

# THE CAROLINA AUTISM AND NEURODEVELOPMENT RESEARCH CENTER

## SEPTEMBER NEWSLETTER

### CAN Fall Retreat Highlights



CAN Fall Retreat attendees

The CAN Research Center hosted the annual fall retreat on August 14. See pg. 5 to see what we accomplished!

### Get to know our community!

Every month, the CAN Research Center attends community events to share research opportunities, resources, and information. Email [can@sc.edu](mailto:can@sc.edu) to sign up!

#### Now Hiring!

See page 6 for job opportunities!

### CV PANEL & WORKSHOP

September 15

1:30 - 3PM

Institute for Mind  
& Brain, Room 125

Improve your academic resumé! Learn from three researchers, followed by a CV workshop for real-time feedback! Coffee and cookies provided. See more pg. 4.



CAN tabling at the Women's Health Fair in Sumter, SC

# Happy September!



Caitlin Hudac  
CAN Steering Director  
[chudac@mailbox.sc.edu](mailto:chudac@mailbox.sc.edu)

Cheers,

*Caitlin*

## A Message From Our Steering Director

Welcome back to campus! We launched the semester with an amazing full-day retreat that included 30 faculty, 29 trainees, and four invited guests. We celebrated our success over the past year, heard from eight speakers about their scientific contributions, and spent the majority of the day thinking ahead to the future of CAN Research Center. I'd like to highlight some **new initiatives** and **summarize key ideas** from the retreat.

Modified mission statement that emphasizes three goal areas:



**CAN Science meetings format:**  
**New:** Science meetings for Fall 2023 will take place most **Wednesday mornings from 8-9 am on Zoom**. Each CAN lab is encouraged to present at least **ONCE** per year. This is meant to serve as a casual environment to get feedback on scientific progress. [Link for schedule:](https://sc.edu/study/colleges_schools/artsandsciences/centers_and_institutes/uofscand/events/index.php)

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**Community Advisory Board:**  
**New:** We are establishing a CAB that will include quarterly meetings between CAN members and advocates, stakeholders, families, clinicians. Our goal is to align our research and community outreach activities with the needs and values of the community.

### CAN Visibility:

**New paper or grant?** Let us know! We are working on large- and small-scale ways to improve our visibility, including generating layperson infographics of CAN member research.

### Need for trainee opportunities :

**Theme:** There is an urgent need and interest in opening trainee-focused programming. Some ideas and new initiatives include:

- Dr. Jane Roberts is writing a **T32 grant** for transdisciplinary postdoc training.
- Trainee representation on CAN Exec
- Possible peer mentoring program
- Potential for travel and research support for students



Fall 2023  
CAN  
Events

# New: Weekly Virtual Science Meetings

Wednesdays, 8-9am | Every first three weeks of the month

Want to learn about science updates from CAN researchers? Join us virtually to stay in the science loop and foster connections. ALL are welcome!

Sep  
15

### **CV Panel/Workshop** 1:30 - 3:30pm | IMB 125

Chat with three panelists to get tips on your curriculum vitae (CV; i.e., academic resumé) for 30 minutes, followed by a 1-hour CV workshop where trainees can receive real-time, expert advice on their CVs.

Oct  
15

### **Buddy Walk - Lowcountry** 12 - 4pm | Daniel Island, SC

October is Down Syndrome Awareness Month! Support Down syndrome at the annual Buddy Walk, a nationwide program to raise funds for individuals with Down syndrome. Featuring bouncy castles, crafts, live music, and more. Contact [can@sc.edu](mailto:can@sc.edu) to table!

Oct  
27

### **External Speaker Series - Virtual** 1 - 2 pm

Dr. Susan White, Psychology Professor at the University of Alabama, Doddridge Saxon Chair-holder, and Director for Center for Youth Development and Intervention, will be holding a virtual seminar and small group discussions.

Nov  
13

### **Lunch with a PI**

The CAN Trainee Committee is hosting a lunch with a PI, in which two Principal Investigators (PIs) will chat with and answer questions from trainees over lunch.

Dec  
(date tbd)

### **CAN Holiday Party**

Join us for the annual CAN Holiday Party! Enjoy dinner and the opportunity to connect with members at the end of the year. ALL members welcome!

