



Georgia Undergraduate Research Conference



November 8-9, 2024



801 Emory Street
Oxford, Georgia 30054

Georgia Undergraduate Research Conference Program

Contents

GURC Board	3
Oxford GURC Organizing Committee	3
GURC Member Institutions	3
About Oxford	4
Conference Logistics.....	5
Speakers and Workshop Leaders.....	6
Friday Workshops	8
Conference Overview	9
Paper Session 1	10
Paper Session 2	11
Paper Session 3	12
Paper Session 4	13
Paper Session 5	14
Posters Session A.....	15
Posters Session B.....	18
Visual Arts	21
Performances	21
Acknowledgments and Thanks	22

GURC Board

President (2024/2025) – Daniel Walter, Oxford College of Emory University

Immediate Past President: Lavonna Lovern, Valdosta State University

President-Elect: Kevin Bucholtz, Georgia College & State University

Vice President-Elect: Tsu-Ming Chiang, Georgia College & State University

Secretary: Kymberly Harris, Georgia Southern

Oxford GURC Organizing Committee

Alejandro Abarca, Assistant Teaching Professor of Dance

Natalia Bayona Vásquez, Assistant Professor of Biology

Christopher Blake, Assistant Professor of Economics

Paige Crawl, Head of Library Teaching

Scott Foster, Director of Information Technology

Nicole Ingram, Director of Events and Conference

Emily McLean, Assistant Professor of Biology

Jennifer McGee, Associate Professor of Psychology

Allyson Studer, Special Assistant and Project Manager

Daniel Walter, Associate Professor of German and Linguistics

GURC Member Institutions

Abraham Baldwin Agricultural College

Augusta University

Columbus State University

Dalton State College

Emory University/Oxford College

Fort Valley State University

Georgia College & State University

Georgia Gwinnett College

Georgia Institute of Technology

Georgia State University

Georgia Southern University

Georgia Southwestern University

Kennesaw State University

Mercer University

University of Georgia

University of North Georgia

University of West Georgia

Valdosta State University

About Oxford



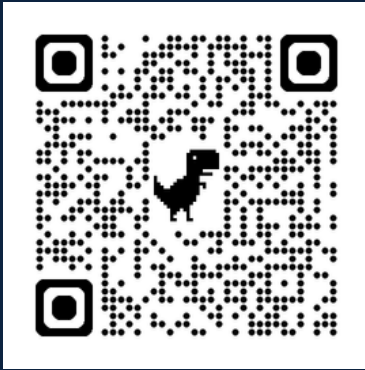
GURC 2024 is hosted by Oxford College of Emory University in Oxford, Georgia. Thank you for joining us for this 13th annual conference to present your research, performances, or artwork and to learn more about the exciting undergraduate work being conducted by other students in the region. GURC welcomes all fields of research and creative activities.

As one of Emory's nine schools, Oxford provides a distinctive, liberal arts focused education for the first and second years of college in a small-town, close-knit setting. Oxford College is located in the place where Emory was founded more than 180 years ago. When Emory moved to Atlanta in 1919, the university retained its original campus, later creating Oxford College. The university's oldest buildings are found on the Oxford campus, some of which will be utilized during the conference.

While visiting Oxford, we encourage you to take advantage of the resources located on and near campus. Walking trails can be found by [visiting this link](#). In addition, the town of Oxford features restaurants and shopping and is well known as the backdrop of many popular TV shows including Sweet Magnolias and The Vampire Diaries, and movies like Doctor Sleep.

Conference Logistics

[Conference Website](#)



[Conference Program PDF](#)



Conference App

To download the conference app, go to your app store and search for Cvent Events. After downloading, within the app search for Georgia Undergraduate Research Conference. Click on the conference and it will ask for your name and email. Use the email address you used to register for the conference. You will be sent an email with a passcode to log in. Then you should have access to the conference app, where we you can find all the information about the conference.

Campus Map

Please use the conference app or [this interactive map](#) to find your way around campus!

Parking

GURC attendees may park at any of the lots on campus, free of charge. Appropriate signage will be available for your convenience.

Keynote Speakers and Workshop Leaders

Friday Student Workshop



Bridgette Gunnels, PhD, Associate Professor of Spanish & Director of the Oxford Center for Pathways and Purpose

Dr. Gunnels is a scholar of twentieth-century Latin American literature, with expertise in identity, economic and environmental histories, and diaspora studies. She integrates experiential and community-based learning in her courses and has led student trips to Costa Rica and Cuba. As director of the Oxford Center for Pathways and Purpose, she is dedicated to helping students translate their academic experiences into meaningful career opportunities.

