



Office of  
Research

HOWARD UNIVERSITY  
**RESEARCH  
SYMPOSIUM**

April 3-28, 2023



**PROGRAM BOOK**



HOWARD UNIVERSITY

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**RESEARCH SYMPOSIUM**

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April 3-28, 2023

PROGRAM BOOK

# HOWARD UNIVERSITY

## RESEARCH MONTH 2023 ACTIVITIES

**MONDAY, APRIL 3**

**12:00 PM – 3:00PM**

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### **Research Month Opening Ceremony**

**Location:** Interdisciplinary Research Building, Multipurpose Room

**TUESDAY, APRIL 4**

**5:30 PM - 8:00 PM**

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### **Innovation Unscripted with Dr. Cato Laurencin**

**Moderator:**

Dr. Wayne A.I. Frederick, President, Howard University

**Location:** Interdisciplinary Research Building, Multipurpose Room

**WEDNESDAY, APRIL 5**

**9:30 AM – 3:00 PM**

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### **Cancer Health Equity Scientific Symposium**

**Keynote Address:**

Dr. Jennifer Grandis, Professor and Principal Investigator, University of California, San Francisco Head and Neck Cancer Lab

Dr. Daniel Johnson, Principal Investigator, University of California, San Francisco Head and Neck Cancer Lab

**Location:** Interdisciplinary Research Building, Multipurpose Room

**THURSDAY, APRIL 6**

**12:00 PM - 4:00 PM**

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### **Research @Howard University**

**Presenter:**

Dr. Bruce A. Jones, Ph.D, Professor and Vice President for Research

**Location:** Interdisciplinary Research Building, Multipurpose Room

**FRIDAY, APRIL 7**

**1:00 PM - 3:00 PM**

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### **Applied Research Lab for Intelligence and Security, University of Maryland Seminar**

**Presenter:**

Dr. Erin Fitzgerald, Director, Intelligence & Security University Research Enterprise

**Location:** Interdisciplinary Research Building, Multipurpose Room

**TUESDAY, APRIL 11**

**1:00 PM - 3:00PM**

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### **Mellon Social Justice Consortium Seminar:**

***Forbidden Black Love: My Quest to Understand America's Unrecognized Civil Rights Issue***

**Presenter:**

Dr. Dianne Stewart, Samuel Chandler Dobbs Professor of Religion & African American Studies, Emory University

**Location:** Interdisciplinary Research Building, Multipurpose Room

# HOWARD UNIVERSITY

## RESEARCH MONTH 2023 ACTIVITIES

### WEDNESDAY, APRIL 12

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04:00 PM - 6:00PM

#### Howard University ADVANCE-IT Celebration- Women in STEM Researcher of the Year Award

**Presenter:**

Dr. Sonya Smith, Professor, Mechanical Engineering, Howard University

**Location:** Interdisciplinary Research Building, Multipurpose Room

### THURSDAY, APRIL 13

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1:00 PM - 3:00 PM

#### Idaho National Laboratory Seminar

**Presenter:**

Dr. Erin Searcy, Chief Technology Officer, Nuclear Science and Technology

**Location:** Interdisciplinary Research Building, Multipurpose Room

### FRIDAY, APRIL 14

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12:00 PM - 2:00PM

#### STEM Research Training Opportunities at Department of Energy

##### Energy National Laboratories

**Presenters:**

Dr. Asmeret Asefaw Berhe, Director, DOE Office of Science

Dr. Ping Ge, Director, DOE Office of Science

Dr. Brandi Tolliver, Program Manager, DOE Office of Science

Dr. Igor Slowing, Program Manager, DOE Office of Science

Dr. Allison Truhlar, Program Manager, DOE Office of Science

Ms. Adrianna Reece-Newman, Senior, Howard University

Dr. Sonya Smith, Professor, Mechanical Engineering, Howard University

**Location:** Interdisciplinary Research Building, Multipurpose Room

### MONDAY, APRIL 17

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12:00 PM – 3:00 PM

#### DC Center for AIDS Research (DC CFAR) Research Student Symposium

**Presenters:**

DC CFAR High School Research Scholars

**Location:** Interdisciplinary Research Building, Multipurpose Room

6:00 PM - 9:00PM

#### Introduction to Research

**Presenters:**

Howard University Undergraduate Research Journal, *Ukweli*, Editors & Staff

**Location:** Interdisciplinary Research Building, Multipurpose Room

RESEARCH MONTH 2023 ACTIVITIES

TUESDAY , APRIL 18

1:00 PM - 4:00PM

**Exploring health physics and medical isotope opportunities within the Howard University-Brookhaven National Laboratory connection**

