November 2 - 3, 2018
University of North Georgia—Gainesville Campus

Keynote:

**DR. RANDAL ABLER**
Associate Director for the Vertically Integrated Projects (VIP) Program
Georgia Institute of Technology

11:30-1:00
Hugh Mills Educational Complex
## Schedule at a Glance

### Friday, November 2, 2018

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>6:00—8:00 PM</td>
<td>Opening Reception</td>
<td>Student Center: Robinson Ballroom</td>
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### Saturday, November 3, 2018

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>7:30—8:00 AM</td>
<td>Check-in opens</td>
<td>Nesbitt Building Atrium</td>
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<tr>
<td>8:00—9:00 AM</td>
<td>Panel Session 1</td>
<td>Nesbitt: Refer to Detailed Schedule</td>
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<tr>
<td>9:00—11:30 AM</td>
<td>Resume Drop-In: Come get feedback on your resume or CV</td>
<td>Nesbitt 3101</td>
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<tr>
<td>9:10—10:10 AM</td>
<td>Panel Session 2</td>
<td>Nesbitt: Refer to Detailed Schedule</td>
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<tr>
<td>10:20—11:30 AM</td>
<td>Poster Session 1</td>
<td>Cleveland Ballroom, Nesbitt 3110</td>
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<tr>
<td>11:30 AM—1:00 PM</td>
<td>Keynote, Awards, and Lunch</td>
<td>Hugh Mills Complex</td>
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<tr>
<td>1:00—2:00 PM</td>
<td>Panel Session 3</td>
<td>Nesbitt: Refer to Detailed Schedule</td>
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<td>GURC General Council Meeting</td>
<td>Nesbitt 3203</td>
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<tr>
<td>2:10—3:10 PM</td>
<td>Panel Session 4</td>
<td>Nesbitt: Refer to Detailed Schedule</td>
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<tr>
<td>3:20—4:30 PM</td>
<td>Poster Session 2</td>
<td>Cleveland Ballroom, Nesbitt 3110</td>
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**2018 Georgia Undergraduate Research Collective Officers:**
- President, Anastasia Lin, University of North Georgia
- Immediate Past-President, Doreen Sams, Georgia College & State University
- President-Elect, Kate Theobold, University of West Georgia
- Secretary, Kymberly Harris, Georgia Southern University

**2018 GURC Local Planning Committee:**
- Allison Galloup
- Miriam Moore
- Austina Jordan
- Diogo Pinheiro
- Troy Smith
- Leigh Dillard
- Merrill Morris
- Jim Shimkus
- Jennifer Mook
- Neal Lin
- Chris Andrews
- Kristine Stilwell
- Liz Moss
- Elaine Walton
- Thomas Hayes
- Amanda Losito

Wifi Information: Log in: gurcwifi Password: Research18!
Panel Session 1: 8:00-9:00 AM

Multiculturalism in the Political Landscape | NESBITT 2201 | Moderator: Jillian Jay

*Syrian Refugees: Boon or Bust?*

**John Blessing & Lana Goitia**, Faculty Mentors: Dr. Dwight Wilson, Dr. Douglas Young, UNIVERSITY OF NORTH GEORGIA

*Local Government’s Responsiveness: The Newton County Cemetery and Mosque Project*

**Lauren E. Kirk**, Faculty Mentor: Dr. Florian Pohl, EMORY UNIVERSITY

*Latinos and the Accessibility to Social Services*

**Rebecca Pool**, Faculty Mentor: Dr. Diogo Pinheiro, UNIVERSITY OF NORTH GEORGIA

Al, Al, Oh!: Artificial Intelligence and Teleportation | NESBITT 2211 | Moderator: Anthony Ponizhay

*eSense 2.0: Modeling Biomimetic Predation with Multi-agent Multi-team Distributed Artificial Intelligence*

**Derek Martin**, Faculty Mentor: Dr. D. Michael Franklin, KENNESAW STATE UNIVERSITY

*Becoming Human: The Dawinian Evolution of Al*

**Alexander Aviles**, Faculty Mentor: Dr. Ian Afflerbach, UNIVERSITY OF NORTH GEORGIA

*“Classical” Teleportation*

**Samuel Greenberg**, Faculty Mentor: Dr. Bryson Payne, UNIVERSITY OF NORTH GEORGIA

Conservation at Home and Abroad | NESBITT 1201 | Moderator: Alex Pham

*Localized environmental variables affecting southern Appalachian salamander populations*

**Jasmine Williamson**, Faculty Mentor: Dr. Jessica Patterson, UNIVERSITY OF NORTH GEORGIA

*Conservation Decision Support System Design for West Indian Manatee Habitat Suitability and Protection*

**Ashleigh Nicole Wilson & Jeffery Lee Robertson**, Faculty Mentor: Dr. Sudhanshu Panda, UNIVERSITY OF NORTH GEORGIA

*On the Phylogeography of the Southeastern species of the genus Dalea l. (fabaceae) using a phylogenetic approach*