Friday Faculty Workshop and Conference Opening Address



Kenneth Carter, PhD, Charles Howard Candler Professor of Psychology & Director of the Emory Center for Public Scholarship

Dr. Kenneth Carter is the Charles Howard Candler Professor of Psychology at Oxford College of Emory University and the founding director of the Emory University Center for Public Scholarship and Engagement. He served as the interim dean of Oxford College from 2022-2023. He is the author of several textbooks including *Psychopathology: Understanding Psychological Disorders* (Cambridge University Press) and the forthcoming *Living Psychology* (SAGE Publications). He has published in both academic and lay publications, translating psychology research into engaging everyday language. His articles have been published in magazines such as *Psychology Today* and *Women's Health*, and he has appeared on news programs such as *CNN Tonight*, *NPR's: ShortWave*, *All Things Considered*, and *NBC's Today show*. The psychology of thrill-seeking is the current focus of Dr. Carter's research. He has delivered TEDx talk on thrill-seekers and is the host of *Mind of a Motorhead* an NBC Sports web series that examines the personalities of motorsport athletes. His most recent book is *Buzz!: Inside the Minds of Thrill-Seekers, Daredevils, and Adrenaline Junkies* (Cambridge University Press). When not teaching, speaking, or writing, Dr. Carter prefers reading and relaxing on the beach rather than wingsuit flying or BASE jumping.

Keynote Speakers and Workshop Leaders (Cont.)

Saturday Morning Welcome



Badia Ahad, PhD, Dean of Oxford College & the William R. Kenan, Jr Professor of English

Badia Ahad is dean of Oxford College of Emory University. As dean, she serves as chief academic and administrative officer, overseeing Emory's Oxford campus and leading one of the country's most distinctive undergraduate programs. Previously, Ahad held a number of administrative roles, including director of the University Core Curriculum and vice provost for faculty affairs at Loyola University Chicago, where she led initiatives to support faculty recruitment, mentorship, research, and professional advancement. Ahad is recognized as a national expert on faculty development and mentoring, having served for nearly a decade as the director of academic training and master faculty development coach for the National Center for Faculty Development and Diversity (NCFDD). Ahad's teaching and research intersects African American studies and positive psychology to examine how concepts like well-being, resilience, and thriving are represented in African American cultural, social, and political life. She has published numerous articles and essays and is the author of *Freud Upside Down: African American Literature and Psychoanalytic Literature* (2010) and *Afro-Nostalgia: Feeling Good in Contemporary Black Culture* (2021).

Saturday Conference Closing Address



Tasha Dobbin-Bennett, PhD, Associate Professor of Art History and Studio Art

Tasha Dobbin-Bennett is an Associate Professor of Art History and Studio Art at Oxford College. Originally from New Zealand, she earned her Ph.D. from Yale University in the Department of Near Eastern Languages and Civilizations with a specialization in Egyptology. Prior to starting at Oxford College in 2015, she was the Papyrologist at the Beinecke Rare Book and Manuscript Library, where she worked on the ancient papyri collection. Tasha's has three main areas of research. Stemming out of her doctoral work, she examines how ancient Egyptian perceptions of decomposition and putrefaction were expressed within their medical and religious texts. Her most recent research project investigates how Egyptologists, physicians, and politicians influenced the collection and normalization of the display of human remains in modern museums. Finally, she is currently working on research within the field of art crime, specifically dealing with indigenous cultural heritage.

Friday Workshops

Student Workshop

Get to the point: How to describe your work in your resume in a way that hits

Convener: Bridgette Gunnels, PhD, Associate Dean, Associate Professor of Spanish & Director, Center for Pathways & Purpose

Time: 4:30-5:15PM

Place: Oxford Science Building (OSB) 115

Description: Struggling to articulate your academic research on your resume? This workshop is designed to help undergraduates succinctly and effectively describe their research experience in a way that grabs attention. Learn how to highlight key contributions, skills, and outcomes, ensuring your resume stands out to recruiters and admissions committees. Whether you're aiming for internships, jobs, or grad school, this session will help you present your work with clarity and impact.

In collaboration with the Oxford Center for Pathways and Purpose, led by Dr. Bridgette Gunnels, this workshop will guide you through transforming your research into compelling entries for your resume, cover letters, and personal statements. You'll learn how to showcase your academic work in ways that resonate with employers, graduate programs, or academic opportunities. Take the next step toward career success by making your research stand out across all your application materials.

