Our E-mail has changed.

All project e-mails will now be sent from lcnclinicalstudies@childrens.harvard.edu

Please be sure to e-mail us at our new address

PUBLICATION HIGHLIGHT


This editorial examines how eye tracking will help move autism research forward. Eye tracking allows us to characterize both behavioral and neural responses simultaneously. In this article, Dr. Nelson summarizes recent findings of an eye-tracking study conducted by Rice and colleagues. Rice et al. found that 10 year old children with ASD visually scan scenes with faces and objects differently than typically developing children. These responses also varied based on IQ regardless of group inclusion. This study suggests that there is potential to predict the degree of social impairment based on eye tracking data.1

MaryKate Driscoll graduated from Harvard College in 2011 with a B.A. in Economics with honors, focusing on family economics and early intervention policy. She is a clinical RA working on multiple studies investigating early behavioral and neurological markers of autism in rare populations at high risk for developing ASD.

Jamie Love-Nichols graduated from Tufts in 2012 with a B.S. in Biology and American Studies. She wrote her senior thesis examining ethics and civil rights in genetic medicine. She is interested in pursuing a M.S. in Genetic Counseling. She is joining the ISP team as the Family Coordinator and is excited to interact with families!

Frances Cooley graduated this past spring from the University of Rochester, majoring in Brain and Cognitive Science and American Sign Language. There, she worked in the autism lab in a parent training clinic for parents of children with autism. After working in the LCN, she plans to pursue a PhD in Developmental Neuroscience.

Sarah Mumanachit graduated from Harvard College this spring with a Bachelors in Neurobiology. She worked on the 4 Year Follow-Up Study as an undergraduate intern and is excited to join the ISP team as a full-time research assistant.

Meia Chita obtained her Masters degree at the Harvard School of Education and is currently a PhD candidate at Boston University. She is analyzing eye-tracking data and asking questions like: how well do babies understand words? how easily can they shift attention towards different objects?

Tessa Clarkson got her B.S. in Human Physiology from Boston University and is interested in pursuing a PhD in Developmental and Cognitive Neuroscience. She works on studies that evaluate children at risk for developing autism across different clinical populations. She loves working with children and is excited to be working on the Infant Sibling Project.

Know someone that might be interested in participating?
Pass along our newsletter or contact information to a friend who is pregnant or has a new baby
617-455-7238
Or
eclinicalstudies@childrens.harvard.edu


As advertised in the Winter Newsletter, this paper is now published. This paper examined how infants learn speech sounds. While wearing the ERP net, infants listened to a series of syllables ('da's' and 'ta's') that included a third 'hidden' sound. This hidden sound is used in Bengali but not English, so adult English speakers cannot hear it. Adult Bengali speakers are able to hear it, and, importantly, very young infants (who are prepared to be able to learn any human language) are also able to hear this sound!

We did not find any evidence to suggest that high-risk infants as a group are delayed in learning these speech sounds. What we found is that high-risk infants show a different pattern of brain response than the low-risk control infants, suggesting that different parts of the brain may be processing these sounds or that at least the brain is processing the sounds in a slightly different way. We will continue to evaluate speech processing differences in children with ASD and typically developing children.

One of the biological hypotheses of autism is that neural signals in the brain develop differently. To examine this idea, we studied neural signals in infants at high and low risk of ASD between 6 and 24 months of age. We found that power in all brain wave frequency ranges was lower in high-risk infants at 6 months of age and that over the following 18 months the patterns of development were significantly different between the two groups. These effects remained even after we took out infants who went on to develop ASD, which indicates that this finding is characteristic of all those at high-risk, not just infants who end up with the disorder. This research will help us determine what combination of factors ultimately leads to the onset of the disorder and what combination leads to more typical outcomes.

**GOOD-BYE TO STAFF**

* Kerri Downing will be saying goodbye to the Infant Sibling Project after three years. This fall, she will begin a Masters in Speech Language Pathology program at Boston University. She was inspired to enter the field of speech language pathology after seeing how much progress many of our infants and probands have made through receiving early intervention services. Kerri would like to thank all of our families for enriching her invaluable experience with the project.

* After working as the family coordinator on the Infant Sibling Project for two years, Vanessa Loukas left the LCN to pursue a career as a nurse practitioner. She is currently attending the Family Care Nurse Practitioner program at Simmons College. The combination of her interactions with families and experiences in phlebotomy solidified her desire to become a nurse practitioner. Some of you may still see her in lab doing genetics collections.

* After two years working at the LCN as a research assistant, Stephanie will be leaving the lab to begin her Masters in School Psychology at Northeastern University. Through her experience working with the wonderful families in our studies and seeing the progress many of the children made after intervention, she was encouraged to pursue a specialization in Early Intervention in order to help families optimally prepare their young children for school. She wants to thank the researchers and staff at the LCN for the important and inspiring work they do, and for giving her the opportunity to be a part of it.
Over the past year, the Infant Sibling Project has started conducting follow-up visits with families whose child is now at least 4 years of age. Parents and children alike have enjoyed completing this final visit. Similar to the three year visit, your child will do some behavioral assessments with an examiner and complete an ERP portion. Contact us to participate or for more information. We look forward to seeing everyone again!

**INTERESTED IN CONTINUING YOUR PARTICIPATION? COME IN FOR A FOUR YEAR FOLLOW UP VISIT.**

**Did you know?**

*Almost 20 families have already participated in the 4 year follow up. We appreciate your continued support!*

**INTERESTED IN THE OPTIONAL GENETICS PORTION?**

Contact us for more information or to schedule your family’s genetics collection.

**ALREADY HAVE SALIVA SAMPLES AND CONSENTS AT HOME?**

Mail back in a pre-stamped envelope or contact us to coordinate sample exchange.

**NIRS SPOTLIGHT**

Near Infrared Spectroscopy (NIRS) is an additional one hour long visit at 6, 9, and 12 months. This portion utilizes a dry hat that uses light technology similar to that which is found in pulsoc technology. The NIRS portion can help tell us where in the brain a response is occurring by comparing levels of oxygen in the brain. During this portion we play sounds as well as show pictures of the infant’s mother and a female stranger.

**Need to contact us?**

*(617) 455-7238  lcnclinicalstudies@childrens.harvard.edu*

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