



Georgia Undergraduate Research Conference



November 7-8, 2025



801 Emory Street
Oxford, Georgia 30054

Georgia Undergraduate Research Conference Program

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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

Daniel Walter, Associate Professor of German and Linguistics

GURC Member Institutions

Abraham Baldwin Agricultural College

Augusta University

Clark Atlanta University

Clayton State 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

Morehouse School of Medicine

Oglethorpe University

University of Georgia

University of North Georgia

University of West Georgia

Valdosta State University

About Oxford



GURC 2025 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 you can find all the information about the conference.

Campus Map

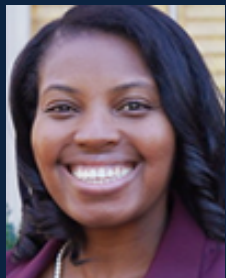
Please use the conference app or [this interactive map](#) to find your way around campus!

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



Dr. Ayanna Faith Young
Assistant Director, Career
and Professional Services

Dr. Young is an educator and career development professional who serves as the assistant director of career and professional development for her alma mater, Oxford College of Emory University. She earned her Doctorate in teaching and learning with a concentration in special education from The University of Miami, a Master of Science in clinical mental health counseling from Georgia State University, and a Bachelor of Arts degree in psychology from Emory University.



Adelaide Richardson
Director, Career and
Professional Services

Adelaide Richardson is the Director of Career & Professional Development at Oxford College. She offers career development and individualized coaching for newly admitted and continuing students. She is passionate about helping students gain personal and professional insight to strengthen their understanding of themselves and explore the world around them. She has held positions at Georgia State University, Piedmont Technical College, and Long Island University. She earned her M.Ed. in Counseling from Seton Hall University and her B.A. in Psychology from Hofstra University.

Friday Faculty Workshop and Conference Opening Address



Dr. LaTonia Taliaferro-Smith, PhD
Associate Teaching Professor of Biology, Director of Undergraduate
Laboratories, and Faculty Coordinator for Summer Programs at Oxford

Dr. LaTonia Taliaferro-Smith holds a B.S. in Biology (with Highest Honors) from Dillard University and a Ph.D. in Biochemistry and Molecular Biology from Howard University. She completed two postdoctoral fellowships before joining the Emory University School of Medicine and the Winship Cancer Institute. Her research focuses on the molecular mechanisms driving metastasis in triple-negative breast cancer, with an emphasis on health disparities affecting African-American and Hispanic women. Since joining Oxford in 2015, she has developed and taught a range of courses, including Independent Research and Discovery in Biology, and interdisciplinary seminars such as The History of Cancer, Biomimicry and Bio-inspirations, and Race, Rights, and Recognitions in STEM. In her administrative roles, Dr. Taliaferro-Smith oversees biology lab operations, advises first- and second-year students, and leads the development of pre-college summer programming. A passionate educator and mentor, she has been recognized with numerous honors, including the Emory Williams Distinguished Undergraduate Teaching Award, the Bloom Black Women Excellence Award, and a nomination for the Presidential Awards for Excellence in STEM Mentoring. She also serves as a 2024 NSF Inclusive STEM Teaching Project Community Facilitator.

Keynote Speakers and Workshop Leaders (Cont.)

Saturday Morning Welcome



Rev. Brent Huckaby
Oxford College Chaplain, Oxford College Office of Religious and Spiritual Life

Rev. Brent Huckaby serves as College Chaplain and Director of the Office of Religious and Spiritual Life at Oxford College of Emory University. He has 23 years of experience in a variety of contexts helping people of all ages cultivate spiritual wellness through music, spiritual growth and formation, and justice. As Chaplain, he supports the religious, spiritual, and philosophical exploration of students, faculty, and staff at Oxford. Through creative and collaborative programming, the community is invited to think deeply about their place in the world and contemplate the big questions of life.

