McPartland Lab

SUMMER NEWSLETTER

DIRECTOR'S WELCOME

BY DR. JAMES MCPARTLAND

Greeting extended McPartland Lab community!

Happy Summer! In this issue of our newsletter, we share some ideas for increasing flexibility in autistic children, and we'll introduce two members of our research team, Maggie and Nicole. The study we highlight in this issue, the Autism Biomarkers Consortium for Clinical Trials, is a massive and ambitious undertaking. Please consider sharing information about this study with others to help us meet our goals.

If you did not see it in our last newsletter, please check the link to our lab's diversity statement. We consider diversity, equity, inclusion, and belonging especially relevant to those who care about autism. For this reason, we have done much work to communicate and learn from leaders in this area at Yale and in the broader New Haven community and surrounding areas. Our hope is that we can make the lab a place where all feel welcome. We recognize that our research is only as relevant as it is inclusive.

Be well, stay cool, and keep in touch! We always welcome your ideas!

Sincerely,
Jamie McPartland

IN THIS ISSUE

INCREASING FLEXIBILITY IN AUTISTIC CHILDREN WITH GRADUAL EXPOSURE

BY DR. CHRISTINE CUKAR-CAPIZZI

Many autistic children struggle with flexibility, rigid thinking, and adapting to changes in their routine or environment. These difficulties, which often stem from anxiety, can lead to increased stress and make it challenging for them to handle daily routines and social interactions. It can also make it hard for them to cope with unexpected situations or changes in their surroundings. However, there's good news! Gradual exposure, a well-established therapeutic technique, can help increase flexibility in autistic children when used under the guidance of a well-trained therapist.

Gradual exposure is a method used to reduce anxiety and fears by gradually exposing individuals to things they find scary or uncomfortable. It works by replacing fear or anxiety with feelings of relaxation and calmness. The process involves several steps to help individuals overcome their fears and become more comfortable with anxiety-provoking situations. For example, if a child is afraid of dogs, the gradual exposure process might start with looking at pictures of dogs, then progress to watching videos of dogs, observing dogs from a safe distance, and eventually interacting with a calm and well-trained dog. The process of gradual exposure typically involves the following stages:

1. Identifying the trigger: The therapist works closely with the child and parents to identify specific situations or things that trigger anxiety or resistance. For example, an autistic child might avoid birthday parties. Through discussions and observations, potential triggers like loud music, crowded spaces, unfamiliar faces, or balloons can be identified.
2. Developing a ladder: A step-by-step ladder is created, listing the triggers from least to most anxiety-provoking. This ladder forms a plan for gradual exposure. For example, the ladder might include watching videos of birthday parties, attending a small gathering with close family and friends, attending a larger party with a familiar friend present, and finally, attending a larger party with unfamiliar faces.
3. Relaxation techniques: The child learns different relaxation techniques such as deep breathing, progressive muscle relaxation, or mindfulness exercises to help counter anxiety.
4. Exposure and response prevention: Starting with the least anxiety-inducing situation, the child is gradually exposed to the trigger while practicing relaxation techniques. The exposure takes place in a controlled and supportive environment, allowing the child to experience the situation without feeling overwhelmed. For instance, a child may start by watching videos of birthday parties while using relaxation techniques.
5. Gradual progression: As the child becomes more comfortable with each level of exposure, they progress to the next step in the ladder (e.g., attending a small gathering with close family and friends, attending a larger party with a familiar friend, etc.) Throughout this process, the child continues to apply the relaxation techniques they have learned. The goal is for the child to confidently handle the most challenging triggers without experiencing significant distress

Gradual exposure is a valuable approach for increasing flexibility in autistic children. By gradually exposing them to anxiety-provoking situations while promoting relaxation, this technique helps children overcome rigidity, reduce anxiety, and develop better coping skills. As we continue to explore effective interventions, gradual exposure emerges as a powerful and effective tool for promoting greater flexibility and resilience in the lives of autistic children.

STUDY SPOTLIGHT

AUTISM BIOMARKERS CONSORTIUM FOR CLINICAL TRIALS (ABC-CT)

What is the ABC-CT?
This project is the largest study of the brain in autism in this country and has included more than 400 families across sites at Yale, Duke University, Children's Hospital Los Angeles, the University of Washington, and Boston Children's Hospital. Based on the first phase of the ABC-CT, two of our measures were accepted into the Food and Drug Administration's (FDA) Biomarker Qualification Program. We have continued to work with the FDA to gather information to determine how they might be used to improve clinical care in autism.

What is the goal of this study?
Our goal for the ABC-CT is to create a set of measures that can be used in clinical trials to determine which treatments are best for which patients and who will benefit from a particular treatment. The aim of the consortium is to develop reliable and objective measurements of social function and communication in autistic people.