**Joshua B. Fuller, Destiny E. Moore**, Faculty Mentors: Dr. Clarke Miller, Dr. James T. Diggs, UNIVERSITY OF NORTH GEORGIA

Reason and Revolution | NESBITT 1211 | Moderator: Thomas Hayes

*Reason vs. truth: How the enlightenment and romanticism effected the Victorian Occult*

**Jessica Brazinski**, Faculty Mentor: Dr. Phillip Guerty, UNIVERSITY OF NORTH GEORGIA

*100 Kilometers to Freedom: Women’s Stories of Escape During the 1956 Hungarian Revolution*

**Cameron Mitchell**, Faculty Mentor: Dr. Katharine Kennedy, AGNES SCOTT COLLEGE

Student Success in Education | NESBITT 3104 | Moderator: Shaelyn Comiskey

*SPARK Mentoring Program*

**Chika Nwosu & Hailey Suarez**, GORDON STATE COLLEGE

*Critical School Policy Review*

**Amber Leggett**, Faculty Mentor: Dr. Kymberly Harris, GEORGIA SOUTHERN UNIVERSITY

*The Hybrid Newsroom: Using Online Platforms to Improve Student Learning*

**Jennifer Harris**, Faculty Mentor: Prof. Holly J. Morris, UNIVERSITY OF NORTH GEORGIA

Resume/CV Drop in: 9:00—11:30 AM

Dr. Edward Lai, Associate Director, Career Services, UNG

Nesbitt 3101
Panel Session 2: 9:10-10:10 AM

Exploring Realities in Fiction | NESBITT 2201 | Moderator: Woody Depew

Faulkner & McCullers
Murphy Ledbetter, Faculty Mentor: Dr. Rebecca Harrison, UNIVERSITY OF WEST GEORGIA

Learning to Read: Reality, Fiction, and Reading in the Female Quixote
Zachary McCollum, Faculty Mentor: Dr. Leigh Dillard, UNIVERSITY OF NORTH GEORGIA

Naturalism Marred by Idealism: The Literary Failures of Hamlin Garland
William Hollis, Faculty Mentor: Dr. Terry Easton, UNIVERSITY OF NORTH GEORGIA

You Give Me Fever: Thermal Transport and Heat Transfer | NESBITT 2211 | Moderator: Thomas Hayes

Thermal Transport in Actinide Oxides with Interstitial Defects
Katherine Mitchell & Alex Resnick, Faculty Mentors: Dr. Jungkyu Park, Dr. Tien Yee, Dr. Andrew Hummel, Dr. Eduardo B. Farfan, KENNESAW STATE UNIVERSITY

Heat Transfer Comparison of Varied Pebble Sizes and Packing Arrangements in a Pebble-Bed Reactor
Julian Spangler, Faculty Mentor: Dr. Tien Yee, KENNESAW STATE UNIVERSITY

Thermal Transport in Actinide Oxides using Phonon Density of States Calculation
Alex Resnick & Katherine Mitchell, Faculty Mentors: Dr. Jungkyu Park, Dr. Tien Yee, Dr. Andrew Hummel, Dr. Eduardo B. Farfan, KENNESAW STATE UNIVERSITY

Social Influences on Development | NESBITT 1201 | Moderator: John Blessing

Institutional Deprivation and the Effects of Development
Elena Mayfield, Faculty Mentor: Dr. Jim Dillon, UNIVERSITY OF WEST GEORGIA

Girls Education Around the World: Exploring Intervention Methods of Nonprofits in Israel, Thailand, Cambodia, and Sri Lanka used to increase Girls Education
Jillian E. Jay & Kiera Y. Chan, Faculty Mentor: Dr. Jenny Vermilya, UNIVERSITY OF NORTH GEORGIA

Parental Gender Beliefs and Attitudes Involving Child’s Toy Play
Madeline Drives, Amelia Dubose, Melanie Gillespie, & Taylor Maddox, Faculty Mentor: Dr. Tsu-Ming Chiang, GEORGIA COLLEGE AND STATE UNIVERSITY

We Dig Science: Ecosystem and Soil Science | NESBITT 1211 | Moderator: Alex Pham

Assessing Soil Redox Conditions Using IRIS Tubes in a Central Georgia Wetland
Cameron Skinner, Faculty Mentors: Dr. Allison Rick VandeVoort, Dr. Christine Mutiti, Dr. Samuel Mutiti, GEORGIA COLLEGE AND STATE UNIVERSITY

Phosphate Desorption Across Particle Size After Sustainable Agriculture Practices
Zachary Davis, Faculty Mentors: Drs. Allison Rick VandeVoort, Samuel Mutiti, GEORGIA COLLEGE AND STATE UNIVERSITY

Imaging the Subsurface: The Effect of Logjams on Groundwater-Surface Water Exchange
Teodora Mitroi, Megan Doughty, & Jackie Randall, Faculty Mentor: Dr. Kamini Singha, GEORGIA STATE UNIVERSITY & COLORADO SCHOOL OF MINES

Education and Development | NESBITT 1217 | Moderator: Elizabeth Young

Do Teacher and Student Interactions Affect Class Climate?
Angela Norris, Faculty Mentor: Dr. Kymberly Harris, GEORGIA SOUTHERN UNIVERSITY