Faculty/Mentor Workshop

Promoting Innovative Teaching and Learning through Public Scholarship

Facilitator: Kenneth Carter, PhD, Charles Howard Candler Professor of Psychology & Director of the Emory Center for Public Scholarship

Time: 4:30-5:15PM

Place: Oxford Science Building (OSB) 101

Description: This workshop outlines the importance of public scholarship in the classroom, focusing on its potential to enhance trust in research and promote pedagogical innovation. Additionally, it details the impact of students doing public scholarship themselves, which provides hands-on experience and enhances their ability to communicate scholarly work outside the classroom.

Conference Overview

Friday, November 8th, 2024

4:00-7:00 PM	Conference Registration Desk Open (Oxford Student Center)
4:30-5:30 PM	Pre-Conference Workshops for Faculty and Students
6:00-6:15 PM	Opening Address by Kenneth Carter (Oxford Student Center)
6:15-8:00 PM	Evening Mixer (Oxford Student Center)
7:00-7:30 PM	Executive Board/GURC Business Meeting (Oxford Science Building 101)

Saturday, November 9th, 2024

7:30-8:00 AM	Breakfast and Registration Desk Open (Oxford Student Center)
8:00-8:15 AM	Morning Welcome Address by Badia Ahad (Oxford Student Center)
8:30-9:30 AM	Paper Presentation Session 1 (See Program for Location Details)
9:40-10:40 AM	Paper Presentation Session 2 (See Program for Location Details)
10:50-11:50 PM	Paper Presentation Session 3 (See Program for Location Details)
12:00-12:40 PM	Group A: Poster/Visual/Performance Sessions Group B: Lunch (Oxford Dining Hall)
12:40-12:55 PM	Break
12:55-1:35 PM	Group A: Lunch (Oxford Dining Hall) Group B: Poster/Visual/Performance Sessions
12:00-1:35 PM	Graduate Program Fair (Williams Hall/Gymnasium)
1:40-2:40 PM	Paper Presentation Session 4 (See Program for Location Details)
2:50-3:50 PM	Paper Presentation Session 5 (See Program for Location Details)
4:00-4:30 PM	Closing by Tasha Dobbin-Bennett & Awards (Oxford Student Center)

Paper Session 1

8:30 - 9:30 AM

Session 1A Johnson Hall Room 101	Fumbi Obstetric Racism and Black Maternal Health Outcomes	Kee Mitákuye Oyás'ín: An Analysis of Native North American Cosmologies and Western Science	Sanon Haitian Women: Beyond the Image of "Poto Mitan"
Session 1B Johnson Hall Room 102	Blackwell Photovoice as a Method to Explore Identity in Historically Exploited and Excluded Groups in Science (HEEGS)	Gibson The Use of Lyric Analysis as a Technique to Explore Identity in Historically Exploited and Excluded Groups in Science (HEEGS)	Fahy Mental Health Treatment Choice in a Queer Population
Session 1C Johnson Hall Room 201	Kawasaki L'Amore Infranto: The Sustainability of Opera in American Society Past 2024	Voja Twelve-Tone Rows Usage in Tonal Contemporary Composition: Exploring the Creative Usage of Twelve-Tone Rows in the Harmonic Content and Structure of Dimitri Shostakovich's String Quartet No.12, Op 133	Gilbert Nine to Five: Fighting the Feminist Fight
Session 1D Johnson Hall Room 202	Hixon Notes from Underground: When We Speak to Ourselves, Do We Enter the Underground?	Hagberg Art in a Totalitarian Government: Brazilian Neoconcrete Art Combating Censorship	Reimer Persistence Through Resistance: Dasher and Pinevale High Schools
Session 1E Pierce Hall Room 140	Shay Improving Consistency of the Lumbriculus variegatus Sediment Reproductive Toxicity Assay	Magam Population genetics of the vector and parasite of Chagas Disease in oil palm plantation and palm forest in Colombia	Rumack Assessing the Impact of Solar Mixers on Dissolved Oxygen Dynamics in Two Reservoirs in Georgia
Session 1F Pierce Hall Room 237	Guttigoli The Effects of Solar Mixers on Temperature Profiles and Thermal Stratification of Reservoirs in Georgia	Towner Evaluating Growth Responses and Nutrient Sufficiency Ranges in Lettuce Cultivars	Porter Do Insecticides Affect Entomopathogenic Nematode (EPN) Reproduction
Session 1G Pierce Hall Room 238	Kim Pregnancy Drug Safety AI: Prescreening and Awareness Tool	Mahajan Optimizing Building Energy Consumption: A Game-Based Approach to Teaching Surrogate Modeling	Verma T follicular helper-like cell differentiation, encapsulation, and culture in hydrolytically degradable microgels
Session 1H Pierce Hall Room 239	Mehra Caring about Healthcare Professionals: A Survey of Georgia AHEC Preceptors' Mental Health and Wellbeing	Bajaj New Onset Diabetes in Long-COVID Patients	Vallabhajosyula Curation and Analysis of Drug Distribution Across Tissues

