15th Annual

GEORGIA UNDERGRADUATE GURC RESEARCH CONFERENCE

November 6-7, 2026

GEORGIA COLLEGE
GEORGIA'S PUBLIC LIBERAL ARTS UNIVERSITY

Georgia Undergraduate Research Conference 2026

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The Georgia Undergraduate Research Conference (GURC) itself strives to serve students and faculty in the Southeastern United States as the region's premier undergraduate research and creative endeavors conference. The once-yearly conference promotes the dissemination of original student scholarship conducted in partnership with a faculty/staff mentor. Further, GURC serves as a networking conference providing undergraduates with connections to career and graduate school opportunities. GURC is hosted each year by a member of the Georgia Undergraduate Research Collective, an organization dedicated to promoting high-quality undergraduate student-faculty collaborative research and scholarship across the state of Georgia and the surrounding region.

GEORGIA UNDERGRADUATE RESEARCH BOARD

President: Kevin Bucholtz, Ph.D., Georgia College & State University
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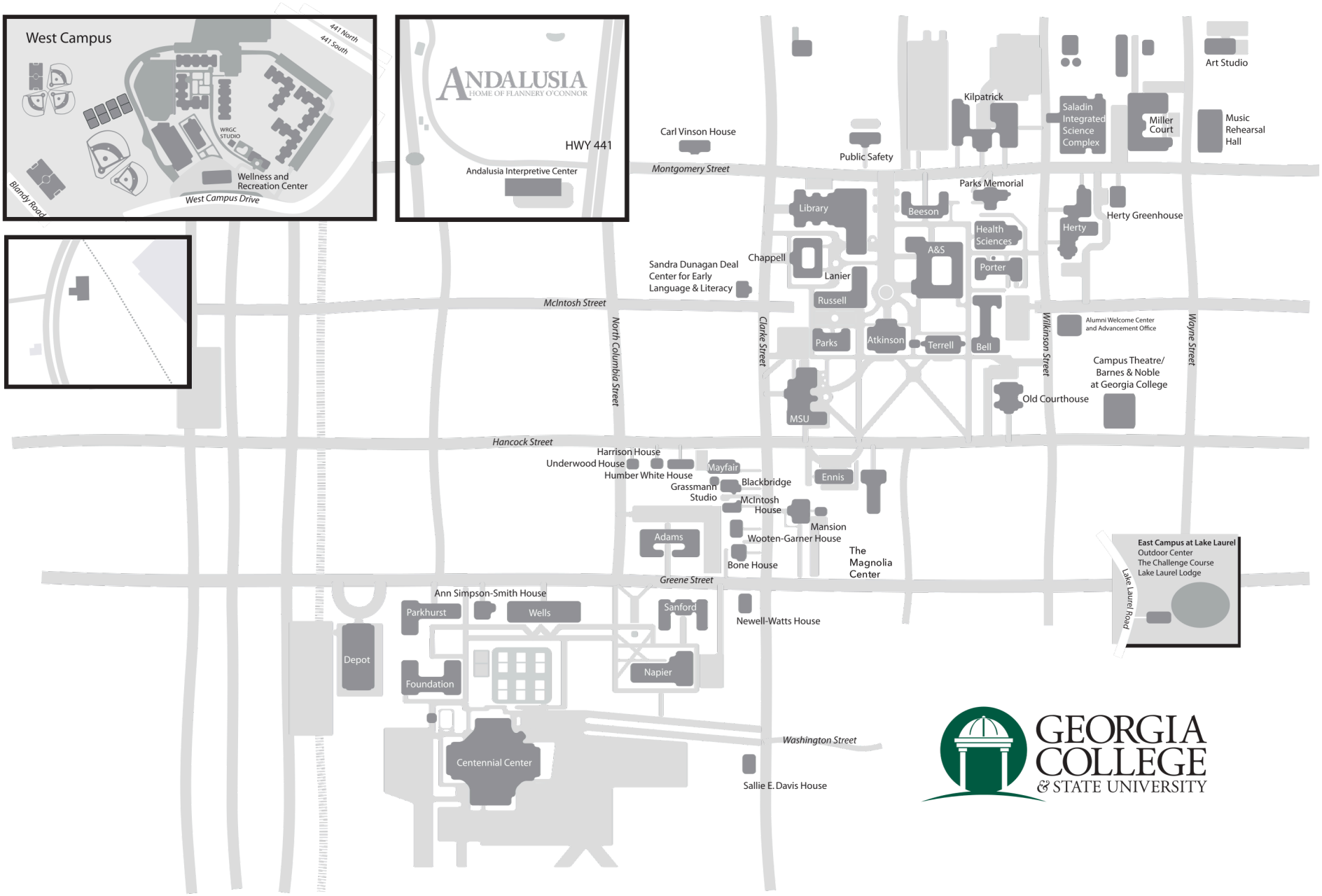
ABOUT GEORGIA COLLEGE & STATE UNIVERSITY

The Georgia Undergraduate Research Conference (GURC) 2026 is hosted by Georgia College & State University in Milledgeville, Georgia. Thank you for joining us for this 15th 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.

Georgia College & State University (GCSU), Georgia's designated public liberal arts university, offers a small-campus experience in the heart of historic Milledgeville. Founded in 1889, GCSU has grown into a coeducational institution known for undergraduate research, close faculty mentorship, and hands-on learning. Milledgeville itself is steeped in history: planned as a capital city, it served as Georgia's seat of government from 1807 to 1868, and the Old Governor's Mansion, a Greek Revival home built in 1839, now sits on campus as a museum. The town is also closely tied to Southern writer Flannery O'Connor, a GCSU alumna whose legacy lives on in campus collections and at her family farm, Andalusia.

