

2022-2023 McKnight Doctoral Annual & Mid-Year Fellows' Meeting

February 10-12, 2023
Tampa Airport Marriott Hotel
4200 George J. Bean Parkway
Tampa, FL 33607

Pursuing Opportunities, Meeting Challenges, Shaping the Future

*Lawrence Morehouse, Ph.D., President and Chief Executive Officer
Florida Education Fund
Presiding*

FRIDAY, FEBRUARY 10, 2023

To assist you in finding meeting rooms, we include a map of the Tampa Airport Marriott on page 4.

12:00 p.m. ~ Grand Ballroom Foyer
Registration

1:00-2:20 p.m. ~ Pinellas Room

WORKSHOP I: Strategies for Effective Writing

Numerous students, faculty members and researchers struggle to transfer the ideas in their heads onto paper or to a computer. Recognizing that many scholars have not been taught effective research-based writing techniques, we strive in this session to provide proven approaches to producing polished academic writing. In addition to presenting various writing models, the workshop includes methods for personalizing the traditional writing process and questions to answer to clarify ideas. The information is designed to equip participants with a systematic approach to composing coherent scholarly writing.

• *Dr. Vernetta Mosley*, Writing Coach, Editor, Consultant, Chrysalis Consulting LLC

2:30-3:30 p.m. ~ Pinellas Room

WORKSHOP II: Seven Steps to Financial Fitness

Like any long-term worthwhile pursuit, taking the steps to financial fitness isn't easy. It takes energy, determination and the discipline to obtain and hone the necessary skills over time. This session will introduce the 7 steps necessary to begin the journey toward a secure financial future. The best part of these 7 steps is that they apply to anyone, regardless of how old you are, where you come from, or how much money you earn. These principles work because they are proven to help individuals optimize their savings, which can then be used to meet current financial needs and build long-term wealth.

• *Mr. Samuel Eubanks, CFA*, Senior Vice President and Portfolio Manager, Bank of America's Private Bank

FRIDAY, FEBRUARY 10, 2023

CONCURRENT WORKSHOPS

3:40-5:15 p.m. ~ Collier Room

WORKSHOP III: The Role of Comprehensive Examinations: Strategies for Success

By examining the role of comprehensive examinations, this session will present students with strategies to prepare for “comps” while completing their doctoral coursework. It also will help students establish confidence in their ability to prepare for the examinations and pass them on the first attempt.

- *Dr. Iraida V. Carrion*, Associate Professor, School of Social Work, University of South Florida

Sarasota Room

WORKSHOP IV: Best Practices for Writing the Prospectus and Dissertation

This workshop is divided into two parts:

Part I focuses on connections between coursework, research interests, and development of the dissertation proposal; selection of dissertation committee chair and other committee members; the structure and format of the dissertation proposal; and strategies for successful development of the dissertation proposal.

Part II offers innovative strategies for preparing to conduct dissertation research; structure, format, and development of dissertation chapters; and dissertation defense.

- *Dr. Marvin Dawkins*, Professor, Department of Sociology, University of Miami
- *Dr. Bernd Reiter*, Latin Americanist and Professor, Department of Classical and Modern Languages and Literatures, Texas Tech University, and Fulbright Distinguished Chair of Public Policy, Brazil, 2021-22

Pinellas Room

USF JOHNSON SMART LAB TRAINEE POSTER SESSION

Funded by a \$2.2 million career development and training grant from the National Institutes of Health and with support from FEF, USF Assistant Professor Micah Johnson’s Substance Misuse and Addictions Research Traineeship (SMART) Lab recruits gifted underrepresented minority (URM) or disadvantaged students and trains them to become the next generation of elite substance misuse and addiction scientists. The SMART goal is to increase the number of highly skilled URM scholars who enter graduate degree programs focused on careers in substance misuse and addiction research.

In this session, SMART Lab Trainees will present their research.