**Presenters:**

Dr. Abram Ledbetter, Brookhaven National Laboratory  
Dr. Vanessa Sanders, Brookhaven National Laboratory  
Dr. Gagandeep Kaur, Assistant Professor, Howard University  
Dr. Rao Khan, Professor, Howard University  
Dr. Paul Wang, Professor, Howard University  
Dr. Tsang Wei-Tu, Associate Professor, Howard University

**Location:** Interdisciplinary Research Building, Multipurpose Room

6:00 PM - 9:00PM

**Public Speaking**

**Presenters:**

Howard University Undergraduate Research Journal, *Ukweli*,  
Editors & Staff

**Location:** Interdisciplinary Research Building, Multipurpose Room

WEDNESDAY, APRIL 19

10:00 AM - 12:00PM

**Brookhaven National Laboratory Seminar**

**Presenter:**

Dr. John Hill, Director, National Synchrotron Light Source II,  
Brookhaven National Laboratory

**Location:** Interdisciplinary Research Building, Multipurpose Room

1:00 PM - 5:00PM

**Pfizer 3D Drug Discovery and Development Workshop**

**Workshop Facilitators:**

Dr. Pamela Smith, Vaccines Medical Director, Pfizer, Inc.  
Dr. Megan Robinson, Director, R&D Scientific Learning

**Location:** Interdisciplinary Research Building, Multipurpose Room

6:00 PM - 9:00PM

**Resume Review and Application Workshop**

**Presenters:**

Howard University Undergraduate Research Journal, *Ukweli*,  
Editors & Staff

**Location:** Interdisciplinary Research Building, Multipurpose Room

**RESEARCH MONTH 2023 ACTIVITIES**

**THURSDAY, APRIL 20**

**12:00 PM - 03:00PM**

**Impact of Artificial Intelligence/Machine Learning to Research and Teaching**

**Speakers:**

Dr. Anietie Andy, Assistant Professor, Computer Science

Dr. Legand Burge III, Professor, Computer Science

Dr. Gloria Washington, Associate Professor, Computer Science

Dr. Amy Yeboah Quarkume, Associate Professor of Africana Studies

**Location:** Interdisciplinary Research Building, Multipurpose Room

**FRIDAY, APRIL 21**

**11:00 AM - 02:00PM**

**DoD Center of Excellence in Artificial Intelligence & Machine Learning Seminar**

**Speakers:**

Dr. Danda Rawat, Professor, Electrical Engineering & Computer Science

Howard University DoD Center of Excellence in Artificial Intelligence & Machine Learning (AI/ML), Undergraduate & Graduate Scholars

**Location:** Interdisciplinary Research Building, Multipurpose Room

**6:00 PM – 9:00 PM**

**Howard University Undergraduate Research Journal Symposium and Awards Ceremony**

**Presenters:**

Howard University Undergraduate Research Journal, Ukweli, Editors & Staff

**Location:** Interdisciplinary Research Building, Multipurpose Room

**MONDAY, APRIL 24**

**9:00 AM – 2:00 PM**

**U.S. Department of Homeland Security, EQUIP, EMPOWER, HIRE, RETAIN**

**Presenters:**

Program Managers from U.S. Department of Homeland Security, Cybersecurity & Infrastructure Security Agency

**Location:** Interdisciplinary Research Building, Multipurpose Room

**12:00 PM – 1:00 PM**

**NSF Graduate Research Fellowship Program Seminar**

**Presenters:**

NSF Program Dire

**Location:** Hybrid, Interdisciplinary Research Building, Multipurpose Room

# HOWARD UNIVERSITY

## RESEARCH MONTH 2023 ACTIVITIES

### TUESDAY, APRIL 25

1:00 PM – 2:00 PM

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**Howard University- Columbia University Materials Research Science and Engineering Centers (MRSEC) and Partnerships for Research and Education in Materials (PREM) SEED Partnership**