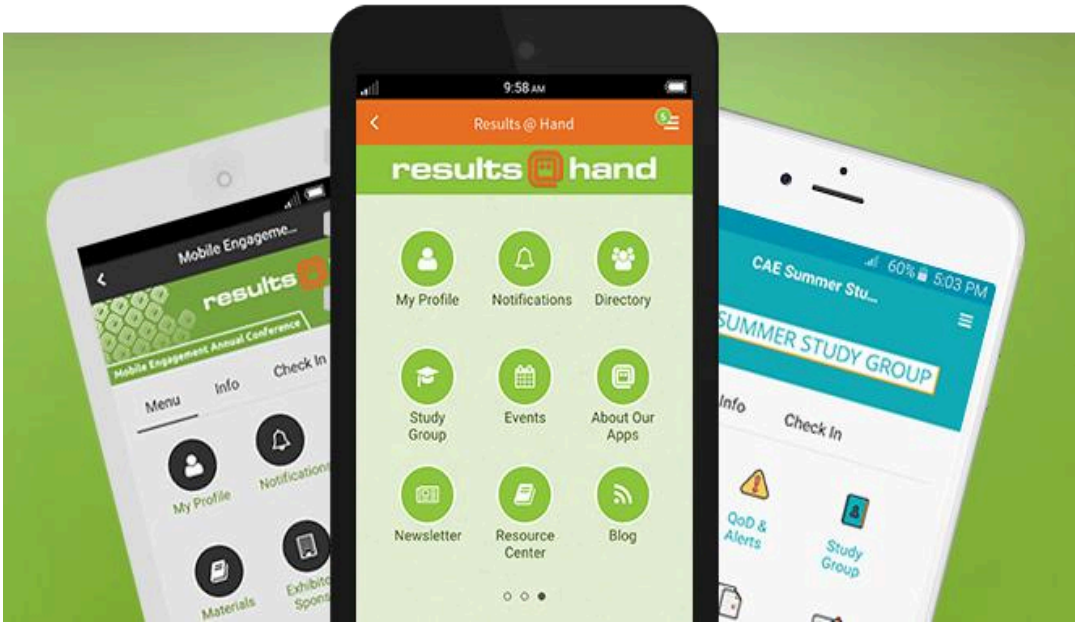
While visiting Milledgeville, we encourage you to take advantage of the resources on and near campus. The historic downtown, just steps from campus, features local restaurants, coffee shops, and independent boutiques, while the nearby Oconee River and Lake Sinclair offer scenic places to relax between sessions. Some of GCSU's historic and modern academic buildings will be used during the conference, giving attendees a firsthand look at a campus where tradition and innovation meet.

GEORGIA COLLEGE
GEORGIA'S PUBLIC LIBERAL ARTS UNIVERSITY


West Campus
441 North
441 South
WRGC STUDIO
Wellness and Recreation Center
West Campus Drive
Blandy Road
ANDALUSIA
HOME OF FLANNERY O'CONNOR
HWY 441
Andalusia Interpretive Center
Carl Vinson House
Public Safety
Kilpatrick
Saladin Integrated Science Complex
Miller Court
Art Studio
Music Rehearsal Hall
Montgomery Street
Parks Memorial
Library
Beeson
Herty
Herty Greenhouse
Health Sciences
Chappell
A&S
Porter
Lanier
Sandra Dunagan Deal Center for Early Language & Literacy
Russell
McIntosh Street
North Columbia Street
Clarke Street
Parks
Atkinson
Terrell
Bell
Alumni Welcome Center and Advancement Office
Wilkinson Street
Wayne Street
Campus Theatre/ Barnes & Noble at Georgia College
Old Courthouse
MSU
Hancock Street
Harrison House
Underwood House
Humber White House
Mayfair
Blackbridge
Grassmann Studio
McIntosh House
Ennis
Mansion
Wooten-Garner House
Adams
Bone House
The Magnolia Center
East Campus at Lake Laurel
Outdoor Center
The Challenge Course
Lake Laurel Lodge
Lake Laurel Road
Greene Street
Ann Simpson-Smith House
Parkhurst
Wells
Sanford
Newell-Watts House
Depot
Foundation
Napier
Washington Street
Centennial Center
Sallie E. Davis House
GEORGIA COLLEGE & STATE UNIVERSITY

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Download the ConferenceBeat Event App to prepare for GURC 2026. Resources, attendee directory, notifications... all at your fingertips!



Download the App

For Android and Apple users, search for **ConferenceBeat Event App** in the App Store/ Google Play or select the respective image below to be redirected:

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You can also access the app from your smart phone, tablet, or PC's web browser with the following URL: https://app.resultsathand.com/gcsu_fall26.

Web app works on most browsers (current version), including: Google Chrome, Firefox, Apple Safari, Microsoft Edge

Locating GURC 2026



The ConferenceBeat Event App by Results at Hand supports multiple events.

To access **GURC 2026**, tap the **Current Events** tab. Locate **GURC 2026** from the listing and tap to open the event details. To open the event, tap the Go to Event button.

Refresh Events for the Latest Updates



Don't see your event on the listing? Tap the **Refresh Events** button on the bottom of the app's home screen to ensure you're running the latest app version.

Those using the web app version can also refresh (shift+refresh if available) their web browser to get the latest app updates.

Getting Started with the App

Once you've opened your event, **Sign In** with your **student email address**. After entering your email address, create a passcode to secure your profile and you're ready to use the app!

Once logged in, tap **Profile** to update your information, upload a picture, and adjust your sharing settings. The brief video below is a demonstration to help you get started:



Need App Support or Have Questions?

Check the side navigation menu for **app FAQs** or
Fill out the **support form** under Support on the side navigation menu

CONFERENCE SCHEDULE OVERVIEW

FRIDAY, NOVEMBER 6TH

4:00 PM - 5:00 PM	**GURC Business Meeting** - Mansion Education Building
5:30 PM - 7:00 PM	**Welcome Reception** - Old Governor's Mansion

SATURDAY, NOVEMBER 7TH

8:45 AM	**Check In Starts** - Atkinson Hall
9:30 AM - 10:30 AM	**Poster Session I** - Magnolia Ballroom, Student Activities Center
10:00 AM - 10:50 AM	**Oral Session I** - Atkinson Hall
10:45 AM - 11:45 AM	**Poster Session II** - Magnolia Ballroom, Student Activities Center
11:00 AM - 11:50 AM	**Oral Session II** - Atkinson Hall
11:30 AM - 1:15 PM	**Lunch** - Maxwell Student Union
1:30 PM - 2:15 PM	**Keynote Speaker** - Arts and Sciences Auditorium
2:30 PM - 3:30 PM	**Poster Session III** - Magnolia Ballroom, Student Activities Center
2:30 PM - 3:20 PM	**Oral Session III** - Atkinson Hall
3:30 PM - 4:20 PM	**Oral Session IV** - Atkinson Hall

MEET THE KEYNOTE SPEAKER

DR. DOMINIC DESANTIS



Ph.D. Ecology & Evolutionary Biology, University of Texas at El Paso

Dominic DeSantis is an Associate Professor in the Department of Biological and Environmental Sciences at Georgia College & State University, where he teaches courses such as vertebrate zoology and herpetology. He is recognized for his research in behavioral ecology, conservation biology, movement ecology, herpetology, and animal biotelemetry, particularly in the study of snakes.

