



## Welcome to the 16th Annual Georgia State Undergraduate Research Conference

GSURC 2022 is a virtual conference hosted on the Acadiate platform. The conference includes a mix of presentation types, with live and pre-recorded components, all organized into a series of showcase tiles. The conference website will become accessible at 9am on Monday, April 11, 2022 for previews. **Live student presentation sessions will take place throughout the day on Wednesday, April 13, and Thursday April 14.**

**Oral presentations**, which consist of 10-minute talks, will all be given *live* in virtual conference rooms during special sessions on each conference day. Oral presentation sessions begin at 9 a.m., 11 a.m., 1 p.m. and 3 p.m. A complete list of oral presentations in each session can be found in the program and by clicking on the individual room tiles on the conference website. To enter a virtual conference room for an oral presentation, click on the "Join Meeting" button just before the live session begins.

**Artistic Presentations, Films, and Poster Presentations** will be visible throughout the conference. Each of these presentation formats have pre-recorded components that include an image or video of the project as well as a video introduction to the project. The project can be examined in more detail by clicking on the individual tile. Once inside the tile, the introductory video can be accessed by clicking on the video's title under "Media" in the menu on the left-hand side. Student presenters will be available in virtual conference rooms to answer questions during special live sessions that begin at 10 a.m. and 2 p.m. on April 13th and 14th. During these live sessions, attendees can drop in and speak to presenters at any time by clicking on the "Join Meeting" link on an individual tile. A complete list of presentations in each session can be found in the program and by clicking on the session tiles.

Thank you for supporting undergraduate research at Georgia State!



**Wednesday, April 13, 2022**

9:00 a.m. - 10:00 a.m.	Oral presentations, morning session A
10:00 a.m. - 11:00 a.m.	Poster presentations, morning live session
11:00 a.m. - 12:00 p.m.	Oral presentations, morning session B
12:00 p.m. - 1:00 p.m.	Break
1:00 p.m. - 2:00 p.m.	Oral presentations, afternoon session A
2:00 p.m. - 3:00 p.m.	Poster presentations, afternoon live session
3:00 p.m. - 4:00 p.m.	Oral presentations, afternoon session B

**Thursday, April 14, 2022**

9:00 a.m. - 10:00 a.m.	Oral presentations, morning session A
10:00 a.m. - 11:00 a.m.	Poster presentations, morning live session
11:00 a.m. - 12:00 p.m.	Oral presentations, morning session B
12:00 p.m. - 1:00 p.m.	Break
1:00 p.m. - 2:00 p.m.	Oral presentations, afternoon session A
2:00 p.m. - 3:00 p.m.	Poster presentations, afternoon live session
3:00 p.m. - 4:00 p.m.	Oral presentations, afternoon session B

April  
13 & 14

# Artistic Presentations

[Conference  
Link](#)

- 1. Illusions: How Optics Influenced Art of the Dutch Golden Age**  
De'De' Ajavon | Photography  
Faculty Sponsor: Dr. Katherine Cunningham
- 2. The Left Behind**  
Nandi Cooper | Photography  
Faculty Sponsor: Dr. Jill Frank
- 3. Ceasefire**  
Jaclynn Lollar | Art Education  
Faculty Sponsor: Dr. Kevin Hsieh
- 4. Revive**  
Tatiana Neagoie | Art Education  
Faculty Sponsor: Dr. Melanie Davenport
- 5. ToGome**  
Marrie Nguyen | Interior Design  
Faculty Sponsor: Dr. Hoa Vo
- 6. Ruptured is the Flesh**  
Kenny Oaster | Art Education  
Faculty Sponsor: Dr. Melanie Davenport
- 7. The Pivotal Power of Diversity**  
Em Phillips | Film & Media  
Faculty Sponsor: Dr. Kevin Hsieh
- 8. Sheer Quilt**  
Tamai Shealey | Textiles  
Faculty Sponsor: Dr. Jess Jones
- 9. The Application of Perception Theory in Workplace Design, Uber Headquarters**  
Kyle Vice | Interior Design  
Faculty Sponsor: Dr. Hoa Vo
- 10. Development Without Displacement: A Buford Highway Corridor Community Center**  
Kaysel Weiner-Huice | Interior Design  
Faculty Sponsor: Dr. Hoa Vo

**April**  
**13 & 14**

# Film Presentations

[Conference  
Link](#)

**1. Remembering Wallenberg**

Nyah Carlson

Faculty Sponsor: Dr. Robbie Land

**2. A Bad Trip**

Ryan Richardson & Riley Krill

Faculty Sponsor: Dr. Robbie Land

April  
13

# Oral Presentations

[Conference  
Link](#)

