

# 21st Annual Conference

THE HONOR SOCIETY OF  
**PHI KAPPA PHI**  
**UNDERGRADUATE  
STUDENT RESEARCH  
& FINE ARTS  
CONFERENCE**



**SCAN ME**

**12 PM - 6 PM  
WEDNESDAY MARCH 31<sup>ST</sup>, 2021  
VIRTUALLY VIA TEAMS**

More Information : <https://www.augusta.edu/honorsocieties/pkp/conference-abstract.php>

[Attend the Virtual Conference](#)

## President's Welcome



It is with great pleasure that I welcome you to Augusta University's 21<sup>st</sup> annual Phi Kappa Phi Student Research and Fine Arts Conference. Since 1897, Phi Kappa Phi – the nation's oldest, largest, and most selective all-discipline honor society—has displayed a perfect blend of academic and personal excellence, and this event offers students and professionals the opportunity to showcase their scholarly and artistic endeavors.

Our focus at Augusta University is to encourage students to become life-long learners in their fields of study through discovery, collaboration and innovation. In fact, I encourage you to immerse yourself in the comprehensive and stimulating presentations highlighting the research and creative concepts developed by our students.

I appreciate the volunteers and faculty whose hard work made this conference possible. Enjoy today's experience and congratulations to all of our student presenters and performers.

Go Jags!

Dr. Brooks Keel, President of Augusta University

## **The National Honor Society of Phi Kappa Phi**

Established in 1897, The Honor Society of Phi Kappa Phi is a century-old, non-profit organization that recognizes and promotes academic excellence in all disciplines of higher education. The society was founded to cultivate deep appreciation and respect for scholarship and is convinced that in recognizing and honoring those persons of good character who have excelled in scholarship, in whatever field, it will stimulate others to strive for excellence.

With more than one million members from across the globe and over 300 chapters located on university campuses throughout the United States, Puerto Rico and the Philippines, Phi Kappa Phi is among the oldest and most respected academic honor societies. Students elected to membership in Phi Kappa Phi include the upper 7.5 percent of last-term juniors and the upper 10 percent of seniors, along with outstanding graduate students, faculty and alumni.



## **The Center for Undergraduate Research and Scholarship**

Established in 2008, Augusta University's Center for Undergraduate Research and Scholarship supports research and scholarly activity by undergraduate students. Our mission is to support undergraduates in the pursuit of discovering new information, investigating factors of influence, and innovating original work under the collaborative guidance of a faculty mentor. We are proud to co-host this conference with PKP showcasing the hard work, thoughtful discovery and innovation of our students.



AUGUSTA UNIVERSITY

**Center for Undergraduate  
Research and Scholarship**

# Summary Schedule of Events

## Conference Webpage

### **Opening Ceremony**

12:00-12:30

*Welcome by Dr. Edgar Johnson, Chapter President, Phi Kappa Phi*

*Opening remarks by Dr. Zach Kelehear, Vice Provost for Instruction*

*Navigating the Conference by Dr. Quentin Davis,  
Director Center for Undergraduate Research and Scholarship*

### **Oral Sessions**

Session A 12:30 – 2:00

Session B 2:00 – 3:00

Session C 3:00 – 4:00

### **Poster Sessions**

Session B 2:00 – 3:00

Session C 3:00 – 4:00

### **Closing Ceremony**

4:00 – 5:00

*Introduction by Dr. Quentin Davis, Director Center for Undergraduate Research and Scholarship*

*Keynote Address by Ms. Amanda Behr, Program Director and Associate Professor, Department  
of Medical Illustration*

*Awards by Dr. Kevin Frazier, Vice Dean, Dental College of Georgia, President-Elect Phi Kappa  
Phi Chapter 324*

*Closing remarks by Dr. Neil MacKinnon, Executive Vice President for Academic Affairs,  
Provost, CAO*

*Acknowledgements by Dr. Quentin Davis, Director Center for Undergraduate Research and  
Scholarship*

# Schedule of Events

## Opening Ceremony

*(click link to join the session)*

Augusta Virtual Room, 12:00-12:30 p.m.

12:00 – 12:10

*Welcome*

Dr. Edgar Johnson, Chapter President,  
AU Phi Kappa Phi Chapter 324

12:10 – 12:15

*Opening Remarks*

Dr. Zach Kelehear, Vice Provost for Instruction and Innovation

12:15 - 12:20

*Navigating the Virtual Conference*

Quentin Davis, Director, Center of Undergraduate Research and  
Scholarship

12:20 – 12:30

*Transition Time for Virtual Rooms*

*Technology Note: This year's conference is virtual and hosted in MS Teams. Please ensure proper software is downloaded to view or participate in the conference. You may join the sessions by clicking underlined links in this digital program or visit the [PKP Conference Website](#).*

# Schedule of Events

## Oral Symposia & Poster Sessions

Virtual Rooms 12:30 – 4:00 p.m.