Impact of American Sign Language on Early Development
Haley W. Gilreath, Faculty Mentor: Dr. Donna Gessell, UNIVERSITY OF NORTH GEORGIA

Behavior Specific Praise and a Student on the Autism Spectrum
Gabrielle Brueck, Faculty Mentor: Dr. Kymberly Harris, GEORGIA SOUTHERN UNIVERSITY
Panel Session 2: 9:10-10:10 AM

**Self-Efficacy and Self Esteem | NESBITT 3104 | Moderator: Lana Goitia**

The Effects of Dog Ownership on Self-Efficacy Levels  
**Juliana Oleksy**, Faculty Mentor: Dr. Diogo Pinheiro, UNIVERSITY OF NORTH GEORGIA

Social Media Representation and Self-Esteem  
**Charlton Lyons & Sevon Baxley**, Faculty Mentor: Dr. Diane Byrd, FORT VALLEY STATE UNIVERSITY

Technology and Human Well-Being  
**Charles E. Bartlett, III, Tiona Doctor, & Aubrey L. Moore II**, Faculty Mentor: Dr. Diane Byrd, FORT VALLEY STATE UNIVERSITY

POSTER SESSION 1

CLEVELAND BALLROOM - MARTHA T. NESBITT 3110 - 10:20—11:30 AM

1. A Comprehensive Study of Motor Imagery EEG-Based Classification Using Computational Analysis  
**Justin McCorkle & Andrew Kalaani**, Faculty Mentor: Dr. Rami Haddad, GEORGIA SOUTHERN UNIVERSITY

2. Bioinformatic analysis of Insect Iridescent Virus (IIV6) proposes novel open reading frames and supports previously described putative protein products  
**Amanda D. Mileham**, Faculty Mentor: Dr. Amanda L.J. Duffus, GORDON STATE COLLEGE

3. The Zeeman Effect and Its Potential in Molecular Spectroscopy  
**Megan L. Climer**, Faculty Mentor: Dr. Dereth J Drake, VALDOSTA STATE UNIVERSITY

4. Soccer Ball Trajectory Optimization  
**Andrew Rezendez & Shafat Mubin**, Faculty Mentor: Dr. Shafat Mubin, VALDOSTA STATE UNIVERSITY

5. Sustainability of an Established CURE Curriculum at Primarily Undergraduate Institutions  
**Nicole Scheuermann & Sue Ellen DeChenne-Peters**, Faculty Mentor: Dr. Sue Ellen DeChenne-Peters, GEORGIA SOUTHERN UNIVERSITY

6. Influence of human disturbance and marsh vegetation on fiddler crab retreat behavior  
**Forrest Collins**, Faculty Mentor: Dr. Michele Guidone, GEORGIA SOUTHERN UNIVERSITY

7. Cross-seasonal survey of reptile diversity and distribution between varying environments in Smithgall Woods State Park, White County, Georgia  
**Cory E. Duckworth**, Faculty Mentor: Dr. Jessica Patterson, UNIVERSITY OF NORTH GEORGIA

8. The Mechanism of Protein Kinase C in relation to ATPase family AAA-domain Containing Protein 3A in Head and Neck Squamous Cell Carcinoma  
**Ron Chemmalakuzhy**, Faculty Mentor: Dr. Yong Teng, AUGUSTA UNIVERSITY

9. Behavior Responses in the Inclusion Setting  
**Alexandria Kesselring & Casey Carroll**, Faculty Mentor: Dr. Kymberly Harris, GEORGIA SOUTHERN UNIVERSITY

10. Dimensioning and Modeling of a Molten Salt Reactor  
**Theron Crockett**, Faculty Mentors: Dr. Tien Mun Yee, Dr. Jungkyu Park, Dr. Andrew Hummel, Dr. Eduardo B. Farfán, KENNESAW STATE UNIVERSITY

11. Jungle Slang  
**Andres Osorio**, Faculty Mentor: Prof. Heather Foster, UNIVERSITY OF NORTH GEORGIA

12. Empathy and Sympathy in Response to Social and Physical Pain  
**Alexandra Withrow**, Faculty Mentor: Dr. Stephen Smith, UNIVERSITY OF NORTH GEORGIA

13. Politicking Homelessness in Atlanta: How does Atlanta Responds to its Homeless Population?  
**Aliyah Winfrey**, Faculty Mentor: Dr. Faidra Papavasiliou, GEORGIA STATE UNIVERSITY

Wifi Information: Log in: gurcwifi Password: Research18!
POSTER SESSION 1, continued

CLEVELAND BALLROOM - MARTHA T. NESBITT 3110 - 10:20—11:30 AM

   Hannah Turner & Mary Harrell, Faculty Mentor: Dr. Lydia Ray, COLUMBUS STATE UNIVERSITY

15. The Effectiveness of “Instructional Conversation” Pedagogy in Education for Multilingual Students
   Lauryn Waters, Faculty Mentor: Dr. Paula J. Mellom, UNIVERSITY OF GEORGIA