Saturday Keynote Address



Nichole Fazio, DPhil
Senior Associate Dean of Undergraduate Education, Emory College Office for Undergraduate Education

Dean Fazio earned her doctorate in the History of Art from the University of Oxford in England, where she was a postgraduate member of Trinity College. Her own research focuses on representations of the poetic sublime in 19th-century British photography, particularly in the art of photographer Julia Margaret Cameron. In her current role, she provides leadership for the Office for Undergraduate Education, which stewards the academic experience of approximately 5600 Emory undergraduates. Prior to her appointment at Emory, she served as the Associate Dean for Undergraduate Research and Scholars' Program and founding executive director of the College Center for Research and Fellowships at the University of Chicago. Under her leadership, the center became a national model, supporting thousands of students in their pursuit of research and national fellowship opportunities. She is an award-winning educator and advisor, who has spent over two-decades advocating for undergraduate research as a high-impact learning experience that celebrates the practice of collaborative scholarship, and advances excellence in undergraduate education across all disciplines and forms of inquiry.

Friday Workshops

Student Workshop

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

Convener: Ayanna Young and Adelaide Richardson

Time: 4:30-5:30PM

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, 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

From Curiosity to Discovery: Engaging First- and Second-Year Undergraduate Students in Research

Facilitator: LaTonia Taliaferro-Smith, PhD

Time: 4:30-5:30PM

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 7th, 2025

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 LaTonia Taliaferro-Smith (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 8th, 2025

7:30-8:00 AM	Breakfast and Registration Desk Open (Oxford Student Center)
8:00-8:15 AM	Morning Welcome Address (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	Lunch (Oxford Dining Hall)
12:50-1:50 PM	PM Paper Presentation Session 4 (See Program for Location Details)
2:00-2:30 PM	Key Note Address (Oxford Student Center)
2:45-4:00 PM	Poster Presentation and Graduate Program Fair (Williams Hall/Gymnasium)
3:45-4:00 PM	Farewell and Introductions for next year's GURC 2026 at GCSU

Paper Session 1

8:30 - 9:30 AM

Submitter name and abbreviated title

Session 1A Johnson Hall Room 101	Chiang, Wen-I The 2025 Taiwanese Mass Recall Campaigns and the Challenges...	Kelly, Riley Selective Exposure amongst Generational Cohorts in the United...	Seo, Lauren Who Watches the Watchdog? Delegation and Accountability in a Polarized...
Session 1B Johnson Hall Room 102	Syed, Ariana Pregnancy and emergency preparedness: a narrative review...	Ladoo, Khadijah Advancing Cancer Therapy: Synthesis of Nrf2 Inhibitors	Dixon, Kameryn Chronic Illnesses: The Silent and Negligently Hidden Killer of Black Women
Session 1C Johnson Hall Room 201	Smith, Lauren The Effects of Live versus Recorded Music on the Engagement of Adults...	Wong, Tsz Hin The Ideological Leaning of Individuals with ADHD in the United States	Patel, Lekhan Healthcare Deserts: Pediatric Provider Shortages in Rural Georgia
Session 1D Johnson Hall Room 202	LoBue, Isabella Attaining Black Political Agency in Reconstruction-Era Louisiana	Johnson, Jayda Twenty Years of Force: Examining Police Brutality from 2000-2020	Mores Lanzelotti, Maria Isabel The Act of Resistance
Session 1E Pierce Hall Room 140	Adaramola, Tumi Understanding Colorectal Cancer Screening Through the Lens of...	Stephen, Eunice A large-scale systematic discovery of genetic factors modifying the impact...	Lopez, Daniela Polycystic Ovarian Syndrome (PCOS): Class, Culture, and Care
Session 1F Pierce Hall Room 237	Do, Elaine Modeling pathologic pressures in a macrovascular 3D model of...	Fischer, Maximilian (Max) Investigating the Relationship Between Institution Size and College..	Liu, Muyang Optimizing Cell Extraction from 3D Bioprinted Pulmonary Artery Models...
Session 1G Pierce Hall Room 238	Longacre, Xzavier Evaluating Hydroponic Crop Growth Utilizing Synthetic Wastewater	Williams, Charles Monitoring Air Quality Evaluating PM 2.5 Concentrations in Savannah...	McClelland, Alaina Synergistic Effect of Clove & Cinnamon against Aspergillus flavus in Georgia...
Session 1H Pierce Hall Room 239	Jamil, Zohra SPR-2 contributes to epigenetic regulation by modulating...	Jordan, Nicolias The novel ciliary protein FAP93 may play a role in axonemal integrity at...	Manivannan, Maya Role of an intrinsically disordered region in regulating prenylation of the Hsp40...
Session 1I Humanities Hall Room 201	Gregg, Kylie Examining Prosocial Behaviors in Young Children Since the Pandemic	Johnson, Bridget Exploring Traditional Family Values in Emergent Adults	Arnold, Miranda Parenting Styles and Adolescent Development: An Exploration...
Session 1J Humanities Hall Room 202	Hare, Caden Evolving Criminal Strategies: How Offender Adaptation Impacts...	Nwachukwu, Jessica 2025 Reformed Human Trafficking Guidelines	Greer, Cameron Resource Insecurity and Threats of Violence Elicits Acceptance of Unfairness