**Live Session: 9:00 a.m. - 10:00 a.m.**

## ROOM 1

**C2C 2.0: Do GSU Students' Perceived Skill Proficiencies Align with the Skills Employers Want in New Hires?**

Lexus Agee

Faculty Sponsor: Dr. Susan Willey

**Associations Between Collective Self-Esteem and Intergroup Anxiety**

Veda Balaji

Faculty Sponsor: Dr. Erin Tone

**The Relationship Between Self-objectification and Emotion Regulation Problems in College Women**

Rorah Ndungu, Brennan Ross, Anna Peddle, Julia Hammett

Faculty Sponsor: Dr. Cynthia Stappenbeck

**Brazilian Jiu Jitsu and its Role in Mental Well Being**

Brian Zorya

Faculty Sponsor: Dr. Edmund Rodgers

## ROOM 2

**Utilizing Deep Learning to Automate Categorization of Ultrasonic Rat Vocalizations**

Varun Joshi

Faculty Sponsor: Dr. Anne Murphy

**Monitoring Solar Effect with CubeSats on Cosmic Ray Flux Variation at Sea Level**

Tori Padgett, May Norrington, Carter Stephan

Faculty Sponsor: Dr. Ashwin Ashok

**Evaluating Communication Data Rate Performance for Underwater Visible Light Communication**

Razat Sutradhar

Faculty Sponsor: Dr. Ashwin Ashok

April  
13

# Oral Presentations

[Conference  
Link](#)

**Live Session: 11:00 a.m. - 12:00 p.m.**

## ROOM 1

**Examining Possible Regional and Asymmetrical Trends of Osteophytosis in Human Vertebrae**

Mia McMahon

Faculty Sponsor: Dr. Frank Williams

**In Search of the Brazilian Dream: An Ethnography of Economic Immigrants in Atlanta**

Sarah Mendes

Faculty Sponsor: Dr. Kathryn Kozaitis

**Erased Narratives: Oral Histories of the US and México Border**

Julisa Rojas

Faculty Sponsor: Dr. Cassandra White

**Re-Imagine Atlanta: The Car-Free City**

Claire Smith

Faculty Sponsor: Dr. Lelani Mannetti

## ROOM 2

**Utilizing Machine Learning to Predict Gray Matter Volumes For Different Brain Regions Using fMRI Scans**

Varun Joshi

Faculty Sponsor: Dr. Sergey Plis

**Data Poisoning for Security Relevant Data**

Nestor Kaputo

Faculty Sponsor: Dr. Daniel Takabi

**The Invariant Yield of Phi Mesons in Particle Collisions**

Russell Marroquin

Faculty Sponsor: Dr. Murad Sarsour

**Misinformation in Social Media: Improving User Stance Detection using Deep Neural Networks**

Gyandeep Reddy Vulupala

Faculty Sponsor: Dr. Rajshekhar Sunderraman

April  
13

# Oral Presentations

[Conference  
Link](#)

**Live Session: 1:00 p.m. - 2:00 p.m.**

## ROOM 1

### **Ibn Khaldun's views on race in the 14th Century**

Adayshia Johnson

Faculty Sponsor: Dr. Allen Fromherz

### **Spanish Translation of the Attitudes toward Psychological Online Interventions within a Hispanic community**

Maria Peraltilla

Faculty Sponsor: Dr. Page Anderson

### **A Broken System: The Development of the American Healthcare System Post 1930 with an Analysis of the Schism Between U.S. and Canadian Systems**

Ashwath Tirunellayi

Faculty Sponsor: Dr. Robert Woodrum

April  
13

# Oral Presentations

[Conference  
Link](#)

**Live Session: 3:00 p.m. - 4:00 p.m.**

## ROOM 1

### **An Intersectional Look at Recovery, Addiction, & Harm Reduction**

Bridget Bailey

Faculty Sponsor: Dr. Stephanie Evans

### **The HIVE: Sustainable LGBTQIA+ Community Center**

Mark Degner

Faculty Sponsor: Dr. Hoa Vo

### **What Impact Does Parental Drug Misuse Have on Children's Socioeconomic Mobility?**

Ashton Miller

Faculty Sponsor: Dr. Eric Sevigny

### **The Role of a Sense of Belonging in the Academic Experiences of LGBTQ+ STEM Undergraduates**

Xin Zhang

Faculty Sponsor: Dr. Stephanie Gutzler



April  
13

# Poster Presentations

[Conference  
Link](#)