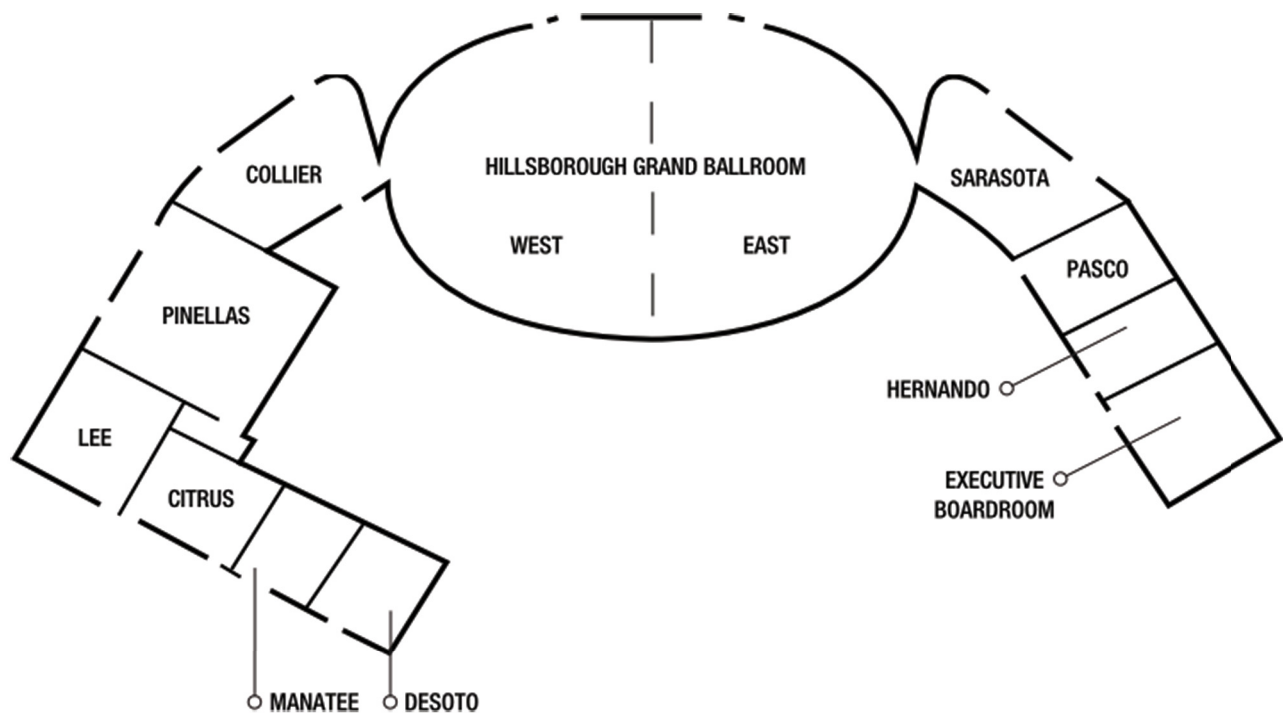
FRIDAY, FEBRUARY 10, 2023

6:30-9:00 p.m. ~ *Grand Ballroom*

OPENING SESSION

- ◆ Dinner
- ◆ Introductions by MDF Graduate *Dr. Cherelle Carrington*
- ◆ Welcome & Purpose: *Dr. Lawrence Morehouse*, FEF President & CEO
- ◆ President's Awards: *Dr. Lawrence Morehouse*
- ◆ Dr. Israel Tribble Award for Outstanding Alumni Support: *Dr. Lawrence Morehouse*
- ◆ Russell V. Ewald Award for Academic Excellence: *Lyra Logan, Esq.*, FEF Executive Vice President & General Counsel
- ◆ Dr. Carl Crawford Award for Outstanding Pre-College Support: *Lyra Logan, Esq.*
- ◆ Keynote Address: *Dr. Brian Blake*, President, Georgia State University
- ◆ Introduction of the new McKnight Fellows – **THE CLASS OF 2022**: *Mr. Charles Jackson, MPA*, MDF Program Manager
- ◆ Introduction of Exhibitors: *Mr. Charles Jackson*
- ◆ Book signings by *Dr. Robin Brooks* and *Dr. Charles Davis*

TAMPA AIRPORT MARRIOTT



SATURDAY, FEBRUARY 11, 2023

7:30 a.m. ~ Grand Ballroom Foyer
CONTINENTAL BREAKFAST

OPENING PLENARIES ~ Grand Ballroom

8:15-8:35 a.m.

What it Means to be an Educator

• *Dr. Bernd Reiter*, Latin Americanist and Professor, Department of Classical and Modern Languages and Literatures, Texas Tech University, and Fulbright Distinguished Chair of Public Policy, Brazil, 2021-22

8:35-9:05 a.m.

No Crystal Stair: from McKnight Graduate to Distinguished Full Professor and University Dean

• *Dr. Mark C. Dawkins*, Professor of Accounting, University of North Florida Coggin College of Business, and President, American Accounting Association

9:15-10:15 a.m.

Artemis Generation: We Got Next (Now)

This presentation will give an overview of NASA's Office of STEM Engagement and its underrepresented and underserved arm, MUREP- the Minority University Research and Education Project; showcase how students from multiple disciplines can become aware of and plugged into the Artemis Generation and engaged with NASA and or the aerospace industry; highlight some existing NASA students and associated research to underscore the value placed on students and STEM but also the increasing need to appreciate the full diaspora of learners; and challenge the audience to consider and/or adopt some new norms as they navigate academia, industry, government and their careers.

• *Mr. Torry A. Johnson*, Manager, Minority University Research and Education Project, NASA
Introduction by Dr. Dawn Elliott Martin, Aerospace Engineer, NASA

CONCURRENT SESSIONS

10:25-11:30 a.m. ~ Collier Room

The Changing World of Publishing

Researchers now have more options to publish their research. The panelists will discuss their experiences using traditional, non-traditional and alternate publishing outlets including smaller publishers, self-publishing, documentaries and paid journals. They also will discuss advantages and disadvantages of traditional vs. non-traditional and alternate publishing outlets.

• *Dr. Bernd Reiter*, Latin Americanist and Professor, Department of Classical and Modern Languages and Literatures, Texas Tech University, and Fulbright Distinguished Chair of Public Policy, Brazil, 2021-22

• *Dr. Elizabeth Hordge-Freeman*, Associate Professor of Sociology and Interim Associate Vice Provost for Faculty Recruitment, Retention and Engagement at the University of South Florida

• *Dr. Charles Stanish*, Executive Director, Institute for the Advanced Study of Culture and the Environment, and Professor, University of South Florida

SATURDAY, FEBRUARY 11, 2023

10:25-11:30 a.m. ~ Pinellas Room

Best Practices for Writing Grant Proposals for NASA and NIH

This session is divided into two parts: Part I will focus on the art and science of writing a successful NIH grant application. It will provide basic information on how to find the best NIH institute to apply to and how to engage NIH staff. Part II will explain best practices for developing a competitive proposal to secure a grant from NASA, with a focus on its Space Health Program and EPSCOR Reporting.

- *Dr. Diane Allen-Gipson*, Associate Professor, Department of Pharmaceutical Sciences, University of South Florida
- *Dr. Ali Shaykhian*, EPSCOR Reporting, Operations and Technical Monitor Manager and IT Relationship Manager, NASA

Lee Room

Life and Opportunities After Graduate School

Earning a Ph.D. helps you develop skills transferable across disciplines and industries and prepares you for a variety of careers within and outside your specialization. This panel will explore the myriad opportunities available to Ph.D. graduates, including positions within the public and private sectors and the academy.

- *Dr. Alice Boone-Perez*, Founder and President, Smarten Sports Academy
- *Dr. Chantrell J. Frazier*, Assistant Professor, Department of Chemistry and Food Science, Framingham State University
- *Dr. Deidra Jordan*, Research Core Scientist II, Sequencing, Harvard University
- *Dr. Oshea Johnson*, Epidemic Intelligence Service Postdoc, Centers for Disease Control, Kentucky
- *Dr. Rhoda K. Moise*, Research Assistant Professor, Department of Psychiatry and Behavioral Medicine, University of Miami

Sarasota Room

Demystifying Faculty Diversity: Using Academic Pipeline Programs to Overcome Systemic Barriers to Recruitment and Retention

Academic pathways programs have a long history of supporting underrepresented minority (URM) students as they enter the professoriate and navigate the academy. The goal of this panel discussion is to extrapolate best practices for such initiatives by examining three highly effective national faculty diversity programs—the PhD Project, Sisters of the Academy, and the Rochester Institute of Technology Future Faculty Career Exploration Program. Representatives from each program will join the authors of the *Academic Pipeline Programs: Diversifying Pathways from the Bachelors to the Professoriate* book to analyze noted best practices and advise audience members how to participate in these and similar initiatives as they progress into the professoriate and beyond. Finally, the panel will discuss ways the McKnight Doctoral Fellowship Program can partner with pathways programs for the benefit of McKnight Fellows and alumni.