Paper Session 2

9:40 - 10:40 AM

Submitter name and abbreviated title

Session 2A Johnson Hall Room 101	Horne, Isabel Sacred Names, Strategic Meanings: Rhetorical Onomastics and Masjid...	Rangel, Daniela The 14th Amendment and Native American Citizenship:...	Moench, Ziv Effects of Managed Forest Clearings on the Space Use and Movement Behavior...
Session 2B Johnson Hall Room 102	LeRoy, Laila From Name to Nourishment: Stewarding Reynoutria japonica...	Shute, Oscar Lincoln's Folly, Cherokee Secession, a Diplomatic Failure and a Human...	Emerson, Michael Environmental Futurism
Session 2C Johnson Hall Room 201	Floystrop, Thomas Making The Foreigner	Curbelo, Chloe From Curiosity to Controversy: American Perception of Japanese...	Zachary, Cason US - Japanese Relations in the 1860s: The Shimonoseki Incident...
Session 2D Johnson Hall Room 202	Stoudenmire, Madison Examining Parenting Styles of Young Children in Pandemic Time	Balcom, Caitlyn Technology Use and Mental Health in Emergent Adults During the...	Smith, Tweetie Anne Neurobiological Mechanisms of Post Traumatic Stress Disorder and...
Session 2E Pierce Hall Room 140	Webster, Gabrielle Lactococcus lactis subspecies cremoris drives hepatoprotective...	Durakovic, Alissa Mgl2 as a Modulator of Inflammation and Immune Homeostasis	Schmitt, Matthew The Heme Metabolon: Investigating the Interaction Between Protoporphyrinogen...
Session 2F Pierce Hall Room 237	Kassing, Dominic Investigation on the antibiotic effect of superior-class traditional Chinese...	McCallum, Sadie Dietary Lion's Mane Mushroom Enhances Stress Resilience in...	Artime, Lucy Boosting the efficacy of salicylic acid using ethosomal delivery systems to...
Session 2G Pierce Hall Room 238	Cherian, Shone Project DORA (Dynamic Objective- Reaching Autonomous Rovers)	Webb, Dustin Evolution of Artificial Intelligence in Unmanned Aerial Vehicular Networks	Nguyen, Eric Gesture-Controlled Robotic Arm Using Flex Sensors and Arduino
Session 2H Pierce Hall Room 239	White, Chloe Transitional metal doped TiO2 nanoparticle for optimized drug...	Ramos, Angel de Jesus Influence of Soil Properties and Drain Dimensions on 2D Consolidation...	Sharpe, Brailey Modeling Proton Transfer in Supercooled Water-Glycerol Solutions with Molecular..
Session 2I Humanities Hall Room 201	Lam, Huy PRSS8-TGF- β Interplay Promotes Temozolomide Resistance in...	Halfon, Kate Impact of biological sex and obesity on amyloid pathology in a transgenic...	Adedokun, Iyanuoluwa Perigestational morphine exposure affects maternal behavior and attentiveness in...
Session 2J Humanities Hall Room 202	bloom, isaac The Role of JMJD1C in Oligodendrogenesis following...	Joganpalli, Liamith Rao Characterizing kinesiphobia- disrupted brain activity during...	Fumbi, Savanna Chromosomal Translocations and Endometriosis: A Meta-Analysis

