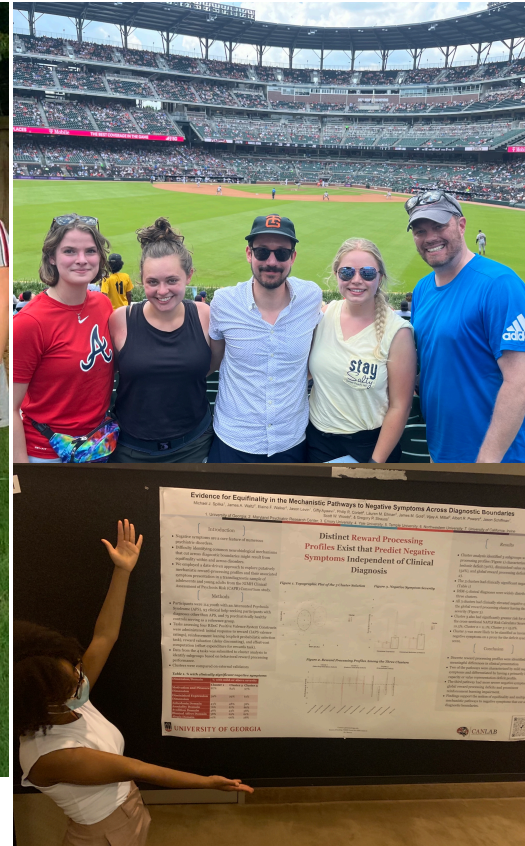




CANLAB
NEWSLETTER
2022

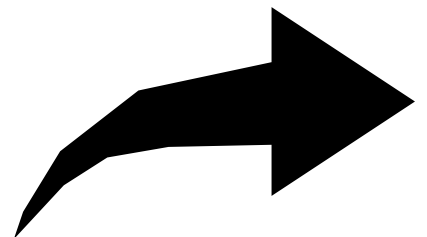
CLINICAL AFFECTIVE NEUROSCIENCE LABORATORY

2022 – A YEAR IN REVIEW



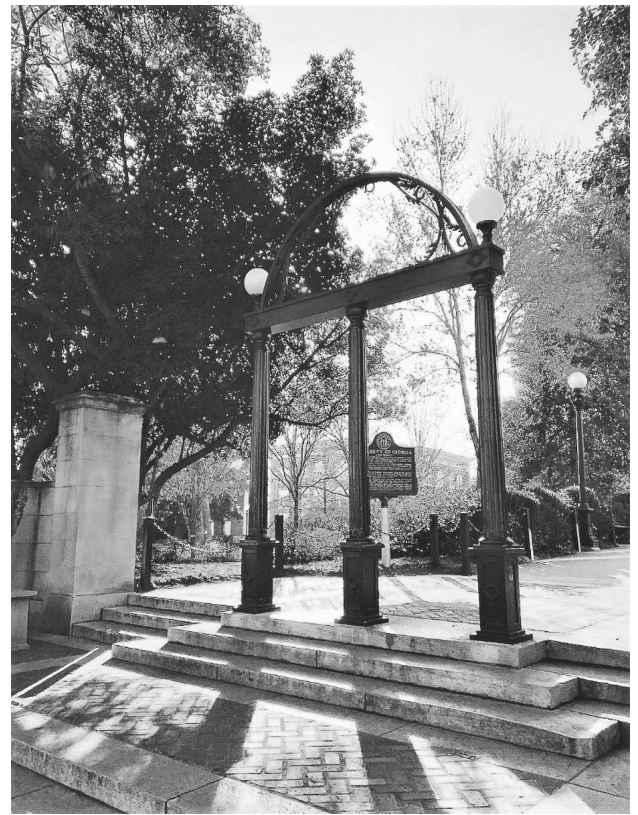
Swipe to see the 2022 highlights from the