- *Dr. Curtis Byrd*, Facilitator, Co-Founder, Academic Pipeline Project, LLC, and Research Associate, HBCU Undergraduate Success Center, Morehouse College
- *Dr. Rihana Mason*, Facilitator, Research Scientist, Urban Child Study Center, Georgia State University
- *Dr. Donathan Brown*, Assistant Provost and Assistant Vice President for Faculty Diversity and Recruitment, Rochester Institute of Technology and Director of RIT Future Faculty Career Exploration Program
- *Dr. Devona F. Pierre*, Director of Equity, Diversity, and Inclusion, St. Petersburg College
- *Dr. Tessa Garcia-Collart*, Faculty Member of the PhD Project and Assistant Professor of Marketing, Department of Marketing and Entrepreneurship, University of Missouri-St. Louis

SATURDAY, FEBRUARY 11, 2023

11:30-12:00 p.m.

EXHIBITOR BREAK

12:00-1:30 p.m. ~ Grand Ballroom

LUNCHEON: Pursuing Opportunities, Meeting Challenges, Shaping the Future

• *Dr. John M. Davis*, Senior Associate Dean for Research and Associate Director, Florida Agricultural Experiment Station, University of Florida

CONCURRENT SESSIONS

1:40-3:10 p.m. ~ Grand Ballroom

SESSION I: Strategically Planning Research to Maximize Career Opportunities

Achieving your career goals and securing employment in a highly competitive marketplace requires developing a strategic plan to complete the Ph.D. program and create an attractive portfolio that demonstrates your capacity to conduct timely and cutting-edge research, develop basic and innovative courses and produce dynamic lectures, while meeting expectations for publishing articles and books and securing grants.

This panel, comprised of experts in STEM, Social and Behavioral Sciences and Business, will address the following topics related to strategically planning for employment in these highly competitive times:

- Developing marketable research interests, topics, and questions that are timely, relate to problem-solving and create new insights;
- Preparing to conduct interdisciplinary research or working on interdisciplinary research teams in both academic and non-academic settings;
- Creating presentations tailored to different audiences (e.g., the dissertation defense, professional academic research conferences, job interviews for positions in academia or outside of academia);
- Setting a research agenda that maximizes chances for pursuing employment opportunities and career paths both inside and outside of academia; and
- Choosing modes of publishing and publication outlets that maximize opportunities for seeking positions at colleges and universities, private corporations (both for-profit and non-profit) and governmental agencies.

• *Dr. Daphne Simmonds*, Associate Professor, Department of Computer Information Systems and Business Analytics, Metropolitan State University

• *Dr. Anol Bhattacharjee*, Professor, School of Information Systems and Management and the Exide Professor of Business Ethics, University of South Florida

• *Dr. Lina Bouayad*, Health Research Associate, James A. Haley Veterans Hospital and Associate Professor, Department of Decision Sciences and Information Systems, College of Business, Florida International University and Health Research Associate, James A. Haley Veterans Hospital

• *Dr. Chereka Dickerson*, Assistant Professor, Department of English, Metropolitan State University

• *Dr. Norman Johnson*, Professor of Business Analytics, College of Business, University of Houston

SATURDAY, FEBRUARY 11, 2023

1:40-3:10 p.m. ~ Pinellas Room

SESSION II: Raise Your Research Profile

Have you published your first refereed journal article? Is it in the works? If so, this workshop is for you! You will learn about web search engines that index scholarly publications such as Google Scholar, ORCID, and ResearchGate. If you have already published an article, you will learn how to identify your body of work, and make it public-facing so that it can be seen by your colleagues around the world. Your research profile can support your grant proposals, your promotion packet, and is a good recruitment tool if you are establishing a research program at a university, since reviewers and potential postdocs and graduate students will be able to view your body of work and its impacts. Please bring a laptop or other device so we can make this a hands-on workshop.

- *Dr. John M. Davis*, Senior Associate Dean for Research and Associate Director, Florida Agricultural Experiment Station, University of Florida
- *Dr. Nia Morales*, Assistant Professor, Department of Wildlife Ecology and Conservation, University of Florida

Lee Room

SESSION III: Patents and their Impact on an Academic Career

This session will cover the acquisition of patents at universities, the types of patents, and the patent application process. Additionally, examples of several patents will be shown, and one prototype will be demonstrated to show the difference between design and utility patents.

- *Dr. Charles Magee*, Professor, Department of Biological Systems Engineering, Florida A&M University
- *Dr. Dieff Vital*, Postdoctoral Associate, Department of Electric and Computer Engineering, University of Illinois Chicago

Sarasota Room

SESSION IV: Finding Your Fit as an Emerging STEM Researcher & Scholar of Color in Higher Education

This session offers information and resources to support personal and professional development as a minority STEM researcher and scholar in higher education. Panelists will discuss the importance of scholars actively engaging in culturally-sustaining mentoring, networking, and branding and will share their experiences working at various levels within the academy and STEM profession. They also will provide information about the Translational Research Institute for Space Health (TRISH) postdoctoral fellows' program; select NASA funding sources and opportunities; and the Lyndon B. Johnson Institute for STEM Education and Research, its potential collaboration opportunities, and its growing "ambassadors" program.

- *Ms. Lisa Hanson, M.S., Ph.D. Candidate*, Texas State University
- *Dr. Kristina Collins*, Associate Professor of Talent Development and Associate Director, Lyndon B. Johnson Institute, Texas State University

CONCURRENT RESEARCH PANELS

In the following nine panel discussions, MDF Fellows will present their research on issues important to their disciplines and receive professional public critique from discussants familiar with the work.

Following the research presentations and critiques, participants in each room are welcome to stay and engage in informal, interactive discussions on the following and other matters from a discipline-specific perspective: topics may include the relationship between job opportunities and research focuses; the advantages and disadvantages of post-doctorate fellowships; how and what to publish, especially before earning the Ph.D.; how to package oneself for the job market and interview, including creating/assembling a portfolio, preparing a professional presentation, developing/polishing interview.

3:20-5:00 p.m. ~ Collier Room

Panel 1 — Engineering

- *Antonio Diaz*, Panel Chair, UF (2018), Mechanical Engineering
- *Afeefa Abdool-Ghany*, UM (2022), Materials Engineering, “*Keeping Beaches Open; Enterococci in the Nearshore Environment and Properties of Sargassum During Composting*”

In recent years, there has been an increase of the fecal indicator bacteria (FIB), enterococci, on beaches. FIB levels are used to set beach advisories, and the bacteria from both point and nonpoint sources can impact beach matrices, which include water, sediment, and macroalgae. Extensive research has been conducted on the water and sediment matrices, while much less has been done on macroalgae. Caribbean and South Florida beaches have been plagued with influxes of the macroalgae *Sargassum* over the last decade, with resulting environmental, health, and economic impacts due to degradation of water quality and capacity to absorb metals from the environment. This study evaluates the interactions between water, sediment, and *Sargassum* and a potential compost solution to manage water quality degraded due to excessive influxes of this macroalgae.