   Tinaye Gibbons, Faculty Mentor: Prof. Keri Adams, UNIVERSITY OF WEST GEORGIA

17. Divergent Gene Expression of Hoxb3b in Teleost Fishes is Due to Divergence of Upstream Cis-Regulatory Elements
   Erin Povolny, Faculty Mentor: Dr. Adam Davis, UNIVERSITY OF NORTH GEORGIA

18. Extended-Spectrum Beta-Lactamase Producing Enterobacteriaceae in North Georgia Waters
    Nou Moua, Faculty Mentor: Dr. Swapna Bhat, Dr. Jeanelle Morgan, UNIVERSITY OF NORTH GEORGIA

19. Hierarchy of Medicine in Elder Cambodian Refugees
    Johanna Mercurio, Faculty Mentor: Dr. Denise C. Lewis, UNIVERSITY OF GEORGIA

20. Falling Down, Falling Apart, and Finding Home in Reservation Blues
    Castiel Dixon, Faculty Mentor: Dr. Terry Easton, UNIVERSITY OF NORTH GEORGIA

21. Cigarette Smoke Exposure Upregulation of PGE2 Expression in the Bladder
    Jessica Nix, Faculty Mentor: Dr. Shannon Kispert, UNIVERSITY OF NORTH GEORGIA

22. “Make Me a Sandwich” - “Poof, You’re a Sandwich!”: Ditransitive Syntax in the Brain
    Haley Shea J. Barfield, Faculty Mentor: Dr. Troy Smith, UNIVERSITY OF NORTH GEORGIA

23. Using 3D Printing to Optimize Research in X-ray Fluorescence Spectroscopy
    Mark Leggiero, Faculty Mentor: Dr. Sarah Formica, UNIVERSITY OF NORTH GEORGIA

24. Identification of Scn1a, Scn2a, and Scn8a in Mammalian Sexual Structures
    Garis A. Grant & Rhea A. Thomas, Faculty Mentor: Dr. Stacey BB Dutton, AGNES SCOTT COLLEGE

25. Using Cryptocurrencies to Hide Assets: Special Considerations in Divorce, Tax Evasion, and Money Laundering
    Shaelyn Comiskey, Faculty Mentor: Dr. Bryson R. Payne, UNIVERSITY OF NORTH GEORGIA

26. Monte Carlo Simulation of a Geiger Counter, Gamma-Ray Sources and Shielding
    Luke Appling, Mayur Menon, & David Wall, Faculty Mentors: Dr. Andrew Hummel, Dr. Jungkyu Park, Dr. Tien Mun Yee, Dr. Eduardo B. Farfán, KENNESAW STATE UNIVERSITY

27. Unravelling the evolutionary history and future prospects in a biodiversity hotspot: An integrated approach to species delimitation in the ringneck snake Diadophis punctatus
    Emily Miles & Polly Strott, Faculty Mentor: Dr. Frank Fontanella, UNIVERSITY OF WEST GEORGIA

28. Are the elf2-α Homologue and Putative Tyrosine Kinase Proteins of Ranaviruses Suitable Targets for Phylogenetic Reconstruction?
    Ami J. Davis, Faculty Mentor: Dr. Amanda L.J. Duffus, GORDON STATE COLLEGE

29. Identifying the presence of Scn4a, Scn5a, and Scn9a in the Mammalian Clitoris
    Rhea Thomas & Garis Grant, Faculty Mentor: Dr. Stacey BB Dutton, AGNES SCOTT COLLEGE

30. Improving Shelf-Life of Fruits Using Thermography
    Fahad Fahad & Adam Kumar Hudlow, Faculty Mentor: Dr. Sathish Kumar Gurupatham, KENNESAW STATE UNIVERISTY

31. Bugs in Bugs: Analysis of microbiota of Trichnoplusia ni Larvae
    Susan Ha, Faculty Mentors: Dr. Swapna Bhat, Dr. Evan Lampert, Dr. Jeanelle Morgan, UNIVERSITY OF NORTH GEORGIA
POSTER SESSION 1, continued