CLINICAL AFFECTIVE NEUROSCIENCE LABORATORY

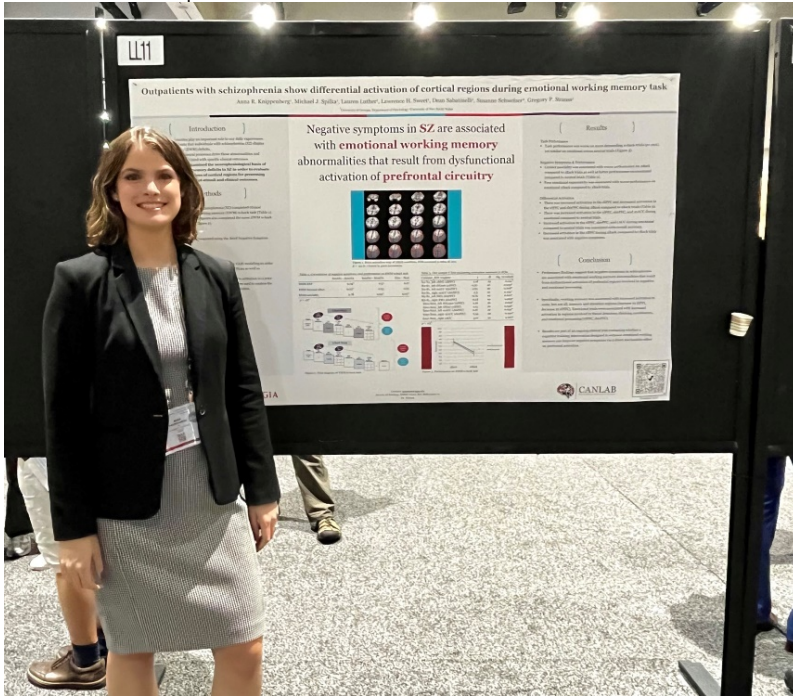




#1 Goodbyes: We wished a fond farewell to 5 lab members in 2022. Dr. Michael Spilka completed his postdoctoral fellowship and accepted a job at Winterlight Laboratories in Toronto where he works as a data scientist. Dr. Spilka was invaluable in developing our lab's initial protocols for fMRI data processing and analysis, and contributed to several important papers on mechanisms of negative symptoms. Dr. Ivan Ruiz completed his PhD in clinical psychology at UGA after finishing his clinical internship at the Eastern Kansas VA. His programmatic line of research focused on mechanisms underlying effort expenditure deficits in schizophrenia and how they contribute to avolition and neuropsychological impairment. He is now a postdoctoral fellow in neuropsychology at UCLA. Lab manager Jason Levin started medical school at Augusta University. During his 2 years in the lab, Jason was instrumental in initiating and coordinating our CAPR R01. Undergraduate research assistants Nia Cole and Sabrina Yavari finished their bachelor degrees at UGA. Nia is working as a postbacc research coordinator at Binghamton University in Dr Brandon Gibb's lab. Sabrina is applying to medical school. Both contributed to data collection in studies examining psychosis risk.



#2 Promotions: Dr. Lauren Luther was promoted from postdoctoral fellow to junior faculty in the psychology department at UGA. She also submitted a K-award application to NIMH focused on computational mechanisms of avolition in schizophrenia. Alysia Berglund moved into the role of lab manager.



Anna Knippenberg



Lauren Arnold

#3 New Faces: The CAN Lab welcomed two old friends back for new roles. Former lab manager, Anna Knippenberg, transitioned to first year graduate student in clinical psychology where she is continuing to work in the CAN lab. Her research interests include emotional memory mechanisms contributing to anhedonia in schizophrenia and biological mechanisms leading to negatively valenced hallucinations. Former 2018 UGA graduate and inaugural undergraduate lab member, Lauren Arnold, completed a position as a research coordinator at the Medical University of South Carolina and rejoined the can lab as a new full-time research coordinator in 2022. She is running our studies using fMRI and digital phenotyping that explore novel mechanisms and treatments of avolition in schizophrenia.