Paper Session 3

10:50 - 11:50 AM

Submitter name and abbreviated title

Session 3A Johnson Hall Room 101	Pellegrino, Ethan Between Homelands: The Postcolonial Search for...	Nganga, Ivy Words as Instruments of Power: Language Control in 1984...	Brasfield, Emerson The Great Work Begins: An Exploration of Sexuality and...
Session 3B Johnson Hall Room 102	Gerhard, Emily How are your characteristics helping you succeed in college?	Herrera, Celeste Between Service and Self: Thematic Analysis of Veteran...	Pagett, Shea De-Stress Express: Mental Health Cart
Session 3C Johnson Hall Room 201	Gardner, Isaac Precision Agriculture Route Optimization with Crop Row...	Mainor, Meghan Compost-Based Bioremediation of Parking Lot Runoff: Evaluating...	Guha, Ryan Undergraduate-Led Field Methods for Monitoring Biodiversity in a...
Session 3D Johnson Hall Room 202	Detling, Alexis Exploring Alignment of Faculty and Students' Goals for Bringing...	Fleming, India Expanding Pedagogical Horizons: Preservice Teachers' Reflections...	Krone, Spencer A System to Purify and Analyze Farnesylated Ydj1 Protein
Session 3E Pierce Hall Room 140	Farooqi, Zahra Methodological Considerations in Parent and Child Research:...	Johary, Christine Visualizing Valor: Who gets represented?	Plumb, Ashleigh The Root of Vaccine Hesitancy – Psychological and Structural Drivers...
Session 3F Pierce Hall Room 237	Williams, Sophia Ants, Appetite, and Adaptation: The Science of Survival-Driven...	Carter, Sarah Identification and Recombinant Expression of Hydroxynitrile...	Schneider, Henry Changes in Oviductal Expression of Estrogen Receptor and Smooth...
Session 3G Pierce Hall Room 238	Murillo-Bivins, Thomas The "Real" Adversary: The Impacts of Artificial Intelligence on...	Worthington, Liam Intelligent Obstacle Detection System for IoT Devices	Patel, Shrey Voice-and-Vision-Controlled Robotic Car
Session 3H Pierce Hall Room 239	Payton, De'vonte Environmental Toxicants and Neurodegeneration:...	Kelly-Stewart, Isabella Genomic analysis and comparison of F element...	Zaman, Hanif LicD2 Association with the Cell Membrane of Streptococcus...
Session 3I Humanities Hall Room 201	Beauchamp, Timothy The Causes of Cheating in a Post World-War American Classroom	Hall, Sophia Campus Activism and Sustainable Social Movements: Student...	Brinkley, Beatrice Does Repetition of the Correct Answer During Feedback Facilitate...
Session 3J Humanities Hall Room 202	Lee, Ari State-Level Growth Rate Factors	Do, Lena Elastin-related Vascular Pathology in Williams Syndrome...	Bray, Matheson Novel Fluorometric Enzyme-Coupled Arginase Assay for Target-Based...