**Live Session: 10:00 a.m. - 11:00 a.m.**

- 1. Analyzing Trends in Georgia State Transfers**  
Obaseki Akhirome  
Faculty Sponsor: Dr. Jessica Turner
- 2. The Role of Fibroblast Growth Factor 8 (Fgf8) in the Monogamous Behavior of the Convict Cichlid**  
Alex Alexander, Jalela Cruver, Chizim Ogbonna, Kayla Wilson  
Faculty Sponsor: Dr. Jonathan Sylvester
- 3. Aedes Mosquito Early Warning System: Integrating Disparate Environmental Datasets**  
Anvith Anand, Emma McDaniel  
Faculty Sponsor: Dr. Chetan Tiwari
- 4. Using Infrared Technology to Examine Arousal in Brown Capuchin Monkeys (*Sapajus [Cebus] apella*)**  
Charles Andrews  
Faculty Sponsor: Dr. Sarah Brosnan
- 5. Antibiotic-Resistance Bacteria in Atlanta's Urban Waterways**  
Rella Madeline Arena, Emma Allen, Jessica Joyner  
Faculty Sponsor: Dr. Jessica Joyner
- 6. On Subgraphs of Tripartite Graphs**  
Abhijeet Bhalkikar  
Faculty Sponsor: Dr. Yi Zhao
- 7. Support Vector Machine Prediction of MMSE Scores in AD Patients**  
Alexis Breed, Gabriel Martinez Ortiz  
Faculty Sponsor: Dr. Jessica Turner

- 8. "Real Science" Education: A Right or a Privilege?**  
Jada Byrd  
Faculty Sponsor: Dr. Caroline Sullivan
  
- 9. Calcium Sensing Receptor and Synthesis of TNCA**  
Sage Cordsen  
Faculty Sponsor: Kostiantyn Marichev
  
- 10. Investigation of a Mechanism of Interaction of Persistent Na<sup>+</sup> and Na<sup>+</sup> /K<sup>+</sup> Pump Currents Supporting Bursting Activity in a Leech Heart Oscillator Neuron**  
Samuel Core, Mykhailo Fomenko, Ricardo Erazo-Toscano  
Faculty Sponsor: Dr. Gennady Cymbalyuk
  
- 11. Cerebellar Gray Matter Reduction Correlation with Negative Symptom Severity in Schizophrenia and Bipolar Subjects**  
Eimhear Davis, Gabriel Martinez, Summer Steely  
Faculty Sponsor: Dr. Jessica Turner
  
- 12. The Phoenix and The Sankofa Bird: Atlanta's Art Institutions and Their Communities**  
Magdalena Dumitrescu  
Faculty Sponsor: Dr. Nicola Sharratt
  
- 13. The Influence of Age and Mental Imagery Ability on Dreams**  
Kristy Duncan, Janine Bush, Beth Stevens, Mike Beran, Heather Offutt  
Faculty Sponsor: Dr. Heather Offutt
  
- 14. Framework for the Integration of Health Data Collected via Wearable Devices**  
Sara Edwards, Bronson Tharpe, Suzanne Alexander, Faris Hawamdeh  
Faculty Sponsor: Dr. Suhasini Ramisetty-Mikler
  
- 15. The Potential of An19 Synthetic Uricase as a Therapeutic for Gout**  
Amelia Floryance  
Faculty Sponsor: Dr. Eric Gaucher
  
- 16. Children's Self-Blame for Mothers' Sadness Predicts Lower Reparative Behaviors during Middle Childhood**  
Katherine French, Kyrsten Buote, Erin McDonald, Erin Tully  
Faculty Sponsor: Dr. Erin Tully
  
- 17. Tourism and its Impact on Native Hawaiian Culture Preservation: Its Barriers, Failures, and Opportunities**  
Katrin Gillespie  
Faculty Sponsor: Dr. Faidra Papavasiliou

**18. Improving Our Community With Body-Worn Cameras**

Kayla-Marie Grant

Faculty Sponsor: Dr. Tami Wells Thomas

**19. Exploring Osmosis: Evaluating Alternative Experimental Protocols for the BIOL 2110K Lab Course**

Grace Hardin, Tracy Ediger

Faculty Sponsor: Dr. Tracy Ediger

**20. Optimizing Purification of Collagen Targeted Protein MRI Contrast Agent for Early Detection**

Hyein Kang, Brenda-Ruth Mimba, Dongjun Li

Faculty Sponsor: Dr. Jenny Yang

**21. How FGF Morphogens Can Lead to Monogamy**

Laiba Khan

Faculty Sponsor: Dr. Jonathan Sylvester

**22. Survival Analysis and Risk Factors of COVID-19 in Georgia**

Sangmyung Lee

Faculty Sponsor: Dr. Yichuan Zhao

**23. Mitigating Seizure-Like Dynamics in Rhythmic Circuits Under Influence of Drugs Reducing Inhibitory Interactions**

Alexander Lomashvili, Praise Idowu, Mykhailo Fomenko, Rainer Pacheco, Yousif Shams

Faculty Sponsor: Dr. Gennady Cymbalyuk

**24. Cause of Oxygen and Mechanical Ventilator Shortage in the Atlanta Area Due to the Covid 19 Pandemic and Impact on Healthcare Settings**