CLEVELAND BALLROOM - MARTHA T. NESBITT 3110 - 10:20—11:30 AM

33. On The Existence Of An Arbitrarily Large Number Of Generators For The Presentation Ideal Of a Semigroup Ring
   Arun Suresh, Faculty Mentor: Dr. Florian Enescu, GEORGIA STATE UNIVERSITY
34. Fraud and Frill: Women and Spiritualism in Victorian America
   Lesley Jones, Faculty Mentor: Dr. Phillip Guerty, UNIVERSITY OF NORTH GEORGIA
35. Changes in Female Humpback Whale (Megaptera novaeangliae) Surface Feeding Behavior Through Stages of Maternal Care and Reproduction
   Eman Khwaja, Faculty Mentor: Dr. Stacey BB Dutton, AGNES SCOTT COLLEGE
36. Media and the Sexualization of Young Girls
   Corey Marshall, Faculty Mentor: Dr. Diane Byrd, FORT VALLEY STATE UNIVERSITY
37. Does the Quality or Quantity of Friendships Improve Emotions?
   Cassidy Hannah, Faculty Mentors: Dr. Matthew Stapleton, Dr. Hui Zhang, UNIVERSITY OF NORTH GEORGIA
38. Stereochemical synthesis of Lugdunin – An antimicrobial cyclic peptide
   Shivam Patel, Faculty Mentors: Dr. Shailesh Ambre, Patricia Todebush, UNIVERSITY OF NORTH GEORGIA
39. Mars Environmental Module- The Aura of The Red Planet
   Nisha Kurian, Faculty Mentors: Dr. Tae Lee, Dr. Sairam Tangirala, GEORGIA GWINNETT COLLEGE
40. Programming a TeachMover Robot Arm
   Joel Garcia, Faculty Mentors: Dr. Sairm Tangirala, Dr. Sae Tong Lee, GEORGIA GWINNETT COLLEGE
41. Finding The Binding Site of Adenovirus E4 11K and P-body Component DDX6
   Katherine Elizabeth Moen, Faculty Mentor: Dr. Kasey Karen, GEORGIA COLLEGE AND STATE UNIVERSITY

11:30 AM—12:30 PM: Keynote & Luncheon, Hugh Mills Physical Education Complex

Panel Session 3: 1:00 PM-2:00 PM

Race, Religion, and Language in the Americas | NESBITT 2201 | Moderator: Castiel Dixon
   The Racialization of Muslims in America and Its Impact on Young American Muslims
   Mariam Hassoun, Faculty Mentor: Florian Pohl, EMORY UNIVERSITY
   Racial Injustice in Writing Instruction
   Amanda Smith, Faculty Mentor: Dr. Mollie Barnes, Dr. Sarah Swofford, UNIVERSITY OF SOUTH CAROLINA BEAUFORT
   Indigenous Languages of Mexico, Now and to the Future
   Emily Werner, Faculty Mentor: Dr. Maria Calatayud, UNIVERSITY OF NORTH GEORGIA

Pursuing Resistance: Ranavirus Research and Thymic Cell Reprogramming | NESBITT 2211 | Moderator: Alaina Whitmore
   Analyzing Phylogenetic Relationships Among Ranaviruses: Myristilated Membrane Protein And Other Potential Alternative to Major Capsid Protein
   Riley B. Fuller, Faculty Mentor: Dr. Amanda L. J. Duffus, GORDON STATE COLLEGE
   Alternative genes for exploring Ranavirus phylogenetics: Four core genes compared to the major capsid protein and the whole genome.
   Abigale Garner, Faculty Mentor: Dr. Amanda L. J. Duffus, GORDON STATE COLLEGE
   Thymic Epithelial Cell Reprogramming and Co-Culture with T-Cell Progenitors
   Isabelle Riddle, Faculty Mentor: Dr. Nancy Manley, UNIVERSITY OF GEORGIA

Wifi Information: Log in: gurcwifi Password: Research18!
Panel Session 3: 1:00 PM-2:00 PM, continued

Disseminating Science | NESBITT 1201 | Moderator: Mark Leggiero

An Overview of Molten Salt Reactors – History, Design, and Future Prospect
Duncan Bohannon & Chase Casher, Faculty Mentor: Dr. Andrew Hummel, Dr. Jungkyu Park, Dr. Tien Mun Yee, Dr. Eduardo B. Farfán, KENNESAW STATE UNIVERSITY

Engaging the Public through Science Festivals,
Anthony Sacchitello & Macey Jarrard, Faculty Mentor: Dr. Gina Childers, UNIVERSITY OF NORTH GEORGIA

An Experimental Examination on Techniques to Mitigate the Spread of Misinformation on Social Media Net
Thomas Hayes, Faculty Mentor: Dr. Richelle Oakley, UNIVERSITY OF NORTH GEORGIA

Intersections of Business, Computing, and Manufacturing | NESBITT 1211 | Moderator: Woody Depew

The State of the Video Game Industry and Potential Implications of Current Business Practices
Stephen Friend, Faculty Mentor: Dr. Frank Holiwski, SOUTH GEORGIA STATE UNIVERSITY

Strategies for Small U.S. Manufacturers to Defend Home Markets from International Competition
Gabrielle Chan, Faculty Mentor: Dr. Edward O’Donnell, COLUMBUS STATE UNIVERSITY


Mixing Studies with Tracer of a Water Treatment Storage Tank Using Computational Fluid Dynamics
Pete Daniel Williams, Faculty Mentor: Dr. Tien Yee, KENNESAW STATE UNIVERSITY

Study of Differential Diffusion Using Backward Trajectories in Turbulence,
Adyasha Mohanty, Faculty Mentor: Dr. P.K. Yeung, GEORGIA INSTITUTE OF TECHNOLOGY

Novel, Portable and Low-cost Cosmic Ray Muon Telescope,
Jessica Eskew & Sawaiz Syed, Faculty Mentor: Xiaochun He, GEORGIA STATE UNIVERSITY