Paper Session 4

12:50- 1:50 PM

Submitter name and abbreviated title

Session 4A Johnson Hall Room 101	Young, Isabella Gender Violence in Native American Literature	Mckee, Keana Gendered Bodies, Sexless Souls: Medieval Masculinity and Aelfric's...	Gilbert, Olivia Northern Exposure: 1990s Feminism and Postfeminism
Session 4B Johnson Hall Room 102	Kinlaw, Ellie Refusing Reality: When Delusion Becomes Dangerous	Bukowska, Olga The Double-Edged Sword of Rituals in Sports: Performance...	Horn, Alexandra Acculturation and Cultural Disillusionment: Measuring Challenges to Confidence in...
Session 4C Johnson Hall Room 201	Breen, Sarah How Sexuality and Sexual Health was affected by Communism in Eastern...	Burshteyn, Mia Protecting Women? Fantasy and Reality in the Transgender Women's...	Slemons, Emilyn The Work of Frances Perkins: The First Woman to Serve on a Presidential...
Session 4D Johnson Hall Room 202	Timko, Zee You Are What You Eat: The Transference of Vitality and Virginity...	Fodor, Claudia Innovation within Tradition: Funerary Art in the Late Ptolemaic Period...	Youngblood, Madolin Marriage, Patronage, Power: Renaissance Italy's Influential Families...
Session 4E Pierce Hall Room 140	Muppalla, Dhanya The Impact of HIV-1 RT Mutations on Strand Displacement of the Central...	Constantin, Nidia Unlocking the Impactful Secrets of Zeolite in Concrete	Vayalapalli, Aditya Transcriptomic Profiling of Olaparib-Treated Ovarian Cancer Cells ...
Session 4F Pierce Hall Room 237	Fenchak, Annah Graphing the Microbiome: SMG as a Bioinformatics Blueprint	Mvondo Assomo, Aique Annotation of bacterial genomes using large genomic language models	lin, jenny Comparative adsorption of tetracycline antibiotics on natural...
Session 4G Pierce Hall Room 238	Sciarra, Nicolas Computational analysis of contig 46 reveals a nested gene within an...	Reeves, Kindle Adenovirus Protein E4 11k is an Insufficient Inhibitor of the DNA-PK-...	Oriola, Samuel Robust Group PCA for Separable Noise: An Argument for Subject...
Session 4H Pierce Hall Room 239	Stitz, Matthew An exploration of crystal structure and magnetic properties in the Ti-doped	Varsalona, Vincent Detecting Cryphonectria hypovirus at Lesesne State Forest, Nelson County	Fullen, Saniyah Evaluation of Metformin-Based Organic Salts (GUMBOS) for Improved Oral
Session 4I Humanities Hall Room 201	Brake, Denise Neurodiversity and the Environmental Affects of Trauma	Turcios-Bonilla, Jenisis Childhood Trauma's Negative Impact in Adulthood	Price, Kristina (Krista) Stigma in Action: How Bias Affects Help-Seeking and Disclosure of Non-Suicidal...
Session 4J Humanities Hall Room 202	Perez-Castellanos, Jennifer Culturally Relevant Mathematics Teaching: Growing Together	Funk, Summer Breaking the Pattern: Confronting Math Anxiety in Future Teachers...	Do, Dori Mapping Graduate Learning Experiences Through Network Analysis of Reflective...

Poster Session

All posters will be displayed in Williams Gym

Submitting Author	Title
Afzali, Jasmine	Developing an Optogenetic Assay for Controlling Neuronal Morphology
Agarwal, Harshita	Morphological Changes in Microglia Across Various Brain Regions in a Mouse Model of Gordon Holmes Syndrome
Aliou Dewa, Amina	Effects of Berry Consumption on Skeletal Muscle in Rats Treated with Angiotensin II
Anand, Abhai	Modeling CKD-Induced Cardiac Dysfunction Using Human Cardiac Organoids
Barkley, Jayla	Short Chain vs. Long Chain Per- and Polyfluoroalkyl Substances: Comparative Effects of PFAS on <i>Caenorhabditis elegans</i> Lifespan and Implications for Human Health Risk
Barringer, Becky	Correlation between Forest Management and Soil Carbon Concentration
Bartley, Latoya	Laboring Under the Law: A Review of Structural Drivers of Maternal Mortality in Georgia
Bhavaraju, Ria	Implications of Oxytocin Receptor Gene Variation for Mating Behaviors and Social Attachment in Prairie Voles
Bowman, Matthew	Investigating the DNA-binding Specificity of FD&C Red #40
Brigham, Levi	Biochemical Characterization of UGT74B1 in Glucosinolate Biosynthesis: Tools for Understanding Natural Product Production
Brizendine, Maribel	Modeling Fatty Liver Disease in a Dish
Budeir, Tala	Projections of V1aR-Expressing Cells in the Lateral Hypothalamus of Mice
Callaway, Dina Xu	Enhancing Alzheimer's Disease Staging Prediction with a Multi-Modal Deep Learning
Campbell, Ashlyn	Impact of Structural Modifications on Hsp40 Ydj1 Activity
Casmer, Jordyn	Biochemical Characterization of Novel O-GlcNAc Transferase Variants Causal for X-linked Intellectual Disability

Poster Session (Cont.)