**Presenters:**

Dr. James Hone, Professor, Columbia University

Dr. Kim Lewis, Associate Dean for Research, Howard University

Dr. Colin Nuckolls, Professor, Columbia University

Dr. Sonya Smith, Professor, Howard University

**Location:** Interdisciplinary Research Building, Multipurpose Room

03:00 PM – 05:00PM

**Chadwick A. Boseman College of Fine Arts Symposium, *An Artistic Research Journey***

**Presenters:**

Chadwick S. Boseman College of Fine Arts, Mellon Scholars

**Location:** Interdisciplinary Research Building, Multipurpose Room

### WEDNESDAY, APRIL 26

10:00 AM – 11:30 AM

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**Leaving No One Behind: Equitable Outcomes in Sustainable Development**

**Presenters:**

Professor Justin Hansford, Director, Howard University Law School and The Thurgood Marshall Civil Rights Center

Dr. Helen Bond, Professor, Howard University School of Education  
United Nations, Sustainable Development Solutions Network (UNSDSN & SDSN USA)

**Location:** Virtual

### WEDNESDAY, APRIL 26

3:00 PM – 5:00 PM

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**The Graduate School – Publishing Workshop**

**Presenter:**

Dr. Terri Adams, Associate Dean for Research, The Graduate School

Dr. Christopher Boxe, Associate Professor, College of Arts & Sciences

Dr. Sen Chiao, Director of NOAA, NCAS-M

Dr. Clarence Lusane, Professor, College of Arts & Sciences

Dr. Shadya Sanders, Postdoctoral Fellow, NOAA, NCAS-M

Dr. Dana Williams, Dean, The Graduate School

**Location:** Interdisciplinary Research Building, Multipurpose Room



RESEARCH MONTH 2023 ACTIVITIES

THURSDAY, APRIL 27

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8:00 AM – 5:00 PM

7:30 AM

9:00 AM

12:00 PM

12:00 PM

1:05 PM

5:00 PM

**The Research Symposium**

Registration & Continental Breakfast

Oral & Poster Presentations

Lunch

DOW SURE (Scholars Undergraduate Research Experience) Seminar

National Geospatial-Intelligence Agency Seminar

Oral & Poster Presentations

Closing

**Location:** Interdisciplinary Research Building

FRIDAY, APRIL 28

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8:00 AM – 5:00 PM

7:30 AM

9:00 AM

12:00 PM

12:00 PM

1:15 PM

5:00 PM

**The Research Symposium**

Registration & Continental Breakfast

Oral & Poster Presentations

Lunch

Lockheed Martin Information Session

Oral & Poster Presentations

Closing

**Location:** Interdisciplinary Research Building

FRIDAY, APRIL 28

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3:00 PM – 8:00 PM

**Office of Research - Pitch HU Symposium**

**Presenters:**

Mr. Terry Adams, IP Marketing and Faculty Innovation Specialist, Office of Research, Howard University

Mr. Ajit Verghese, Founder and General Partner, Humble Ventures

**Location:** Interdisciplinary Research Building, Multipurpose Room

# HOWARD UNIVERSITY

March 29, 2023

Dear Howard University Community,

The Office of Research will host *HU Research Month (April 1- 29, 2023)*. During Research Month, Howard University will celebrate and honor the tremendous research that is conducted by our faculty, students, and research staff. In addition, the expansion to a full month better enables the Howard community to thank our external institutional partners who support HU research as many of these partners will be on the Howard campus throughout the month of April.

Key events of *HU Research Month* will include the following:

## The Opening Event

- ✓ *Office of Research, HU Research Month Opening Ceremony and Luncheon* on April 3.