DeSantis earned his Ph.D. in Ecology & Evolutionary Biology and previously conducted undergraduate research on salamander behavior at Texas State University and doctoral research at the University of Texas at El Paso, where he pioneered the use of accelerometers to track snake movement and behavior. At GCSU, he leads student-led projects investigating rattlesnake and pit viper ecology, including how these apex predators influence ecosystem interactions. His published work includes multiple studies on the herpetofauna of Mexico, documenting species composition, distribution, and conservation status.





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9:30AM - 10:30AM, POSTER SESSION I

Located in: Magnolia Ballroom, Disciplines: Interdisciplinary Research

A1. Phylogenetic Structure of Medicinal Plant Use in the Southeastern United States
Grace Walker, Oscar Penafiel

A2. Ecological, Morphological, and Anatomical Variation in Seymeria cassioides Across Longleaf Pine Habitats
Joseph Eckstein

A3. An Illustrated Comparative Anatomical Study of Two Hemiparasitic Plants in the Genus Seymeria (Orobanchaceae)
Stella Humphlett

A4. Evaluating a Tau-Modulating Treatment for Alzheimer's Disease in Hippocampal Slices
Ibrahim Hamo, Anthoni Goodman, Erik Roberson

A5. Impacts of the DAT-Y88F Mutation on Dopamine Uptake via WT hDAT/hNET Co-Transfected Cells
Daniela Fortin, Jun Zhu, Ana Jiminez Torres

A6. Determining the Role of Neuronal Navigators in Axonal Guidance and Neuronal Connectivity
Estrella Cano, Stephen Tymanskyj, Christopher Carpenter

B1. Uncovering the Role of MAP7 Family in Regulating Neuronal Morphology
Tina Tutuwan

B2. Investigating Tau Aggregation and Seeding Across Different Phosphorylation States
Saniya Patel, Stephen Tymanskyj

B3. Understanding the role of Map7D1 in Neuron Development and Intracellular Transport
Calvin Tran, Stephen Tymanskyj, Tina Tutuwan, Elizabeth Laura

B4. Role of HDAC11 in Sleep Deprivation–Induced Cognitive Impairment
Rebecca McDonald-Fowler, Florikaben Patel, Xujun Ma, Yun Lei, Xin-Yun Lu

B5. Nocturnal Insect Capture Efficacy of Two Distinct UV Lights
Ella Pattison, Alexander Orfinger

B6. Tag, You're It: Evaluating Visual Tagging Methods for Cassiopea Jellyfish in a Laboratory Setting
Chloe James, Abbey Dunfee, Annabelle McKie-Voerste

C1. Does Brine Shrimp Age Matter? Effects of 24- and 48-Hour Artemia on Juvenile Cassiopea Jellyfish Growth
Bella McNeely, Ashley Watts, Annabelle McKie-Voerste

C2. The Effects of Artificial Sweeteners on the Growth of Probiotics in Probiotic Tea
Rebeca Azua, Valeria Ceballos, Paulina Paramo

C3. Spatiotemporal Gait Norms in Moderate-to-Advanced Parkinson's Disease
Alysza Feliciano, Kristen Miller, Douglas Bernhard, Richard Tripathi, Stewart Factor, J. Lucas McKay, Christine Esper

9:30AM - 10:30AM, POSTER SESSION I

Located in: Magnolia Ballroom, Disciplines: Interdisciplinary Research

C4. Focused Ultrasound for Pediatric Diffuse Intrinsic Pontine Glioma: A Noninvasive Platform for Drug Delivery and Tumor-Directed Delivery
Sarah Wang

C5. Effects of Macaque Basal Ganglia-Derived Extracellular Condensates on Human Microglial (Huglia) Cell Motility
Sohana Shaikh

C6. Defining the Structure and Regulatory Potential of the CIRBP 5' UTR to Understand Its Stress Response Role
Sarah Conner, Matthew Kirchner, Arnab Sengupta

D1. SHAPE-MaP Analysis of BBC3 Transcript Variants shows 5′ End RNA Structure as a Regulator of PUMA Translation
Nathan Choi, Brian Wirth, Brittany Benner

D2. Ecotoxicology of Glyphosate and Copper (II) Sulfate on the Black Molted Crayfish (Procambarus enoplosternum)
Elias Aufderheide, David Weese

D3. Observations of Shiny Cowbird (Molothrus bonariensis) Response to Host Song (Puerto Rican Oriole, Icterus portoricensis)
Mallory Burger, Daisy Lott, Michelle Moyer

D4. How Do Puerto Rican Oriole (Icterus portoricensis) Song Rates Vary Across the Annual Cycle?
Daisy Lott

D5. Bean Weevil Locomotor Activity
Bennett Cofrancesco, Joseph Brewster, Shyh Chi Chen

D6. Histological Analysis of the Bleomycin Model in the Context of Idiopathic Pulmonary Fibrosis
Jacqueline McNair, Adriana Blanco-Diaz, Elisa Nieves, Andres Garcia

E1. Modulation of Extracellular Matrix Stiffness Using Synthetic Protein Circuits
Ajay Inampudi, Jeremy Hannon, Alex Vlahos

E2. Creating New pSB1A3 Plasmids for Fluorescence Research at Georgia Tech Using Custom Cloning Techniques
Sanjeev Anand, Anton Bryksin, Yury Chernoff, Naima Djeddar, Shweta Biliya, Ashtyn Cauffman