TIME	Bell Tower	Frog Hollow	Jaguar	Arsenal
12:30 – 2:00	<p style="text-align: center;">Oral</p> <p style="text-align: center;"><a href="#">Join Bell Tower A</a></p> <p>Complex A15: Agents of Invasion – Coming to a theater near you!</p>	<p style="text-align: center;">Oral</p> <p style="text-align: center;"><a href="#">Join Frog Hollow A</a></p> <p>Urate injury? The law offices of Ablates, Rosiglitazone, and Parkinson can get you paid</p>	<p style="text-align: center;">Oral</p> <p style="text-align: center;"><a href="#">Join Jaguar A</a></p> <p>Fear, Bias, and Inequality in the Pandemic: How it Started vs. How it's Going</p>	<p style="text-align: center;">Oral</p> <p style="text-align: center;"><a href="#">Join Arsenal A</a></p> <p>Rho Ren and Darth Microrna Attack the Leptin Receptor on Stellate</p>
2:00 – 3:00	<p style="text-align: center;">Oral</p> <p style="text-align: center;"><a href="#">Join Bell Tower B</a></p> <p>Quantum Automata: The Electro-Vehicle of the Future</p>	<p style="text-align: center;">Oral</p> <p style="text-align: center;"><a href="#">Join Frog Hollow B</a></p> <p>Deep in the Pediomelum Region of Oxidase we Find the Rare Metaformin Endothelial Cell</p>	<p style="text-align: center;">Oral</p> <p style="text-align: center;"><a href="#">Join Jaguar B</a></p> <p>Deep in the Pediomelum Region of Oxidase we Find the Rare Metaformin Endothelial Cell</p>	<p style="text-align: center;">Poster</p> <p style="text-align: center;"><a href="#">Join Arsenal B</a></p> <p style="text-align: center;"><a href="#">View the posters</a></p>
3:00 – 4:00	<p style="text-align: center;">Oral</p> <p style="text-align: center;"><a href="#">Join Bell Tower C</a></p> <p>Your Raspberry Pi and Brownian Desserts are Dripping Superfluid all over the Dosimeter</p>	<p style="text-align: center;">Oral</p> <p style="text-align: center;"><a href="#">Join Frog Hollow C</a></p> <p>Striking the Right Ketone: Maestro Valgus Performs the Mouse Role in the upcoming Production of Alveolar</p>	<p style="text-align: center;">Oral</p> <p style="text-align: center;"><a href="#">Join Jaguar C</a></p> <p>On Today's Podcast, Creative Cab, we talk about Jeffrey Dahmer's Early Piano Education</p>	<p style="text-align: center;">Poster</p> <p style="text-align: center;"><a href="#">Join Arsenal C</a></p> <p style="text-align: center;"><a href="#">View the posters</a></p>

# Schedule of Events

## Closing Ceremony

*(click link to join the session)*

Augusta Virtual Room, 4:00 – 5:00 p.m.

- 4:00 – 4:25**      *Introduction & Keynote Address*  
Professor Amanda Behr, MA, CCA, CMI, FAMI
- 4:25 – 4:45**      *Awards*  
Dr. Kevin Frazier, Vice Dean, Dental College of Georgia, President  
Elect Phi Kappa Phi Chapter 324
- 4:45 – 4:55**      *Closing Remarks*  
Dr. Neil MacKinnon, Executive Vice President for Academic Affairs,  
Provost, CAO
- 4:55 – 5:00**      *Acknowledgements*  
Dr. Quentin Davis, Center for Undergraduate Research and Scholarship

## **Special Thanks**

### *PKP Conference Committee and Planning Team*

We are very grateful to the many people who have helped make this conference a reality. In no particular order we recognize the time, effort, and support of the following:

Mr. Jeff Mastromonico, *Director Center for Instruction and Innovation*

Mr. Josh Childers, *IT Support*

Ms. Amy Triano, *Director, Information Technology Customer Experience*

Ms. Susan Floyd, *Instructional Design and Support*

Dr. Elizabeth Culatta, *Department of Social Sciences*

Ms. Sarah Jane Ellaissi-Smith, *Coordinator, Classroom and Event Services*

Ms. Jessica Cooley, *Manager, Classroom and Event Services*

Ms. Danielle Harris, *Division of Communications and Marketing*

Mr. David Durand, *Abstract submission and web design*

Dr. Josefa Guerrero-Millan, *Abstract submission and web management*

Ms. Maryska Connoly-Brown, *Oral Session Title Wordsmith*

Ms. Jennifer Davis, *Library Services and Arsenal Editor*

Mr. Jason Leary, *Information Technology Services*

Mr. A.B. Osborne, *Public Relations Art Design*

Mr. Arthur Takahashi, *Center for Instruction and Innovation,*

### *Special Recognition of Financial Contributions and Support*

Phi Kappa Phi Chapter 324

Dr. Michael Diamond, Sr. VP for Research

Coca-Cola Co.

On behalf of the Chairs of the Phi Kappa Phi  
Undergraduate Research and Fine Arts Committee

Dr. Ruchi Patel

Ms. Melissa Knapp

Dr. Colleen Davis

Dr. Quentin Davis



## Special Thanks to Judges and Moderators

### Oral Session Moderators

Gregg Murray (Political Science)  
Holly Goodson Rubio (Institutional Effectiveness)  
Lorraine Evans (Academic Success Center)  
Tiana Curry-McCoy (Undergraduate Health Professionals)  
William Parker (Radiology)  
Amy Abdulovic-Cui (Biological Sciences)  
Duygu Minton (English and World Languages)  
Jack Ellis (Hospital Medicine)  
Jay Hegde (Neuroscience & Regenerative Medicine)

### Oral Session Judges

Clément Aubert (Cyber and Computer Science)  
Lee Flood (Advanced Studies and Innovation)  
Kenneth Kwon (Cellular Biology and Anatomy)  
Catherine Jauregui (Dental College)  
Ellen LeMosy (Cellular Biology and Anatomy)  
Titilayo Oluwabusi (Internal Medicine)  
Thomas Weeks (Libraries)  
Emma Geister (Graduate Student, Biology)