All posters will be displayed in Williams Gym

Chandler, Micah	Uncertainty Quantification of Optimal Control in Ecological Systems
Cheng, Jiuyi	Student Trilemma: Trade-off Between Academic, Leisure, and Sleep via Modeling Approach
Clark, Bridgette	Trends in the Data: Exploring What Institutional and Financial Factors Influence Enrollment in Georgia's Public Colleges
Clermont, Niani	Identification of Species-specific Leishmania Flagella Surface Ligands for Host Cell Interaction
Conner, Sarah	Defining the Structure and Regulatory Potential of the CIRBP 5'UTR to Understand Its Stress Response Role
Corbin, Carter	SoilBus
Cox, Lily	Examining the Role of Adenovirus E4 11k Protein on Interferon-Beta Expression
Croicu, Tania	Investigating q-Analogues of the Fibonacci Sequence
Dalton, Liam	Mapping Source-specific Vasopressin Inputs to Subregions of the Lateral Hypothalamus in Mice
Darnell, Seth	Upregulation of Reactive Astrocytes and Chondroitin Sulfate Proteoglycans after Spinal Cord Injury
Darwin, Tyler	Investigation into the Switching Ability of Capacitive Wireless Power Transfer Applied to Multiple Receivers
Deas, Gracie	Polarimetry to Study Mixtures of Chiral Molecules and the Effect of Steric Bulk on Amino Acids
Diakov, Maksim	Role of Histamine in the Regulation of Calcium Flux and Actin Dynamics in Renal Cortical Collecting Duct Cells
Diatikar, Kailey	Adoptive Transfer of Stem-like CD8 T Cells Potently Regress Melanoma Tumors and Traffic to Multiple Organs

Poster Session (Cont.)

All posters will be displayed in Williams Gym

Eckstein, Joseph	A Comparative Anatomical Investigation of Southeastern Hemiparasites
Ferary, Joseph	Vascular Smooth Muscle Cell Transcriptomic Response to Cyclic Strain in Williams Syndrome Patients
Fulcher, Dale	Adenovirus Protein E4 11k while Necessary, is an Insufficient Inhibitor of DNA-PK Dependent Double Strand Break Repair
Gilchrist, Lafredrick	Water-Based Electrolytes for Lithium-Ion Batteries
Gilliam, Gayjalyn	Climatological Trends and Variability of Temperature Patterns in Coastal Georgia
Godo, Kemi	Simulating a Presentation Attack Using a Fake Finger to Test the Spoofing Detection and Prevention Capabilities of the Digital Persona U.are.U 4500 Fingerprint Reader.
Grant, Mason	Alternative Synthesis of Octyl 4-Methoxycinnamate
Gregorich, Hailey	Activity of Animals in Man-made Rock Piles
Grey, Jordan	Comparative Cricket Swimming Locomotion
Guedez, Henry	Beyond the Flesh: Ascetic Women, Gender Transformation, and Christian Monasticism in Late Antiquity
Hadimani, Anisha	Glycosaminoglycan Hydrogel Implants Facilitate Forelimb Motor Recovery After Severe Traumatic Brain Injury
Hernandez, Leticia	Gene Structure is Conserved in Heterochromatic Regions of Two Distinct Drosophila Species
Hernandez, Victor	Computational Analysis of Ice Accretion Roughness on Aerodynamic Performance Utilizing OpenFOAM
Herron, Amelia	The Role of Calcium Sensitive RabGAPs in Endocytic Trafficking Pathway

Poster Session (Cont.)