#4 Kudos: Research coordinator, Gifty Ayawvi, was recognized for research accomplishments by being awarded the President's award from the Society for Research in Psychopathology and a student poster award from the International Society for Traumatic Stress Studies (ISTSS). Anna Knippenberg was awarded the prestigious presidential scholarship from UGA for incoming doctoral students with exceptional research promise.



#5 Babies: several current and former lab members have welcomed new junior scientists to the world! Congratulations to Drs. Lauren Luther, Katie Visser, Kayla Whearty and their families!

Dr. Strauss received the creative research medal from UGA on the football field and had the cutest date at the award ceremony!





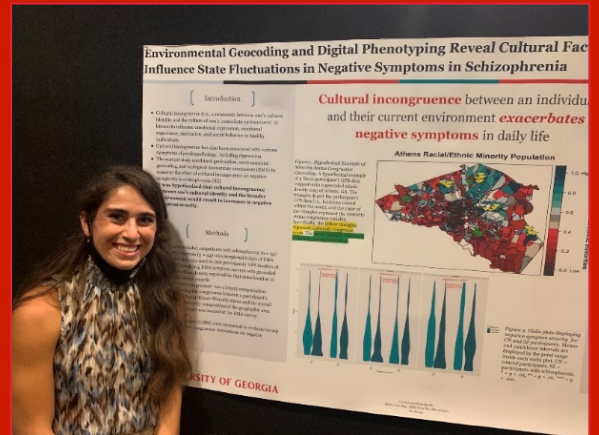
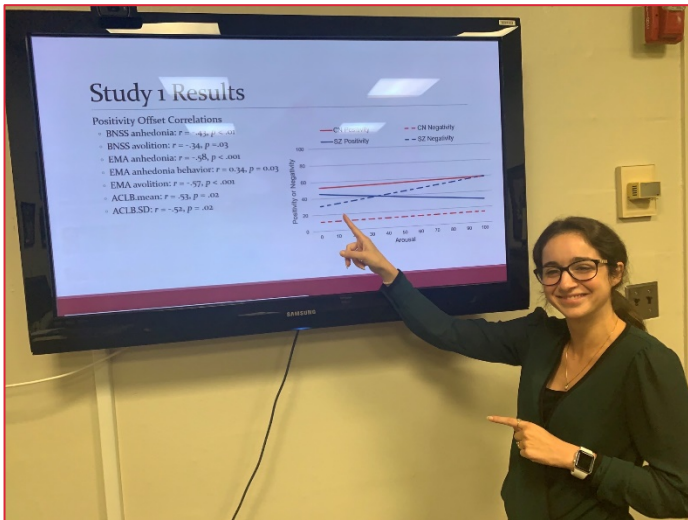
CANLAB

Clinical Affective Neuroscience Laboratory

Graduate students Ian Raugh and Lisa Bartolomeo were recognized with the Young and Zimmer departmental awards for clinical and research accomplishments. Ian was also recognized as a runner up for the Smadar Levin award for his presentation on moderators of emotion regulation impairment in schizophrenia at the Society for Research in Psychopathology.



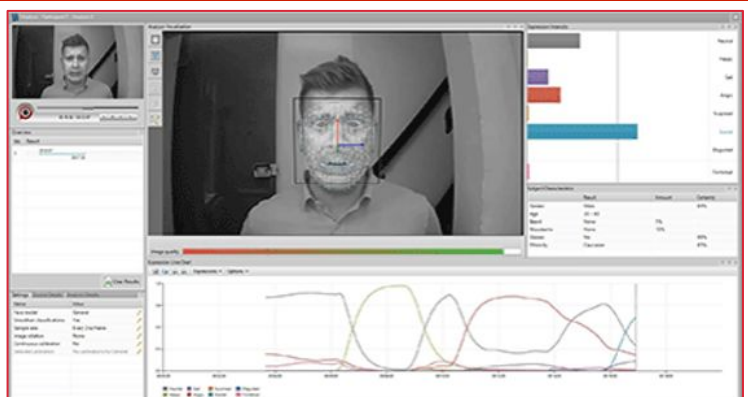
Lisa Bartolomeo and Ian Raugh successfully proposed their dissertations and applied for clinical internship!!