#### Download the CAN Calendar:

<https://outlook.office365.com/owa/calendar/0f01a5502d964c20be076774f11570c9@sc.edu/6e8a7693fef4466cba6c15cc9d26fe67614674595889468974/calendar.ics>



The Carolina Autism and Neurodevelopment  
(CAN) Research Center

# CV Panel & Workshop

CAN Trainee Committee




**Want to improve  
your CV\*?**

**Receive feedback and  
tips from post-doctoral  
researchers!**

**Dr. Snezana Milosavljevic**  
Pharmacology, Physiology and  
Neuroscience

**Dr. Julia Yurkovic-Harding**  
Psychology

**Dr. Rinaldo Rodrigues dos Passos**  
Cell Biology and Anatomy




 Questions? Email [can@sc.edu](mailto:can@sc.edu)

**September 15  
1:30 - 3 PM**

**Institute for  
Mind & Brain, #125**

 **Coffee & cookies!**

**Post-doctoral researchers  
and faculty will:**

-  **Share tips**
-  **Help you edit your CV**
-  **Answer your questions**

\*A curriculum vitae (CV) is an academic resumé that includes your education, qualifications, and career experience.



UNIVERSITY OF  
**South Carolina**



CAROLINA  
AUTISM & NEURODEVELOPMENT  
CENTER



# CAN Center Retreat Highlights

Dr. Jane Roberts addresses attendees

Thank you to everyone who attended the 2023 CAN Fall Retreat on August 14! **Dr. Kristy Welshans** organize a fantastic schedule. Highlights included:

- **Dr. Orgul Ozturk**, USC Economics spoke on economics as a tool (“hammer”) for interdisciplinary research
- **“Across the Lifespan”** talks emphasized CAN research strengths in human and preclinical markers of development
- **Working lunch** was indicated as a highlight for many -- the trainee involvement breakout groups were popular.
- **“ANS Function and Emotion Regulation”** talks emphasized CAN research strengths from work with preterm infants, fragile X youth, and rodents
- Last **breakout groups** identified next steps - including financial planning, the next level for our human registry, and goals for graduate education.



Dr. Jeff Twiss

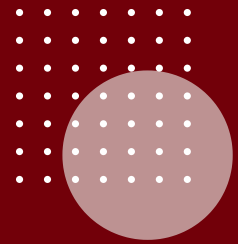


All retreat attendees



Breakout group discussion

# THE CAN RESEARCH CENTER IS **HIRING!**



Check out our open positions!

## **CAN Research Center Intern**

Engage and attend community outreach events (i.e., tabling), assist with research summary and infographic development to be shared with families, research health resources, enter/input data for the Neurodevelopment Research Registry. Apply [here!](#)

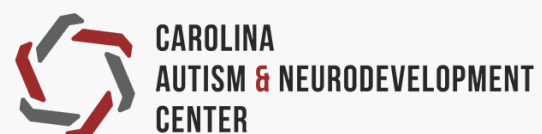
## **Research Specialist: Developmental Dynamics Lab**

Conduct in-home assessments with families and their child with Down syndrome and assist with scheduling, data management, and scoring protocols. The specialist will be exposed to a variety of interdisciplinary methods, including standardized behavioral assessment, physiology, genetics, statistics, and kinematics.

## **Research Specialist: Family Experiences Lab**

Assist with research about Fragile X syndrome Engage and attend community outreach events (i.e., tabling), assist with research summary and infographic development to be shared with families, research health resources, enter/input data for the Neurodevelopment Research Registry.

[APPLY HERE!](#)



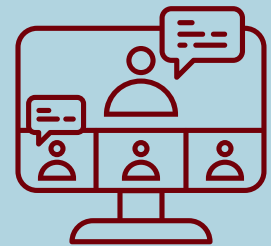
# The Carolina Autism and Neurodevelopment (CAN) Research Center

## RESEARCH SCIENTIST SEMINAR SERIES



**OCTOBER 27 1-2 PM**

**VIRTUAL**



## Dr. Susan White



**University of Alabama**  
Doddridge Saxon Chair  
Professor of Clinical Psychology  
Director, Center for Youth  
Development and Intervention

*Tune in to learn about Dr. White's research studying developmental psychology and autism interventions!*

### Dr. White's Research Expertise

- Developmental psychopathology
- Evidence-based assessment and treatment
- Intervention research
- Neurodevelopmental disorders such as autism
- ADHD
- Learning disorders

### Schedule

<b>9-10:30</b>	30 min small group meetings
<b>10:30-12</b>	Trainee group "drop-in" meeting
<b>1-2</b>	Seminar

**Learn more!**



[Dr. White's Website](#)

