

December 2022 Newsletter



CAROLINA
AUTISM & NEURODEVELOPMENT
CENTER



South Carolina

In this Newsletter...

- First Thursday Science Meeting
- Faculty Fun Facts
- CAN Holiday Party
- Member Shout-outs
- Grants
- Faculty Spotlight
- Recruiting Studies
- CAN in the Community
- Call to Action

December Events

- **Science Meeting:** December 1, 3:30PM @ IMB Room 125
- **First Thursday Social:** December 1, ~4:30PM @ the Graduate Hotel
- **Grant Peer Review Session:** December 6, 11:30-1pm @ IMB Room 125
- **Holiday Party:** December 14, 5:30pm @ Jeff Twiss' house
- **Third Thursday - Work in Progress:** December 15, 3:30 PM @IMB Room 125
- **Third Thursday Social:** December 15, ~4:30pm @ the Graduate Hotel

Save the date!

SCAND Research Symposium

Friday, March 3rd, 2023 | 9am-5pm
Riverbanks Zoo & Garden

A note from our Steering Director



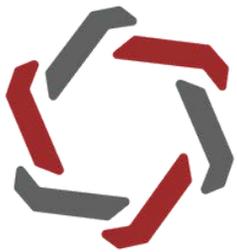
Caitlin Hudac

Associate Professor

chudac@mailbox.sc.edu

What a fantastic semester! I look forward to the events, discussions, and community sharing to come in 2023. A few recent updates that I'd like to highlight:

- Starting in January, our **Community/Outreach working group** will meet virtually monthly on the **3rd Tuesday 1:30-2:30 pm!** Email [Audrey](#) to receive a calendar invite.
- We are starting to schedule **external speakers for Spring 2023**. Let us know if you have ideas or thoughts about extending the speakers into the summer.
- Audrey and I are working to **revamp the website**. Let us know if you have ideas!
- Your CAN Leadership are actively looking for **continued funding opportunities to support "CAN"**. If you have ideas or would like to help with these initiatives, please let me know!
- We are trying to figure out how **best to serve YOU!** This includes CAN researchers and the community. Please help us by:
 - Complete the **CAN Member Availability Form** so we can improve our monthly CAN Science
 - Tell us your highlights! (see page 5)
 - Join one of our working groups! (see page 10)



CAROLINA
AUTISM & NEURODEVELOPMENT
CENTER

First Thursday SCIENCE MEETING

Now offering a **hybrid** option! Meet with us virtually on **Zoom**.

Thursday, 12/1
3:30pm

IMB Room 125
1800 Gervais St.



Dr. Pabi Sahoo

Pabi Sahoo will discuss his work on neuronal mRNA storage mechanisms, and in light of recent findings, he will talk about how impairment in neuronal mRNA storage depots is potentially linked to neurodevelopmental disorders.

Join us after for
Happy Hour
~4:30pm at the
Graduate Hotel!



Dr. Jessica Klusek

Jessica Klusek will discuss semantic interference problems, a dementia marker, in women fragile X carriers.

FAVORITE HOLIDAY TREATS

Get to know our members!

Match the faculty member with their favorite holiday treat! See answers page 10



Jane Roberts

Jeff Twiss

Sarah Edmunds

Rob Hock

Dan Foster



Pecan pie with chocolate chip bottom and homemade whipped cream



A trip to the Carribean

Reese's Christmas cups (pumpkin version)



Dream bars (brownies with coconut, nuts, and caramel)



Yams with marshmallow topping



CAROLINA AUTISM & NEURODEVELOPMENT
(CAN) RESEARCH CENTER

**HOLIDAY
PARTY**

Wed, December 14th | 5:30pm - till? | Jeff's house

All **CAN** faculty, trainees
(staff, graduate,
undergraduate students),
and partners/children
welcome!

Food & drinks provided!
Celebrate with **informal
holiday cheer!**

✨ RSVP [Here](#) ✨

CAN MEMBER SHOUT-OUTS

Celebrate our members'
recent publications!



Dr. Hogan's paper, *Slower Peak Pupillary Response to Emotional Faces in Parents of Autistic Individuals*, was published in the journal, *Frontiers in Psychiatry*. Read it [here!](#)



Rachel Hantman's 1st first author paper, *Parental Perspectives: How Sensory Sensitivities Impact the Transition to Adulthood in Adolescents and Young Adults with Autism Spectrum Disorder*, was accepted for publication and published online! Read it [here!](#)

Hantman's white paper for the Census, *Using Small-Area Estimation (SAE) to Estimate Prevalence of Child Health Outcomes at the Census Regional-, State-, and County-Levels*, was also published by the census. Read it [here!](#)



A recent paper (*Quantitative EEG changes in youth with ASD following brief mindfulness meditation exercise*) from Dr. Caitlin Hudac and colleagues explored how the brain shifts following a brief mindfulness exercise in autistic youth. Using a machine learning approach, they found a unique role for beta and alpha EEG power. Read it [here!](#)



Dr. Dan Foster shared his expert opinions in Trends in Pharmacological Sciences, *Bridging the gap in neuropsychiatric translational research*. Read it [here!](#)



Dr. Jessica Klusek and her research team had two papers on FMR1 recently published!