William Bryant (Communications)  
Gaye Morris (Communications)  
Stacy Roberts (Business)  
Emma Kate Poindexter (Reese Library)  
Jennifer Jaremski (Graduate Student, Social Sciences)  
Paul O'Connor (Physiology)  
Gokila Dorai (Cyber and Computer Science)  
Kim Capehart (General Dentistry)  
Emily Burns (Graduate Student, Physiology)  
Lisbeth Sanchez Velazquez (Graduate Student, Mental Health)  
Nathan Yanasak (Radiology)  
Nirmal Nischal (Chemistry & Physics)  
Angie Spencer (Chemistry & Physics)  
Ferenc Deak (Neuroscience)  
Nabin Karki (Hemecology & Oncology)  
Khadijah Alexander (Graduate Student, Pharmacology)  
Susan Murray (Accounting)  
Jessica Stewart (Population Health)  
Phyllis Anderson (Music)  
Vy Ong (Graduate Student, Population Health)  
Hoda Maleki (Cyber and Computer Science)  
Steven Harris (Savannah River National Lab)  
Marissa Seamon (Graduate Student, Neuroscience)

Ronda Greaves (Graduate Student, Nursing)

Rebecca Nalloor (Pharmacology)

Jessica Faulkner (Vascular Biology Center)

Arjunan Pachiappan (Periodontics)

Sarah Ray (Graduate Student, Physiology)

Austin Alan Kohler (Graduate Student,  
Kinesiology)

**Poster Session Moderators**

Catherine Slade (Business)

Rhia Moreno (Advanced Studies &  
Innovation)

**Poster Session Judges**

Christy Ledford - Family medicine

Quanguang Zhang - Neuroscience

Dan Rudic (Pharmacology & Toxicology)

Sangeetha Sukumari Ramesh  
(Pharmacology and Toxicology)

Joshua Shan (Vascular Biology)

Kenny Osorio (Graduate School, MPA)

Rhucha Samudra (Political Science)

Lynn Glenn (Nursing)

Ravirajsinh Jadeja (Biochemistry and  
Molecular Biology)

Shannon Gregory (Biological Sciences)

Arnoneel Sinha (Graduate Student,  
Population Health)

Katie Anne Fopiano (Graduate Student,  
Physiology)

## Keynote Speaker



### **Amanda Y. Behr**

*Program Director and Associate Professor, Department of Medical Illustration  
Anaplastologist, DCG Anaplastology*

*Amanda Y. Behr, MA, CCA, CMI, FAMI is a board certified Medical Illustrator and Certified Clinical Anaplastologist. She serves the Department of Medical Illustration as Program Director and works clinically as an anaplastologist at Dental College of Georgia's Anaplastology Clinic where she makes facial and somatic prosthetics for individuals with missing facial anatomy. Prior to joining AU, Ms. Behr served as Director of Medical Illustration for Quality Medical Publishing, Inc (QMP) for over 8 years. Ms. Behr's research interests include the integration of 3D printing and 3D scanning technologies in medicine.*

### **"YES, AND": INTERDISCIPLINARY INSPIRATION FOR CREATIVITY AND INNOVATION**

“Yes, And” stands as a principle of improvisational comedy where actors acknowledge the performance of fellow actors and expand the act. Shutting down the discourse is considered taboo. The performance thrives through cooperation. This principle applies across disciplines. In fact, I came across this concept while reading an article about management. The value of this concept resonates with me as a way to approach my interaction with colleagues and students. When applied to professional relationships, “Yes, And” allows one to recognize and value the ideas of others and expand upon their ideas through a spirit of cooperation and mutual respect. This principle provides a space for brainstorming where all ideas are considered. I find that this outlook supports my creative process. I remain open to new and different ideas without limitation in initial phases of development. We'll explore how keeping an open mind, asking questions, setting goals, and seeking new experiences impacts innovation.

**ORAL SYMPOSIA**

**Session A: 12:30-2:00pm**

## [Virtual Room: Bell Tower A](#)

*(click link to join the session)*

### **Session A: 12:30-2:00pm**

Moderator: Dr. Gregg Murray



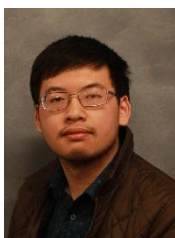
**Presenter: Nellie McKinney**

*Implementing an Algorithm for Locating Complex Zeros of Analytical Functions in the Complex Plane*

**Authors:** Nellie McKinney and Josefa Guerrero-Millan

**Faculty Sponsor(s)/Collaborator(s):** Dr. Josefa Guerrero-Millan

**Institution/College/Department:** Chemistry and Physics



**Presenter: Khang Kieu**

*Superconductivity and Magnetism in the A15 Phase of Alkali-doped Fullerenes*

**Authors:** Khang Kieu and Theja de Silva

**Faculty Sponsor(s)/Collaborator(s):** Dr. Theja de Silva

**Institution/College/Department:** Chemistry and Physics



**Presenter: Garrett Zills**

*Role of Cell Mechanical Properties in Facilitating Tumor Invasion*

**Authors:** Garrett M. Zills, Abdul N. Malmi Kakkada, and Trinanjan Datta

**Faculty Sponsor(s)/Collaborator(s):** Dr. Abdul N. Malmi Kakkada, and Dr. Trinanjan Datta

**Institution/College/Department:** Chemistry and Physics



**Presenter: Margaret Wade**

*Ibuprofen Conjugates as Potential Anti-Inflammatory Agents*

**Authors:** Margaret Wade and Siva Panda

**Faculty Sponsor(s)/Collaborator(s):** Dr. Siva Panda

**Institution/College/Department:** Chemistry and Physics

## [Virtual Room: Frog Hollow A](#)

*(click link to join the session)*

### **Session A: 12:30-2:00pm**

Moderator: Ms. Holly Goodson-Rubio



**Presenter: Derrian Wright**

*Endothelial Mineralocorticoid Receptor Deletion ablates Leptin-induced Preeclampsia Characteristics in Pregnancy*