- *Shayla Breedlove*, UF (2022), Electrical & Computer Engineering, “*Surface Plasmon Polariton Devices for Microwave Photonics*”

Surface plasmon polaritons have been extensively studied to achieve sub-wavelength control of light. However, thus far, no plasmon-based devices have been both designed and fabricated for microwave photonic applications with complementary metal-oxide-semiconductor (CMOS) compatibility. This work seeks to employ new plasmonic materials as well as new architectures for a tunable electro-optic modulator and switch. Specifically, the devices are fabricated using Barium Titanate and Lanthanum Nickelate, since these allow for frequency tuning of the device characteristics. The high loss typically associated with surface plasmons will be mitigated with unique focusing design as part of the device architecture. This CMOS-compatible surface plasmon-based electro-optic device for microwave photonic applications will allow for both high speed and higher density electronic-compatible integration.

- *Coralys Colon-Morales*, UF (2022), Industrial & Systems Engineering, “*Data Analytics and Stochastic Models for Informed Decision-Making in Healthcare*”

Data analytics and optimization of healthcare data can provide vital support for improvements to patient care, lower costs, efficient resource allocation and overall better informed decision-making. This research demonstrates the use of data analytics and stochastic models for informed healthcare decision-making. First, it uses survey data to perform statistical analysis for understanding sources of information used by individuals to support health insurance enrollment decisions and then to describe how individual descriptive factors can lead to choosing a type of information source. Second, this study develops a stochastic mixed integer program (SMIP) with stochastic processing times and deterministic patient re-entrance to schedule skin cancer surgery appointments. Third, this work extends that SMIP to include stochastic re-entrance, uses machine learning methods to predict patient re-entrance using historical surgical data, and includes those predictions to inform the scenarios for the SMIP.

SATURDAY, FEBRUARY 11, 2023

3:20-5:00 p.m. ~ Collier Room

Panel 1 — Engineering (Cont.)

Discussants (15 minutes)

- *Dr. Fernando Gonzalez*, Associate Professor, Department of Software Engineering, Florida Gulf Coast University
- *Dr. Joshua K. Peebles*, Visiting Assistant Professor, Department of Electrical and Computer Engineering, Texas A&M University
- *Dr. Jorge Torres*, Associate Professor, Department of Bioengineering, Florida Gulf Coast University
- *Dr. Seneshaw Tsegaye*, Backe Chair and Associate Professor, Department of Civil Engineering, Florida Gulf Coast University

Audience – Q&A (10 Minutes)

Pasco Room

Panel 2 — Business/Marketing/Accounting

- *Kenya Desulme*, Panel Chair, USF (2022), Business
- *Nikki Chappell*, FSU (2022), Business/Accounting, “*Banks’ Operations Under ASC 326*”

This study examines how accounting rules change the way banks operate, specifically, how Accounting Standards Update (ASU) No. 2016–13, Financial Instruments— Credit Losses, Topic 326, Measurement of Credit Losses on Financial Instruments (ASC 326) affects loans, particularly loan approval and denials, investment portfolios, and sources of banks’ income (interest income versus non-interest income). The research question is important for three reasons. First, changes in recognizing credit losses and subsequent changes in regulatory capital can affect banks’ ability to lend to customers. Second, recognizing increased credit losses impacts banks’ ability to maintain required capital levels and their contribution of systemic risk. Third, to compensate for increased credit losses, banks may change investment portfolios and sources of income (from interest income to non-interest income sources, which could affect their profitability).

- *Khalia Jenkins*, USF (2022), Marketing, “*Please Don’t Label Me: An Examination of Black-Owned Labels and How a Positive Consumer Activism Movement May Have a Negative Outcome*”

After the death of George Floyd, some companies pledged to empower Black businesses by supporting the Buy-Black Movement. One way they facilitate this is by adding a Black-owned label to products and businesses. Whether this is helpful or harmful has not been studied. However, prior literature on consumer racism has found that stereotypes of a particular race can influence the perception of products associated with that group. No group in the United States carries more negative stereotypes than Black people. This study analyzes the effects of identifying products with a Black-owned label on consumers through a focus group, field data analyses, and empirical experiments. This work also studies the mediating relationship of identity salience, as well as the moderating relationships of product category type and the consumer’s implicit racial attitudes and levels of guilt.

- *Mario Marshall*, USF (2022), Business/Finance, “*Price Salience and Firm Efficiency*”

Anti-price gouging (APG) laws prohibit firms from unfairly raising prices during states of emergency for essential goods and services. However, the enactment of such laws increases public awareness of unfair pricing practices and may lead businesses to become less efficient at generating margins as they pursue overly conservative pricing strategies. This study reviews 10-K filings and other data to support the following hypotheses: 1) the enactment of an APG law and resulting increase in salience of unfair pricing will cause firms to adopt more conservative pricing strategies; and 2) firms in the petroleum and/or drug industries will effect a larger change in pricing strategy in response to APG law enactments. If these hypotheses prove true for corporate laws in general, society may be able to exploit salience bias by enacting weak laws that capture the public’s attention.

SATURDAY, FEBRUARY 11, 2023

3:20-5:00 p.m. ~Pasco Room

Panel 2 — Business/Marketing/Accounting (Cont.)

Discussants (15 minutes)

- *Dr. Daniel Acheampong*, Assistant Professor, Department of Accounting, Florida Gulf Coast University
- *Dr. Vivek Bhargava*, Associate Dean, Faculty and Administration and Professor of Finance, Lutgert College of Business, Florida Gulf Coast University
- *Dr. Mark C. Dawkins*, Professor of Accounting, University of North Florida Coggin College of Business, and President, American Accounting Association

Audience – Q&A (10 Minutes)

Lee Room

Panel 3 — Pharmacy

- *Alicia Hudson*, Panel Chair, FAMU (2021), Pharmaceutical Sciences
- *Kimberly Barber*, FAMU (2015), Pharmaceutical Sciences, “*Cardamonin Effects on Oxidative Stress in LPS-Activated BV2 Microglial Cells*”

Chronic oxidative stress and inflammation are implicated in the development and progression of neurodegenerative diseases. Continuous activation of microglia cells, known as the resident innate immune cells in the brain, play a key role in the production of numerous neurotoxic factors including nitric oxide and reactive oxygen species, which induce neurodegeneration. Numerous natural compounds have the ability to protect cells from oxidative stress and improve many disease-related conditions. Cardamonin is an important bioactive compound found in many plants, such as *Alpinia katsumadai* and *Alpinia conchigera*, which has been reported to have multiple therapeutic properties including anti-cancer, anti-inflammatory, antioxidant, antiviral antibiotic, antifungal, and antiallergic activities. The present study examined the effects of cardamonin on LPS-activated BV2 microglial cells.

