrum disorders, but is also appropriate for teens and young adults with ADHD, anxiety, depression, and other socioemotional problems.

Contact: (310) 267-3377

CART in the Community

CART together with support from The Simons Foundation, hosted a family appreciation event for families who have participated in research and treatment at the center. Families attended the UCLA Women's Gymnastics Meet and supported the Bruins in their meet against Georgia and Stanford at the March 6th meet at UCLA's Pauley Pavilion. Although the Bruins came

in third place, everyone had a wonderful time rooting for our team.

Happy National Autism Awareness Month!

April is National Autism Month! Help us celebrate at upcoming events in the community! CART attended the Autism Speaks Walk at the Pasadena at the Rose

Bowl on April 2, 2016. CART will host a resource booth at the Autism Society of Ventura's Aut2Walk on April 17, 2016 and at The Help Group Resource Fair on May 15, 2016 in Sherman Oaks. We look forward to seeing you there!



CART staff and families at the UCLA Womens Gymnastics Meet on March 6, 2016.



Giving to CART

CART depends greatly on philanthropy to sustain its cutting-edge research, treatment, and education programs now and into the future. The establishment of CART in 2003 marked an exciting advancement, particularly for the new and upcoming generation of autism researchers. Since then, CART has concentrated its efforts on developing strong collaborations across disciplines and making major scientific breakthroughs to clarify the mechanisms underlying autism and related disorders. CART has also led the field in designing

evidence-based treatment interventions. Your support will help CART continue as well as expand its research, treatment, and community outreach activities to improve the lives of countless children and young adults and their families affected by autism spectrum disorders.



Please make your donation by check payable to The UCLA Foundation and specify CART Fund #618040 in the memo line. Mail the check to Alan Han, Director of Development for Neuroscience: UCLA Health Sciences Development, 10945 Le Conte Avenue, Suite 3132, Los Angeles, California 90095-1784.

You may also donate to CART online at <https://giving.ucla.edu/CART>. If you have more questions about making a gift to CART, please contact: Alan Han, Director of Development for Neuroscience at (310) 825-1546.

Upcoming Events at CART

UCLA CART Distinguished Lecture Series

UCLA CART offers the distinguished scientific lecture series on the first Friday of each month from October through June. This lecture series brings scientific experts from around the country and internationally to present and discuss multidisciplinary topics of autism spectrum disorders (ASD). The lectures are free and open to the public.

Location:

**UCLA Gonda (Goldschmied)
Neuroscience & Genetics
Research Center**

1st Floor Conference Room
695 Charles E. Young Drive South
Los Angeles, CA 90095

Time:

*Coffee Served: 8:30AM
*Lecture: 9:00AM–10:00AM
*Questions & Discussion:
10:00AM–10:30AM

More information:

(310) 825-9041

May 6, 2016

Speaker: Thomas Bourgeron, PhD
Institut Pasteur, France

Title: From the genetic and synaptic
diversity to autism

June 3, 2016

Speaker: Larry Young, PhD
Emory University

Title: Neurobiology of Social
Relationships: Implications for novel
treatments for autism

Scientific Symposium at UCLA CART

Advances in Autism 2016

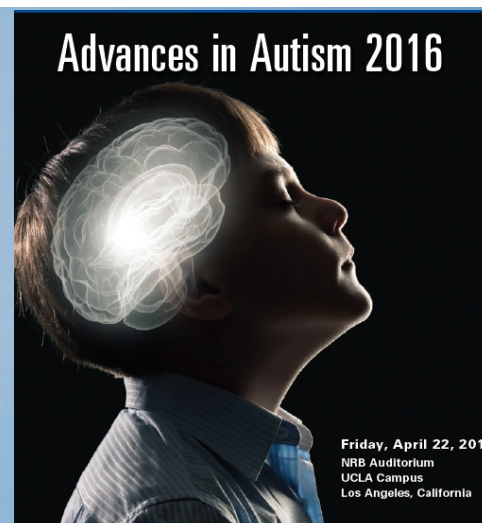
Friday, April 22, 2016
NRB Auditorium, UCLA Campus
Los Angeles, CA

This full-day symposium is for physicians, psychiatrists, psychologists, health professionals, teachers, autism service providers, and anyone interested in learning about the latest breakthroughs in research and treatment in autism spectrum disorders (ASD). Nationally renowned UCLA Center for Autism Research and Treatment (CART) faculty will present on a variety of topics from multidisciplinary perspectives regarding ASD.

Fees: \$175 Physicians | \$135 Nurses and Allied Health Professionals | \$80 Non Healthcare Professionals

Enroll Online: Go to www.cme.ucla.edu/courses, click on Advances in Autism 2016, and click on the registration button.

Enroll by Phone: Call (310) 794 - 2620





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