All posters will be displayed in Williams Gym

Hester, Makenzie	A Meta-analysis of North American Medicinal Orobanchaceae at Two Phylogenetic Scales
Hunihan, Sara	Modeling Acute Respiratory Distress Syndrome to Characterize Myeloid-Derived Suppressor Cell Dynamics
Induraj, Pavan	Differential Cell-type Temporal Control of Beat-IIa by a Steroid Hormone Pathway is Critical for Proper Circuit Formation in the Fly Visual System
Jagannathan, Aparna Srinidhi	A Novel Wearable Biofeedback System for Individuals with Gait Disorders
Jumaniyazova, Reymajan	Amplifying Full Mutant Phage Libraries
Kann, Rebecca	Exploring the Relationship Quality of Couples Where One or Both Partners are at Risk of ADHD
Kells, Aidan	The Bureau of Refugees, Freedmen, and Abandoned Lands in Mississippi
Kendall, Mikayla	Early-life Adversity Alters the Development of Corticotropin-releasing Hormone-expressing Neurons in the Central Nucleus of the Amygdala
Khan, Shan	Elevated Peritoneal Adenosine Following Simulated Hospital Sleep Disturbance
Lai, Minna	What are the Barriers to Gene Flow between Alaskan Herds of Rangifer Tarandus? A Genomic Approach.
Lan, Lin	TRIM21-Mediated Clearance of Toxic SOD1 Aggregates: A Novel Therapeutic Strategy for Amyotrophic Lateral Sclerosis (ALS)
Landa, Victoria	Transition Metal Pyrrolidine Ionic Liquid Crystals with Alkyl Substituents
Luquin, Lizeth	Host Cell Protein Levels in Response to Adenovirus Infection
Mahgoub, Jana	Impact of Heart Failure on Alzheimer's Disease-like Pathology in Male Transgenic Rats.
Marlow, Lukas	A Novel Scalable Self-Regulating Seal for Supercritical CO ₂ Nuclear Power Cycles

Poster Session (Cont.)

All posters will be displayed in Williams Gym

McKay, Brooke	Investigating the Role of Novel Appendages for Mating Preferences and Crypsis in Hippocampus Zosteræ
McKenna, Reilly	Empowering Communities through Water System Mapping Using Google Earth: A Case Study from the Dominican Republic
menendez, emily	Progress Towards the Synthesis of Eucommicin A: Protection of (-)-quinic Acid
Mensah, Felix	SHAP-based Explainable AI Framework for DDoS Detection System
Miranda, Jake	Quantifying AI-Generated Cybersecurity Risks in Cyber-Physical Systems Using Conditional-Value-at-Risk
Mueller, Kristen	Tracking Moisture Content and Nutrient Transformation in Compost
Nenguke, Tafara	Screening and Characterization of Therapeutic Antibodies Targeting COVID-19/SARS-CoV-2
Neupane, Kusum	AI and Cybersecurity for Service Learning and Study Abroad
Owens, William	Gene Expression Analysis in CD4 Cells of Graves' Disease Patients Revealed Upregulation of Apoptosis Pathway
Patel, Ujvali	Food Restriction Results in Sex Differences for Palatable Food Seeking
Pathak, Anandita	Directional Motion and Synchronization via Geometry in BZ-Driven Ruthenium-NIPAM Gels
Pavlich, Aidan	Bridging the Gender Gap in Pharmacology: The Need for Greater Attention to Gendered Medicine in Clinical Trials
Persaud, Pearce	Addressing Moral Injury in Healthcare: Outcomes of a Self-Directed Psychoeducational Program
Pham, Bao	Structural Basis for HIV-1 Matrix Maturation

Poster Session (Cont.)

All posters will be displayed in Williams Gym

Polineni, Mahita	Cognitive Functioning in Emergency Medical Responders: The Role of Depression, Insomnia, and Mental Health
Radcliff, Nathaniel	What is the Meaning of Trust for Individuals Working in an HR Department?
Reedy, Emily	Investigating the Impact of Subchronic Exposure to E-cigarette Vapor on Occludin Expression in the Blood Brain Barrier of C57BL6/J Mouse.
Rice, Casey	Heterozygote SHANK3B Mice Exhibit Sex-dependent Changes in Proteins Required for Excitatory/Inhibitory Balance.
Rona, CJ	Progress Towards the Synthesis of Eucommicin A: Selective Formation of the β -truxinate Scaffold
Rose, Adam	Prevalence of Leptospira spp. in Mesocarnivores from North Carolina
Sarkar, Srijon	Biophysical Modeling of Intratumoral Heterogeneity and Imaging Biomarkers in Glioblastoma
Satkuri, Trishona	The Role of Early Life Stress on Post-embryonic Neuronal Maturation in Caenorhabditis elegans
Senthil, Siddarth	Comparative Transcriptomic Analysis of Traumatic Brain Injury and Aging in Sprague DawleyRats
Seo, Chanyeong	Gate-Defined One-Dimensional Channels in InAsSb as a Platform for Quantum Computing
Shirley, Matthew	Exploring Robotic Framework for Automated Navigation and Critical Visual Inspection
Sirigireddy, Sriya	Spatial Omics Reveal Epigenetic and Dietary Modulation of ECM Remodeling in Liver Fibrosis
Starks, Ben	Synaptojanin 1 (SYNJ1) Haploinsufficiency Causes Impaired Autophagy and Age-dependent Decreased Dopamine Release in the Dorsal Striatal Slices
Steffen, Jonathan	Six Lines that Matter: Pirates, Justice, and Corrupt Authority in Hamlet