[More Event Info](#)

**Questions?**



can@sc.edu



803-766-6309



CAROLINA  
AUTISM & NEURODEVELOPMENT  
CENTER



UNIVERSITY OF  
**South Carolina**

## What were our CAN members up to this summer?

Neural mechanisms of language development in infancy



**The Laboratory for Integrative Neuroscience Analysis (LINA)**  
*Computer Science & Engineering*

**Dr. Christian O'Reilly**

**Deepa Tilwani**  
Ph.D. Student



ECG recordings as predictors of very early autism likelihood: A machine learning approach

Model-driven analysis of ECG using reinforcement learning

**Dr. Christian O'Reilly**

**The Early Social Development (ESD) Lab**  
*Psychology*

**Dr. Jessica Bradshaw**



Early sleep differences in young infants with autism spectrum disorder

**Alexis Federico**  
Ph.D. Student



Reducing brain kynurenic acid synthesis precludes kynurenine-induced sleep disturbances

**Miranda Foster**  
Ph.D. Student



**The Pocivavsek Lab**  
*Pharmacology, Physiology & Neuroscience*

**Dr. Snezana Milosavljevic**  
Postdoctoral Researcher



**Dr. Ana Pocivavsek**

**Courtney Wright**  
Ph.D. Student



**Maria Piroli**  
Ph.D. Student



**The Brain Research Across Development (B-RAD) Lab**  
*Psychology*

**Dr. Caitlin Hudac**



Characterizing the autism spectrum phenotype in DYRK1A-related syndrome

Pubertal maturation and timing effects on resting state EEG in autistic and comparison youth

## AWARDED GRANTS

These trainees were awarded grants to fund stipend, tuition, and research.

**Jordan Headen**  
Welshhans Lab



**Tessa Djiko**  
ESD Lab



Supplement to Dr. Welshhans' NIH/National Institute of Neurological Disorders and Stroke (NINDS) R01 grant

NSF Graduate Research Fellowship Program (GRFP) Grant





## Infant: Birth - 2 years

### Early Social Development Lab

Principal Investigator: Dr. Jessie Bradshaw

**THE  
EARLY SOCIAL  
DEVELOPMENT  
LAB**  
AT UofSC

#### Newborn Study

- Under 1 month and born preterm (between 26-34 weeks gestation) **or**
- Under 3 months with an older full biological sibling diagnosed with autism
- Under 1 month with an older sibling who is typically developing, no family history of autism

#### ABC Study (Infant development)

- Infants under 12 months who have a biological parent or full biological sibling diagnosed with or taking medicine to treat ADHD.

#### ACTION Study (Infant development)

- Have an older sibling who is considered typically developing **or**
- Have an older full biological sibling with autism

#### NICU Exit Study

- Preterm infants from the PRISMA-Richland NICU

### Neurodevelopmental Disorders Lab

Principal Investigator: Dr. Jane Roberts



**Neurodevelopmental Disorders Lab**  
Department of Psychology

#### Infants - Fragile X syndrome Study

- 12 months or younger with fragile X syndrome
- 12 months or younger with the fragile X premutation
- 6 months or younger with no developmental concerns

### Developmental Dynamics Lab | Principal Investigator: Dr. Liz Will

#### Infants - Down syndrome Study

- Under 12 months with Down syndrome





## School Age

## Child, Adolescent, Adult

### 2 - 5 years:

#### Community-Oriented Lab for Autism and Behavioral Interventions

Principal Investigator: Dr. Sarah Edmunds

#### Emotion Regulation Study

- Child has an ASD diagnosis
- Child has some developmental concerns with no diagnosis
- Child has no developmental concerns and no diagnosis



#### Brain Research Across Development Lab

Principal Investigator:  
Dr. Caitlin Hudac

**BioGENE Study** (genes in autism and other neurodevelopment disorders)

- **All ages** under 90 years
- With or without a diagnosis



### 18 months - 8 years:

#### Autism and Family Lab

Principal Investigator: Dr. Rob Hock

#### Parent Support Study

- Diagnosed with ASD within last 12 months
- Parenting responsibilities shared with two caregivers in the same home



## Adult

#### SC Family Experiences Lab

Principal Investigator: Jessie Klusek

#### Fragile X syndrome

Multiple studies recruiting:

- Women who are carriers of the fragile X premutation
- Mothers with a son or daughter with fragile x syndrome, an ASD diagnosis, or with no developmental concerns
- Young adults with fragile X syndrome