



Neurodevelopmental Disabilities Lab
NORTHWESTERN UNIVERSITY

Inside the Research



Light it Up!

April is World Autism Month, and we are encouraging you to **light it up blue** in support of those affected by autism, as well as their parents, caregivers, and friends. We, as well as many other communities, hope to increase understanding and acceptance of people with autism.

Northwestern

AUTISM RESEARCH AND
CLINICAL COLLABORATIVE

Northwestern's Autism Research and Clinical Collaborative (NUARCC) is proud to support World Autism Month. NUARCC is an alliance of Northwestern researchers, educators, and clinicians who are dedicated to advancing scientific and clinical advancements in autism. By bringing together our still-growing knowledge of how autism is related to brain science, developmental connections, and early intervention, our mission is:

- To work with individuals and families affected by autism in order to gain a deeper understanding of its causes;
- To translate our study findings into groundbreaking treatments for people with autism; and
- To provide rich opportunities for research and clinical experience, training, and mentorship – for students from undergraduate through postgraduate education.

Our upcoming daylong conference on April 26th, 2019 will feature leading experts on clinical, biological, and cultural perspectives of autism in the United States and around the world. To learn more about the conference and to register, please visit the conference website at communication.northwestern.edu/csdconnect.



Working together to understand
autism and improve outcomes



New Cross-cultural Study of Communication in ASD

Much of the clinical and basic science research in autism spectrum disorder (ASD) is primarily conducted in Western countries—in the US and in the UK. However, given known cultural differences (e.g., analytical vs. holistic way of thinking, individualist vs. collectivist societal constructs), it is difficult to apply our knowledge of ASD based on Western societies to those in East Asian cultures. Our lab has begun a collaboration to study cross-cultural differences in ASD symptom expression, focusing specifically on language and communication skills. In our current project, we are using eye tracking during language tasks to understand how language and communication may be impacted by how we look at our world and vice versa. We are

finding that individuals with ASD from the US fixate more on the setting and inanimate information of complex social scenes, when compared to control groups. Similar patterns emerged from Cantonese-speaking individuals with ASD living in Hong Kong, but the viewing patterns of the Hong Kong group differed in some important ways as well—Both ASD groups (in US and Hong Kong) focused more on elements of the scene's setting (e.g., a small barn in the background) than controls in either culture. However, everyone from Hong Kong (both the ASD and control groups) looked at faces less than both groups from the US. Results suggest an interplay between cultural influence on visual attention. Findings also indicate how gaze differences observed in the US in individuals with ASD, may indeed be translated to non-Western cultures as well, and which may therefore influence language functioning in similar ways as we have found in our lab. Not only does this have far reaching implications for similarities between brain functioning, but also might mean that therapies established in Western cultures may be effective in non-Western societies as well. Keep an eye out for cross-cultural work in ASD coming from our lab soon!

Neurodevelopmental Disabilities Lab
ndl.northwestern.edu | 1-877-275-7187

Check out our website for copies of recent papers!

Engaging with ASD Communities Across the Globe: Samui Learning Centre for Special Needs, Koh Samui, Thailand

Dr. Losh and graduate students Kritika Nayar and Shivani Patel traveled to the [Samui Learning Centre for Special Needs](http://specialneedsschoolsamui.com) to meet with Ms. Dalin Ruangaisoon, the founder and Director of the school, and her team. Ms. Ruangaisoon has put forth incredible effort to build the school up from scratch—she spearheads fundraising events independently (receiving little to no support from the Government), has engaged with the community to reduce stigma associated with having a child with a neurodevelopmental disorder, and has sought out staff members who volunteer their time and life to helping these children at the school. This school serves children with autism, Down syndrome, cerebral palsy, and other developmental conditions. During this visit, Dr. Losh and her doctoral students led workshops that were focused on clinical techniques used to target language development and assessment in the United States. Given limited resources available in Koh Samui and at the school, Ms. Ruangaisoon and her staff shared the unique challenges faced not only by the individuals at the school, but also by families and communities at large. These challenges included not accepting their child with a neurodevelopmental disorder, not understanding the various diagnoses, and not knowing how to or being equipped with the appropriate resources to educate and provide therapy to these children. In addition to the workshops, our team also had the very special opportunity to interact and engage with each of the students at the school, and model strategies that staff members may be able to use with the children! Visit specialneedsschoolsamui.com to learn more about Ms. Ruangaisoon and her team's amazing work with the special needs community in Koh Samui!



Redefining the Perception of ASD in the workplace

The NDJ welcomes a new lab member! An Evanston local, Ira has been extensively involved with the lab for several years since he first participated in one of our studies. Ira always has insightful information to share with us – from playlists of music he enjoys to anecdotes from his experience living with ASD. Ira lives independently and holds a full time position in the grocery business in addition to his work in the NDJ. He is well-established in his professional career, but it hasn't always been easy to get to where he is today. During his early jobs after college, Ira struggled to balance new challenges of adhering to a schedule, interacting with customers, and living away from his family. As he got more accustomed to his routine, Ira was able to successfully navigate these changes and now says his jobs in retail have taught him professional discipline. During his time at the NDJ, Ira says he has most enjoyed working alongside the members of our lab and having access to his own office space. He has found his strengths of organization and attention to detail to be essential to his work in the lab. When asked what he would share with other young individuals with ASD hoping to break into the workforce, Ira emphasized patience and exploration, noting that “not everyone is made to do the same things,” and that taking the time to find a job that is personally interesting will pay off over time. We are so thankful for Ira's contributions to our lab! Stay tuned for upcoming newsletters where Ira will be writing his own column about his experiences!

Director: Molly Losh, PhD

Key Collaborators:

Elizabeth Berry-Kravis, MD, PhD, Rush University Medical Center

Gary E. Martin, PhD, St. John's University, New York

Dianne McBrien, MD, University of Iowa

Research supported by grants from the National Institutes of Health

(R03MH079998-01, NIMH; 1R01DC010191-01, NIDCD; 1R01MH091131-01A1,

NIMH), National Science Foundation, and Autism Speaks



NEURODEVELOPMENTAL DISABILITIES LABORATORY
THE ROXELYN AND RICHARD PEPPER DEPARTMENT OF
COMMUNICATION SCIENCES AND DISORDERS

2240 CAMPUS DRIVE

EVANSTON, IL 60208