GURC’s Artist Panel | NESBITT 3104 | Moderator: John Blessing

The New Lens of Normality: An Exploration of Queer Representation in Fairytales,
Dylan C. Carter, Faculty Mentor: Dr. Angela Inn-Schiller, KENNESAW STATE UNIVERSITY

Art Inspired by Eastern Box Research for UNG Gainesville’s Sciences, Engineering, and Technology Building
Aida Alarcon & Kati Hornick, Faculty Mentor: Prof. Heather M. Foster, UNIVERSITY OF NORTH GEORGIA

Panel Session 4: 2:10 PM-3:10 PM

New Research to Combat Parkinson’s, Heart Defects, and Pancreatitis | NESBITT 2201 | Moderator: Shea Barfield

Nox1-evoked ROS causes Fibrosis in Caerulein-Induced Chronic Pancreatitis through the AKT pathway
Ananya Chakraborty, Faculty Mentor: Dr. Maria Sabbatini, AUGUSTA UNIVERSITY

Identification of New Genes in Congenital Heart Defects
Naomi Siddiquee, Faculty Mentor: Brian Cummings, UNIVERSITY OF GEORGIA

Rapid Visuomotor Integration as a Window into Multisensory Processing
Margaret Schrayer, Faculty Mentor: Dr. Tarkeshwar Singh, UNIVERSITY OF GEORGIA
Panel Session 4: 2:10 PM-3:10 PM  continued

Innovations in Conservation and Disease Research  | NESBITT 2211  | Moderator: Alexis O’Neal

Determining Illegal Activity Hotspots to Better Manage Conservation Strategies
**Taylor Kirby**, Faculty Mentor: Dr. Jessica Hartel, UNIVERSITY OF NORTH GEORGIA

The effect of natural products like ginger, garlic, blueberries, turmeric, grapefruit and ashwagandha (herb) on the growth of triple negative breast cancer cells,

**Sidhika Sharma**, Faculty Mentor: Ramneet Kaur, UNIVERSITY OF NORTH GEORGIA

Mechanisms mediating the pro-fibrotic effects of estradiol

**Haley Fulton**, Faculty Mentor: Carol Feghali Bostwick, MEDICAL UNIVERSITY OF SOUTH CAROLINA

Influencing Attitude and Efficacy  | NESBITT 1201  | Moderator: Lana Goitia

A Cross Cultural Examination of Attitudes about Ancestry and Culture between Georgia USA and Scotland

**Samantha Leelyn Richey & Natalie Anne Macy**, Faculty Mentor: Dr. Stephen M. Smith, UNIVERSITY OF NORTH GEORGIA

Follow the Leader: Edward R. Murrow’s See It Now and Contemporary Influencer Marketing

**Sean Eagan**, Faculty Mentor: Dr. David Resha, EMORY UNIVERSITY

Effectiveness of Socratic Seminar as a Teaching Method for Undergraduate Students

**David Brown & Ian Matthew**, Faculty Mentor: Dr. Jessica Traylor, GORDON STATE COLLEGE

Exploring Nuclear Reactors  | NESBITT 1211  | Moderator: Alaina Whitmore

Numerical Modeling of Fluid Flow in a Molten Salt Reactor

**Alisa Machiwalla & Carnell Tate**, Faculty Mentors: Dr. Tien Yee, Dr. Jungkyu Park, Dr. Andrew Hummel, and Dr. Eduardo B. Farfan, KENNESAW STATE UNIVERSITY

An Overview of Pebble-Bed Reactors

**Paul Schwan, Julian Spangler, & Isaac Naupa**, Faculty Mentors: Dr. Andrew Hummel, Dr. Jungkyu Park, Dr. Tien Yee, and Dr. Eduardo B. Farfan, KENNESAW STATE UNIVERSITY

**MCNP Modeling of a Molten Salt Reactor**

**David Wall**, Faculty Mentor: Dr. Eduardo Farfan, KENNESAW STATE UNIVERSITY

Seeking Justice  | NESBITT 1217  | Moderator: Woody Depew

The Use of Electronic Monitoring as an Alternative to Incarceration

**Gillian Shea Baker**, Faculty Mentor: Dr. Stuart Batchelder, UNIVERSITY OF NORTH GEORGIA

Approaches to Justice

**Katie Pleiss**, Faculty Mentor: Sarah Higinbotham, EMORY UNIVERSITY

Lexical harm reduction: Language perpetuates stigma related to substance use disorder

**Erica Darragh**, Faculty Mentor: Dr. Clayton Teem, UNIVERSITY OF NORTH GEORGIA

What’s Next? Preparing for Publication  | NESBITT 3104

**Dr. Leigh Dillard**, Editor-In-Chief, Papers & Publications, UNIVERSITY OF NORTH GEORGIA

**Ms. Allison Galloup**, Digital Content Editor, Papers & Publications, UNIVERSITY OF NORTH GEORGIA

**Dr. Anastasia Lin**, Director, Center for Undergraduate Research and Creative Activities, UNIVERSITY OF NORTH GEORGIA
POSTER SESSION 2
CLEVELAND BALLROOM - MARTHA T. NESBITT 3110 - 3:20 pm– 4:30 pm