**Authors:** Derrian Wright<sup>1</sup>, Simone Kennard<sup>1</sup>, Galina Antonova<sup>1</sup>, Iris Z Jaffe<sup>3</sup>, Eric J Belin de Chantemele<sup>1,2</sup>, Jessica L Faulkner<sup>1</sup>

**Faculty Sponsor(s)/Collaborator(s):** Dr. Simone Kennard<sup>1</sup>, Dr. Galina Antonova<sup>1</sup>, Dr. Iris Z Jaffe<sup>3</sup>, Dr. Eric J Belin de Chantemele<sup>1,2</sup>, Dr. Jessica L Faulkner<sup>1</sup>.

**Institution/College/Department:** <sup>1</sup>Vascular Biology Cntr, <sup>2</sup>Dept of Medicine (Cardiology), <sup>3</sup>Mol Cardiology Res Inst, Tufts Univ, Boston, MA



**Presenter: Alexis Ezeanil**

*Investigating Parkinson's Disease Mechanisms in Caenorhabditis Elegans*

**Authors:** Alexis Ezeanii and Danielle Mor

**Faculty Sponsor(s)/Collaborator(s):** Dr. Danielle Mor

**Institution/College/Department:** Department of Neuroscience and Regenerative Medicine



**Presenter: Jayvon Nougaisse**

*Investigating the Effects of Rosiglitazone on Short-term Memory Through a ppar-gamma Dependent Pathway*

**Authors:** Jayvon M. Nougaisse, Yun Lei, Xinyun Lu

**Faculty Sponsor(s)/Collaborator(s):** Dr. Yun Lei and Dr. Xinyun Lu.

**Institution/College/Department:** Department of Neuroscience & Regenerative Medicine



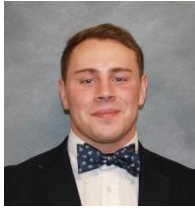
**Presenter: Udochukwu Amanamba**

*Blinding Crystals: Monosodium Urate and Diabetic Retinopathy*

**Authors:** <sup>1</sup>Udochukwu Amanamba, <sup>2</sup>Bartoli Manuela and <sup>2</sup>Menaka Thounaojam

**Faculty Sponsor(s)/Collaborator(s):** Dr. Bartoli Manuela and Dr. Menaka Thounaojam

**Institution/College/Department:** <sup>1</sup>Psychological Sciences, <sup>2</sup>Department of Ophthalmology



**Presenter: Andrew Ensley**

*12/15-Lipoxygenase Contributes to Retinal Neuronal Injury in Diabetic Retinopathy*

**Authors:** Andrew Ensley<sup>1,2,3</sup>, Mohamed Moustafa<sup>2,3</sup>, Ahmed Ibrahim<sup>2,3</sup>, Allan Saul<sup>3</sup>, Mohamed Al-Shabrawey<sup>2,3</sup>

**Faculty Sponsor(s)/Collaborator(s):** Dr. Mohamed Moustafa, Ahmed Ibrahim, Allan Saul, Mohamed Al-Shabrawey

**Institution/College/Department:** <sup>1</sup>College of Science and Mathematics, <sup>2</sup>Oral Biology and Diagnostic Sciences, Dental College of Georgia, <sup>3</sup>Culver Vision Discovery Institute and Ophthalmology, Medical College of Georgia

[Virtual Room: Jaguar A](#)

*(click link to join the session)*

**Session A: 12:30-2:00pm**

Moderator: Dr. Lorraine Evans



**Presenter: Sandra Bangiyev**

*Breathing the Bias Away*

**Authors:** Sandra Bangiyev and Richard Topolski

**Faculty Sponsor(s)/Collaborator(s):** Dr. Richard Topolski

**Institution/College/Department:** Psychological Sciences



**Presenter: Chloe Johnson**

*Different Types of Inequality in Body Image*

**Authors:** Chloe Johnson and Melissa Powell-Williams

**Faculty Sponsor(s)/Collaborator(s):** Dr. Melissa Powell-Williams

**Institution/College/Department:** Sociology, Criminal Justice, & Social Work



**Presenter: Lindsey Cook**

*Cultural Changes In A Pandemic Through An Anthropological Lens*

**Authors:** Lindsey Cook and Angela Bratton

**Faculty Sponsor(s)/Collaborator(s):** Dr. Angela Bratton

**Institution/College/Department:** History, Anthropology, & Philosophy

**Presenter: Keturah Stewart**

*Fear and the Frontier: The Role of Terror in Territory Defense and Identity Definition in the Colonial Period*

**Authors:** Keturah Stewart, Matthew Pope and Hubert VanTuyll

**Faculty Sponsor(s)/Collaborator(s):** Dr. Matthew Pope and Dr. Hubert VanTuyll

**Institution/College/Department:** History, Anthropology, & Philosophy



[Virtual Room: Arsenal A](#)

(click link to join the session)

**Session A: 12:30-2:00pm**

Moderator: Dr. Tiana Curry-McCoy



**Presenter: Bithika Halder**

*Pancreatic Stellate Nox 1-derived Reactive Oxygen Species Facilitate Invasion of Pancreatic Cancer Cells Via Matrix Metalloproteinase 9*