E3. Antigen-Specific T Cell Immunotherapy of T1D by In Vivo mRNA Delivery
Justin Rogando, Fang-Yi Su, Jamison Siebart, Ching S. Chan, Matthew Y. Wang, Xinyi Yao, Aaron Silva Trenkle, Avanti Sivakumar, Melanie Su, Rustin Harandi, Neha Shahrawat, Chi Nguyen, Anshika Goenka, Jinhee Mun, Madhav Dhodapkar, Gabriel Kwong

E4. Predicting Intraoperative Hypotension With Explainable AI
Farhan Baburi

9:30AM - 10:30AM, POSTER SESSION I

Located in: Magnolia Ballroom, Disciplines: Interdisciplinary Research

E5. Ecdysone Receptor AF1 Isoform-Specific Roles in Adipose Tissue Remodeling and Migration in Drosophila melanogaster
Frances Conkle

E6. Potential Mechanisms of Inorganic Mercury Intoxication in Rat Kidney Cells
Kathryn McLagan, Anya Surani, Luke Wiley, Lucy Joshee, Christy Bridges

F1. Optimization of Growth, Expression and Purification of Antibiotic Resistance Factor ABCF1 from M. smegmatis
Tedra Ibegbulam, Seymour Stennett, Elizabeth Peterson

F2. Knockdown of PolG1 Leads to a Motor Deficit and Sex-Specific Reductions in Sleep
Stephen Denham, Samantha Deal

F3. A Survey of Endohelminths of Holosteans in Georgia
Jairpeet Raina, Maggie Young, Tyler Harris, Nathaniel Hornung, Caley Chun, Makala Fabrizio, Marion Baker, Tim Bonovechio, Amory Cook, Jim Page, Brandon Baker, Don Harrison, Jonathon Pritchard, Caroline Cooper, Laura Wenk, Zoe Von Holten, Mike Kinsella, Florian Reyda, Anindo Choudhury, Vasyl Tkach, Tyler Achatz

F4. Age-Dependent Modulation of Schreckstoff Sensitivity and Spatial Avoidance in Pimephales promelas
Sharika Awasthi, Theo Kitchell, London Whilby

F5. Annotation of the Fmr-1 Gene in D. guanche Reveals Partial Conservation Within the Insulin Signaling Pathway
Malika Kaur, Aisha Nashiru

F6. Conservation of O Subgroup Forkhead Proteins in D. subobscura
Jackson A. Siciliano

G1. Investigation of Antimicrobial Properties of Dendrobium Stem Extracts in Traditional Chinese Herbal Medicine
Nishtha Wahi, Annette Neuman, LaTonia Taliaferro-Smith

G2. American Crow Abundance in Relation to Road Density in Georgia: A GIS-Based Analysis
Hailey Gregorich

G3. Investigating the Regulation of Heparan Sulfate Biosynthesis Through Enzyme Turnover and Degradation Pathways
Duojia Wu, Suganthan Amirthagunanathan, Xiaolin Dong, Ryan Weiss

G4. Expression and Biochemical Characterization of Human and Parasite De-N-acetylase PIGL
Prashansa Sharma

G5. High-Fat Diet Enhances Myristoylated Src Levels in Prostate Tumors
Pragnya Kamalapuri, Sungjin Kim, Houjian Cai

9:30AM - 10:30AM, POSTER SESSION I

Located in: Magnolia Ballroom, Disciplines: Interdisciplinary Research

G6. Analyzing the Impact of Farnesylation for Ydj1 Hsp40 Structural Stability
Abigail Kim, Walter Schmidt, Emily Hildebrandt, Jeffrey Urbauer

H1. Peeling Back the Truth: Can Escherichia coli Help Uncover the Effects Bananas Have on Berries?
Claudia Montelbano, Hanna Kluck, Carson Shea, Neva Clark, Ariadna Sanchez, Kiann Hutt Vater, Marguerite Bailey

H2. Code2Conserve: Empowering Interdisciplinary Collaboration Between Biology and Computer Science Students Through Integrative Conservation Science
Kathryn Tobianski, Jayce Stanley

H3. What Fungus Is Among Us?: Comparing ITS Barcoding to Mushroom Identification Applications
Makayla Golden, Frank Fontanella

H4. Investigating the Potential Anticonvulsant Effects of Hericium Erinaceus (Lion's Mane) on Seizure and Stress Thresholds in a Mouse Model of Chemically Induced Seizures
Amber Lynn, Hope Cooper, Kezia King, Morgan Streeter, Stacey Dutton

H5. Relationship Between Adolescent Immigration-Related Stressors and Depression: A Biopsychological Perspective
Ivana Villegas Ferrer

H6. Examining the Microbiome of Prothonotary Warbler Fecal Sacs and Nest Cavities
William Ratajczak, Sarah Kennedy, Michelle Moyer

10:00AM - 10:50AM, ORAL SESSION I

Atkinson Hall

Atkinson 104, Psychology

Beyond the Prototype: Misrecognition of Diverse Veterans and Its Implications
Celeste Herrera-Cruz, Ellen Nathanson, Ashlin Glover

Birds of a Feather: Emotional Regulation, Parenting Styles and Diversity of Friendships
Isabella Rodriguez, Avery Kener

Tiny but Mighty: The Role of Cognitive Flexibility in Ant Survival and Resilience
Sophia Williams

Atkinson 105, Interdisciplinary Research

Impact of Sex Differences on Toddler Social Functioning
Gyanna Gao, Jessica Benson, Dr. Alexandra Key

Adenovirus E4 11K Disrupts Innate Immune Sensors by Targeting Host Protein DDX6 and Suppressing IRF3 Activation
Lizeth Luquin

Atkinson 106, English

Ahab as Pilot-Prophet: Biblical Typology, Sermonic Form, and Narrative Voice in Melville's Moby-Dick
Sophia Hou

The World We Have Lost: D. H. Lawrence and Modern America
Lucy Ingram

World's worth inheriting: The Chosen One Archetype in Harry Potter and The Sopranos
Matthew Lackey

Atkinson 107, Biological & Biomedical Sciences

Behavioral Phenotyping Chemogenetic Modulation of Olfactory Bulb Astrocytes in Mice
Rachel King

