McPartland Lab

WINTER NEWSLETTER

DIRECTOR'S WELCOME

BY DR. JAMES MCPARTLAND

Greetings! We hope your 2023 is off to a spectacular start! We are excited to share this latest update on our work. In this issue, we highlight a newly funded study led by Dr. Adam Naples. Much of the research we have done has focused on vision and looking at faces. This new study will include hearing to understand more about factors that influence sensitivities to sound. We also highlight our new Diversity Statement. We have made a commitment to thinking about strategies to be inclusive and respectful of all forms of diversity, and we devote a portion of our lab meeting to this topic each week.

Thank you for reading our newsletter! Please be in touch, and let us know what content would be most interesting to you.

Best wishes,
Jamie McPartland

IN THIS ISSUE

DIVERSITY, EQUITY, INCLUSION, AND BELONGING STATEMENT

The McPartland Lab upholds the commitment to diversity, equity, inclusion, and belonging (DEIB) stated by the Yale Child Study Center to ensure that people of all different identities are represented in, included in, and benefit from our research. As researchers and clinicians, we recognize our responsibility to cultivate accessible and inclusive practices in science and in our community. We believe that prioritizing diverse perspectives in our research will both strengthen our science and expand the applicability of our findings to a wider population.

Our lab welcomes individuals from all backgrounds and identities, including but not limited to nationality, culture, race, ethnicity, religion, sexual orientation, gender expression, gender identity, ability status, education, socioeconomic status, documentation status, and training level. We do not tolerate discrimination or prejudice of any kind. We consistently work together to examine and disrupt any biases we hold to promote an inclusive environment. We evaluate our digital and written material to ensure that the language we use is inclusive and reflective of those we seek to serve.

Our current efforts and future plans towards fostering DEIB in the McPartland Lab include:

1. Attend workshops and presentations on topics of equity and inclusion to continue to educate ourselves. Hold regular lab-wide discussions of research articles and topics related to DEIB in autism and clinical neuroscience research. We commit to sharing and reflecting on what we learn to continuously inform our practices. Consider DEIB issues as relevant to all lab conversations.
2. We will center the voices of those who will be impacted and represented in our research through active engagement with community members of diverse backgrounds and identities. We will use these experiences to inform our research practices in order to facilitate positive experiences for our participants. This includes using language that reflects the preferences of the individuals with whom we work. We aim to produce high quality research that is relevant to the needs of the community.
3. Maintain an updated compilation of DEIB educational resources for lab members.
4. Actively recruit diverse participants for our research studies to ensure representation of our findings. This includes meeting individuals and families through local events, accommodating our participants' needs, and implementing suggestions from the advisory group.

For those interested in working in the McPartland Lab, we have made efforts to advertise our job opportunities to a wider applicant pool and are committed to recruiting a diverse research team reflecting a range of experiences, identities, and levels of training.

We commit to consistent efforts toward DEIB in the McPartland Lab, and we welcome any suggestions and partnerships to further our progress.

STUDY SPOTLIGHT

GAIN STUDY

BY DR. ADAM NAPLES

What is the GAIN study?
GAIN (Getting Away from Intrusive Noises) is a study of how your brain processes sounds and why sometimes the same sounds can feel too loud or too quiet. Sometimes people don't hear sounds unless they're very loud, like when we're asleep, and sometimes quiet sounds can seem loud, like when we're surprised. We can measure brain activity that helps us to know how much your brain "changes the volume" on the sounds we hear. After we measure your brain activity we will ask you, using questions delivered over your smartphone, about whether any sounds bothered you that day. This lets us figure out whether the brain systems we study in the lab are responsible for how we respond to sounds day-to-day.

What is the role of auditory processing in autism ?
Many autistic people say that sometimes sounds are too loud or too distracting, but scientists don't know what causes this. Also, we know that sometimes the same sounds that are too loud one day are OK the next day. This makes it hard for researchers to figure out what is causing this sensitivity, and it makes everyday life challenging for autistic people if their symptoms change unexpectedly.

What is the goal of this study?
We hope that this experiment helps us to understand why and when for some people the volume gets turned up too high or too low. This understanding will help to develop strategies to allow people more control over their experience of sound.

Who is eligible to participate?
Right now, we are recruiting adults between the ages of 18-40 with and without autism. Our research coordinator is available to provide more information when you contact us.

What does a typical study visit look like?
Our study will involve a 2-3 hour visit to our laboratory where we will complete some assessments and will measure your brain activity while you listen to sounds. After the visit, for a few days, we will send you text messages asking you if you had any sound sensitivities that day.

Interested participants can contact Bela at 203-785-6108 or autism@yale.edu.

ABOUT DR. ADAM NAPLES

Adam Naples, PhD, is an Assistant Professor in the Child Study Center at the Yale School of Medicine. As a researcher at Yale he has co-authored papers on autism, reading disability, and genetics and developed new experimental methods for studying brain activity during live and simulated social interactions. Dr. Naples received his B.S from Cornell University, his Ph.D. in psychology from Yale University, and post-doctoral training at the Yale Child Study Center. He has also been active in the mentoring and training of graduate and undergraduate students and post-doctoral fellows. His primary research interests are understanding the neural and cognitive mechanisms that lead to variability in developmental disorders.