Authors: Bithika Halder<sup>1</sup>, Ananya Chakraborty<sup>1</sup>, Souravi Mondal<sup>1</sup>, Gabor Csanyi<sup>2</sup>, Maria Sabbatini<sup>1</sup>

Faculty Sponsor(s)/Collaborator(s): Dr. Gabor Csanyi<sup>2</sup> and Dr. Maria Sabbatini<sup>1</sup>

Institution/College/Department: <sup>1</sup> Department of Biological Sciences, <sup>2</sup> Department of Pharmacology and Toxicology



**Presenter: Arsheen Kudchikar**

*Distribution of Leptin receptor-expressing Cells in Various Regions of Mouse Brain*

Authors: Arsheen Kudchikar and Yun Lei

Faculty Sponsor(s)/Collaborator(s): Dr. Yun Lei

Institution/College/Department: Department of Neuroscience & Regenerative Medicine



**Presenters: Hisham Kashif and Dilan Shah**

*Assesment of Microrna Regulation After Intracranial Hemorrhage: Role in Neuroinflammation*

Authors: Hisham Kashif<sup>1</sup>, Dilan Shah<sup>1</sup>, Sangeetha Sukumari-Ramesh<sup>2</sup>

Faculty Sponsor(s)/Collaborator(s): Dr. Sangeetha Sukumari-Ramesh

Institution/College/Department: <sup>1</sup>Department of Biology, <sup>2</sup>Department of Pharmacology and Toxicology, Medical College of Georgia



**Presenter: Sneha Chauhan**

*Attenuation of Rho Kinase Activity and Pro-inflammatory Cytokine Release by Niacin in Parkinson's Disease*

**Authors:** Sneha Chauhan<sup>1,2,3</sup>, Banabihari Giri<sup>1,2,3</sup>, Marissa Seamon<sup>2,3,4</sup>, Sharad Purohit<sup>1,2,3</sup>, and Chandramohan Wakade<sup>1,2,3,4</sup>

**Faculty Sponsor(s)/Collaborator(s):** Dr. Banabihari Giri, Dr. Marissa Seamon, Dr. Sharad Purohit, and Dr. Chandramohan Wakade

**Institution/College/Department:** <sup>1</sup>Department of Physical Therapy,, <sup>2</sup>Charlie Norwood VA Medical Center, <sup>3</sup>Center for Biotechnology and Genomic Medicine, <sup>4</sup>Department of Neuroscience

**ORAL SYMPOSIA**

**Session B: 2:00pm – 3:00pm**

## [Virtual Room: Bell Tower B](#)

*(click link to join the session)*

### **Session B: 2:00pm – 3:00pm**

Moderator: Dr. William Parker



**Presenter: Benjamin Overlie**

*Minimum Flow Rate in Electro-coflow*

**Authors:** Benjamin Overlie and Josefa Guerrero Millan

**Faculty Sponsor(s)/Collaborator(s):** Dr. Josefa Guerrero Millan

**Institution/College/Department:** Chemistry and Physics



**Presenter: Andrew Liebig**

*Magnetic Monopoles, Landau Levels, and Bosonic Quantum Hall Effect*

**Authors:** Dr. Theja De Silva and Andrew Liebig

**Faculty Sponsor(s)/Collaborator(s):** Dr. Theja De Silva

**Institution/College/Department:** Chemistry and Physics



**Presenter: Mark Holcomb**

*The Implicit Computational Complexity Flavor of Automata*

**Authors:** Clément Aubert, Mark Holcomb

**Faculty Sponsor(s)/Collaborator(s):** Dr. Clément Aubert

**Institution/College/Department:** School of Computer and Cyber Sciences

**Presenter: Patrick Woolard**

*Vision-based Navigation and Control of Unmanned Aerial Vehicles*

**Authors:** Mark Holcomb, Zack Pye, Patrick Woolard, and Weiming Xiang

**Faculty Sponsor(s)/Collaborator(s):** Dr. Weiming Xiang

**Institution/College/Department:** School of Computer and Cyber Sciences

## Virtual Room: FROG HOLLOW B

*(click link to join the session)*

### **Session B: 2:00pm – 3:00pm**

Moderator: Dr. Amy Abdulovic-Cui



**Presenter: Ananya Chakraborty**

*Characterizing the NADPH Oxidase 1-evoked Pancreatic Stellate Cell Secretome*

**Authors:** Ananya Chakraborty<sup>1</sup>, Souravi Mondal<sup>1</sup>, Wenbo Zhi<sup>2</sup>, Gabor Csanyi<sup>3</sup> and Maria Sabbatini<sup>1</sup>

**Faculty Sponsor(s)/Collaborator(s):** Dr. Wenbo Zhi, Dr. Gabor Csanyi and Dr. Maria Sabbatini

**Institution/College/Department:** <sup>1</sup>Biological Sciences, <sup>2</sup>Center for Biotechnology and Genomic Medicine, and Department of Pharmacology and Toxicology<sup>3</sup>



**Presenter: Vinay Mehta**

*The Effect of Selective Deletion of Leptin Receptor in Endothelial Cells on High-Fat-Diet-Induced Vascular Endothelial Function*