- *Shasline Gedeon*, FAMU (2022), Pharmaceutical Sciences, “*Molecular Docking Studies and Synthesis of Tetrahydropyridine Analogues (THP) as Selective COX-2 Inhibitors and Anti-Breast Cancer Agents*”

According to the World Health Organization, globally, breast cancer has become the most common cancer, a disease which is directly related to chronic inflammation. Literature testifies to the overexpression of cyclooxygenase-2 (COX-2) in various inflammation-based ailments/diseases. Therefore, this project investigates COX-2 inhibition in cancer therapy. Molinspiration Cheminformatics software was used for *in silico* screening of molecular properties and bioactivity prediction scores. Schrodinger suite software was used for docking ligands to the COX-2 enzyme. Overall, the analogs reported average to moderate bioactivity scores as enzyme inhibitors. The docking studies predicted several residue interactions within the COX-2 active site; none scored better than the reference drug. These 1,2,3,6-THP analogues underwent a four-step synthesis. Characterization was done by using nuclear magnetic resonance, infrared spectroscopy, and elemental analysis. Further testing for COX-2 inhibition and anti-proliferative effects as anti-breast cancer agents will be done.

SATURDAY, FEBRUARY 11, 2023

3:20-5:00 p.m. ~ Lee Room

Panel 3 — Pharmacy (Cont.)

• *Ashley Payne, FAMU (2021), Pharmaceutical Sciences, “Epigallocatechin 3-Gallate Inhibitory Effects on Proinflammatory Cytokines and Chemokines in BV2 Microglial Cells”*

Chronic neuroinflammation has been associated with many neurodegenerative diseases such as Alzheimer’s and Parkinson’s. The current study examined the inhibitory effect of Epigallocatechin-3-Gallate (EGCG) on proinflammatory cytokines released by activated microglia. In this investigation, BV2 microglial cells were stimulated with LPS, and cell viability using resazurin and nitric oxide (NO) release was evaluated. EGCG caused a concentration-dependent decrease in cell viability of LPS stimulated BV2 microglia cells for EGCG concentrations higher than 150 μ M. EGCG also significantly inhibited inflammatory mediator NO production in LPS stimulated BV2 microglial cells. ELISA array analysis demonstrated that EGCG reduces Interleukin 6 (IL-6) but increases tumor necrosis factor-alpha (TNF- α) and decreased granulocyte colony-stimulating factor (G-CSF). Thus, this study shows that EGCG treatment of microglia effectively inhibited oxidative stress and proinflammatory cytokines and provides evidence for the possible use of EGCG in Alzheimer prevention.

Discussants (15 minutes)

- *Dr. Diane Allen-Gipson*, Associate Professor, Department of Pharmaceutical Sciences, University of South Florida
- *Dr. Mohammed Gbadamosi*, Postdoctoral Fellow, Brain Tumor Immunotherapy Program, University of Florida
- *Dr. Sheeba Varghese Gupta*, Associate Professor, Department of Pharmaceutical Sciences, University of South Florida
- *Dr. Augustine Nkembo*, Assistant Professor, Department of Pharmaceutical Sciences, University of South Florida
- *Dr. Zhi Tian*, Research Associate, Taneja College of Pharmacy, University of South Florida

Audience – Q&A (10 Minutes)

Hernando Room

Panel 4 — Biological Sciences

• *Annais Bonilla-Johnson, Panel Chair, FSU (2021), Biology, “Spontaneous Parturition as an Anti-Predatory Defense”*

This study aims to determine if spontaneous parturition in elasmobranchs is an anti-predatory defense adaptation. Using 30 *Sphyrna tiburo* specimen collected from the eastern Gulf of Mexico, experiments will determine the cost, energetic demands, and frequency of spontaneous parturition within the species. Pregnant subjects in a behavioral tank will be injected with deoxycortisol to induce parturition. Experiments will be recorded and movement tracked. Mann Whitney U test will be used to calculate cost while One-way ANOVA and Kruskal-Wallis tests will be used for comparison of energetic demands. Compared to uninduced females, it is expected that post-parturited females will show a reduced turn radius and speed, and show significant depletion of key energy compounds. Finding will likely show that, expending huge maternal and energetic investment though spontaneous parturition, mothers increase likelihood of kin survival and risk their own.

• *Trenton Aguilar, UF (2018), Ecology, “Estimating Encounter Rates for *Chelonia Mydas*, Green Turtles, and Recreational Vessels in Florida Coastal Waters”*

Vessel strikes are a growing issue for multiple marine species. We used a quantitative framework to estimate and model encounter rate and number of encounters between recreational vessels and green sea turtles—*Chelonia mydas*—at varying speeds, lengths of time, and numbers of vessels. We also analyzed the relationship between vessel speed and mortality rate using previously published data. Our results show that, in each Florida coastal county, both encounter and mortality rates increase at higher vessel speeds, and number of encounters increases with increasing vessel speed and numbers. Model outputs show that areas of high vessel density and high average vessel speed are of great concern for vessel strikes on green turtles. These data will be useful to state agencies when allocating resources to areas of higher likelihood for dangerous interactions.

SATURDAY, FEBRUARY 11, 2023

3:20-5:00 p.m. ~ *Hernando Room*

Panel 4 — Biological Sciences (Cont.)

• *Jessica Carde*, FIU (2022), Biological Sciences, “*Investigating Long-Term Changes in Distribution and Behavior of Coastal Bottlenose Dolphins (*Tursiops Truncatus*) in Biscayne Bay, South Florida*”

Little is known about the long-term effects of environmental changes on coastal cetacean populations, particularly in tropical and subtropical ecosystems. This question is significant considering climate change and habitat destruction of coastal areas. My dissertation focuses on assessing the influence of habitat quality and decline on the ranging patterns, social structure, and feeding ecology of an abundant coastal marine predator—the common bottlenose dolphin (*Tursiops truncatus*)—in a heavily impacted subtropical lagoon, Biscayne Bay (South Florida), a hotspot for a wide range of human activities. Using long-term data collected since 1990, I am investigating the spatiotemporal dynamics of this population over the last 30 years in relation to the ecological changes within the Bay. This project will help elucidate the resilience of resident coastal dolphin populations inhabiting urban estuaries and lagoons during periods of habitat degradation and environmental change.