Sydney James and Delaney Collins published their first 1st author papers in the Journal of Psychiatric Research and Schizophrenia Bulletin!

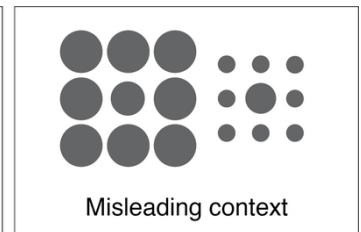
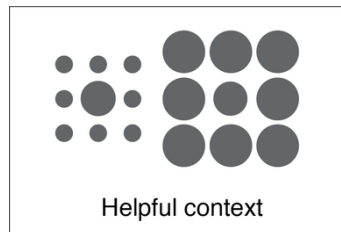


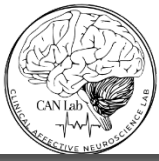
6 Publications: The CAN lab had over 20 new publications accepted in 2022. These papers were completed in conjunction with our collaborators and friends throughout the world. A few highlights include: (1) Validation of phone and smart band accelerometry measures of negative symptoms in schizophrenia; (2) The COVID-19 pandemic impacted social media and internet use in adults with schizophrenia and youth at clinical high risk for psychosis, which interacted with symptom exacerbation; (3) in collaboration with our friends at LSU, Dr. Alex Cohen and Tovah Cowan, we demonstrated that ambulatory videos can be completed with good adherence and used to assess dynamically fluctuating negative symptoms in social contexts; (4) Postdoctoral fellow Dr. Michael Spilka first authored papers showing an association between oxytocin and facial affect perception, as well as implicit reinforcement learning and negative symptoms; (5) Coordinator Delaney Collins and postdoctoral fellow Lauren Luther lead efforts on an editorial proposing a role for income, which may be influenced by disability benefit amount, as a factor contributing to negative symptoms; (6) Visiting graduate student from Queen's College in Canada, Tanya Tran, was first author on a paper linking negative symptoms to implicit cognitive effort monitoring difficulties; (7) Lisa Bartolomeo published the first paper from her 3 study staple dissertation on the positivity offset reduction and anhedonia in daily life using digital phenotyping methods.