**Authors:** Vinay Mehta, Reem T. Atawia, Eric J. Belin de Chantemèle

**Faculty Sponsor(s)/Collaborator(s):** Dr. Reem T. Atawia and Dr. Eric J. Belin de Chantemèle

**Institution/College/Department:** Vascular Biology Center, Department of Biological Sciences



**Presenter: Eyana Thomas**

*Design and Synthesis of Metformin Derivatives as Anticancer Agents*

**Authors:** Eyana Thomas and Siva Panda

**Faculty Sponsor(s)/Collaborator(s):** Dr. Siva Panda

**Institution/College/Department:** Chemistry and Physics



**Presenter: Matthew Zimmerman**

*An Investigation of a Rare Plant Species, Pediomelum Piedmontanum*

**Authors:** Matthew Zimmerman and Stacy Bennetts

**Faculty Sponsor(s)/Collaborator(s):** Dr. Stacy Bennetts

**Institution/College/Department:** Biological Sciences

## [Virtual Room: JAGUAR B](#)

*(click link to join the session)*

### **Session B: 2:00pm – 3:00pm**

Moderator: Dr. Duygu Minton



**Presenter: Felina Thomas**

*Depression, Body Image, and Anxiety Influencing Bariatric Surgical Outcomes*

**Authors:** Felina Thomas<sup>1</sup>, Tracey Puig-Baker<sup>2</sup>, Lufei Young<sup>2</sup>

**Faculty Sponsor(s)/Collaborator(s):** Dr. Tracey Puig-Baker and Dr. Lufei Young

**Institution/College/Department:** <sup>1</sup>Augusta University, <sup>2</sup>College of Nursing



**Presenter: Hannah Smith**

*Telehealth in Assisted Reproductive Technology to Improve Disparities in Access to Care in Rural Georgia*

**Authors:** Hannah Smith<sup>1</sup>, Sasha Mikael,<sup>1,2</sup> Anna Gaidis,<sup>1,2</sup> and Larisa Gavrilova-Jordan<sup>1,2</sup>

**Faculty Sponsor(s)/Collaborator(s):** Dr. Sasha Mikael, Dr. Anna Gaidis, and Dr. Larisa Gavrilova-Jordan

**Institution/College/Department:** <sup>1</sup>Augusta University and <sup>2</sup>Medical College of Georgia



**Presenter: Lauren Jackson**

*Student Perceptions of Mental Health Services at Augusta University*

**Authors:** Lauren Jackson<sup>1</sup>, Candace Best<sup>2</sup>, Josefa Guerrero-Millan<sup>3</sup> and Vahe Heboyan<sup>4</sup>

**Faculty Sponsor(s)/Collaborator(s):** Dr. Candace Best, Dr. Josefa Guerrero-Millan and Dr. Vahe Heboyan

**Institution/College/Department:** <sup>1</sup>Department of Psychiatry and Health Behavior, <sup>2</sup>Chemistry and Physics, <sup>3</sup>College of Allied Health Sciences



**Presenter: Megan Tychsen**

*Does the Presence of a USG institution impact economic variables within Georgia Metropolitan Statistical Areas?*

**Authors:** Megan Tychsen and Simon Medcalfe

**Faculty Sponsor(s)/Collaborator(s):** Dr. Simon Medcalfe

**Institution/College/Department:** Hull College of Business

## ORAL SYMPOSIA

**Session C: 3:00 pm - 4:00 pm**



## Virtual Room: BELL TOWER C

*(click link to join the session)*

**Session C: 3:00 pm - 4:00 pm**

Moderator: Dr. Jack Ellis



**Presenter: Andrew Vincent**

*Analytical results for two-band atomic superfluid system as a guidance for superconducting materials*

**Authors:** Andrew Vincent and Theja DeSilva

**Faculty Sponsor(s)/Collaborator(s):** Dr. Theja DeSilva

**Institution/College/Department:** Chemistry and Physics

**Presenters: Maxwell Recht and Chase Inglett**

*Feasibility of Reusable Radiochromic Plastics as Dosimeters*

**Authors:** <sup>1</sup>Maxwell Recht, <sup>1</sup>Chase Inglett, <sup>1</sup>Joseph A. Hauger, <sup>1</sup>Joseph Newton and <sup>2</sup>John Adamovics

**Faculty Sponsor(s)/Collaborator(s):** Dr. Joseph A. Hauger, Dr. Joseph Newton and Dr. John Adamovics

**Institution/College/Department:** <sup>1</sup>Chemistry and Physics (Augusta Univ.), <sup>2</sup>Chemistry (Rider Univ.)



**Presenter: Taejung Park**

*Chaotic Dripping*

**Authors:** Taejung Park and Josefa Guerrero-Millan

**Faculty Sponsor(s)/Collaborator(s):** Dr. Josefa Guerrero-Millan

**Institution/College/Department:** Chemistry and Physics



**Presenter: Seyon Punchbeddell**

*Brownian Motion of a Raspberry Pi Controlled Robot*

**Authors:** Seyon Punchbeddell, Trinanjan Datta and Andrew Hauger

**Faculty Sponsor(s)/Collaborator(s):** Dr. Trinanjan Datta and Dr. Andrew Hauger

**Institution/College/Department:** Chemistry and Physics

## Virtual Room: FROG HOLLOW C

*(click link to join the session)*

**Session C: 3:00 pm - 4:00 pm**

Moderator: Dr. Jay Hegdé



**Presenter: Tammy Eboigbe**

*The Relationship Between Dynamic Knee Valgus and Lower Extremity Muscle Activity in Patients with Chronic Ankle Instability*

**Authors:** Tammy Eboigbe, Valerie Hogan

**Faculty Sponsor(s)/Collaborator(s):** Dr. Valerie Hogan

**Institution/College/Department:** Kinesiology and Health Science

**Presenter: Jordan Locklin**

*Does Chronic Ketone Salt Supplementation Alter BP, CBC, or CMP Results in Adults Diagnosed with PTSD*