• *Nicole Strickland*, FIU (2022), Biological Sciences, “*The Use of Spatially Implicit Data to Analyze the Effects of Hydrologic Restoration on Aquatic Community Composition of the Florida Everglades*”

The Comprehensive Everglades Restoration Plan (CERP) is a major initiative to improve the hydrology of the Greater Everglades region. Although an essential program, we still do not fully understand the ramifications of the past degradation and effectiveness of the ongoing restoration activities in the region. While studies have evaluated how restoration has affected landscape characteristics, hydrology, and species populations independently, there is a need to better integrate how these factors interact to influence aquatic species population dynamics. My dissertation will investigate how the use of spatially implicit data improves our estimations and modeling of population dynamics and community assembly of Everglades aquatic species using Geographic Information Systems (GIS). We hope the results from this study will motivate greater use of landscape methodology to further our understanding of fish community assemblage and species dispersal and their response to landscape-scale restoration.

Discussant (15 minutes)

- *Dr. Joel Trexler*, Director, Coastal & Marine Laboratory and Professor of Biological Sciences, Florida State University

Audience – Q&A (10 Minutes)

Pinellas Room

Panel 5 — Anthropology, Criminology, and Sociology

• *Isis Dwyer*, Panel Chair, UF (2019), Anthropology

• *Liotta Dowdy*, USF (2019), Anthropology, “*The Utilization of Multi-Isotope Analyses for Human Enamel to Assist with Geoprofiling in Cold Cases*”

Isotope analysis has helped law enforcement agencies with unidentified decedent “cold cases.” Florida, however, does not have an established baseline for specific isotope values needed for “geoprofiling” decedents. This project collected isotope values that included stable isotopes oxygen and carbon and radiogenic isotopes for strontium and lead to cultivate a georeferencing guide. Preliminary results for 43 donated teeth from individuals who either were born in or lived in Florida during early childhood show average strontium isotope ratios of 0.70894 ± 0.00205 . Lead isotope values exhibited the expected U.S. ratio ranges, while oxygen and carbon values were more enriched compared to other regions of the country, and carbon values were higher for some individuals than expected, possibly reflecting cultural practices. These preliminary findings are relevant and contribute to modern reference data due to the geographic location and high population mobility.

SATURDAY, FEBRUARY 11, 2023

3:20-5:00 p.m. ~ Pinellas Room

Panel 5 — Anthropology, Criminology, and Sociology (Cont.)

• *Jorge Hernandez*, FSU (2016), Criminology, “*Immigrant Generation, Youth Exposure to Violence, and the Conditioning Effect of Neighborhood Immigrant Concentration*”

Research demonstrates that first generation immigrants offend at higher levels than later generations. This study considers whether elements of Agnew’s strain theory, including arguments about community context and strain, explain these differences. Specifically, this work examines whether exposure to violence explains these differences in offending and whether neighborhood immigrant concentration can serve as a coping mechanism against such strains. This study also contemplates sociological literature on immigrant enclaves and segmented assimilation that suggests the neighborhood contexts of first-generation immigrants may be more protective than for later generations. Altogether, I propose and test three hypotheses using data from Chicago: 1) differences in offending between first and later immigrant generations is explained by differences in exposure to violence; 2) neighborhood immigrant concentration provides a buffer against these effects; and 3) neighborhood immigrant concentration is especially beneficial for first generation immigrants.

• *Bee Ben Khallouq*, UCF (2019), Sociology, “*Hetero-Cisgender Rituals: The Ritualized Practices of Medicine*”

Racist rituals are a range of acts (by white actors) that use physical, psychological, and symbolic force against people of color through the ritualization of white privilege. This study adapts the framework of racist rituals to describe and introduce heterosexist rituals. Like racist rituals, heterosexist rituals involve acts by the dominant social group (i.e., heterosexuals) against less powerful groups that signify heterosexual power and dominance over sexual and gender minorities. This qualitative study analyzes 120 reflective essays written by medical students to examine if and where the students have witnessed heterosexist rituals. Results show that medical students ritualize heterosexist practices and passively witness acts of discrimination, mistreatment, or overt homophobia among family members, friends and in the clinical setting. Data suggests that structural heterosexism and violence are sources of obstacles in addressing health equity.

• *William Lucas*, USF (2021), Anthropology, “*The Biocultural Assemblage of Spinal Cord Injury Rehabilitation*”

This project centers on people with spinal cord injury (SCI) as well as the entire care apparatus—physicians, physical therapists, mental health practitioners, caregivers, and other health professionals—and investigates how those professionals support, guide, and influence the goals of their patients. Using a mixed methods approach, this project has two aims: first, using qualitative data, it explores the feelings, choices, and lifeworlds of people with SCI, to understand the various social tensions and influences in their lives and how they interact with them. Second, using an epidemiological survey, this project examines the syndemic interaction between food insecurity and diet-related chronic disease to illuminate useful future directions for health programming. Results will provide valuable information on the role of rehabilitation and social networks in the health outcomes of people with SCI.

• *Tiffany Tomlinson*, FSU (2022), Criminology, “*Occupation-Specific Social Capital and its Effects on Prison Personnel*”

Scholars suggest correctional personnel play an integral role in the daily life of incarcerated individuals and greatly impact the overall social order in prison. As a result, a large body of scholarship focuses on factors that influence correctional officers. Against this backdrop, this study analyzes contemporary prisons and prison social order by examining factors that may influence the work experiences of correctional personnel and may in turn influence the care of people in prison. More specifically, this study seeks to elucidate how correctional personnel adapt to working within the prison system; the consequences of prison work on employees; the effects of individual-level characteristics on prison personnel; and how occupation-specific social capital (OSSC) may shape several factors, including how they approach the job, how effective they are on the job, and how they view the population they serve.

SATURDAY, FEBRUARY 11, 2023

3:20-5:00 p.m. ~ Pinellas Room

Panel 5 — Anthropology, Criminology, and Sociology (Cont.)

Discussants (15 minutes)

- *Dr. Lisa K. Armstrong*, Applied Cultural Anthropologist, University of South Florida
- *Dr. Tony Barringer*, Associate Provost and Associate Vice President for Faculty Affairs, Florida Gulf Coast University
- *Dr. Cherelle Carrington, LCSW*, Assistant Professor, Department of Behavioral Medicine and Psychiatry, Rockefeller Neuroscience Institute at West Virginia University
- *Dr. Marvin Dawkins*, Professor, Department of Sociology, University of Miami

Audience – Q&A (10 Minutes)

Executive Board Room

Panel 6 — Chemistry

- *Maria Santiago Estevez*, Panel Chair, FIU (2019), Chemistry
- *Nicole Fernandez-Tejero*, FIU (2018), Chemistry, “*Development of Epigenetic Methylation Marker for Skin*”

The determination of tissue type is important when reconstructing a crime scene. However, at present, there is no specific methylation-based marker to distinguish touch DNA from other body fluids. Because of the lack of epigenetic markers capable to identify sweat and/or skin, this study explores the genome to develop markers for such samples, which typically result from free DNA secreted in sweat and cellular material resulting from skin cells. This lab has successfully identified DNA methylation and developed a body fluid identification multiplex that would greatly benefit from the inclusion of a skin/sweat marker. Thus, this study compares DNA obtained from the skin with semen, saliva, blood, and vaginal epithelia using an Illumina methylation EPIC Beadchip Array to perform an epigenome-wide association (EWAS). The goal is to develop methylation-based skin markers for use in forensic analysis.