Profit, Purpose, and Patient Outcomes: A Comparative Assessment of U.S. Hospitals
Jonathan Menaker, Ilana Chefetz

Investigating Latitudinal Variation in Organ Morphology as Local Adaptations to Climate in a Widespread Lizard, Anolis carolinensis
Brynne G. Hobart, Taylor L. Cooper, Jon J. Suh, Elle E. Garman, James T. Stroud

10:00AM - 10:50AM, ORAL SESSION I

Interdisciplinary

Atkinson 108, Interdisciplinary Research

Detection of Heavy Metals through the Use of Tetra-Hydroxyphenyl Porphyrin-Doped Silica Sol-Gels
Morgan Collins

Chemical Kinetics of Tetrahydropyran
Raiah Wright, Troy Smith, Brandon Rotavera

Sustainable Technology + Airport Architecture
Veronika Viazovaia

Atkinson 109, Interdisciplinary Research

Contested Ground: Using GIS to Map Instances of Legal and Physical Opposition Towards Mosque Site Construction
Anish Thota

A Comparative Analysis of a Student Researcher and GenAI Performance in User-Centered Design and User Experience
Jupiter Lebrun

Quantitative Computer Vision Disease Phenotyping of Peanut Leaves
Phong Nguyen

Atkinson 110, Engineering

Predicting Soil Erodibility Using Soil Properties
Boris Felipe, Mia Montero, Saumya Amarasiri

Examining the Effects of Multi-Task Training and Dynamic Prompt Appendation on the SmolVLA Model to Perform Complex Tasks
Liam Martin, Russell Markwalter, Ben Feibus

Investigating the Effect of pH on Nitrification Potential in Compost
Kristen Mueller, Yariel Delgado

Atkinson 206, Interdisciplinary Research

Gen-Z and the Future of Feminism
Jackson Lees

Reckoning With What's "Reasonable": A Corpus-Linguistic Approach to Understanding the Criminal Burden of Proof
Nayantara Balagopal Chandrasekhar

Beyond Paglayan: Revisiting the Indoctrination Incentives of Civil War Termination
Litong Wang

10:00AM - 10:50AM, ORAL SESSION I

Interdisciplinary

Atkinson 207, Interdisciplinary Research

Understanding the Function of Stathmin Protein in Regulating Neuronal Microtubule Dynamics

Gowri Vattenad, Stephen Tymanskyj

Examining Links Between Yesterday's Self-Efficacy and Self-Licensing on Next Day Goal Success

Emma Emmil

Investigating the Subcellular Localization of the Axon Survival Protein NMNAT-2

Cassidy Martin, Stephen Tymanskyj

Atkinson 208, Psychology

Mental Health and Coping Strategies in College Students

Cole Smith, Julia O'Toole, Jessie Goldstein

Examining Technology's Influence on Child Emotional Behavior

Julia Baker, Kelsey Lewis, Jessie Goldstein

Foundational Family Values and Family Structure on Personal Values in Young Adulthood

Marianna Hall, Carleigh Wright

Passing of Gender Roles Through Generations and Effects on Personal Beliefs

Evelyn Lessl, Kate Foster, Aryn Gravitt

10:45AM - 11:45AM, POSTER SESSION II

Located in: Magnolia Ballroom, Disciplines: Interdisciplinary Research

A1. Are "Paraben-Free" Cosmetics Truly Paraben-Free? An RP-HPLC Investigation
Madison Burt

A2. Roots of Resistance: Abiotic Effects on Soil Microbial Community Composition
Azariah Leslie, Erica Harris

A3. Sensitivity Analysis of Alopecia Areata
Sri Vaishnavi Ayyadevara, Atanaska Dobreva

A4. Identifying the Genetic Basis of Glucose Aversion in Blattella germanica
Aiden Srull, Kierra Dennison, Jennifer Baltzegar

A5. A Faunistic Survey of Aquatic Invertebrates of Lake Jackson Aquatic Preserve, Florida
Courtney Stubbs, Iris Cuevas, Cadence Callahan, Alexander Orfinger

A6. Enhancing Undergraduate STEM Engagement Through Applied Near-Surface Geophysics: Developing Workplace-Ready Skills at Fort Valley State University
Samiya Martin

B1. Purity Analysis of Organic Compounds and Dyes Present in Curcuma longa Locally Sourced versus Overseas Samples
India Hughes, Shanya Mitchell, Bal Khatiwada

B2. Housing Price Estimation Using Mathematical Modeling and Data Analysis
Ciara Young

B3. Evaluating the Effectiveness of Ketamine for Major Depressive Disorder: A Systematic Review
Ivana Villegas Ferrer

B4. Microplastics and Machine Learning: A Study of Plastic Pollution in South Carolina Waters
Mary Alise Lesley

B5. Geo Belize
Da'Mauze James

B6. A Cosmic Butterfly: Multi-Wavelength Analysis of an X-Shaped Radio Galaxy
Jonas Barfield

C1. Design and Synthesis of a Sol-Gel Colorimetric Sensor for Methamphetamine Detection
Emily Mirth

C2. Low-Temperature Synthesis of Perovskite for Gunshot Residue Detection
James Addis

C3. Soil Properties and Hydrology of Various Wetlands in Milledgeville, Georgia
Sophie Marie Morgan, Christine Mutiti, Victoria Alden, Sam Mutiti, Anya Mukundan, Mikey Pullin

C4. Effects of pH Change on Mesalamine and Citrate-Capped Silver Nanoparticles
Hope Spohn

10:45AM - 11:45AM, POSTER SESSION II

Located in: Magnolia Ballroom, Disciplines: Interdisciplinary Research

C5. Alternative Ester Synthesis of Amiloxate: Investigating Alcohol Chain Variations
Annalise Knop, Kylee Lange

C6. Two-Stage Enzymatic Resolution of 1-Phenyl-1-Propanol Using Cal-B: Acylation, Separation, and Recovery of Enantiopure Alcohol
Ava Howell, Jonathan Pruett, Wathsala Medawala, Ronald Okoth

D1. How Liming Impacts the Maturation and Quality of Compost
Yariel Delgado, Kristen Mueller, Severiano Gutierrez, Shira Funk, Karl Weimeister, Kelechi Amadi