## Our Partner Events

- ✓ *The Innovation Unscripted with Dr. Cato Laurencin and President Wayne A.I. Frederick* on April 4.
- ✓ *From HU Cancer Center, Cancer Health Equity Scientific Symposium* on April 5.
- ✓ *From JLABS, The Engagement and Entrepreneurship to Advance Innovation Seminar* on April 14.
- ✓ *The Mellon Social Justice Consortium Seminar* on April 11.
- ✓ *The Idaho National Laboratory Seminar* on April 13.
- ✓ *From DOE, STEM Research Training Opportunities at Department of Energy National Labs* on April 14.
- ✓ *The Brookhaven National Laboratory Seminar* on April 19.
- ✓ *The Howard University Undergraduate Research Journal Symposium and Awards Ceremony* on April 21.
- ✓ *The NSF Graduate Research Fellowship Seminar* on April 24
- ✓ *From The Chadwick A. Boseman College of Fine Arts, An Artistic Journey* on April 25.

## The Signature Event

- ✓ The widely acclaimed *Research Symposium* on April 27 – 28. This signature event brings together students, faculty, and research staff in the Interdisciplinary Research Building (IRB) to discuss their research findings with members of the Howard community, external constituents, and supporters from various federal and local agencies as well as representatives of the philanthropic and higher education community.

## The Closing Event

- ✓ *The Office of Research, Pitch-HU Symposium* on April 28.

Please mark your calendars and save the dates for the events listed above!

Sincerely,  
Bruce Jones, Ph.D.  
Professor and Vice President for Research



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**INTERDISCIPLINARY RESEARCH BUILDING  
APRIL 27 – 28, 2023**

**PROGRAM**

**7:30–8:30 AM**

**Registration & Continental Breakfast**

1st Floor, Interdisciplinary Research Building

**8:30–8:50 AM**

**Greetings**

Anthony K. Wutoh, Ph.D., R.Ph.

Provost & Chief Academic Officer

**Opening Remarks**

Bruce Jones, Ph.D.

Vice President for Research

**RESEARCH SYMPOSIUM**

**PRESENTATIONS**

**April 27, 2023**

<b>9:00 AM – 12:00 PM</b>	<b><i>Poster Presentations</i></b> Biological & Biomedical Sciences Environmental Sciences Humanities Physical Sciences & Engineering Translational & Clinical Sciences	<b><i>Oral Presentations</i></b> Biological & Biomedical Sciences Business Creative Arts & Design Education & Outreach Ethics, Law & Religion Humanities Social Sciences Translational & Clinical Sciences
<b>12:00 – 1:00 PM</b>	<i>Lunch</i>	
<b>1:05 PM – 5:00 PM</b>	<b><i>Poster Presentations</i></b> Creative Arts & Design Education & Outreach Ethics Law & Religion Humanities Social Sciences	<b><i>Oral Presentations</i></b> Biological & Biomedical Sciences Business Environmental Sciences & Studies Humanities Physical Sciences & Engineering Social Sciences Translational & Clinical Sciences

# HOWARD UNIVERSITY

## RESEARCH SYMPOSIUM

### PRESENTATIONS

**April 28, 2023**

**9:00 AM – 12:00 PM**

***Poster Presentations***

Physical Sciences &  
Engineering

Translational & Clinical  
Sciences

Biological & Biomedical  
Sciences

Environmental Sciences

***Oral Presentations***

Biological & Biomedical  
Sciences

Environmental Sciences &  
Studies

Humanities

Physical Sciences &  
Engineering

Social Sciences

Translational & Clinical  
Sciences

**12:00 – 1:00 PM**

*Lunch*

**1:05 PM – 5:00 PM**

***Poster Presentations***

Social Sciences

Environmental Sciences &  
Studies

Education & Outreach

***Oral Presentations***

Biological & Biomedical Sciences

Environmental Sciences &  
Studies

Physical Sciences & Engineering

# ORAL PRESENTATIONS

APRIL 27, 2023

## SESSION I

9:00 AM - 10:00 AM | 2ND FLOOR CONFERENCE ROOM | BIOLOGICAL & BIOMEDICAL SCIENCES

**Haijun Gao**, Junior Faculty / Lecturer / Instructor

*Potential roles of BNIP3 mediated placental mitophagy in the development of gestational diabetes mellitus*

**Vaisakh Nair**, Professional Student

*Effects of a High Fat and High Fructose Diet on Insulin Signaling in LivARKO Mice via Protein Expression levels of P-AKT*

**Sarees Shaikh**, Graduate Student

*Exploring the Role of Hydrodynamic Shear on the Pattern and Kinetics of Staphylococcus aureus Adhesion*