- *Low normal FMR1 genotype in older adult women: Psychological well-being and motor function*. Read it [here!](#)
- *Family history of FXTAS is associated with age-related cognitive-linguistic decline among mothers with the FMR1 premutation*. Read it [here!](#)

Interested in sharing a new paper? Would you like to showcase a student? Let us know!

Grants

Let us know when you submit a grant or receive an award! Ideas for resources or grant-related workshops? Let [Caitlin](#) know!

Upcoming RFA's

Simons Foundation ([link](#))

Are you interested in applying to any of the Simons Foundation RFAs? Let us know how CAN can help assist you! [Fill out this survey](#) by December 6, 2022.

- **2023 Winter Pilot Award** - Jan 12, 2023
 - Not for human participants
- **2023 Cross-Species Studies of ASD** - June 25.
- **2023 Human Cognitive and Behavioral Science** - previously due ~ April

Autism Science Foundation ([link](#))

- Post-undergraduate 2-year fellowship due 12/9
- Predoctoral/postdoctoral fellowships due 12/9
- Undergraduate Summer research awards due February 2023

Good Luck!

on your grant submissions:

Dr. Abigail Hogan
R01

Dr. Jessica Bradshaw
R01



Congrats!

Dr. Jessica Klusek was awarded an R01 titled, *Aging Symptom Trajectories in Mother Carriers of the FMR1 Premutation*.

One in 151 women in the United States carry the FMR1 premutation, a genetic abnormality that is associated with substantially increased risk for disease that appears to worsen at older ages. This longitudinal investigation of mother carriers of the FMR1 premutation aims to define age-related stability of symptoms in midlife and early old age, associated functional limitations, and the role of biological and environmental factors. Findings will inform critical age periods for prevention, risk factors, and the eventual development of strategies to improve age-related outcomes for both carrier mothers and their children with fragile X syndrome.

CAN Grant Resources

- **Internal review:** Schedule an internal review by senior researchers. Email the **Peer Grant Review** leaders Drs. [Hogan](#) and [O'Reilly](#) at LEAST 1 month ahead with your specific aims.
- **Facilities & Resources:** Contact [Caitlin](#) to receive a copy of CAN resources and facilities NIH template!
- **Stuck on a direction?** Use the **Work-In-Progress meetings** (3rd Thursdays) to bounce ideas off CAN members!

Join us for the next Grant Peer Review session!

Tuesday, 12/6

11:30am-1pm @ IMB Room 125

We will provide feedback to Dr. Jessie Bradshaw on her upcoming R01 submission (February 2023) titled, *Mechanisms of Autism Spectrum Disorder in Toddlers Born Preterm*.

All faculty and trainees are encouraged to join us!

FACULTY SPOTLIGHT



Dr. Neset Hikmet

Professor

Director, Applied Sciences Center for Applied Innovation and Advanced Analytics

Dept. of Computer Science and Engineering

College of Engineering and Computing

Dr. Hikmet's research aims to navigate complex data structures and efficiently retrieve the data needed to answer a question or solve a healthcare-related problem.

Dr. Hikmet has significant experience in **leading health data analytics projects** within academia, including utilization of a wide range of analytics methods and informatics approaches. He has led numerous distributed data collection and analytics projects including:

- Analyzed parent pregnancy and child data of patients enrolled in the South Carolina Pregnancy Assistance Fund (PAF)
- Collected and tracked parent and child data collected at the home of patients enrolled in the U.S. Health Resources and Services Administration (HRSA) Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV).

One of the key components of any project is the ability to **collect, manage, and analyze data** and manage associated infrastructure for the research team to collaborate and carry out a successful project efficiently and effectively. He is experienced in both breadth and depth in the design, development, deployment, and maintenance of technology systems and services primarily in the healthcare sector.

Dr. Hikmet's current work:

- Principle Investigator for the NIH-awarded project, "BDD CIS: Big Data Driven Clinical Informatics & Surveillance - A Multimodal Database Focused Clinical, Community, & Multi-Omics Surveillance Plan for COVID19."
- Core faculty and lead for the BDHSC technology hub since its inception in 2019.
- MPI for BDHSC's T35 predoctoral training program that is funded by NIH
- Research mentor for other BDHSC training programs including NIH R25, T32 (pending), and minority R25 (Pending).