Paper Session 2

9:40 - 10:40 AM

Session 2A Johnson Hall Room 101	Adams Les dames de la dédramatiserisation: Women Candidates of the French radical right	Dalloul Decoding a Gendered Genre: An Analysis of Two Scientific Research Articles by Female Authors of the 18th and 19th Centuries	Waters Bechdel's Spiral: Visual Narrative, The Fragmentation, & Cross- Generational Queerness
Session 2B Johnson Hall Room 102	Chandrasekhar The 'Face' of Politeness: Emojis as Linguistic Indicators of Politeness	LeDesma Child-Proofing Language: Taboo Avoidance in Kidz Bop Music	Qian Please and Thank You, AI: Exploring Polite Language Use in Emory University Students' Chat GPT Interactions
Session 2C Johnson Hall Room 201	Ren Reforms, Growth, and Inequality: The Economic Evolution of China	Dave Implications of AI Image Generation on Artists: A Literature Review	Kinney Waiting Game: The Economic Impact of Divorce Delays
Session 2D Johnson Hall Room 202	Badawy Restorative Justice: An Alternative to the Violence of the Law	Amaya Common Perceptions Regarding Immigration From Mexico: An Analysis of Security and Economic Threats of Immigration	Wang Unsettled Grounds: RLUIPA's Impact on Protecting Muslim Cemeteries
Session 2E Pierce Hall Room 140	Craig Micropropagation of Strawberry (<i>Fragaria x ananassa</i> Dutch.) via Organogenesis	Jackson The Survival of Salmonella in Soil Amendment with Pecan Shells and Poultry Litter	Vincent Adenoviral Protein E4 11k's Role in the Inhibition of the DNA-PK- dependent DNA Damage Response
Session 2F Pierce Hall Room 237	Koner Understanding Progression Between Neoplasia and Malignancy of Pancreatic Ductal Adenocarcinoma Through Single-Cell RNA Sequencing Data	Kimpling Development of ingestible molecular probes for non-invasive detection of sucrase-isomaltase deficiency	Vayalapalli Higher expression of PARD6A pathway is related to chemoresistance in high grade serous ovarian cancer
Session 2G Pierce Hall Room 238	Shah Classifying road debris using deep learning technique in artificial intelligence	Yang The Interpolation Problem for Discrete Analytic Polynomials	Minott Replacing Classical Algorithms with Artificial Neural Networks for Determining the Reliability of Power Electronic Converters
Session 2H Pierce Hall Room 239	Simrin Characterizing Social Behaviors in Female Mice: A Novel Sex-Specific Model Using DeepLabCut and B-SOIF Unsupervised Machine Learning	Joganpalli A preliminary investigation into functional brain activity during ankle movement in female collegiate soccer athletes	Wijetunga The Association Between Sugar Content in Breast Milk Substitutes and Neurodevelopment: A Systematic Review