What stage in the study are we in?
We are in an exciting new phase of the ABC-CT study – a confirmation study that will help us ensure the findings from the original study are true in a new group of children.

What does a typical study visit look like?
The ABC-CT Study collects data at 3 different time points and each time point has 2 visit days. Families and participants come to the lab a total of 6 times. Each visit takes 2.5-4 hours. We provide parking validation for each visit and compensation for your participation.

Who is eligible to participate?
We are recruiting children between the ages of 6 and 11 years old with and without autism.

Interested participants can contact Bela at 203-737-3439 or autism@yale.edu.

IN THE COMMUNITY
EXPLORING ARTISIM

What is Exploring Artism?

- Explore works of art, practice social skills, and make a no-fail art project with educators from the Yale Center for British Art!
- A free program for children on the autism spectrum (5–12 years old) and their parents, siblings, and other relatives.
- Quiet area available with sensory toys and blankets.

When is Exploring Artism?

- Saturday, August 5 and Saturday, August 19.
- 1pm-2pm

Registration Information:

- Please preregister by emailing ycba.education@yale.edu or calling 203-432-2858.
- Those interested in joining can register for both or either of the sessions.

Location:

- Courtland S. Wilson Library - New Haven Free Public Library, Community Program Room
  303 Washington Ave.
  New Haven, CT 06519

MEET THE LAB!

MAGGIE AZU

Introduce yourself! What is your role at Yale?
Hi all! My name is Maggie, and I am a second-year Sparrow Fellow in the lab. I work closely with families when they visit the lab and collect EEG and eye-tracking data for our research studies. I am originally from Massachusetts and went to Amherst College for my undergraduate studies in psychology. Outside of the lab, I enjoy singing, baking, and hiking.

What did you do before you joined the McPartland Lab?
Before joining the McPartland Lab, I studied psychology at Amherst College and worked with children, adolescents, and young adults in two research labs. I also spent time building community with individuals with developmental disabilities in the Amherst area through an organization I led.

What made you interested in working in this field?
I grew up taking care of an autistic family member. This led me to have many questions about his experiences, his perception of the world, and the challenges he faced. Ultimately, this curiosity propelled me to study psychology and to get involved in research that helps further our understanding of children's psychological and social development. I am excited to continue conducting research on children's social development as I begin pursuing my PhD in clinical psychology at the University at Buffalo this coming fall!

NICOLE HERMAN

Introduce yourself! What's your role at Yale?
My name is Nicole Herman, and I am a first-year Sparrow Fellow in the McPartland Lab. I grew up close to Yale in Weston, Connecticut and graduated from Vanderbilt University in 2022 with a B.S. in Child Development. My favorite part of being a Sparrow Fellow is interacting with the families that come into our lab to participate in research! Outside of work, I enjoy playing tennis, going on walks, and listening to podcasts!

What did you do before you joined the McPartland Lab?
Before joining the McPartland Lab, I was a member of the Mood, Emotion, & Development Lab at Vanderbilt University where I completed my Honors Thesis through the Honors Program for Psychological Sciences. We used EEG and behavioral measures to study mood disorders across ages. While in Nashville, I also worked as a Registered Behavior Technician helping autistic children reach their behavioral goals.

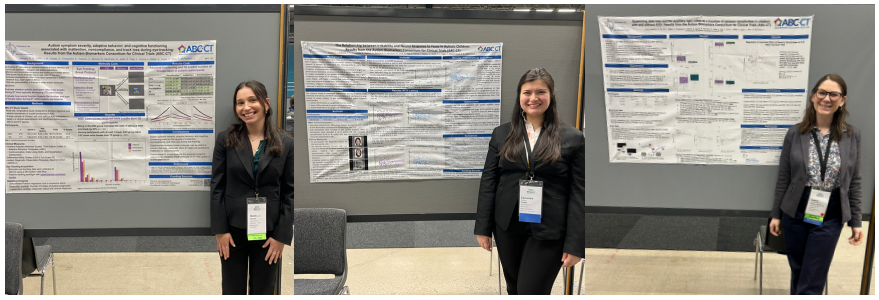
What made you interested in working in this field?
My first-semester of college, I enrolled in a class entitled Introduction to Exceptionality. One component of the class was to get involved with the local autistic community. I volunteered as a swim instructor through Nashville Dolphins, an organization that promotes water safety and enjoyment for people with special needs. I enjoyed both the class and the volunteering experience so much I ended up adding a minor in Special Education. The Sparrow Fellowship has allowed me to continue to be involved in the autistic community while pursuing my passion for psychological research.