- *Yahaira Reyes*, FIU (2022), Chemistry, “*Azido Modified Nucleosides and Sesquiterpene Lactones: Study of Nitrogen Centered Radicals and their Potential Augmentation of Radiation Damage to Cancerous Cells*”

This work focuses on the synthesis, electron spin resonance spectroscopy, and cellular proliferation of azido modified nucleosides and azido sesquiterpene lactone (SLs) for potential radiosensitizer application. It began with synthesizing 6-azidomethyluridine (6-AmU) and 6-azidouridine derivatives to expand studies on the site-specific formation of nitrogen-centered (aminyl and iminyl) radicals generated. 6-AmU leads to the unexpected loss of azide as an anion, from the initially formed azide anion radical intermediate, to generate an allylic radical. Our azido modified SLs and their amino derivatives were also synthesized. Addition reaction of dimethylamine or trimethylsilyl azide to the exomethylene double bonds provided dimethylamino and azido derivatives respectively in high yields. Cellular proliferation studies of these azido and amino SLs derivatives in MDA-MB-231 and MCF-7 cells have demonstrated an inverse correlation between concentration and cell proliferation at sub uM levels. Addition of radiation-mediated prehydrated electrons to azido dehydroleucodine, leads to an aminyl radical essential for decreasing cellular proliferation.

Discussants (15 minutes)

- *Dr. Chantrell J. Frazier*, Assistant Professor, Department of Chemistry and Food Science, Framingham State University
- *Dr. Vidia Gokool*, Postdoctoral Researcher, Lawrence Livermore National Laboratory

Audience – Q&A (10 Minutes)

SATURDAY, FEBRUARY 11, 2023

3:20-5:00 p.m. ~ Sarasota Room

Panel 7 — Psychology

- Erica Anderson, Panel Chair, USF (2018), Psychology
- Dr. Monique McKenny, UM (2021), Counseling Psychology, “*A Spectrum of Health: Investigating the Protective Potential of Racial Socialization for Black Adolescent Health Outcomes*”

Among Black adolescents, discriminatory encounters are associated with a myriad of negative health outcomes. Racial socialization (RS) is the communication between youth and caregivers on race and racial experiences that equips youth with tools to cope with racial stressors and thereby facilitates more optimal psychosocial outcomes. However, scant research explores whether RS can mitigate the negative impact of discrimination for Black adolescents’ global health, and much of existing literature relies on retrospective reports of RS, with less emphasis on how efficacious parents feel during the socialization process. This study will collect data on experiences with discrimination, RS, and pediatric health-related quality of life. Data will be analyzed to investigate the protective capacity of RS through content and frequency of messaging and RS competency. Findings hold implications for clinical practice and intervention development for Black adolescents as racial chasms persist.

- Fernando Montalvo, USF (2017), Human Factors/Psychology, “*Accuracy and Response Speed in Identification of Facial Expressions: The Effects of Social Network and Loneliness*”

Lonely and socially isolated individuals ascribe lower social presence to both individuals around them and social robots. Earlier research shows that one potential reason for this effect is that lonely individuals judge social interactions and social cues as more negative than non-lonely individuals. However, previous research often relies on induced loneliness techniques, rather than testing individuals who are actually lonely and fails to explore the related effects of social isolation. This study examined the perception of facial expressions by both lonely and socially isolated undergraduate students, with special emphasis on negative and ambiguous social stimuli. Two experimental tasks evaluated expression detection performance using a facial set of racially diverse individuals. Results provide critical insights for further study on the effects of social network and loneliness.

- Malena Price, UM (2020), Psychology, “*Taming the Wandering Mind with Mindfulness-Based Attention Training: An Internal Meta-Analysis*”

Mindfulness training (MT) has been found to improve attentional performance and decrease self-reported mind wandering (MW). This study used a meta-analytical approach to synthesize results of five studies of a short-form MT program, Mindfulness-Based Attention Training (MBAT), on sustained attention and mind wandering. Studies were conducted across five community samples comparing the effects of MBAT to no-training controls (NTC). Multivariate and random effects meta-analyses demonstrated significant salutary effects for MBAT groups versus NTC groups. While NTC participants reported greater response time variability and increases in MW, as well as decreased awareness over time, MBAT protected against such effects among training participants. Given the transdiagnostic role of MW and ruminative thought in psychopathology, MBAT’s protective effects on objective and subjective attentional metrics warrants further exploration.

Discussant (15 minutes)

- Dr. Simon Howard, Director of the Psychology of Racism, Identity, Diversity, and Equity (PRIDE) Research Lab and Assistant Professor, Department of Psychology, University of Miami

Audience – Q&A (10 Minutes)

SATURDAY, FEBRUARY 11, 2023

3:20-5:00 p.m. ~ *Private Dining Room*

Panel 8 — Education

- *Margaret Blake*, Panel Chair, FSU (2022), Education
- *Benjamin Archibeque*, FIU (2022), Physics, “*Using Argumentation Theory to Understand Students’ Figured Worlds of Physics and Their Equity Beliefs*”

Physics has underrepresented women and people of color throughout its history. Several groups of physicists and physical societies have begun to address this problem with systematic, research-based approaches. This dissertation will investigate the effectiveness of these approaches by: (1) developing a novel analysis framework that combines two theories that have not been used together and historically treated as unaligned; (2) looking at course materials and in person lessons from STEP UP, a national high school initiative that motivates female students to pursue physics in college; (3) and then using this theoretical blending to understand students’ interactions in an undergraduate physics classroom. This work is aimed at understanding how to remedy the problem of underrepresentation in physics and heighten our ability to cause meaningful change within the field of physics.