**Haley Warren**, Undergraduate Student

*Validating the Boggiano Intermittent Feeding Paradigm as a Chronic Model for Binge Eating Prone and Resistant Behaviors*

9:00 AM - 10:00 AM | 3RD FLOOR CONFERENCE ROOM | EDUCATION & OUTREACH

**Nia Goodall**, Undergraduate Student

*The Importance of Early Mental Health Representation to Save Black Youth*

**Courvaun Hill**, Graduate Student

*Putting Success in the Budget for DCPS*

**Catherine Quinlan**, Senior Faculty

*Black Representation In the STEAM Curriculum (BRISC)*

**Michaela Spears**, Undergraduate Student

*Association of Western Diet with Breast Cancer in African American*

9:00 AM - 10:00 AM | FACULTY LOUNGE | SOCIAL SCIENCES

**Samuel Anthony**, Undergraduate Student

*Africana Studies: Limitations and Possibilities*

**Zoé Coker**, Undergraduate Student

*Jazzing Up the Curriculum: On the History of Jazz at Howard University*

**Sydney Coleman**, Graduate Student

*Black Women's Internationalism and the Publications of the National Council of Negro Women*

**Charrosé King-Mathews**, Graduate Student

*The Atypical Mermaid: Reading The Little Mermaid Against the Grain to Contextualize My Experience as an Autistic Black Girl*

## SESSION II

10:00 AM – 11:00 AM | 2ND FLOOR CONFERENCE ROOM | BIOLOGICAL & BIOMEDICAL SCIENCES

**Jaylin Gant**, Undergraduate Student

*Title: Understanding Gorlin Syndrome: Biomedical Importance and Health Disparity*

**Thomas Heinbockel**, Senior Faculty

*Cannabinoid receptor-mediated synaptic signaling and neural plasticity in central olfactory neurons*

**Nina Nwade**, Professional Student

*Investigating Cutaneous T-Cell Lymphoma Immunopathogenesis and Gene Expression in Skin of Color Patients from Howard University Dermatology*

10:00 AM - 11:00 AM | 3RD FLOOR CONFERENCE ROOM | EDUCATION & OUTREACH

**Ashley Clark**, Graduate Student

*The Relationship Between School Climate, School Context and School Structures*

**Catherine Quinlan**, Senior Faculty

*How Failure and Psychotherapy Helped Me Succeed in my Career*

**Kathleen Rzucidlo**, Graduate Student

*Longing for the “HBCU Experience”: A Case Study Exploration of Campus Involvement During the Pandemic*

10:00 AM - 11:00 AM | 3RD FLOOR CONFERENCE ROOM | TRANSLATIONAL & CLINICAL SCIENCES

**Shreedhar Devkota**, Post Doc/Resident/Fellow/Research Associate

*A novel sulfonylurea compound reduces neuroinflammation in the murine model of vascular dementia*

10:00 AM - 11:00 AM | FACULTY LOUNGE | SOCIAL SCIENCES

**Mikah Jones**, Graduate Student

*Understanding the Effects of Data Pollution on Marginalized Communities in the South*

**Nkechi Enwerem**, Senior Faculty

*Using Human Center Design (HCD) to identify challenges Expectant and Parenting Teens (EPTs) in Washington DC, face in finishing High School.*

**Jasmin Miller**, Graduate Student

*Economic Wealth in Black Students with Loans*

**Jordyn Taylor**, Undergraduate Student

*The application of the Face Negotiation Theory to the social and political conflict of the African American community*

## SESSION III

11:00 AM - 12:00 PM | 2ND FLOOR CONFERENCE ROOM | BIOLOGICAL & BIOMEDICAL SCIENCES

**Kidus Alemayehu**, Undergraduate Student

*The FENTANYL Crisis*

**Tashanti Bridgett**, Graduate Student

*Hypertension & Pregnancy: The Domino Effect in African American Women*

**Ryan Peters**, Undergraduate Student

*Lung Cancer and Health Disparities in African Americans*

11:00 AM - 12:00 PM | 3RD FLOOR CONFERENCE ROOM | ETHICS LAW & RELIGION

**Matthew Bruckner**, Junior Faculty / Lecturer / Instructor

*Bankruptcy in Black and White: The Effect of Race and Bankruptcy Code Exemptions on Wealth*