**Authors:** Jordan Locklin<sup>1</sup>, A. Maleah Holland<sup>1</sup> and Andrew Moore<sup>1</sup>

**Faculty Sponsor(s)/Collaborator(s):** Dr. Angella Holland<sup>1</sup>, Dr. H. David Hunt<sup>2</sup> and Dr. Tadd Patton<sup>3</sup>

**Institution/College/Department:** <sup>1</sup>Kinesiology and Health Science, <sup>2</sup>Sociology, Criminal Justice, & Social Work, <sup>3</sup>Psychological Sciences



**Presenter: Jaimini Patel**

*Role of Dendritic Cells in Post-Extraction Alveolar Bone Healing*

**Authors:** Jaimini Patel<sup>1</sup>, Ranya El Sayad<sup>2</sup>, Mohammed E. Elsalanty<sup>3</sup>, Christopher Cutler<sup>2</sup>

**Faculty Sponsor(s)/Collaborator(s):** Dr. Jennifer Bradford, Dr. Christopher Terry, Dr. Ranya El Sayad, Dr. Mohammed E. Elsalanty, Dr. Christopher Cutler and Dr. Jennifer Gerber

**Institution/College/Department:** <sup>1</sup>Augusta University, <sup>2</sup>Department of Periodontics, Dental College of Georgia, Medical Anatomical Sciences, and <sup>3</sup>College of Osteopathic Medicine of the Pacific, Western University of Health Sciences



**Presenter: Souravi Mondal**

*Validation of a Carbohydrate Antigen-19-9 Enzyme-like Immunosorbent Assay Kit Using a Mouse Model of Pancreatic Cancer*

**Authors:** Souravi Mondal, Maria Sabbatini

**Faculty Sponsor(s)/Collaborator(s):** Dr. Maria Sabbatini

**Institution/College/Department:** Biological Sciences

## Virtual Room: JAGUAR C

*(click link to join the session)*

**Session C: 3:00 pm - 4:00 pm**

Moderator: Ms. Jennifer Davis



**Presenter: Fabiha Anwar**

*Exploring Jeffrey Dahmer's Sexual Development*

**Authors:** Fabiha Anwar, Michael Holman

**Faculty Sponsor(s)/Collaborator(s):** Dr. Michael Holman

**Institution/College/Department:** Psychological Sciences



**Presenter: Elyse M. Garrett**

*Children, Philosophy, and Early Education*

**Authors:** Elyse M. Garrett

**Faculty Sponsor(s)/Collaborator(s):** Dr. Lee Maynard<sup>1</sup>

**Institution/College/Department:** <sup>1</sup>English and Foreign Languages



**Presenter: Aurora Kenison**

*Suite for Piano -- Blending Styles and Discovering Creative Process*

**Authors:** Aurora Kenison

**Faculty Sponsor(s)/Collaborator(s):** Dr. Martin Jones

**Institution/College/Department:** Music



**Presenter: Madeline Burgin**

*Scythe & Halo Cab Co.: A Creative Activity in Podcasting*

**Authors:** Madeline Burgin

**Faculty Sponsor(s)/Collaborator(s):** Dr. Edgar Johnson

**Institution/College/Department:** Communications

# **POSTER SESSIONS**

*(Note: There is no Poster Session A)*

## **Session B: 2:00pm – 3:00pm**

[View Posters Online](#) (March 30 - )

[Join the Question and Answer Session Poster Discussion](#) (April 1, 2:00 – 3:00)

## Virtual Room: ARSENAL B

(2:00 – 3:00 IN TEAMS)

(click link to join the Q&A session)

Moderator: Dr. Cathy Slade

[View the Arsenal B POSTERS](#) (IN PADLET; click link to view the posters)



**Presenters: Karen Aikhionbare, Chelsea Appiah, Aminah Wood and Logan Ouellette**

*Development of Transparent Transgenic Zebrafish Strain to Study Nf-Kb, Annexin 5, and the Microglia*

**Authors:** Karen Aikhionbare, Chelsea Appiah, Aminah Wood, Logan Ouellette and Surendra Rajpurohit

**Faculty Sponsor(s)/Collaborator(s):** Dr. Surendra Rajpurohit

**Institution/College/Department:** Georgia Cancer Center



**Presenter: Jakeline Juarez**

*Melatonin Triggers ER Stress-associated Apoptosis in Head and Neck Cancer Cells*

**Authors:** Jakeline Juarez<sup>1</sup>, Liwei Lang<sup>2</sup>, Reid Loveless<sup>2</sup>, Yong Teng<sup>2,3,4</sup>

**Faculty Sponsor(s)/Collaborator(s):** Dr. Liwei Lang, Dr. Reid Loveless and Dr. Yong Teng

**Institution/College/Department:** Department of College of Science and Mathematics, <sup>2</sup> Department of Oral Biology and Diagnostic Sciences, <sup>3</sup>Georgia Cancer Center, <sup>4</sup> Department of Biochemistry and Molecular Biology



**Presenter: Helena Blackburn**

*Establishing a GFP Marker in Zebrafish to Study the Localization of Tinagl1*

**Authors:** Helena Blackburn<sup>1</sup> and Ellen LeMosy<sup>2</sup>

**Faculty Sponsor(s)/Collaborator(s):** Dr. Ellen LeMosy

**Institution/College/Department:** <sup>1</sup>Biological Sciences, <sup>2</sup>Cellular Biology and Anatomy



**Presenter: Leslie Duncan**

*Degradation of EGFR Contributes to Anti-cancer Effects on HDAC Inhibitor in Head and Neck Cancer*