1. The Effects of Position and Length on Cue Saliency in Article-Noun Agreement of an Artificial Language
   Niah Thomas & Brittany Scanameo, Faculty Mentor: Dr. Daniel Walter, EMORY UNIVERSITY

2. Honey Bee Pollen Packing Mechanics
   Oliver Howington & Marguerite Matherne, Faculty Mentor: Dr. David Hu, UNIVERSITY OF NORTH GEORGIA & GEORGIA INSTITUTE OF TECHNOLOGY

3. Child Maltreatment and Substance Use: A Systematic Review and Meta-Analysis
   Jessica Thompson, Faculty Mentor: Dr. Assaf Oshri, UNIVERSITY OF GEORGIA

4. A Flexible Model for Investigating the Properties of Starspots: Comparison of Model Predictions to Observed Data
   Amanda Ash, Faculty Mentor: Dr. Gregory Feiden, UNIVERSITY OF NORTH GEORGIA

5. Irregularities in Young Stellar Models: Are Starspots to Blame?
   Jessica Hamilton, Faculty Mentor: Dr. Gregory Feiden, UNIVERSITY OF NORTH GEORGIA

6. Evaluating the Effects of Microenvironment Pro-inflammatory Cytokines on Breast Cancer Metastasis
   Megan Williams, Faculty Mentor: Dr. Cheryl Gomillion, UNIVERSITY OF GEORGIA

7. Transient Conductive Heat Transfer Analysis of Materials Subjected to Rapid Heating or Cooling
   Aidan Burleson & Spencer Shortt, Faculty Mentor: Dr. Hasitha Mahabaduge, GEORGIA COLLEGE AND STATE UNIVERSITY

8. Precision Top Quark Mass Extraction at the Large Hadron Collider
   Henry Sanders & Seth Iwan, Faculty Mentor: Dr. Sonny Mantry, UNIVERSITY OF NORTH GEORGIA

9. Gas Kinetic Model for Argon in a Commercial Plasm System
   Zachary Barton, Faculty Mentor: Dr. Kymberly Harris, GEORGIA SOUTHERN UNIVERSITY

10. Embodied Composition Pedagogy
    Amanda Ayers, Faculty Mentor: Dr. Molly Daniel, UNIVERSITY OF NORTH GEORGIA

11. The Impact of Obesity on Ingestion-induced Hippocampal Arc Expression in Male Rats
    Karan Sharma, Faculty Mentor: Dr. Marise Parent, GEORGIA STATE UNIVERSITY

12. Data Analytics Using Data From Accelerometers Mounted on a Wi-Fi-Based Remotely Controlled Model Car
    Adriana Amyette, Faculty Mentors: Dr. Sairam Tangirala, Dr. Sae Tong Lee, GEORGIA GWINETT COLLEGE

    Faith M. Rankin & Brendyn L. Melugin, Faculty Mentor: Dr. Tyler L. Harrison, UNIVERSITY OF NORTH GEORGIA

14. Characteristics of Bonding between Genders in Same-Sex Friendships
    Nombeko Marshall, Faculty Mentor: Dr. Medha Talpade, CLARK ATLANTA UNIVERSITY

15. Identifying Ancient River Channels and Faces using Ground Penetrating Radar: Brunswick, Georgia, USA
    Ken Taylor, Faculty Mentor: Dr. Christopher Seminack, UNIVERSITY OF NORTH GEORGIA

16. Assessment of Efficacy and Effectiveness of Antiseptic Mouthwash Products against Oral Microbiota
    Angel Shue & Elizabeth G. Miranda-ayala, Faculty Mentor: Dr. Davison T. Sangweme, UNIVERSITY OF NORTH GEORGIA

17. How College Students’ View Three Strikes Laws
    Danielle Grgoire, UNIVERSITY OF NORTH GEORGIA

18. Putative Targets of the PP2A Serine/Threonine Phosphatase Complex In Regulating Dendritic Morphology
    Andre Golshir, Faculty Mentor: Dr. Daniel N. Cox, GEORGIA STATE UNIVERSITY

19. Antibiotic-Producing Bacteria Associated with Sharks of St. Helena and Port Royal Sound
    Daniel Conrad, Faculty Mentors: Dr. Diego L. Gil-Agudelo and Dr. Kim B. Ritchie, UNIVERSITY OF SOUTH CAROLINA BEAUFORT

Wifi Information: Log in: gurcwifi Password: Research18
POSTER SESSION 2, continued

CLEVELAND BALLROOM - MARTHA T. NESBITT 3110 - 3:20 pm – 4:30 pm

21. Bugs in Bugs
   Josemaria Garcia, Faculty Mentor: Dr. Evan Lampert, UNIVERSITY OF NORTH GEORGIA

22. An Introduction to Systematic Reviews: Effects of Green Tea Polyphenols on Diet-Induced Obesity and Intestinal Microbiota
   Allison Georgescu, Faculty Mentor: Dr. Roberta Attanasio, GEORGIA STATE UNIVERSITY