Ashley Lombres, Lynda Goodfellow

Faculty Sponsor: Dr. Lynda Goodfellow

**25. Supplementation with Conserved M2 Ectodomains and Neuraminidase VLPs Enhances Cross Protective Efficacy of Influenza Vaccines**

Sakinah Muhammad-Worsham, Jannatul Raha, Noopur Bhatnagar, Sang-Moo Kang

Faculty Sponsor: Dr. Sang-Moo Kang

**26. The Involvement of Sonic Hedgehog and Oxytocin in the Development of Monogamous Behavior**

Sosse Ohanian, Noah Williams, Nikol Lazarov

Faculty Sponsor: Dr. Jonathan Sylvester

- 27. Social Anxiety Moderates the Relationship Between Childhood Trauma and Cognitive Empathy**  
Oluwadara Oni, Anne Werkheiser  
Faculty Sponsor: Dr. Erin Tone
- 28. Miner's Creek Pottery Type Collection and Reassessment**  
Louis Prendergast  
Faculty Sponsor: Dr. Jeffrey Glover
- 29. Proteostatic Mechanisms Influence Huntingtin and Ataxin Protein Aggregation in Dendrites**  
Benoit Tete, Erin Lottes, Tommy Tran  
Faculty Sponsor: Dr. Daniel Cox
- 30. Ribosomal Proteins Have Heterogeneous Effects on Dendritic Morphology in C1 md Neurons**  
Emily Wilde, Shatabdi Bhattacharjee, Erin Lottes, Vaishnavi Veeranki, Dan Cox  
Faculty Sponsor: Dr. Daniel Cox
- 31. Intermittent Fasting in the Control of Type 2 Diabetes**  
Man Shan (Sarah) Wu  
Faculty Sponsor: Dr. Desiree Wanders
- 32. Statistical Inference and Epidemiological Modeling Between Risk Factors and Seropositivity of Chagas Disease**  
Chen Yang, Yuchen Jiang  
Faculty Sponsor: Yichuan Zhao
- 33. Performance Trends in Large Group Performance Evaluation Based on Composer Gender, Nationality, and Ethnicity**  
Amelia Young, Lily Isbitts  
Faculty Sponsor: Dr. Chester Phillips
- 34. The Combination of Brusatol and Methionine Restriction for Treatment of Lung Cancer**  
Drashti Zalavadia  
Faculty Sponsor: Dr. Desiree Wanders

April  
13

# Poster Presentations

[Conference  
Link](#)

## Live Session: 2:00 p.m. - 3:00 p.m.

- 1. Gender and Power among Azawad Arabs**  
Charifa Abdrahamane Sidi  
Faculty Sponsor: Dr. Jennie Burnet
- 2. Quinine before World War I: Discovery and Use**  
Charifa Abdrahamane Sidi  
Faculty Sponsor: Dr. Dabney Dixon
- 3. Social Anxiety, Competition, and the Prisoner's Dilemma Game**  
Lolade Adeniyi  
Faculty Sponsor: Dr. Erin Tone
- 4. Abstract Relations: Same-Different Conceptualization in Children and Adults**  
Katie Basford, Jasmine Paniagua, Andres Sanchez, Barbara Church, J. David Smith  
Faculty Sponsor: Dr. J. David Smith
- 5. The Impact of COVID-19 on Transition Time for Individuals Leaving Institutions with Medicaid Support in Georgia**  
Chetna Batra  
Faculty Sponsor: Dr. Kristi Fuller
- 6. Can Perceptual Learning Help the Learning of Multiple Family Resemblance Categories?**  
Devaki Carpenter, Alecia Ferguson, Anusha Mourshed, Brooke N. Jackson, Barbara A. Church, J. David Smith  
Faculty Sponsor: Dr. J. David Smith
- 7. Executive Approval in Times of Crisis: The Russo-Ukrainian War of 2022**  
Iman Hoque  
Faculty Sponsor: Dr. Ryan Carlin