Paper Session 3

10:50 - 11:50 AM

Session 3A Johnson Hall Room 101	Alvarado Assess the feasibility and acceptability of a free nutrition education and produce program for students attending a public university in the southern U.S.: a protocol	Agrahari Testing the Acceptability and Management of an Inclusive Food Access Map, and its Database for an Urban Multi-Campus Public in Southeastern U.S.	No 3rd Presentation
Session 3B Johnson Hall Room 102	Cantkier From Bottling Plant to Buried Trash: Soft Drinks in the MARTA Archaeological Collection	Nelson Towards a Systematic Literature Review of Common PII Identification Labels Patterns Based on OSINT	No 3rd Presentation
Session 3C Johnson Hall Room 201	Hayes Assessing the Effectiveness of Bait Types on Wildlife Occurrences at Camera Traps in Northeast Georgia	No 2nd Presentation	No 3rd Presentation
Session 3D Johnson Hall Room 202	Haas The Ramifications of German Unification	Hayes Measuring Health Literacy in Higher Education Institutions	No 3rd Presentation
Session 3E Pierce Hall Room 140	West The Role of Adenovirus Protein E4 11k in P Body Protein Relocalization	Chu Genetic Suppressor Screen for Novel Interactor Proteins of Temperature Sensitive mutant sec6-49 in <i>Saccharomyces cerevisiae</i>	No 3rd Presentation
Session 3F Pierce Hall Room 237	Khan Targeting Plasmodium Life Cycle with Novel Parasite Ligands as Vaccine Antigens	Campos Search for Arsenic-Containing Antibiotics	No 3rd Presentation
Session 3G Pierce Hall Room 238	Saini Drug Discovery for Mucopolysaccharidosis Type IIIA	Seo Hard-Makes-Soft, Soft-Makes-Hard: Dynamic Reconfiguration of Antimicrobial Polymer	No 3rd Presentation
Session 3H Pierce Hall Room 239	Devkota An angular redistribution method for high-resolution 3D quantum Lattice Boltzmann radiative transfer	Shoemaker The Influence of Vacuum Processing on the Crystalline Black Phase Stability of Lead Halide Perovskites	No 3rd Presentation

Paper Session 4

1:40 - 2:40 PM

<p>Session 4A Johnson Hall Room 101</p>	<p>Cruz-Reyes Hangeul - The Language Of Korea</p>	<p>Calabrese Hidden Meaning: Contextualizing Cultural Words to Improve Understanding</p>	<p>Lehrich "It'll be real German, but German with a little twist": Learning about dialects in the study abroad classroom</p>
<p>Session 4B Johnson Hall Room 102</p>	<p>Mackiewicz Biases in Mental Health Diagnoses at Central State Hospital: Historical and Contemporary Impacts</p>	<p>Cato Characterizing novelty in predictive coding and psychopathology, examining top down and bottom up biases in general psychiatric symptoms, with reward coupled deviant detection tasks</p>	<p>Li Elmo Says, "How Are You?": A Descriptive Review of Psychological, Linguistic, and Sociocultural Contexts of Trauma Dumping on Twitter</p>
<p>Session 4C Johnson Hall Room 201</p>	<p>Clark Speech Therapy's Relation to Social-Emotional Behaviors in Young Children After the COVID-19 Pandemic</p>	<p>Koya An App Model To Help Individuals With Speech Impairment</p>	<p>Temples The effect of media use on college students' mental health during Covid-19</p>
<p>Session 4D Johnson Hall Room 202</p>	<p>Harve Reducing Racial Biases within Healthcare Applications of Artificial Intelligence (AI) With Transparency: A Policy Position</p>	<p>Raghuvanshi Impact of socioeconomic status on acuity of brain magnetic resonance imaging scans</p>	<p>Seshadri AI Age Discrepancy: A Novel Parameter for Frailty Assessment in Kidney Cancer Patients</p>
<p>Session 4E Pierce Hall Room 140</p>	<p>Odedo The effects of ovariectomy on myelin basic protein in a transgenic rat model of Alzheimer's disease (TgF344-AD)</p>	<p>Shehu Effects of Constitutive CX3CR1-Cre on Microglia and Mouse Behavior</p>	<p>Pagett Observations of Scavenging Behavior in Relation to Urbanization in Mobile County, Alabama</p>
<p>Session 4F Pierce Hall Room 237</p>	<p>Gervacio Zavala The Novel Proximal Ciliary Protein FAP93 Requires Either ODA10 or the Outer Dynein Arm for Complete Assembly in Chlamydomonas reinhardtii Cilia</p>	<p>Garcia Parada Inactivation of SPR-2, an inhibitor of histone acetyltransferase, results in transgenerational accumulation of active chromatin marks and progressive developmental declines in C. elegans</p>	<p>Powell A comparative genomic analysis of heterochromatic F element sequences shows significant conservation in overall gene structure in D. willistoni and D. melanogaster</p>
<p>Session 4G Pierce Hall Room 238</p>	<p>Zhu b-Cool: A Newly Discovered Oligosaccharide Critical for Bordetella Colonization</p>	<p>Allen Unraveling Heterochromatin: Using Comparative Genomics to Elucidate Mechanisms of Gene Expression in Drosophila F Elements</p>	<p>Wachter Characterization of the Interplay Between Cell Wall and Outer Membrane Biosynthesis</p>
<p>Session 4H Pierce Hall Room 239</p>	<p>Decker Solving the mysteries of the tRNA anticodon-codon interaction to uncover the therapeutic potentials of tRNAs</p>	<p>Chapagain Energy Distribution Over Time Using Simulated Data in IceTop Anisotropy Analysis</p>	<p>O'Quinn Myoglobin Biocatalysis in Hydrophilic and Hydrophobic DESs</p>