- *Victor Kasper*, FSU (2021), Education, “*Kinda Awful. I Spent a lot of Time Crying:’ Attending to the Emotions of Pre-Service Teachers of Color in STEM Teacher Education*”

As the demographic and cultural disparities between K-12 learners and teachers continue to widen, the recruitment and retention of students of color into teacher education programs remains a critical and pressing issue. Particularly in STEM-focused teacher education programs at predominately white institutions (PWIs), preservice teachers (PSTs) of color report racist, marginalizing, and isolating experiences that can raise intense emotions and feelings. Here we investigate the feelings and emotions experienced by one PST of color, Camie, who faced myriad racialized and marginalizing experiences in her teacher education program. Our findings and analysis point to the need for teacher education programs to address PSTs’ emotional experiences alongside their disciplinary and pedagogical training.

- *Joshlyn Thomas*, FSU (2022), Education, “*Lord, Why Did You Make Me a Black Woman? Exploring the Intersection of Race and Gender for Black Women Senior Leaders at HBCUs and HWIs*”

The representation of Black women in senior leadership positions within higher education hovers at a dismal 5.8% (Wilder et al., 2013). Though Black women’s degree attainment has increased substantially compared to other racial groups (NCES, n.d.), they are not recruited and supported in these roles (Jackson & Harris, 2007), especially in both Historically White Institutions and Historically Black Colleges and Universities. Consequently, the women who are successful in obtaining administrative and executive positions share experiences that illuminate a system still plagued with sexism and racism (Cooper, 2020). Using Black Feminist Thought, Intersectionality, and Misogynoir as theoretical frameworks and a critical narrative inquiry, this study will explore the intersection of race and gender for Black women in senior leadership roles who have worked at both types of institutions.

SATURDAY, FEBRUARY 11, 2023

3:20-5:00 p.m. ~ *Private Dining Room*

Panel 8 — Education (Cont.)

- *Dionne Wilson*, FSU (2018), Education, “*Equity Audit: Why Aren’t the Black Students Showing Up?*”

Considering African Americans’ adverse history associated with Henrietta Lacks, eugenics, and the Tuskegee experiments, Black history is at tension with science domains. Science education thus has adopted more inclusionary measures that push informal STEM groups to evaluate attendance diversity. As such, an organization in a southern PWI sought to explicitly focus on the lack of Black attendance at student-led events. This study examined the organization’s programs and communications using Dawson’s framework for equity. Perceptions of White students and African American students yielded drastically different data, including factors that influence students (not) to attend, engagement during the student-led programs, and individual perceptions of self. Data on the organization’s structure indicate centralized Eurocentric practices, norms, and epistemologies. This study deepens the field’s methodology by peeling back the data and questioning the institutional influences within an informal STEM setting.

Discussants (15 minutes)

- *Dr. Lybrea L. Kebreab*, Project Manager, STEM Curriculum Initiatives, Vice President for Research, St. Louis University
- *Dr. Clausell Mathis*, Assistant Professor, Lyman Briggs College and Department of Teacher Education, Michigan State University

Audience – Q&A (10 Minutes)

Citrus Room

Panel 9 — Public Health

- *Kayla Nembhard*, Panel Chair, USF (2022), Public Health
- *Nicholas Alford*, FAMU (2022), Public Health, “*Man Enough: Examining Masculinity, Social Barriers and Health Service Utilization Among Black Men in the U.S. South*”

In the United States, Black men have the lowest life expectancy rate of any group. Lack of cultural-appropriate services and ideas of masculinity have a significant impact on men’s health. Black masculinity in the United States, like many other countries of the African diaspora, is influenced by a long history of slavery, racism, and oppression. This explanatory sequential mixed-methods study will examine the association between masculine norms, environmental factors, and health messaging on healthcare utilization among African American men in the U.S. South and will identify factors that impede and facilitate their help-seeking behaviors and health service utilization. This work will result in an in-depth understanding of Black men’s perceptions of health, barriers faced, and the rate of their utilization.

- *Michael Birdson*, FAMU (2022), Public Health, “*A Lived Experience: An Examination of Trauma That Shape Mental Health Through a Black Male Lens*”

In the United States, an estimated 57.7 million Americans ages 18 and older have a diagnosable mental disorder in any given year, and African Americans make up 7.5 million of that mentally ill population. This explanatory sequential mixed-methods study (quantitative followed by qualitative) assesses the help-seeking barriers to mental health services for African American males ages 18-30 in Florida and specifically explores the influences of historical trauma, perceptions of stigma, adverse childhood experiences, religion, Black churches, and masculinity on their help-seeking behaviors. This work will result in an in-depth understanding of themes and factors concerning Black men’s perceptions of mental health, barriers they face while seeking help, and the rate of their utilization.

SATURDAY, FEBRUARY 11, 2023

3:20-5:00 p.m. ~ Citrus Room

Panel 9 — Public Health (Cont.)

• *Caleb Gumbs, FAMU (2017), Public Health, “Trends in Violence Victimization and Suicide Risk Among Florida LGB High School Students, 2013-2021”*

Lesbian, gay, and bisexual (LGB) students experience higher suicide risk and more violence than their heterosexual peers. Research on the prevalence of suicide risk and violence against LGB high school students has assessed nationally representative samples without controlling for statewide differences, leaving stakeholders in Florida without applicable findings. This study uses data from the Florida Department of Health’s Youth Risk Behavior Survey for the years 2013 to 2021 to analyze trends in suicide risk and violence victimization among Florida LGB students while controlling for gender, race/ethnicity and grade level. For each survey year, Florida LGB students experienced more violence victimization and reported more suicide risk behaviors than their heterosexual peers. These findings underline the urgency for initiatives specifically tailored towards reducing violence victimization and suicide risk among Florida’s LGB students.

Discussants (15 minutes)

- *Dr. Shelby Gilbert*, Associate Professor, Marieb College of Health and Human Services, Florida Gulf Coast University
- *Dr. Rhoda K. Moise*, Research Assistant Professor, Department of Psychiatry and Behavioral Medicine, University of Miami

Audience – Q&A (10 Minutes)

5:00-5:30 p.m.

EXHIBITOR BREAK

6:30-8:30 p.m. ~ Grand Ballroom

DINNER & DIALOGUE WITH THE EXHIBITORS

An Up Close and Personal Faculty Recruitment Experience

- Dinner

- Closing Remarks: *Dr. Lawrence Morehouse*

SUNDAY, FEBRUARY 12, 2023

10:00 a.m.-2:00 p.m. ~ Grand Ballroom

AWARDS AND JACKETING CEREMONY

♦ Brunch

♦ Introductions by MDF Graduate *Dr. Cherelle Carrington* and MDF Fellow *Mr. Wilson Lozano*

♦ William R. Jones Most Valuable Mentor Awards

♦ New Graduates’ Jacketing Ceremony

♦ Closing Remarks: *Dr. Lawrence Morehouse*