- 8. A Combination of  $\gamma$ -Tocotrienol and Brusatol for the Treatment of Lung Cancer** Haeun Jin  
Faculty Sponsor: Dr. Desiree Wanders
- 9. Determining the Effects of Habitat Characteristics and Artificial Nest Box Placement and Size on the Nesting Activity of Four Species of Songbirds at Various Georgia Piedmont Locations**  
Pranav Lamda  
Faculty Sponsor: Dr. Mark Graves
- 10. Comparing the Paleoecology of Molluscan Assemblages from the Plio-Pleistocene**  
Leonardo Maduro-Salvarrey, Aaron J. Leatherwood, Patrick Welter, Michael J. Clinton, Christy C. Visaggi  
Faculty Sponsor: Dr. Christy C. Visaggi
- 11. A Comparison of Native and Non-Native Snails and Slugs Across Counties in the Metro-Atlanta Region**  
Stefano Mazzini, Christy C. Visaggi, Jann E. Vendetti  
Faculty Sponsor: Dr. Christy C. Visaggi
- 12. Implementing a Virtual Enrichment Program for Young Children: Attention to Vocabulary Skills**  
Alexander Meletios, Christen Erksine, Tashena Nelson, Rihana Mason  
Faculty Sponsor: Dr. Gary Bingham
- 13. A Laboratory Investigation of Relapse of Social Avoidance**  
Sana Nadeem, Veda Balaji, Samantha Bartholomew, Zachary Ashmore, Aleah Brown  
Faculty Sponsor: Dr. Erin Tone
- 14. Independent Components Analysis of Prisoners Dilemma Task-Based Data**  
Nidhi Patel  
Faculty Sponsor: Dr. Jessica Turner
- 15. Media's Representation of Diversity in Women**  
Skye Pullen  
Faculty Sponsor: Dr. Rasha Ramzy
- 16. Understanding Engagement Programming and Activities for Assisted Living Residents with Dementia**  
Jasmine Sease  
Faculty Sponsor: Dr. Candace Kemp

**17. The Chromatic Index of Ring Graphs**

Lilian Shaffer

Faculty Sponsor: Dr. Guantao Chen

**18. Bending Over Backwards: Does Cognitive Flexibility Predict Conspiracist Beliefs?**

Noelle Spangler, Kyle Walker, Typhani Hall

Faculty Sponsor: Dr. Heather Kleider-Offutt

**19. Expression and Purification of TEV Protease**

Teri Tran

Faculty Sponsor: Dr. Ming Luo

**20. Human Femoral Head Dimorphism Compared to Sex Differences in the Diaphysis of the Femur**

Alyssa Thibault

Faculty Sponsor: Dr. Frank Williams

**21. Psychologist, Heal Thyself**

Sohum Trivedi

Faculty Sponsor: Dr. Erin Tone

**22. Performance Characterization of sPHENIX Hadronic Calorimeter Scintillating Tiles**

Jacob Tutterow

Faculty Sponsor: Dr. Megan Connors

April  
14

# Oral Presentations

[Conference  
Link](#)

**Live Session: 9:00 a.m. - 10:00 a.m.**

## ROOM 1

### **Scientific Community vs Aducanumab and Anti-Amyloid Therapy**

Natalia Colette

Faculty Sponsor: Dr. Hester Furey

### **Within-Individual BOLD Signal Variability During a Letter N-back Task in a Verbal Fluency Network: Relation to Neuropsychological Measures of Verbal Fluency**

Neami Tedla, Stephanie Steinberg

Faculty Sponsor: Dr. Tricia King

### **Neonatal Brain Development and the Microbiota**

Emem Ukpong, Alex Castillo-Ruiz, Nicole Ronczkowski, Benoit Chassaing, Nancy Forger

Faculty Sponsor: Dr. Nancy Forger

## ROOM 2

### **Getting Us From Here to Hired – Networking GSU Students to Successful Careers**

Anvith Anand, Seeram Satvik

Faculty Sponsor: Dr. Paul Ulrich

### **Comparing the Expression of Carabelli's Trait in Central Chimpanzees and Eastern Lowland Gorillas Using the Great Ape Scoring System**

Victoria Hogans

Faculty Sponsor: Dr. Frank Williams

### **Inducing cell death on *Crithidia fasciculata* using short wavelength UV light**

Merna Ibrahim, Abraham Amare

Faculty Sponsor: Dr. Paul Ulrich

### **Georgia Audubon: Project Safe Flight**

Alejandra Tapia Batres, Raquel Gonzalez, Ricardo Hernandez

Faculty Sponsors: Dr. Rebekah Chapman & Dr. Amy Reber



April  
14

# Oral Presentations

[Conference  
Link](#)

**Live Session: 11:00 a.m. - 12:00 p.m.**

## ROOM 1

**African American Global Citizenship in the 19th and 20th Centuries: Early International Travel's Effect on the African American View of Home**

Nadine Argott

Faculty Sponsor: Dr. Ras Brown

**The Origins of Care: Tracing the Development of Oikeiosis Through History**

Nana Yaa Awere

Faculty Sponsor: Dr. Allison Piñeros Glasscock

**Integrating Gender-Inclusive and Neo-Pronouns into English Grammar**

Tamia Campbell

Faculty Sponsor: Dr. Melissa McLeod

**Anything Goes: The Acceptance of Commercial Brands in High Art**

Hailey Holtzclaw

Faculty Sponsor: Dr. Susan Richmond

April  
14

# Oral Presentations

[Conference  
Link](#)

