UCLA CART Pilot Grant Research Program
LIST OF PROJECTS FUNDED TO DATE

UCLA CART’s goal for the Pilot Research Program is to attract investigators to study autism and to fund innovative projects so as to broaden the scope of autism research at UCLA. Major funding for the CART pilot grants includes NIH Center grants to CART under the STAART (2003-2008) and ACE (2008-2012; renewed to 2017) programs. As shown in the list below, CART has successfully attracted some very innovative and excellent research proposals and has funded 23 pilot projects to date, including human studies** as well as innovative neurobiological studies using molecular and animal models. Of note, most of these CART pilot grant investigators already have published their findings and/or secured additional major funding for their work.

CART plans to continue funding one or more new pilot grants every year, depending upon funding resources. Requests for Applications are released in February; awarded projects are funded for the June 1 – May 31 ACEII Center grant budget period.

YEAR 1 (2004-2005)
❖ The molecular basis for songbird learning as a model for speech-language acquisition - S. White, Ph.D.
❖ Towards a neurochemistry of sociability - D. Jentsch, Ph.D.
❖ Low-level perceptual processing in autism - O. Rosenthal, Ph.D. and L. Shams, Ph.D.**

YEAR 2 (2005-2006)
❖ Recognition of social contact in Drosophila - A. Simon, Ph.D. and D. Krantz, M.D., Ph.D.
❖ Study of cognitive behavior therapy (CBT) for children with autism and comorbid anxiety disorders - J. Wood, Ph.D.**

YEAR 3 (2006-2007)
❖ Probing the mirror neuron system in children with autism spectrum disorders – Imaging M. Dapretto, Ph.D.**
❖ Potential involvement of microRNAs in the autistic trait of Rett syndrome: Methylation and epigenetics - Y. Sun, Ph.D.

YEAR 4 (2007-2008)
❖ Efficacy of an evidence-based parent-assisted social skills intervention for teens with ASD - E. Laugeson, Psy.D.**
❖ Next generation massively parallel sequencing applied to resequencing genomic regions linked to autism - S. Nelson, M.D.
❖ An Investigation of the role of PTEN signaling on the structure and function of cortical circuitry in a mouse model of autism - J. Trachtenberg, Ph.D.
YEAR 5 (2008-2009)
- Neural basis of autistic spectrum disorders in 22q11.2 deletion syndrome - C. Bearden, Ph.D.**
- Genetic and environmental influences on brain overgrowth in autism - J. Le Belle, Ph.D.

YEAR 6 (2009-2010)
- Dendritic spine remodeling in a mouse model for autism - E. Carpenter, Ph.D.

YEAR 7 (2010-2011)
- Face processing and visual search for social stimuli: A longitudinal eye-tracking study involving infants at risk for autism - T. Hutman, Ph.D. **

YEAR 8 (2011-2012)
- Functional cortical microcircuit changes in the NLGN-3 model of autism [mouse] - P. Golshani, M.D., Ph.D.
- Cytoplasmic functions of A2BP/RBfox1, a candidate autism gene [mouse] - K. Martin, M.D., Ph.D.
- Variability in autism symptom severity in high functioning children: Investigating the role of diurnal cortisol and daily stress - L. Sterling, Ph.D. **

YEAR 9 (2012-2013)
- Oxytocin and dopamine signaling in a preclinical model of autism [mouse] - N. Maidment, Ph.D.
- Circadian disruption in the CNTNAP2 mouse model of autism spectrum disorder - C. Colwell, Ph.D.
- Glutamate in Autism and Early Development - J. Levitt, M.D.**

YEAR 10 (2013-2014)
- Perfusion MRI and functional connectivity in autism spectrum disorder (ASD) - D.J.J. Wang, Ph.D.**
- Impact of autism on action perception - H. Lu, Ph.D.**
- The link between pre-conceptual and prenatal supplementary folic acid intake and ASD In the Danish National Birth Cohort (DNBC) - B. Ritz, M.D., Ph.D.**

- Immune activation during pre- and post-natal development causes social phenotypes in a mouse model of Tuberous – A. Silva, Ph.D.
- Brain oscillatory patterns associated with GABA/Glutamate signaling and cognition in ASD – S. Loo, Ph.D., J. Levitt, M.D.**
- Early Intervention Targeting Social Communication in Infants with Tuberous Sclerosis Complex – J. Jeste, M.D, A. Gulsrud, Ph.D.**
STAART Center Grant - NIH/NIMH grant # #U54-MH-068172 (05/13/2003 - 04/30/2008)
PI: Marian Sigman, Ph.D. (Co-PI: Dan Geschwind, M.D., Ph.D.)
Title: "Social and Language Deficits in Autism - Biology and Treatment"
STAART = Studies to Advance Autism Research and Treatment (8 STAART Centers in the USA)

ACE Center Grant - NIH/NICHD grant #P50-HD-055784
PI: Marian Sigman, Ph.D. to Susan Bookheimer, Ph.D. (Aug.2008); (Co-PI: Geschwind, M.D., Ph.D.).
ACE I Title: "Determinants of Social, Communicative and Other Core Deficits in Autism"
(08/01/07–7/31/2012)
ACE II Title: “Biomarkers of Developmental Trajectories and Treatment in ASD” (renewed to 5/31/2017)
ACE = Autism Centers of Excellence
ACE I: 6 ACE Centers and 5 ACE Networks in the USA
ACE II: 3 ACE Centers and 8 ACE Networks in the USA – UCLA CART was only ACE Center to be renewed.