D2. Synthesis of Alloxan-Based Thiosemicarbazones as Potential Topoisomerase IIα-Targeting Agents for Anticancer Discovery
Jayden Kypri

D3. Etch and Protect: Engineering a Functional Artificial Interphase on Manganese Anodes
Bode Windsor, Jieun Kang, Nian Liu

D4. Analysis of a Community-Engaged Air Quality Sensor Network in an Atlanta Urban Forest
Omer Inan

D5. Comparative Biomechanical Evaluation and Mechanical Characterization of a Segmented Silicone Vaginal Pessary for Preterm Birth Prevention
Loc Nguyen

D6. Field-Driven Lattice Structural Optimization Using Iterative MATLAB–nTop Computational Automation
Jaime Conde

E1. The Feasibility of AI-Driven Feedback for Motor Skill Performance
Sarakay Leatherberry

E2. Educational Impact of a Robotics and Virtual Reality STEM Program in Peru
Saundra Harris, Jacob Peters, Amro Abuazizah, Seungjun Lee, Amro Khasawneh

E3. Application of Z-Source Circuit Breaker in DC-Based Microgrid System for Fault Protection
Kusum Neupane, Ruiyun Fu

E4. Performance Analysis of a Hybrid Solar-Wind Energy System
Joshua Faulks

E5. Machine Learning Approaches in Assessing the Effects of PM2.5 Air Pollution on Respiratory Disease Under Humidity and Temperature
Carter Rountree, Sujin Kim

E6. Green Synthesis of Iron Nanoparticles for Fenton-Like Degradation of Industrial Dyes
Brandi Nicklas, Megan Foley

10:45AM - 11:45AM, POSTER SESSION II

Located in: Magnolia Ballroom, Disciplines: Interdisciplinary Research

F1. Development of Novel Phosphors in the Replacement of Triboluminescent Europium(III) Complexes
Ella DeVries, Ryan Meier
F2. Probing Proton Structure Using Jet Charge
Gabriel Smith
F3. Cobb County, Georgia: Incorporated and Unincorporated
Arianna Gonzales
F4. Cutting the Cord: Cable Television vs. Streaming Services
Johnathan Barry, Jonathan Alvarado-Arreaga, Brazynn Ingram
F5. Effects of Diet on Parasite Vulnerability in Generalist vs. Specialist Nymphalid Caterpillars
Caleb Ferguson, Jonah Gjorvad
F6. Gut Microbial Diversity in Georgia's Brood XIX Periodical Cicadas: Species, Population, and Sex
Xiyue Zhang, Haylee Troung, Aleena Khan, Evan Lampert
G1. Bioengineered Mineralized Mycelium Composites for Sustainable Structural Applications
Mahima Bhat, Fatema Momin
G2. Biochemical Characterization of Novel O-GlcNAc Transferase Variants P86L and F601L Causal for Intellectual Disability Reveal Domain-Specific Alterations
Lyla Bingaman, Jordyn Casmer, Genevieve Gardes, Johnathan Mayfield, Lance Wells
G3. Neuromodulation During Naps: Shaping N2 Sleep and Spindle Timing
Geethika Atmakuri, Seo Ho Song

11:00AM - 11:50AM, ORAL SESSION II

Atkinson Hall

Atkinson 104, Interdisciplinary Research

Water Quality Testing in Middle Georgia
Ja'Kera Harden

The Impact of Exercise on Horses' Cardiovascular and Respiratory Systems
Calise Lee, Jasmyn Virgo

Investigating the Genetic Architecture of Glucose Aversion in Blattella germanica
Kierra Dennison, Aiden Srull

Atkinson 105, Interdisciplinary Research

Menstrual Health Among College-Aged Women: The Relationship Between Menstrual Health and Anemia
Alexis Johnson, Jamya Waterman, Kehinde Kupolati

Radiographic Identification of Total Ankle Replacement Systems by Generative AI: Accuracy Before and After Targeted Instruction
Aarav Parekh, Lauren O'Mara, Jakob Schulman, Rishin Kadakia, David Pedowitz

Determining the Regulatory Properties of MAP1B in Axon Growth and Intracellular Transport
Elizabeth Laura

Atkinson 106, Biological & Biomedical Sciences

Translational Control of Pro-Apoptotic PUMA by mRNA 5′ End Secondary Structure
Brian Wirth, Nathan Choi, Brittany Benner

Genomic Characterization of the Millipede Cherokia georgiana
Sarah Carter, Bruce Snyder, Arnab Sengupta

Biochemical Characterization of Novel O-GlcNAc Transferase Variants S399C and T932I Causal for Intellectual Disability
Genevieve Gardes, Lyla Bingaman, Jordyn Casmer, Johnathan Mayfield, Lance Wells

Atkinson 107, Biological & Biomedical Sciences

Increasing Resolution of Flicker Efficacy on Stress-Induced Behavioral Changes
Krithi Iyer, Kaoru Inagaki

Association of Ecological and Anthropogenic Factors with Presence of Knockdown Resistance (kdr) Mutation F1534S in Aedes albopictus Populations in Richmond County, Georgia
Anthony Jones, J.T. Wicker III, Erin Przywara

Assessing Temporal Changes in Knockdown Resistance Across CSRA Aedes albopictus Populations
J.T. Wicker III, Erin Przywara, Anthony Jones

11:00AM - 11:50AM, ORAL SESSION II

Atkinson Hall

Atkinson 108, Interdisciplinary Research

Emerging Trends in Data Center Site Selection in Georgia
Jayce Stanley

GWAS Analysis for Seed Dimension Trait in Large Diversity Panel of grain Sorghum (Sorghum bicolor L.)
Anaya Green, Sidra Thabassum Shaik, Celia Dodd, Chidanand Ullagaddi, James Schnable, Somashekhar Punnuri

Healthcare Provider Perspectives on Integrating Breastfeeding Education into SafeCare
Jhaanvi Panchal, Zahra Farooqi, Zach Hoffman, Angel Greer, Vanessa Browning, Ashwini Tiwari Pandey