**Live Session: 1:00 p.m. - 2:00 p.m.**

## ROOM 1

**Correlational Analysis between Attention Control Measure and Self-Reported Cognitive Control**

Zachary Ashmore, Melany Love, David Washburn

Faculty Sponsor: Dr. Erin Tone

**The Alt-Right Pipeline: How Social Media Is Used to Create Right-Wing Extremists**

Morgan-Lee Blake

Faculty Sponsor: Dr. Lakeyta Bonnette-Bailey

**The Lives of American Fast-Food Workers**

Caitlin Mussak

Faculty Sponsor: Dr. Emanuela Guano

**Sleep Quality and Executive Function in a Diverse Sample of Healthy College Students**

Maria Parilla

Faculty Sponsor: Dr. Tricia King

## ROOM 2

**Heterogeneous Expression of Recombinant Gas6 and EGF Proteins for Curing Alopecia**

Devadutta Balaji, Shiqi Huang, Yuwei Che, Chinedu Odedo, Christel Wallace, Manuel Bitá

Faculty Sponsor: Dr. Matthew Brewer

**The Battle of Chickpeas and Black-eyed Bean: Which Bean is Preferred by Female Bean Beetles?**

Birva Barot

Faculty Sponsor: Dr. Rachel Santymire

**Do Female Bean Beetles Prefer a Particular Size of the Bean for Egg-laying?**

Ruby Jacobs

Faculty Sponsor: Dr. Rachel Santymire

**Heterologous DNA Uptake in Symbiodinium Aided by Agrobacterium for Saving Coral Bleaching**

Ningxin Zhu, Aliyah Bujung, Varun Senthil, Elizabeth Plumart, Kevin Sabusay

Faculty Sponsor: Dr. Matthew Brewer

April  
14

# Oral Presentations

[Conference  
Link](#)

**Live Session: 3:00 p.m. - 4:00 p.m.**

## ROOM 1

**“In the Blood”: Decoding and Understanding the Nature of Systemic Violence in the Writings of Dr. Sindiwe Magona**

Elijah Byrd

Faculty Sponsor: Dr. Renée Schatteman

**The Evolution of Women in Androcentric British Literature**

Xandri Lim

Faculty Sponsor: Dr. Brendan Balint

**Fighting Erasure and Disrupting Universalism: Oral History and Written Literature from the Tusán and Chinese Diaspora in Peru**

Maria-Paula Ramirez-Wong

Faculty Sponsor: Dr. Randy Malamud

**Reading Red**

Ashlie Swanson

Faculty Sponsor: Dr. Mark Noble

## ROOM 2

**The Freedom of Improvisational Music**

Michael Carswell II

Faculty Sponsor: Dr. Oliver Greene

**Rethinking the Music Theory Classroom: Using Global Neo-Notation to Teach Music Without Bias**

Charlotte Dennison

Faculty Sponsor: Dr. Martin Norgaard

April  
14

# Poster Presentations

[Conference  
Link](#)

**Live Session: 10:00 a.m. - 11:00 a.m.**

- 1. Investigation of the Coregulation of Leak Potassium and TRPM8 Currents in Cold Receptors**  
Nial Beaton, Scarlet Cong, Westley Williams, Natalia Maksymchuk  
Faculty Sponsor: Dr. Gennady Cymbalyuk
- 2. Epilepsy Surgery in a Pediatric Patient with Tuberous Sclerosis Complex and Autism**  
Coralie Bergeron, Donald Bearden, Kim Ono  
Faculty Sponsor: Dr. Erica Tracey
- 3. Postprandial Optogenetic Inhibition of Dorsal-Intermediate Hippocampal Projections May Affect Energy Intake in Male Rats**  
Raihaanah Bint Abdullah Muslim, Sherri Briggs, Steven Davis, Vivian Vu, Marise Parent  
Faculty Sponsor: Dr. Marise Parent
- 4. A Tale of Love and War: Exploring the Role of Cortisol Synchrony in the Pair Bonding of Convict Cichlids**  
Kiedon Bryant  
Faculty Sponsor: Dr. Edmund Rodgers
- 5. Case Study: Introducing Robotics & Automation to Increase Diversity in the Automotive Industry**  
Jennifer Cruz, Sandra Perez-Garcia  
Faculty Sponsor: Dr. Steven Dionne
- 6. Investigating the Fitness of an Evolving Fluorescent Protein in a Single *E. coli* Strand**  
Sara Desta, Shyanna Lowers, Eric Gaucher  
Faculty Sponsor: Dr. Lily Tran
- 7. Efficacy of Specific Gal4 Neural Circuits in Determining Cold Nociception in *Drosophila melanogaster* Larvae**  
Tashae Dewalt, Trang Vo, Gabriele McBean  
Faculty Sponsor: Dr. Sarah Clark