**Authors:** Leslie Duncan<sup>1</sup>, Caleb Jensen<sup>1</sup>, Leilei He<sup>2</sup>, Liwei Lang<sup>2</sup>, Yong Teng<sup>2,3</sup>

**Faculty Sponsor(s)/Collaborator(s):** Dr. Leilei He, Dr. Liwei Lang and Dr. Yong Teng

**Institution/College/Department:** <sup>1</sup>Biological Sciences, <sup>2</sup>Department of Oral Biology and Diagnostic Sciences, Dental College of Georgia, <sup>3</sup>Georgia Cancer Center, Medical College of Georgia



**Presenter: Zhidong Wang**

*Correlation of Genetic Variations to Biochemical and Clinical Features in Phelan-McDermid Syndrome*

**Authors:** Zhidong Wang<sup>1,2</sup>, Lavanya Jain<sup>3,4</sup>, Sujata Srikanth<sup>3</sup>, Lauren Cascio<sup>3</sup> and Luigi Boccuto<sup>3,4</sup>

**Faculty Sponsor(s)/Collaborator(s):** Lavanya Jain, Sujata Srikanth, Lauren Cascio and Dr. Luigi Boccuto

**Institution/College/Department:** <sup>1</sup>Augusta University, <sup>2</sup>Bob Jones University, <sup>3</sup>Greenwood Genetic Center, and <sup>4</sup>Clemson University



**Presenter: Nadine Long**

*Routine Use of Nonsteroidal Anti-inflammatory Drugs (NSAID) is Effective, Safe and does not Lead to a Higher Risk of Bleeding and Renal Failure When Used Postoperatively in Pediatric Patients*

**Authors:** Nadine Long<sup>1</sup>, Danielle Crethers<sup>2</sup> and Renuka Mehta<sup>3</sup>

**Faculty Sponsor(s)/Collaborator(s):** Danielle Crethers and Dr. Renuka Mehta

**Institution/College/Department:** <sup>1</sup>Augusta University, <sup>2</sup>Department of Surgery, <sup>3</sup>Department of Pediatrics, Medical College of Georgia



**Presenter: Queen Tran**

*Curcumin Conjugates as Potential Therapeutics for Breast Cancer*

**Authors:** Queen Tran and Siva Panda

**Faculty Sponsor(s)/Collaborator(s):** Dr. Siva Panda

**Institution/College/Department:** Chemistry and Physics

# POSTER SESSIONS

**Session C: 3:00 pm - 4:00 pm**

[View Posters Online](#) (March 30 - )

[Join the Question and Answer Session Poster Discussion](#) (April 1, 3:00 – 4:00)



## Virtual Room: ARSENAL C

(IN TEAMS)

*(click link to join the Q&A session)*

Moderator: Dr. Rhia Moreno

[View the Arsenal C POSTERS](#) (IN PADLET; click link to view the posters)



**Presenter: Karen Rex Pius Vincent**

*Expertise and Sex Identification in Dogs*

**Authors:** Richard Topolski<sup>1</sup>, Karen Rex Pius Vincent<sup>2</sup>, Nicole Morel<sup>3</sup>, Chandani Patel<sup>4</sup>

**Faculty Sponsor(s)/Collaborator(s):** Dr. Richard Topolski

**Institution/College/Department:** Psychological Sciences



**Presenter: Elinita Pollard**

*Phone Separation Anxiety and Test Performance*

**Authors:** Elinita Pollard, Blessing Adeyemo, Keylanni Hatfield, Tadd Patton, Michelle Johnson

**Faculty Sponsor(s)/Collaborator(s):** Dr. Tadd Patton and Dr. Michelle Johnson

**Institution/College/Department:** Psychological Sciences



**Presenter: Palak Patel**

*Racial Segregation and COVID-19 Health Outcomes: Evidence from the State of Georgia*

**Authors:** Palak Patel, Simon Medcalfe and Catherine Slade

**Faculty Sponsor(s)/Collaborator(s):** Dr. Simon Medcalfe and Dr. Catherine Slade

**Institution/College/Department:** Hull College of Business



**Presenter: Olivia Ertz**

*Running a Food Bank During COVID-19*

**Authors:** Olivia Ertz and Nicole Peritore

**Faculty Sponsor(s)/Collaborator(s):** Dr. Nicole Peritore

**Institution/College/Department:** College of Education



**Presenter: Nicholas Trussell**

*Development of a Learning Module on the Legal Implications in Primary Care Nursing*

**Authors:** Nicholas Trussell, Dwayne Hooks and Susan Nicosia

**Faculty Sponsor(s)/Collaborator(s):** Dr. Dwayne Hooks and Dr. Susan Nicosia

**Institution/College/Department:** College of Nursing



**Presenter: Sydney Dains-McGahee**

*Bound Relativistic Motion in One Dimension*

**Authors:** Sydney Dains-McGahee and Sam Robinson

**Faculty Sponsor(s)/Collaborator(s):** Dr. Sam Robinson

**Institution/College/Department:** Mathematics



**Presenter: Colin Miller Jr.**

*Conjugation of Tryptamine to Biologically Active Carboxylic Acids in Order to Create Prodrugs*

**Authors:** Colin Miller Jr., Iryna O. Lebedyeva

**Faculty Sponsor(s)/Collaborator(s):** Dr. Iryna O. Lebedyeva

**Institution/College/Department:** Chemistry and Physics



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