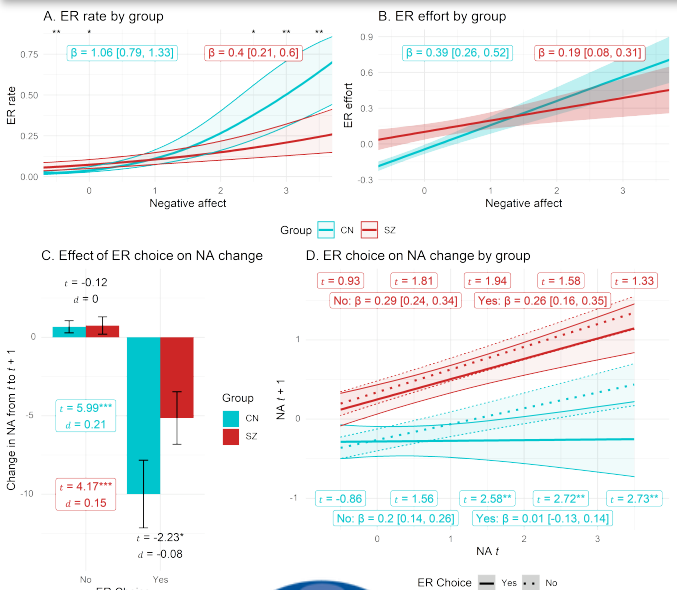


#7 Data Collection: The CAN Lab collected data for 7 externally funded studies and 1 internally funded study. Half of our studies involve adults diagnosed with schizophrenia, whereas the other half focuses on youth at clinical high risk for psychosis. Our site's participation in the ProNET U01 grant is being facilitated by several staff members, including coordinators Delaney Collins and Sierra Jarvis, as well as graduate students Sydney James and Lisa Bartolomeo. This study is a longitudinal investigation of biomarkers underlying transition to psychosis. Data collection also continued for year 3 of our multi-site CAPR (Computerized Assessment of Psychosis Risk) consortium R01, with efforts at our site lead by Jason Levin and Gifty Ayawvi. Preliminary analyses by our team at UGA reported exciting new results regarding equifinality in the mechanisms underlying negative symptoms across psychiatric diagnoses. The GAINS R01 (Georgia and Illinois Negative Symptom Study) completed phase 1, which included a 3-year study developing novel negative symptom assessment tools for those at clinical high risk for psychosis, including digital phenotyping measures, a clinical rating scale, and a questionnaire. Multiple papers were submitted for publication on the validation of these measures. During phase 2, longitudinal followups are being conducted, with data collection at UGA lead by Alysia Berglund and Ashley Zollicoffer.





#7 Data Collection: Data collection also continued for our R61 study, coordinated by Anna Knippenberg and Alysia Berglund. The R61 is being conducted in collaboration with Drs. Lawrence Sweet, Dean Sabatinelli, and Susanne Schweizer and consists of a clinical trial exploring the efficacy of a novel cognitive training app for improving emotion regulation in schizophrenia. Graduate student Anna Knippenberg and postdocs Michael Spilka and Lauren Luther have led lab efforts in fMRI data analysis under Dr. Sweet's mentorship. Initial results provide promising support that the intervention successfully moves the intended mechanism of action (prefrontal activation).



New PI grants were also initiated by Dr. Lauren Luther (APF) and Lisa Bartolomeo (F31), which examine a novel treatment for negative symptom and mechanisms underlying negative symptoms using fMRI outcome measures. Lauren Arnold coordinates data collection for these studies. Finally, pilot data collection commenced to test new hypotheses regarding environmental contributions to negative symptoms. Data is being collected in Georgia and Nevada (in collaboration with Dan Allen's lab at UNLV). Study coordination at UGA has been lead by graduate students Sydney James and Luyu Zhang. Preliminary results indicate that negative symptoms are associated with environmental resource reduction.



#8 Grants completed: data collection and analysis was completed for 2 grants: our R21 study examining emotion regulation in those at clinical high risk for psychosis and our R21 study examining whether effort fails to become a secondary reinforcer in schizophrenia. Findings of the emotion regulation study (R21-MH119438) indicated that youth at CHR display several emotion regulation impairments consistent with adults with schizophrenia at the identification, selection, and implementation stages. Impairment at the implementation stage alone predicts greater probability of transitioning to full psychosis. Findings of our R21 study (R21-MH122863) provided some support for the hypothesis that cognitive effort is less likely to become a secondary reinforcer among individuals with schizophrenia.

#9 G-PREP: This year, the Georgia Psychiatric Risk Evaluation Program participated in the care of numerous youth in the state of Georgia referred for early psychosis. We provide free comprehensive psychodiagnostic and neuropsychological assessments, as well as longitudinal monitoring that has been shown to reduce risk for transitioning to a psychotic disorder. These services are provided by Dr. Strauss, a licensed clinical psychologist, and his UGA clinical psychology PhD program graduate students. G-PREP would like to recognize Ms. Lisa Bartolomeo for years of dedication and excellent clinical contributions, as she completes her last year of graduate school at UGA and finishes her Ph.D.





#7 Thank You: The lab is grateful to the participants who donated their time and effort to complete our studies, as well as the AMAZING staff at the Owens Institute for Behavior Research. Without our team members at OIBR, the research we conduct on mental health conditions would not be possible. We are grateful for their skill and dedication. Finally, we would like to encourage and support those who experience mental health conditions, as well as their families who take these journeys with them. We fight for you and with you!

GEORGIA.