- 8. Georgia State University Contact Networks and Interventions**  
Ryan Garland, Sara Edwards, Emma McDaniel, Bhavya Busireddy, Anu Bourgeois  
Faculty Sponsor: Dr. Armin Mikler
- 9. Visualization of the Environment's Effect on Molecular Observables Through Electrostatic Tuning Maps**  
James Gay  
Faculty Sponsor: Dr. Samer Gozem
- 10. Natural Community Types and Native and Non-Native Terrestrial Gastropods in the Piedmont Region in GA**  
Raquel Gonzalez  
Faculty Sponsor: Dr. Christy C. Visaggi
- 11. Artificial Intelligence Literacy: Development of a Measure of Knowledge and Trust**  
Jordan Guffie, Maria Paula Lengua Espejo  
Faculty Sponsor: Dr. Robin Morris
- 12. Investigating the Role of Reactive Oxygen Species (ROS) Signaling in Regulating Noxious Cold-Evoked Nociceptive Behavior in *Drosophila melanogaster***  
Inara Jawed, Jamin Letcher, Mariana Hoguin-Lopez, Romee Maitra, Nathaniel J. Himmel, Akira Sakurai  
Faculty Sponsor: Dr. Daniel Cox
- 13. Obesity Generated by High Fat Diet & Vaccine Efficacy**  
Leigha Lee  
Faculty Sponsor: Dr. Sang-Moo Kang
- 14. The Role of Community Nursing in Assessing Healthcare Disparities for Homeless Populations**  
Lauren Newhouse  
Faculty Sponsor: Dr. Cheru Atraga
- 15. Aedes Mosquito Early Warning System: Challenges Integrating Public Health Surveillance Data**  
Ruby Parcells, Emma McDaniel, Ardavan Sassani, Anvith Anand, Eliza Schuh, Susie Mikler  
Faculty Sponsor: Dr. Raj Sunderraman
- 16. Identification of Cinnamate Reductase / fldZ Gene and Its Role in Degradation of Cinnamic Acid**  
Hiral Patel, Nate Singleton, Kymberly Grantham  
Faculty Sponsor: Dr. Samantha Parks

- 17. Effects of Delta-Tocotrienol on Inflammation in Neuro-2A Cells**  
Emily Price, Hannah Lail, Huanbiao Mo, Desiree Wanders  
Faculty Sponsor: Dr. Desiree Wanders
- 18. Identifying the Connection Between Trump, White Supremacy, and US Foreign Policy**  
Zaree Ross  
Faculty Sponsor: Dr. Jeannie Grussendorf
- 19. Cold Nociception and the 13D08, 36E08 GAL4 Drivers in Bilateral Contraction in *Drosophila melanogaster* Larvae**  
Amber Russ, Alexandria Johnson, Rainelle Criglear  
Faculty Sponsor: Dr. Sarah Clark
- 20. The Characterization of Geraniol Dehydrogenase and Its Role in Geraniol Metabolism**  
Areez Salawu, Rumana Rizzi, Phuong N. Truong  
Faculty Sponsor: Dr. Samantha Parks
- 21. Building a Resilient Energy Grid: Development of an Urban-Scale Model for Energy Prediction**  
Eliza Schuh, Jean Guo, Alex Asige, Sarah Akinola, Sundos al Subhi  
Faculty Sponsor: Dr. Anu Bourgeois
- 22. Blocking Dorsal Hippocampal Astrocytic Glycogenolysis Increases Subsequent Meal Consumption**  
Ishaan Sharma  
Faculty Sponsor: Dr. Marise Parent
- 23. Analysis of the Influence Carveol Dehydrogenase has on Bacterial Growth and Resistance to Turmeric and Ginger**  
Kristen Singharat, Travis Patrick, Abbigale Seward  
Faculty Sponsor: Dr. Samantha Parks
- 24. Where People are Severely Injured or Killed on Roads: A Geospatial Analysis of Traffic Accidents in Atlanta**  
Laurel Sparks  
Faculty Sponsor: Dr. Dajun Dai
- 25. Juvenile Delinquents: An Examination of Stress Responses and Familiarity Bias in Juvenile Convict Cichlids**  
Sierra Sutton, Arya Bhatt, Alec Henderson, Janaii Davis  
Faculty Sponsor: Dr. Edmund Rodgers

**26. Content Analysis of the Frequency of Climate Change-Focused Language Used by Presidents in Major Speeches**

Lauren Tennant

Faculty Sponsor: Dr. Rasha Ramzy

**27. Leveraging ML on Biometric Sensor Data to Detect and Predict Sleep Activity**

Bronson Tharpe

Faculty Sponsor: Dr. Anu Bourgeois

**28. Different Ribosomal Proteins Play an Individual Role in Dendritic Complexity in *Drosophila melanogaster* larvae**

Vaishnavi Veeranki, Erin Lottes, Shatabdi Bhattacharjee, Emily Wilde

Faculty Sponsor: Dr. Daniel Cox

April  
14

# Poster Presentations

[Conference  
Link](#)