**Alexia Green**, Professional Student

*Are you my doctor? Exploring the legal implications of nurse practitioners, most prevalent in underserved communities, being treated as physicians.*

**Jy'mir Starks**, Undergraduate Student

*The Place of Speech in West African Coup D'états: A Conscientist Analysis of Transitional Governance and State Sentiment*

11:00 AM - 12:00 PM | 3RD FLOOR CONFERENCE ROOM | HUMANITIES

**Christopher Newman**, Graduate Student

*Savages and Sable Subjects: Anti-Black Racism and Demonization of New Orleans Voodoo in the Nineteenth Century*

11:00 AM - 12:00 PM | FACULTY LOUNGE | SOCIAL SCIENCES

**Hanadi Alabaad**, Graduate Student

*Does The Increase Of Female In The Labor Market Boost Economic Growth?*

**Deyonna Grant**, Graduate Student

*Estrangement: Are Black Students Progressively Disconnecting from the Classroom? And If So, Why?*

**Shaleeta Jones**, Graduate Student

*Speaking Volumes: Analysis of Figurative Language in Discourse Samples of Culturally and Linguistically Diverse Adolescents*



## SESSION IV

1:00 PM - 2:00 PM | 2ND FLOOR CONFERENCE ROOM | BIOLOGICAL & BIOMEDICAL SCIENCES

**Kirsten Branch**, Undergraduate Student

*Uncovering the Interactions of Non-POU Domain-Containing Octamer-Binding (NONO) Protein during Innate Immune Response to Improve Novel Brain Cancer Treatment*

**Ananya Hota**, Undergraduate Student

*SroA regulates Staphyloxanthin pigment synthesis in Staphylococcus aureus*

**Fathia Oladipupo**, Undergraduate Student

*Impact of Sleep Quality during Pregnancy*

1:00 PM - 2:00 PM | 3RD FLOOR CONFERENCE ROOM | HUMANITIES

**Rachel Craddolph**, Graduate Student

*Dr. Merze V. Tate - Scholar Diplomat*

**Kimberly Prosper**, Graduate Student

*Breaking the Silence and Eliminating the Taboo: Using a Peer Educator Model to Educate Black Women about Uterine Fibroids in Houston TX*

**Mesi Walton**, Junior Faculty / Lecturer / Instructor

*Bullerengue and Maroonage in Colombia's Atlantic*

1:00 PM - 2:00 PM | FACULTY LOUNGE | SOCIAL SCIENCES

**Hugh Allen Goffinet**, Undergraduate Student

*Warriors From A Distant Shore: Afro-Jamaicans in Union Blue*

**Taijhaliyah Hill**, Undergraduate Student

*"No one's mad sis. Chile.": Social Media and the use of African American Vernacular English*

**Sahara Sampson**, Undergraduate Student

*Expressive Arts and its Effects on Adverse Childhood Experiences (ACE)*

**Hannah Stevenson**, Graduate Student

*The Intersectional Relationship between Internalized Antiracism, Phenotypic Privilege, and Belonging in Black/White Biracial People in the United States*

## SESSION V

2:00 PM - 3:00 PM | 2ND FLOOR CONFERENCE ROOM | BIOLOGICAL & BIOMEDICAL SCIENCES

**Florencia Gonzalez**, Staff

*Strategies for Inclusion of People with Limited English Proficiency in Research*

**Hannah Hollis**, Undergraduate Student

*Relationship Between Prostate Cancer Rates and the SDOH in Delaware's African American Men*

**Sandra Ikejiofor**, Undergraduate Student

*The Impact of Inadequate Access to Quality Clinical Care on Lung Cancer Mortality Rates*

**Krushu Suresh**, Undergraduate Student

*miRNAs, Extracellular Vesicles and Autoimmune diseases*

2:00 PM - 3:00 PM | 3RD FLOOR CONFERENCE ROOM | HUMANITIES

**Summer Brown**, Undergraduate Student

*From Riots to Reporting: How America's Political Climate Affects News*

**Symone Campbell**, Graduate Student

*"Digital Underground:" A Multimodal Critical Discourse Analysis of K-12 Black-Oriented EdTech*