Paper Session 5

2:50 - 3:50 PM

Session 5A Johnson Hall Room 101	Hayes Evaluating User Utility in Tiered Spectrum-Shared Markets	Wilson Prediction of Water Quality Assurance via Miscellaneous Supervised Machine-Learning Regressors	No 3rd Presentation
Session 5B Johnson Hall Room 102	Schott Study Of A Human Newborn From Birth To Two Months Of Age - Innate Reflexes And Developmental Milestones	Domaleski The Relationship Between Parental Attribution and Child Behavior	Berry Creating an Emotional Learning App to Facilitate Social-Emotional Learning in Children
Session 5C Johnson Hall Room 201	Lundstrum Sex Matters: Identifying Neural Profiles as Predictors of Sex Specific ADHD Subtypes	Kathilankal Jis A Comprehensive Database Collection for Alzheimer's Disease: Organizing Key Research Domains to Enhance Diagnostics and Treatment	No 3rd Presentation
Session 5D Johnson Hall Room 202	No Presentations		
Session 5E Pierce Hall Room 140	Brown Seasonal Population and Ongoing Morphometric Analyses of Wild Dwarf Seahorses (<i>Hippocampus zosterae</i>)	No 2nd Presentation	No 3rd Presentation
Session 5F Pierce Hall Room 237	Balamurugan Effect of violet light supplementation on mouse refractive development	Bell A Study on Mouse Dendritic Cell Survival Dependent on Placement in Biomaterials	No 3rd Presentation
Session 5G Pierce Hall Room 238	Longacre Assessment of Field-Based Bacterial Enumeration Methods for Developing Countries: A Case Study in Corozal Town, Belize	Okere Development of a cost-effective minimal growth medium for screening bacterial vitamin B auxotrophs capable of xenobiotic biodegradation	No 3rd Presentation
Session 5H Pierce Hall Room 239	Ashton Antioxidant Properties of Collagen-Based Substances	Dsouza Theoretical and Computational Approaches to Modeling and Analyzing Biochemical Reaction Networks	No 3rd Presentation

Poster Session A

All posters will be displayed in Williams Gym

Submitting Author	Title
Abbot	Using an AI Depth Camera to Project Readable Braille
Adedokun	Morphine exposure during gestation alters predictability of maternal care in rats
Adeola	Protein Stability and Extraterrestrial Implications
Amarachintha	Identifying potent drug candidate for kidney cancer
Amaravai	The Impact of Social Environment on the Lifespan of Drosophila
Babburi	Service-Learning Through Citizen Science: Understanding Success in an Online General Education Chemistry Class
Behl	Genomic analysis and search for telomeres in Sarcocystis neurona
Bostic	Analyzing Stock Market Behavior of Renewable Energy Sector by LSTM Recurrent Neural Network
Buckner	Does obesity potentiate Alzheimer's disease (AD) pathology and cholesterol dysregulation in a rat model of AD?
Bui	Is Brain Rot Real? The Perceived Impact of Short-Form Social Media on Brain Function/Mental Health
Cabadin	Predicting Antenatal Depression Among Non-Hispanic Black Women with Disabilities using Machine Learning
Carr	Expression of an Aquaporin Gene in E. coli
Chen	The Uneven Economic Toll: Assessing COVID-19's Impact on Global Income Inequality Across Different Income Groups of Country

Poster Session A (Cont.)

All posters will be displayed in Williams Gym

Chen	Vibrating Microneedle Applicators
Collins	Detection of Heavy Metals through the use of Tetra Hydroxyphenyl Porphyrin-Doped Silica Sol-Gels
Dino	A Theoretical Evaluation of Measles-Unvaccinated Children Thresholds for Targeted Interventions
Dogar	Consolation in pair-bonded Convict Cichlids; a window into the phylogenetic origins of consolation
Dugger	Amphipod crustaceans of Sapelo Island, GA
Estabrook	Modeling Care: Predictive Insights into Health Equity in Critical Care
Fleming	Ingredients For a Successful Scoping Review
Friggle	Delta-8 THC usage, demographics and experiences
Galanti	Drosophila growth disruption by Ecdysone Receptor transcriptional repression
Gamboa	Understanding EcR Transcriptional Control of Glial Cell Development
Gattineni	Atypical p38 Signaling in Retinal Vasculopathies
Girdhar	ATF6-Mediated Regulation of Cone Photoreceptor Development: Mechanistic Insights
Glover	Synthesis of Tetraethyl orthosilicate (TEOS)-based Sol-Gel Nanoparticles with Controlled Drug Release Properties
Gudi	Synthesis and Evaluation of Modified Thiosemicarbazone Analogs Against Poxviruses

Poster Session A (Cont.)