Poster Session (Cont.)

All posters will be displayed in Williams Gym

Suleiman, Syrin	Design. Build. Compete! Developing a STEM Camp Experience for Syrian Refugee Middle School Students in Jordan
Suruvu, Akash	Exploring DLL3 CAR-T Cell Therapy and Antibody Drug Conjugate Payloads in Small Cell Lung Cancer
Taiana, Isabelle	Precoastination in the Team Setting
Tarakji, Rany	Induction of Surface Calreticulin in Urothelial Human Bladder Cancer Cell Lines
Tharp, Oscar	Edge Computation Leaf Disease Detection with YOLO
Tran, Breanna	The Role of Primary Cilia in Parkinson's Disease: Exploring Into Neurodegeneration and LRRK2 Dysfunctions
Vega, Elena	Comparison of Species Across the Drosophila Genus Supports Gene Characteristics Previously Associated with Heterochromatin
Vyas, Rus	Using Mathematical Fast-Fourier-Transforms to detect Respiratory Distress from pocket-worn Accelerometers
Wachter, Savanna	Antibiotic Resistance Profiles of <i>P. aeruginosa</i> are Impacted by PepA, a Multifunctional Aminopeptidase
Wagh, Sonali	Cortical Innervation of Subthalamic Nucleus Functional Regions in Parkinsonian Monkeys
Wen, Alison	Analysis of Mental Health and Substance Use Disorders Among Hispanics in the U.S.: Variations Across Spanish, English, and Bilingual Speakers
Winters, Madison	A Magnetically Actuated Micropump for Insulin Delivery in Type 1 Diabetes
Wirth, Brian	Translational Control of Pro-apoptotic PUMA via mRNA 5' End Regulatory Elements
Xiong, Aeris	Prevalence of Oligodendrocyte H3K9me3 in Mice Housed in an Enriched Environment
Yadlapalli, Pranati	Peripheral Nerve Injury Does Not Alter VGlut1 Synaptic Density on Isl1+ Premotor Interneurons

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,

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 McGehee for providing us with the resources we needed to be able to bring all of you together here on 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 to pass the baton to our next GURC President Kevin Bucholtz, Vice-President Tsu-Ming Chiang, and the whole Georgia State College and University team. See you all next year in Milledgeville!

Sincerely,

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

Dan Walter, GURC President



GURC 2026 to be hosted by Georgia College & State University

In 2026, the Georgia Undergraduate Research Conference will be held on November 6th and 7th at Georgia College & State University (GCSU) in Milledgeville, GA.

GCSU is Georgia's designated public liberal arts university, where students have the opportunity to participate in a variety of award-winning high-impact practices, including undergraduate research, leadership programs, study abroad, internships, and community-based engaged learning. As one of only three selective universities in the University System of Georgia, GCSU offers undergraduate programs in over 40 majors as well as 34 graduate programs, doctorates in nursing and education, and various continuing education programs and certificates.

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Submission guidelines for students and mentors are outlined on our website. They open September 9 and close December 5, 2025. NCUR receives thousands of applications each year in over 50+ different disciplines. We are excited to see each discipline grow more and more.



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If you are an administrator, faculty mentor, postdoc, or graduate student, we encourage you to volunteer as an abstract reviewer. The deadline to apply is November 14, 2025.

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