23. Influences of native culture on Southeast Asian adolescent refugees and its accuracy in diagnosing trauma
   Vidisha Gangidi, Faculty Mentor: Dr. Denise C. Lewis, UNIVERSITY OF GEORGIA

24. Older Adults’ Perceptions of Science and Engineering in Appalachia
   Hannah Harris, Faculty Mentors: Dr. Gina Childers, UNIVERSITY OF NORTH GEORGIA

25. Diversity and Abundance of Invasive Aedes albopictus, Other Mosquitoes (Diptera: Culicidae), and Arthropods in North Georgia
   Mason Carlisle & Madison Embrick, Faculty Mentor: Dr. Evan Lampert and Dr. Davison Sangweme, UNIVERSITY OF NORTH GEORGIA

26. Effects of temperature during non-breeding months on size of three species of sparrow
   Harley N. Hunt, Faculty Mentor: Dr. Katie Stumpf, GEORGIA COLLEGE AND STATE UNIVERSITY

27. Terminal die-back, the result of a new Neofusicoccum species
   Courtney Cameron, Faculty Mentor: Dr. Marin Brewer, UNIVERSITY OF GEORGIA

28. Perceptions and Performance of Students
   Jake Lovvorn, Blaney Serrano, & Tyler Washington, Faculty Mentor: Julie Delose, YOUNG HARRIS COLLEGE

29. Let Me Down Easy
   Heather Dotson, Faculty Mentors: Dr. Diane Cook, UNIVERSITY OF NORTH GEORGIA

30. Introducing Renewable Energy Through Community-based Engaged Learning
   Nick Palmer, Faculty Mentor: Dr. Hasitha Mahabaduge, GEORGIA COLLEGE AND STATE UNIVERSITY

31. Identification of Proteins that Regulate CRISPR DNA Uptake of Pyrococcus furiosus
   Landon Clark, Faculty Mentor: Dr. Michael Terns, UNIVERSITY OF GEORGIA

32. Synthesis of Tumor-Associated Carbohydrates (TACs) using Lewis Acid Catalysts
   Rania Saleb, Faculty Mentors: Dr. Shailesh Ambre & Dr. Patricia Todebush, UNIVERSITY OF NORTH GEORGIA

33. Urban and Rural Chinese Children's Anticipated Moral Emotions
   Dalia Cuevas, Faculty Mentors: Dr. Matthew Stapleton & Dr. Hui Zhang, UNIVERSITY OF NORTH GEORGIA

34. Degradation of Cellulose through Hydrogen Metabolism and Electron Bifurcation
   Madison Prchal, Faculty Mentor: Prof. Eleanor Schut, UNIVERSITY OF NORTH GEORGIA

35. A Survey of Aquatic Macro- and Micro-invertebrates of Vernal Granite Outcrop Pools in North Georgia
   Joshua B. Fuller, Ana G. Ferreira, & Cruz Mejia-Rodriguez, Faculty Mentor: Prof. Margi Flood, UNIVERSITY OF NORTH GEORGIA

36. Effects of Vitamin D Receptor Knockout, Vitamin D Deficiency, and Diabetes on Corneal Epithelial Nerve Density
   Sarah Vick, Faculty Mentor: Dr. Mitchell Watsky, Dr. Xiaowen Lu, AUGUSTA UNIVERSITY

37. Home Range and Habitat Use of the Eastern Box Turtle
   Amber Rittgers, Samantha Shea, & Kayla Bonadie, Faculty Mentor: Dr. Natalie Hyslop & Dr. Jennifer Mook, UNIVERSITY OF NORTH GEORGIA

38. Data Exploration and Analysis for the Hemingway Measure of Adult Connectedness
   Gildardo Bautista-Maya, Faculty Mentor: Dr. Ping Ye, Dr. Diane Cook, UNIVERSITY OF NORTH GEORGIA
POSTER SESSION 2, continued

CLEVELAND BALLROOM - MARTHA T. NESBITT 3110 - 3:20 pm– 4:30 pm

39. A Comparison of Two Automated Bat-Call Classifying Software Programs
   Sara Robertson, Faculty Mentor: Dr. Michael Bender, UNIVERSITY OF NORTH GEORGIA

40. Library Synthesis of antimicrobial peptide targeting Staphylococcus aureus
   Jonathan Bridges, Faculty Mentor: Dr. Shailesh Ambre & Dr. Patricia Todebush, UNIVERSITY OF NORTH GEORGIA

41. Computational Techniques to Analyze the Nitrogen Second Positive System
   Bakari Bethea, Faculty Mentor: Dr. Dereth J Drake, VALDOSTA STATE UNIVERSITY

42. The Sublethal Effects and Bioaccumulation of 17α-Ethynyl Estradiol in Lumbriculus variegatus
   Kikelomo Ogunsemore, Faculty Mentor: Dr. Faith Wiley, AUGUSTA UNIVERSITY

43. Radio Astronomy and Its Use in Molecular Spectroscopy
   Savanna Burks, Faculty Mentor: Dereth Drake, VALDOSTA STATE UNIVERSITY

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See you at GURC 2019!