**Live Session: 2:00 p.m. - 3:00 p.m.**

- 1. Investigating the Neural Mechanisms Mediating Cold Nociception in *Drosophila***  
Odera Anokwalu-Igwebuike, Pearl Brown, Mycah Howell, Karson Rosenberger  
Faculty Sponsor: Dr. Sarah Clark
- 2. Social stress-induced c-Fos expression in mice that consume dietary emulsifiers**  
Coralie Bergeron, Maura Stoehr, Benjamin Horne, Amanda R. Arnold, Kim L. Huhman  
Faculty Sponsor: Dr. Kim Huhman
- 3. A Laboratory Investigation of Rewarding Approach Behavior to Help Recovery After Treatment Relapse**  
Aleah Brown, Sana Nadeem, Zach Ashmore, Samantha Bartholomew, Veda Balaji  
Faculty Sponsor: Dr. Erin Tone
- 4. Effect of Wnt Expression on Dopaminergic Neurons and Behavior**  
Isabela Brown-Soler, James Dang, Yuvraj Patel, Karthik Srinivasan  
Faculty Sponsor: Dr. Jonathan Sylvester
- 5. Basal Blood Pressure Characterization of Smooth Muscle Specific IL-36R Flox Knockout Mice**  
Arin Dorsey, Elaina Melton, Amirah Hurst, Hongyu Qiu  
Faculty Sponsor: Dr. Hongyu Qiu
- 6. Predicting Gray Matter Volumes from Eating Pathology Factors**  
Jody Finch  
Faculty Sponsors: Dr. Chantal Tusher & Dr. Jessica Turner
- 7. Synthesis of Unnatural Amino Acid Residue for Incorporation into di-Ubiquitin Probe**  
Charlotte Fuqua, Tomaya Carpenter, Xuan Fu  
Faculty Sponsor: Dr. Jun Yin



- 8. Signaling via IL-36R in CD4+ T cells Induces the Expression of CXCL9 and CXCL10**  
Hadiya Haq  
Faculty Sponsor: Dr. Timothy Denning
- 9. Active Manipulation and Measurement of a Single Nucleation-Crystal Growth System**  
Sydney Howard  
Faculty Sponsor: Dr. Bin Xu
- 10. Investigating Visual and Auditory Discrimination in Children with High Functioning Autism Spectrum Disorder**  
Kay Lane, Brenna A Smith, Liliana Ramos, Brooke N. Jackson, Barbara Church, J. David Smith  
Faculty Sponsor: Dr. J. David Smith
- 11. The Role of Symbolic Representation in Category Learning**  
Peter-Elvis Moleke Akanang  
Faculty Sponsor: Dr. J. David Smith
- 12. Disinhibition- A Neurobehavioral Trait Underlying the Relationship Between Social Anxiety & Alcohol Use**  
Hanna Osborne  
Faculty Sponsor: Dr. Erin Tone
- 13. The Function of Transcription Factors Isl1 and Dlx2 in Striatal Development of Monogamous Convict Cichlids**  
Aastha Patel, Fareedah Badmus, Maryam Seilanian Toosi  
Faculty Sponsor: Dr. Jonathan Sylvester
- 14. Building a Gaming Agent**  
Kinjal Rele  
Faculty Sponsor: Dr. Michael Weeks
- 15. Synthesis of New Class of Squaraine Dyes using the Perimidine Heterocycle**  
Sara Sarasiya, Shahir Sarasiya  
Faculty Sponsor: Dr. Maged Henary
- 16. Optogenetic Stimulation of BNST Vasopressin Neurons Increases Sex-Specific Social Approach and Communication in Mice**  
Sumeet Singh, Nicole Rigney, Selma Belkasim  
Faculty Sponsor: Dr. Aras Pertulis

**17. Mating and Maternal Behavior in Vasopressin 1a Receptor Knockout Syrian Hamsters**

Maura Stoehr, Noah Campbell, Alisa Norvelle, Jack Taylor, Kim Huhman, Elliot Albers  
Faculty Sponsor: Dr. Elliot Albers

**18. "The Way Home": Building a Game from Scratch**

Brian Williams, Collier Hawkins, Simeon Landers  
Faculty Sponsor: Dr. Michael Weeks

**19. The Dynamical Mechanisms Supporting Tremors Induced by Insecticides Based on Pyrethroids**

Luke Wohlbach, Aaleyah Gardenhire-Rodgers, Zachary Fishman  
Faculty Sponsor: Dr. Gennady Cymbalyuk