Atkinson 109, Computer and Information Sciences

Honeypot in Defending UAV-Swarm Energy Resources
Evan Garcia

Ethereum Transaction Fee Dynamics
Leo Gregori, Ruicheng Rao

A Comparative Analysis of General and Domain-Specific Byte-Pair Encoding Vocabularies
Raphael Gall

Atkinson 110, Interdisciplinary Research

Dionysian and Apollonian Drives and Modern Culture
Michael Emerson

Our Responsibility to Each Other: A Philosophical Look at The Good Place
Lily McKinney

Water Use, Hydrologic Transformation, and Ecological Impacts of Data Centers
Ryan Barnett

Atkinson 206, Interdisciplinary Research

Storage Quality Assessment of Cold Plasma Treated Walnut Halves
Andre Claridy, Ajit Mahapatra, Hema Degala

On-Device AI Model for Tomato Disease Detector Mobile App
Mark Rockers

Deep Learning-Based Fall Detection for Post Operative Patient Safety
Matthew Shirley

11:00AM - 11:50AM, ORAL SESSION II

Atkinson Hall

Atkinson 207, Interdisciplinary Research

When Arbitrage Fails: Dynamic Beta Asymmetry Between ETFs and Their Benchmarks
Sukmin Chang

Gaining Legitimacy by Building Relationships: The Case of Women Entrepreneurs in Digital Ecosystems in Brazil
Ella Moore

Does Size Matter? Fund Scale, Diversification, and the Sharpe Ratio
Noah Pugh

Atkinson 208, Interdisciplinary Research

I've Got a Feeling: The Religious Resilience of the A.M.E. Zion Church
Keith Tillett II

The Ethics and Structure of The Healthcare System
Rachel Williams, Nzinga Collins

Building Bridges for College Students with Disabilities
Adrianna Hutcheson

2:30PM - 3:30PM, POSTER SESSION III

Located in: Magnolia Ballroom, Disciplines: Interdisciplinary Research

A1. Political Proximity and Corporate Governance in Chinese Enterprises: Does Distance to Beijing Matter?
Andrew Wang

A2. FATMAX and the Menstrual Cycle: 17-Beta-Estradiol Effects on Fat Oxidation
Abigail Todd, Kelly Massey

A3. Religiosity and Conditional Support for Legal Abortion in the United States
Riley-Kate Miller

A4. A License to Goal Pursuit
Kierra Birt, Rose Thao

A5. When We Win, It's Us, When We Lose, It's Luck: Exploring Self-Serving Bias and Self-Compassion
Alle Paolillo, Allison Piatt, Marianna Hall

A6. Visualizing Valor: A Narrative Completion
Christine Johary, Rachel Urbach

B1. Providing Culturally Competent Care for Costa Rican Patients
Payton Glover

B2. The Influence of Invisible Environmental Boundaries on Grid-Like Representations in the Human Entorhinal Cortex
Pooja Pabbati, Omar Zeid, Qiliang He, Thackery Brown

B3. Moving From Student to Teacher: How Reciprocal Mentoring Furthers TPACK Development
Drew Herring

B4. Validation of OpenCap for Quantifying Dynamic Knee Valgus During Single-Leg Squat
Jessica Walkup, Nicolas Shields, Michael Hales, John Johnson

B5. The Relationship Among Adverse Childhood Experiences, Mental Health, Inflammation, and Working Memory
Saloni Patel, Sharon Pearcey, Erica Holliday, Cody Mashburn

B6. The Bad Romance: The Attachment Styles and Emotional Response Effects to Romantic Relationship Dissolution
Jala Williams

C1. Robust Used-Car Price Prediction Under Incomplete Features, Market-Segment Imbalance, and Image-Recognition Errors
Albert Magarire, Bahar Mahmud, Lauren McGuirt, Joey Leek

C2. HISTOBASE: An HCI-Informed Mobile Interface for Histological Image Analysis
Aarushi Verma, Chaohui Ren

C3. An Empirical Application of Improved Gradient Scaling For Score-Driven Volatility Filters
Aspen Johnson, Szabolcs Blaszek, Adam Kobor

2:30PM - 3:30PM, POSTER SESSION III

Located in: Magnolia Ballroom, Disciplines: Interdisciplinary Research

C4. The Good Kid Effect: Prosocial Siblings as Buffers of Parental Stress
Riddhi Maheshwari

C5. The Inbox Initiative: How Professionalism Affects Perceptions of Email Communication
Ariel Basa, Ifeoluwa Ogundipe, Dr. Shan Ran, Taylor Goodly, Tatum Turk

C6. The Effects of Semantic Interference on the Transfer of Second Language Vocabulary Learning
Rose Nadershahi, Jordan Buddo, Gianna Richards, Dr. José Luis Garrido Rivera

D1. Study on Barriers to Accessing Quality Healthcare for Spanish-Speaking Individuals in Middle Georgia
Erin Meeks

D2. A Hybrid Machine Learning Framework for Mapping Geospatial Methane Emissions
Ananda Williams, Abhinandan Chowdhury

D3. Design and Development of a Human Classification-Based Intrusion Detection System
Genesis Blount-Dinkins

D4. Emotion Recognition
TaNivea Craddock

D5. Design and Implementation of a Retrieval-Augmented Generation (RAG) Model for Gateway Mathematics
Joel Dublin-Morrison, Antonio Velasquez

D6. Design and Implementation of an Elementary LLM-Based Scaffold Tutor for Gateway Mathematics
Jayden Wilson

E1. Mixture Approaches of Machine Learning and Epidemiology in Evaluating the Effect of PM2.5 Concentrations on Cardiovascular Disease
Summer Coleman, Sujin Kim

E2. A Comparative Analysis of Cuckoo Search and Standard Optimization for Fraud Detection
Robert Dennis, Abhinandan Chowdhury

E3. The Role of Culturally Grounded Parenting Practices in Promoting Black Children's Flourishing
Skye Phillips, Iheoma U. Iruka, Sharron Hunter-Rainey

E4. The Integration of Symbolic and Non-Symbolic Information in Preschoolers
Sanaa Christian, Yesenia Arévalo-Jaimes, Patcelia Gbor, Dr. Melissa Libertus

E5. Measuring Cognitive Engagement During AI-Guided Psychoeducational Tasks Using fNIRS
Sheherbano Abedi