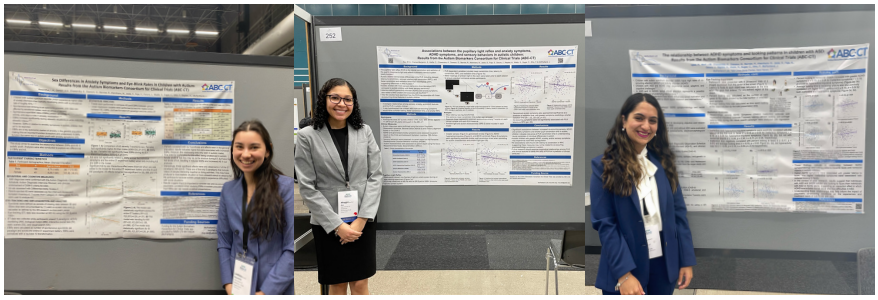
THE MCPARTLAND LAB AT INSAR

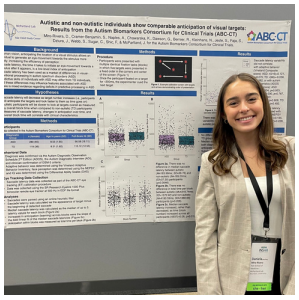
The International Society for Autism Research (INSAR) is an annual conference where scientists, doctors, students, autistic people, families of autistic people, and people at the intersections of all of these identities and more come together to talk about the autism field! The event lasts three days and includes research presentations, talks, panel sessions, and poster sessions. Members of the McPartland Lab traveled to Stockholm, Sweden to present posters and give talks at the conference. We also got to meet researchers from all over the world and talk to some of our collaborators in person who we only ever see on zoom!

POSTER SESSIONS

Poster sessions are a way for researchers to quickly present information about projects they have just finished or are working on. Typically, these sessions are an hour or two long and hundreds of people present their posters at the same time while people walk around to posters about topics they are interested in. If this sounds overwhelming, you're not alone! INSAR offers a "quiet poster viewing" session where you are welcome to walk around and see the posters without the presenters standing next to them. Nine members of the McPartland Lab presented posters this year! Check out these pictures of us presenting!



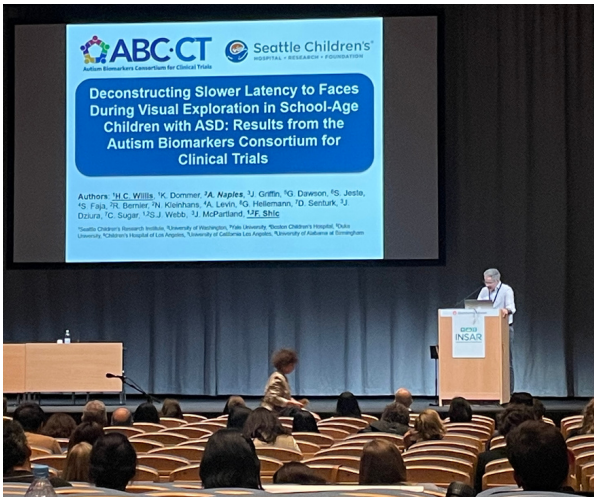




Scan this QR code or follow this link to see our posters!

https://medicine.yale.edu/lab/mcpartland/publications/?tab=Presentations

PRESENTATIONS



Dr. Adam Naples gave a talk at INSAR about how visual attention in autism using data from the Autism Biomarkers Consortium for Clinical Trials (ABC-CT).

LAB DINNER

Our time in Sweden wasn't all science! We also made sure to do some exploring and spend time together!

FUN SUMMER ACTIVITIES IN CONNECTICUT

Visit Lake Compounce Amusement and Water Park

Lake Compounce has a range of rides, games, and entertainment that make it a fun time for everyone in the family.

Watch a Movie at a Nearby Drive-in Movie Theater

Enjoy the warm whether while catching an outdoor movie at the Remarkable Drive-in in Westport or the Southington Drive-in in Plantsville.

Pick Some Fresh Fruit at a Local Orchard Bishop's

Strawberries, blueberries, raspberries, peaches, and pears are all available for "pick-your-own" during the summer at Bishop's.

Stop by Buttonwood Farm

Enjoy some delicious ice cream made on the farm and check out the beautiful sunflower field. You can event pick your own sunflowers in the designated cutting field!

WATCH DR. MCPARTLAND'S MOST RECENT TALKS!

CLICK THE LINK OR SCAN THE QR CODE

Touching Lives Affected by Autism - A Conversation with Holly Robinson Peete and Dr. Jamie McPartland

Where Should Research Go in the Next 10 Years

LEARN MORE ABOUT OUR LAB!

CHECK OUT OUR WEBSITE

INTERESTED IN PARTICIPATING? FILL OUT THIS FORM!

READ OUR LAB'S DIVERSITY STATEMENT

KEEP UP WITH US ON SOCIAL MEDIA!

Twitter
@J_McPartland

Instagram
@mcpartland.lab

Facebook
Yale Autism Program