**Miriam Hagan**, Graduate Student

*Investigating Food Insecurity in Black Dominated Communities in Baltimore City: A Critical Research Method*

**Wesley Hanson**, Junior Faculty / Lecturer / Instructor

*Local Marvels and a Rhetoric of Skepticism in Tacitus' Annals*

2:00 PM - 3:00 PM | FACULTY LOUNGE | SOCIAL SCIENCES

**Elle Butler**, Graduate Student

*Developmental Implications of Firearm Victimization on Impoverished Communities*

**Lucombo Luveia**, Graduate Student

*Assessing the relationship between Financial Deepening and Economic Growth*

**Tess Starman**, Graduate Student

*Going to Church: Examining the trends of church attendance in light of Covid-19 on religious beliefs, practices, and affiliation among U.S. Christians.*

## SESSION VI

3:00 PM – 4:00 PM | 2ND FLOOR CONFERENCE ROOM | BUSINESS

**Karthik Balasubramanian**, Junior Faculty / Lecturer / Instructor  
*Inventory Pooling for Mobile Money Agents in the Developing World*

**Camille King**, Undergraduate Student  
*The Future of Black Capitalism: The Effect of Modern Media on Black Businesses During the COVID-19 Pandemic*

3:00 PM - 4:00 PM | 2ND FLOOR CONFERENCE ROOM | ENVIRONMENTAL SCIENCES & STUDIES

**Jessica Moulite**, Graduate Student  
*More Than Miami Heat: How Chronic Heat Is Impacting Miami's Little Haiti Neighborhood*

3:00 PM - 4:00 PM | FACULTY LOUNGE | SOCIAL SCIENCES

**Sarah Breyfogle**, Graduate Student  
*Money, Power, Fanfic: Fan Authors on Patreon*

**Evin Guilford**, Undergraduate Student  
*You are What You See: African American Sitcoms and Their Impact on Generation Z and Millennials' Perception of African American Self and Group Identity*

**Ashley Sheehy**, Professional Student  
*The Relationship of Fall Prevention Service Delivery of African American/Black Older Adults; Race and Ethnicity*

**Jamal Uddin**, Graduate Student  
*Factors Influencing the Women for Birth Decision in Bangladesh: Applying Health Belief Model and Theory of Planned Behavior*

## SESSION VII

4:00 PM - 5:00 PM | 2ND FLOOR CONFERENCE ROOM | TRANSLATIONAL & CLINICAL SCIENCES

**Daphene Altema-johnson**, Graduate Student  
*A Content Analysis of Health Communication Received by Black Males Regarding Cardiovascular Risk*

**Langston Locke**, Undergraduate Student  
*Expediting the Commissioning Process of a Linear Accelerator*

**Oluwanifemi Owoseni**, Graduate Student  
*Prostate-Specific Antigen Activated Prodrug as Targeted Therapy for Prostate Cancer.*

**Trinity Pisarsky**, Undergraduate Student  
*Colon Cancer in Older Adults*

**APRIL 28, 2023**

**SESSION I**

9:00 AM - 10:00 AM | 2ND FLOOR CONFERENCE ROOM | TRANSLATIONAL & CLINICAL SCIENCES

**Dorienne Taylor-Bishop**, Junior Faculty / Lecturer / Instructor

*Factors associated with dental care use, unmet dental care need, and barriers to unmet need among United States women: results from NHANES, 2017 to 2020*

**Jessica Alden**, Senior Faculty

*Applying Knowledge Translation to Prepare Occupational Therapists To Work With Women With UI*

9:00 AM - 10:00 AM | 3RD FLOOR CONFERENCE ROOM | PHYSICAL SCIENCES & ENGINEERING

**Preethi Chandran**, Senior Faculty

*Hierarchical arrangement of proteins in spider silk filaments allows development of large toughness and resistance characteristics*

**Mirza Galib**, Junior Faculty / Lecturer / Instructor

*Developing machine learning models for molecular dynamics simulations of atmospheric aerosols*