E6. Longitudinal Associations Between Body Mass Index and Brain-Age Gap in Adolescence
Steven Kesser, Shana Adise, Miguel Ángel Rivas Fernández, Jonatan Ottino-González

2:30PM - 3:30PM, POSTER SESSION III

Located in: Magnolia Ballroom, Disciplines: Interdisciplinary Research

F1. Music Therapy for Social and Communication Skills of Adults With Disabilities: A Comparative Study
Lauren E. Smith

F2. Sybil: Editing the Life and Legacy of Sybil Rosen
Daxton Douglas, Grace Helton

F3. Examining PrEP Awareness and Barriers to Uptake Amongst Young Adults in North Georgia
Elias Quintero, Osmarie Tolentino-Deleon, Hannah Carrasco

F4. The Influence of Weight Stigma on Judgments of Women's Professional Competence and Collaboration
Magdalena Villalobos

F5. Knowledge Distillation-Based Networking Satellite Selection
Abdulazeez Dauda

F6. A Distributed AI System for Scalable and Privacy-Preserving Autonomous Vehicle Control
William Lynch

G1. Exploring Deep Learning-Based Early Disease Detection Framework for Cotton Plants
Jareth Batty, Md Shirajum Munir

G2. Resource Availability and English Learner Outcomes: A Comparative Study of Rural and Urban Georgia School Districts
Martha Nepomuceno Cervantez

G3. Predictors of Response to a Moral Injury Intervention in Healthcare Workers
Pearce Persaud, Connor Bland, Kristin Kirchner

G4. Efficient In Vitro Shoot Organogenesis from Nodal Explants of Rhizoma Peanut (Arachis glabrata Benth.)
Alexis Johnson, Steven Samuels, Suma Basak

2:30PM - 3:20PM, ORAL SESSION III

Atkinson Hall

Atkinson 104, Interdisciplinary Research

Self-Beliefs and Academic Achievement in College Students: The Mediating Roles of Academic Aspirations and Problematic Behavior
Hanae Colquitt, Yongwon Cho

The Role of Music in Emotional Validation and Expression of Grief
Megan Rowland

How Well Can a Logistic and Linear Regression Model Predict Five Specific Countries' Population?
John Perez-Hernandez

Atkinson 105, Interdisciplinary Research

Agency and Differentiation in Tulpamancy Systems
Maddox Massey

Personalized Psychotherapy: Exploring Personality and Worldview as Potential Factors in Treatment
Emily Meyer

Exploring TikTok as a Platform for Peer Support: Navigating Uncertainty in Lynch Syndrome
Wynter Ross

Atkinson 106, Biological & Biomedical Sciences

Effects of COVID-19 Pandemic on the Incidence of Thyroid Cancer Diagnosis in Northeast Georgia
Brittany Cochran, Neal Lin

The Effects of Per- and Polyfluoroalkyl Substances on Behavioral Neurodevelopment Using C. elegans
Michaela Simon, Celia Dodd

Stochastic Simulation Analysis of Certain Biochemical Reaction Network Models
Sritan Aditya Chiluka

Atkinson 107, Interdisciplinary Research

From Spores to Solutions: Developing a Rapid, Low-Cost LAMP Platform for Peanut Leaf Spot Disease Detection
Jessica Rodriguez Arevalo, Gabriela Lopez, Ivan Lopez, Ansul Lokdarshi

Toxic Levels of Bile Acids Transdifferentiate Cholangiocytes into Hepatocyte-Like Cells
Noah Bridges, Surya Amarachintha

Engineering tRNA Anticodon Stem Structure to Improve Stop Codon Selectivity: The Role of Stop Codon Position
Alina Soifer, Natalie Krahn

2:30PM - 3:20PM, ORAL SESSION III

Atkinson Hall

Atkinson 108, Interdisciplinary Research

In Vitro CRISPR-activation of α-Synuclein promotes neurite formation with a Parkinson's disease phenotype
Cameron Paul, Surya Amarachintha

Analysis of Human Aquaporin Expression in Cloned E. coli and S. cerevisiae
Thomas Spooner

Evaluation of Antibacterial Properties in Natural Bioactive Compounds Extracted from Ethnomedicinal Plants
Shannese Joseph, Devi Patel

Atkinson 109, Interdisciplinary Research

Prosecutorial Discretion and the Criminalization of Human Trafficking Victims
Kaela Meyer

Framing Death Row: Psychological Torture, Moral Language, and the Ethics of Capital Punishment
Elora Kennard

Understanding University Third Spaces: An Environmental Assessment of Campus Gathering Spaces at Valdosta State University
Cassandra Ayers, Christy Beth Yates

Atkinson 110, Engineering

Mathematical Modeling of Application of Nanobioactive Coating on Dental Implants Using Density Functional Theory
Nataniya Deenadayalan

Mathematical Models of Solid Tumor Growth By Logistic Growth Equation
Gary Kang

FPGA-Based Hardware Acceleration for Embedded and Robotic Systems
Bogeon Lee

Atkinson 206, Computer and Information Sciences

Confidence-Adaptive Pruning for Heuristic Guided Search
Adrien Lawrence, Ana Stanescu

Design and Implementation of a Smart Doorbell System and Face Recognition-Based Access System Using a Raspberry Pi
Jacob Bachrach, Tyler Horne

Explainability of Genomic Language Models Predictions
Leo Gregori

2:30PM - 3:20PM, ORAL SESSION III

Atkinson Hall

Atkinson 207, History & Geography

Mapping the Crescent: Researching the West Family and Local History
Jacob Reid

Mesopotamian Polytheism and Judaism: A Comparative Discussion of Their Social Functions, Ethnic Influences, and Unique Perspectives Regarding Divinity and Death
Michael Usic

The Order of Saint Lazarus: From Leper Hospital to Leper Knights
Bradley Collier

Atkinson 208, Interdisciplinary Research

Supporting Effective Tutoring: Evaluating Relational and Pedagogical Tutor Development
Elie Lee

Pathway to Succession: The Church of Jesus Christ of Latter-day Saints and Their First Shift in Power
Seaver York

Defending Sovereignty: How Ethiopia Maintained Independence in the Scramble for Africa
Raelyn Gomez