Thank you to Dr. Hikmet for agreeing to be featured! Do you want to nominate a researcher for us to spotlight? Email us at weaverae@mailbox.sc.edu.

Check out his [faculty page](#)!

RECRUITING STUDIES



Autism and Family Lab

Dr. Rob Hock is recruiting for his randomized controlled trial of Autism Parent Navigators, a prevention program for co-caregivers that targets parent mental health, parenting quality, ASD service engagement, child challenging behaviors, and child adaptive functioning. Participation eligibility includes a child diagnosed with ASD within the last 12 months, the child is between 18-mos and 8 yrs, and parenting responsibilities are shared by another adult who lives in the same home

Contact: Hannah Behr, Research Coordinator
(803) 386-9451 | hbehr@email.sc.edu

Early Social Development (ESD) Lab

Dr. Jessie Bradshaw is recruiting babies between the ages of 0-36 months to participate in four studies. Participation includes a variety of developmental assessments and participants can receive between \$120 and \$200, dependent upon the study.

Contact: (803) 993 - 8356 | esdilab@mailbox.sc.edu

Developmental Dynamics Lab

Dr. Liz Will is recruiting infants with Down syndrome 12-months and younger to participate in a longitudinal study on early development and communication. Assessments, all of which involved play-based activities, will take 3-4 hours, once every 3-6 months, for ~2 years. Families will receive between \$40-\$200 for participation.

Contact: willea@mailbox.sc.edu

Family Experiences Lab

Dr. Jessie Klusek is recruiting mothers between the ages of 35 and 75 with a child with autism. The focus of the study is on the experiences of mothers of children with autism, and in identifying how language and cognitive features may be linked with normal variation in the FMR1 gene. Participation would involve completing some questionnaires, interviews, and language and cognitive tasks. Participation is in-person or virtual, takes 3-4 hours, and families will be compensated \$80.

Contact: (803) 576-7359
scfamilystudy@gmail.com

Neurodevelopmental Disorders (NDD) Lab

Dr. Jane Roberts is recruiting infants 12 months or younger for a longitudinal study who have fragile x syndrome, have the fragile x premutation, and who are typically developing. Participation involves assessments (lasting 2-4 hours each) at 6, 9, 12, and 24 months either at the home or at the University of South Carolina, summary reports of your child's development by infant development experts, and compensation for participation (up to \$400 total).

Contact: (803) 777-5676 | uscnddlab@sc.edu

Don't see your study?

If you would like CAN to recruit for your study, fill out [this brief form](#) to provide information about your sample.

CAN IN THE COMMUNITY

CAN has a new Twitter account!



Follow us
@canresearchsc



UPCOMING COMMUNITY EVENTS

South Carolina State Museum (SCSM) Accessibility Mornings

- Every second Saturday!
- 12/10, 1/14, 2/11
- 9-11am

EdVenture Sensory Nights

- 12/8, 12/9
- 5:30-7:30pm

SC Philharmonic Sensory Friendly Concert

- Experience the SC Philharmonic's first sensory-friendly concert!
- Feb. 19th, 2023, 3pm

Interested in tabling?
Contact Audrey or just
stop by to say hello!



What should I expect when tabling?

When tabling, you will interact with families by informing them about CAN, directing parents to relevant studies, encouraging registry sign-up, and meeting lots of children!



CALL TO ACTION

We want everyone within our **CAN community** to feel involved!

Ways you can get involved...

Community Outreach & Recruitment

Join us at one of our tabling events (see Page 8)

Propose an idea for engagement with a particular community -- for instance, we are looking for new ways to connect with rural communities. Do you have an idea that could help?

Workgroups

Interested in helping shape CAN's future directions? Consider joining one of our workgroups! Contact [Caitlin](#) who can put you in touch with the right group.

Active Groups

Trainee Committee

1-2 per semester
Peer grant review

3rd Tuesdays
Community/ outreach

Or propose a new workgroup!

Website & Newsletters

Spotlights: Submit a picture of yourself and a blurb about your research to be featured on the CAN website and newsletter!

Recent publications: Tell us about your newest publication. Bonus points for working with us to develop an infographic describing your findings.

Ask a question: Do you have an autism or neurodevelopment question "itching" at the back of your mind? Ask a question in an upcoming newsletter and we'll solicit commentary from the CAN community.

Shout-outs: Proud of your trainee or mentor? Tell us about it!

Send all submissions and inquiries to [Audrey](#)

Holiday Treat Answers

Jane: Reese's Christmas cups

Jeff: Trip to Caribbean

Sarah: Pecan pie with chocolate chip bottom and homemade whipped cream

Rob: Dream bars

Dan: Yams with marshmallow topping