All posters will be displayed in Williams Gym

Guerrero	Investigating Thieno[3,4-c]furan-4,6-dione (TFD) as a substitute for Thieno[3,4-c]pyrrole-4,6-dione (TPD) in Direct Arylation Polycondensation Reactions for Optoelectronic Applications
Harris	Enhancing Accessibility: Trends and Insights from Our K-2 Library Guide
Henry	Targeting TMPRSS2 in ACE2/TMPRSS2 HEK293T cells to inhibit SARS-CoV-2 infection in vivo
Hodek	Exploring Coinage History Through XRF (X-ray Fluorescence) Analysis: The Composition of Coins and Its Economic Implications
Iroghama	Cybersecurity in Power Electronic Converters
Jefferson	Investigating the Sodium Content In Popular Asian Sauces Using Nuclear Magnetic Resonance Spectroscopy (NMR)
Jenkins	Design and Synthesis of a Sol-Gel Colorimetric Sensor for Methamphetamine Detection
Jumaniyazova	Brain effects of selective elimination of bacterial species via bacteriophages
Kededa	Leveraging Adenovirus-Associated Vectors to Induce SAMHD1 Degradation and Overcome Therapy Resistance in Glioblastoma
Khadayat	Evaluating Clonogenic Potential and Chemoresistance in Ovarian Cancer Cells Using Colony Formation Assays
Kidd	Investigating Saprophytic Diversity in West Georgia Utilizing DNA Barcoding
Kothari	Characterizing and Utilizing Intracellular Protease Activity to Improve Specificity of Gene Therapies

Poster Session B

All posters will be displayed in Williams Gym

Submitting Author	Title
Kraus	Characterizing gene expression profile of glutamate and GABA neurotransmission due to audiovisual stimulation in mice brains
Kwarteng	Secondary structure of the 5' regulatory region of replication protein A2 (RPA2)
Lakshman	Mindfulness based interventions effect on self-compassion
Lambert	Mitigative Effects of Exercise on High-Fat Diet-Induced Cognitive Decline in C57BL/6 Mice
Lee	Developing an assay to screen Na/HCO ₃ transporter inhibitors in breast cancer cell line MCF-7 growing on a microtiter plate
Li	Enhanced Production of Bioplastic Poly-(3 hydroxybutyrate) Using a Co-culture System of Escherichia coli and Chlamydomonas reinhardtii
Linkel	Physics-Informed Neural Networks and Particulate Matter Diffusion
Mamaghani	A physiologically relevant glioblastoma-on-chip platform for CAR T cell potency testing
Mensah	Primary Socialization Theory and Adolescent Marijuana Use
Merce	Characterization of Complement-Induced Endothelial Injury Using Vascularized Microsystems
Millwood	The Slaveholder's Union: Protecting Slavery through Unionism in Antebellum Middle Georgia

Poster Session B (Cont.)

All posters will be displayed in Williams Gym

Montes de Oca	Expanding knowledge of the evolutionary history of green salamanders through sampling in northeastern Georgia
Moscati	Carbon Sequestration in Oxford College's Forest
Nguyen	"What do they put in my coffee?" - Consumer Sensory Response To Non-nutritive Sweetener Identification in Bitterness and Dairy Matrix
Nilson	Studying the relationship between EcR signaling and the Hippo Growth Pathway in developing Drosophila wings through dILP8 expression
Pagsisihan	Mori Research Group Antibiotic Drug Testing
Paul	Cystic Fibrosis Sputum-Derived Exosomes Display Elevated Neutrophil Elastase Activity Compared to Neutrophil-Derived Exosomes
Payton	Probing the Interactions Between Dematin's Headpiece and the IDR via solution NMR
Prasad	Genetic Surveillance of Babesia Species in Wildlife Spleen Samples
Pruett	Resolution of 1-Phenyl-1-propanol using CAL-B Transesterification
Purohit	Study of Modulator Effects on Sleep Disorders in Iron-deficient Cystic Fibrosis Adults
Quddus	Design of a steady-state test thermal test apparatus to improve accessibility to thermal interface material (TIM) research
Raol	Evaluating the Relationship between Post-Traumatic Stress Disorder symptom score and Skin Conductance Responses Over Time
Rodriguez	The Effects of Inappropriate Inheritance of Histone Methylation on Muscle Structure and Function

Poster Session B (Cont.)