RECENT PUBLICATIONS

THE AUTISM BIOMARKERS CONSORTIUM FOR CLINICAL TRIALS: INITIAL EVALUATION OF A BATTERY OF CANDIDATE EEG BIOMARKERS

Autistic individuals often struggle with social and communication skills based on their own descriptions and those of caregivers and clinicians. However, these observations can be subjective and do not provide an objective measure of brain function, or a biomarker, corresponding to autism. This study measured brain activity at the scalp in autistic and neurotypical children across two time points when viewing faces and other common objects (e.g., house, cars). Autistic children showed slower brain activity when viewing faces in comparison to neurotypical children. This finding was consistent over six weeks. These results suggest that the electrical activity produced in response to faces can be reliably measured in autistic children and may hold promise to improve clinical research, such as predicting who may benefit from specific interventions.

Link to the full article!

FOR MORE SUMMARIES OF OUR RECENTLY PUBLISHED ARTICLES, CHECK OUT OUR WEBSITE!

CLINICAL RESOURCE:

YCSC SOCIAL SKILLS GROUP

YALE CHILD STUDY CENTER

Dr. Christine Cukar-Capizzi

The Yale Child Study Center is currently running a weekly social skills group for **10-12 year old children** with ASD and other social challenges currently in treatment at the Outpatient Clinic. Using *The Incredible 5 Point Scale and Zones of Regulation* curricula, participants in this group will learn to appropriately identify and express their emotions, increase coping strategies to help manage frustration, and learn targeted skills aimed to help improve peer relationships while engaging in fun activities with peers. Group meets weekly on **Wednesdays from 4pm-5pm**. If you are interested in learning more, please contact **Dr. Christine Cukar-Capizzi** (christine.cukar-capizzi@yale.edu) or **Nikita Joshi** (n.joshi@yale.edu).

MEET THE LAB!

REEDA IQBAL

INTRODUCE YOURSELF! WHAT'S YOUR ROLE AT YALE?

My name is Reeda Iqbal, and I am a second-year Sara S. Sparrow Fellow in the McPartland Lab. I grew up on Long Island, New York, and graduated from Harvard College in 2021 with a degree in Psychology. As a fellow, I enjoy sharing my love for neuroscience with our participants by explaining how tools like electroencephalography (EEG), eye-tracking, and transcranial magnetic stimulation (TMS) work.

WHAT DID YOU DO BEFORE YOU JOINED THE McPARTLAND LAB?

Before joining the McPartland Lab, I worked as an undergraduate research assistant at the Laboratories of Cognitive Neuroscience at Boston Children's Hospital. In this role, I helped use behavioral and neuroscience methods (e.g., EEG) to understand how autistic toddlers regulate their emotions and behavior. At the McPartland Lab, I have enjoyed working with school-aged children, adults, and their families.

WHAT MADE YOU INTERESTED IN WORKING IN THIS FIELD?

My interest in autism stems from my experiences being a sibling to an autistic individual. Growing up, I always wanted to learn more about my sister's unique set of needs and how I could support her. In college, I also supported caregivers of autistic children and found this work to be incredibly meaningful. Moving forward, I am excited to pursue a career in medicine so that I can continue supporting autistic individuals and their families.

MARK YOUR CALENDARS FOR DR. MCPARTLAND'S UPCOMING TALK!

Click here for more information on Autism Science Foundation's Day of Learning

FUN WINTER ACTIVITIES IN CONNECTICUT

Powder Ridge Mountain Park and Resort: Middlefield, CT

Powder Ridge Mountain Park and Resort has a range of snow activities, including skiing, snow boarding, snow tubing, and a kid's snow play zone. They are also hosting the Special Olympics Connecticut 2023 Winter Games in March!

https://powderridgepark.com/

Connecticut Science Center: Hartford, CT

The Connecticut Science Center includes exhibits for children of all ages related to physics, engineering, life sciences, and more!

https://ctsciencecenter.org/

Ice skating at **Ralph Walker Ice Rink:** New Haven, CT

Check out their Facebook page for hours and events!

https://www.facebook.com/ralphwalkericerink/

Mystic Aquarium: Mystic, CT

The Mystic Aquarium is home to marine mammals, fish, invertebrates, and reptiles. The Yale New Haven Health Family Lounge and First Aid Center in the aquarium serves as a sensory-friendly quiet room and is located within the Main Gallery.

https://www.mysticaquarium.org/

Lyman's Orchards: Middlefield, CT

See more than 400 illuminated lanterns at the Dazzling L.I.F.F.E. Lantern Festival!

https://amazinglightfestival.com/lyman/

WE ARE NOW ON INSTAGRAM!

Follow us: @mcpartland.lab

We will be posting regularly about current studies, educational materials on autism and our research, social stories, and spotlights on our lab members.

WATCH DR. MCPARTLAND'S MOST RECENT TALK!

10 Reasons Why Autism Research Rocks!

Dr. McPartland discusses the reasons children and adults enjoy getting involved with the lab's research and benefits for parents and children.

Click here to watch!

LEARN MORE ABOUT OUR LAB!

CHECK OUT OUR WEBSITE

INTERESTED IN PARTICIPATING? FILL OUT THIS FORM!

KEEP UP WITH US ON SOCIAL MEDIA!

Twitter
@J_McPartland

Instagram
@mcpartland.lab

Facebook
Yale Autism Program