All posters will be displayed in Williams Gym

Ruiz	Detection of Antibiotic-Resistant Genes in Northeast Georgia Waterways Using eDNA Analysis
Sadhu	Postnatal Hypothyroidism's Effect on Anxious and Compulsive Behaviors in Juvenile Rats
Sanjuan Hernandez	Does an Interdisciplinary Educational Approach Affect Scientific Belonging and Identity?
Sills	Reliability Analysis of Power Electronic Converters of Photovoltaic System Integration into Georgia's Grid.
Stephen	Genetic variants modifying the associations between fish oil supplementation and circulating polyunsaturated fatty acids
Trejo	Healthcare Service Utilization among H-2A Agricultural Workers: A Pilot Study
Temples	Thematic Analysis of the Sights and Sounds of Veteran Identity
Valdez	Synaptic Cell Adhesion Proteins in the Central Nervous System Regeneration of <i>S. mediterranea</i>
VanVorst	Comparative Effects of Varying Modes of Enrichment on Preventing Sugar-Seeking Reinstatement in Rats
Velasquez	Bridging the Gap: Understanding Student and Faculty Perceptions of Course-based Undergraduate Research Experiences (CUREs) at Kennesaw State University
Walthall	The Mapping of <i>Drosophila melanogaster</i> mutant L.4.1

Poster Session B (Cont.)

All posters will be displayed in Williams Gym

Wells	Effects of Mixed Berry Polyphenol Extract on Pro-Inflammatory Markers in Lipopolysaccharide (LPS) RAW 246.7 Macrophages
Yin	Ethical Decision Making: Shifting Perspectives and Cultural Values
Zhou	In Vitro Effect of 5-AZA-treated Child cardiac-derived C-kit+ Cells (CPCs) on Human Endothelial Cells
Zhou	Characterization of Protein Expression and Microtubule Colocalization in KIF1C Patient-Derived Mutants

Visual Arts

All visual art projects will be displayed in Williams Gym

Author	Title	Location
Freeman	7Deadly Brewing	In Poster Session A

Performances

All visual art projects will be displayed in Williams Gym

Author	Title	Location
Doddamane	Exploring the intersection of early scientific inquiry and social context: A creative reimagining of 17th-century science	In Poster Session A

Acknowledgements and Thanks

I first want to thank my amazing committee for all the hard work they put into organizing and hosting this amazing conference. This was truly a team effort and I cannot emphasize enough how much I have enjoyed the collegiality and creativity that this group of Oxford faculty and staff displayed during the past few months.

I'd also like to thank our workshop facilitators and keynote speakers, Bridgette Gunnels and the Center for Pathways and Purposes, Kenneth Carter, Badia Ahad, and Tasha Dobbin-Bennett for sharing their insights and graciously giving their time.

This conference would also not have been possible without all of the administrative support we received, and I want to thank Dean Ahad and Senior Associate Dean Bonnie for providing us with the resources we needed to be able to bring all of you together here onto our campus.

Thank you to all the volunteers, facilities staff, dining staff, and other support staff who helped us navigate hosting so many excellent presentations here this weekend.

To all the mentors, those that could make it and those that were not able to join us for the conference, your students would not have been able to participate in this event without all your support. Close faculty mentors are essential for making undergraduate research happen. Thank you for committing your time, energy, and expertise to training the next generation of researchers produced right here in Georgia!

And most importantly, thank you to all our undergraduate presenters! This conference was an opportunity for you to showcase the hard work you have done at your respective institutions, yes, but it is about much more than that. Having the opportunity to see all the amazing research is inspiring to me as an educator! Seeing that our undergraduate students here in Georgia are interested in the BIG questions and using their research experience to tackle serious issues that face us today and in the future is a reminder of why I decided to become a professor.

Organizing this conference has been an honor and absolute pleasure, and I'm so excited that we get to host GURC 2025 here at Oxford next year as well. We look forward to welcoming you back!

Sincerely,

A handwritten signature in black ink, appearing to read 'Dan Walter', written in a cursive style.

Dan Walter, GURC President