**Quentin Taylor**, Undergraduate Student

*Residual Resistivity Ratio of Niobium and Copper*

9:00 AM - 10:00 AM | FACULTY LOUNGE | SOCIAL SCIENCES

**Yasmine Grier**, Undergraduate Student

*Things I Imagined: "Paradise" and the Political*

**Digna Mosquera**, Graduate Student

*Race And Gender Inequalities In The Colombian Labor Market*

**Bailey Nelson**, Undergraduate Student

*The Economic Impacts of Hurricane Katrina*

**Evan Quaintance**, Undergraduate Student

*A look into Black Political Leadership in the 20th and 21st Century*

## SESSION II

10:00 AM - 11:00 AM | 2ND FLOOR CONFERENCE ROOM | BIOLOGICAL & BIOMEDICAL SCIENCES

**Aadia Moseley-Mccloud**, Undergraduate Student

*Analysis of the Effect of Mycorrhizae on Growth and Primary Sex Ratios of Sorrel (*Rumex acetosa*)*

**Sharleine Cotin**, Graduate Student

*Pathophysiology of Type-2 Diabetes of African Americans in Washington DC: An Epidemiological and Transcriptional Approach*

**Jodi-ann Richards**, Undergraduate Student

*Analysis of the Optimal Quiet Eye Duration for a Motor Learning Process Interdisciplinary Research*

**India Washington**, Undergraduate Student

*Interplay of Periodontal Changes and Pancreatic Malignancies*

10:00 AM - 11:00 AM | 3RD FLOOR CONFERENCE ROOM | PHYSICAL SCIENCES & ENGINEERING

**Ikeoluwa Apat**, Graduate Student

*Tuning the synthesis of PS and PMMA grafted BaTiO<sub>3</sub> nanoparticles with focus on control of molecular weight, dispersity, and graft density for dielectric applications.*

**Angelica Stewart**, Undergraduate Student

*The Use of Python Programming to Calibrate and Post Process Atmospheric Sensor Data*

**Weldejeworgis Gebrehiwot**, Staff

*Characterization of the Chemical Interaction of Laponite Filler with Model Latex*

**Dayna Jackson**, Undergraduate Student

*Visualizing Flow Effects on a Quadcopter using Wind Tunnel Testing*

10:00 AM - 11:00 AM | FACULTY LOUNGE | SOCIAL SCIENCES

**Amen Haileselassie**, Undergraduate Student

*National Unity and Ethnic Diversity in Ethiopian Secondary Educational Curricula: A Study on Political Ideology in Education.*

**Elan Jones**, Undergraduate Student

*African American Reparation Policy Proposals*

**Yusra Alkawasbeh**, Graduate Student

*Perceptions of circumstances vs. effort in Jordan.*

10:00 AM - 11:00 AM | FACULTY LOUNGE | HUMANITIES

**Justina Blanco**, Undergraduate Student

*Contracting in the Void: Finding Black Women Within Mills' Corrective Justice Theory*

## SESSION III

10:00 AM - 11:00 AM | 2ND FLOOR CONFERENCE ROOM | SOCIAL SCIENCES

**Tonyiah Edney**, Undergraduate Student

*The Overturn of Roe v. Wade: A Woman's Body is Not Her Own*

**Makayla Jones**, Undergraduate Student

*Return Migration and Political Identification in Atlanta Metropolitan Area*

**Kaylin Watson**, Undergraduate Student

*The Fight for Equality and Justice within New York City's Bail-Bond System*

10:00 AM - 11:00 AM | 2ND FLOOR CONFERENCE ROOM | TRANSLATIONAL & CLINICAL SCIENCES

**Barbara Addo**, Professional Student

*A Scoping Review: Defining The Effects Of Sensory-Based Intervention And Activity-Based Intervention For Older Adults With Dementia*

## SESSION IV

11:00 AM - 12:00 PM | FACULTY LOUNGE | HUMANITIES

**Alexiz Jenkins**, Undergraduate Student

*"Dazed and Confused": How different and differing framing of COVID by government and popular media contributed to public confusion and noncompliance*

**Tiffanee Moore**, Undergraduate Student

*Rethinking the Classics: Black Women Classical Scholars, Then and Now*

**Jayda Pickett**, Undergraduate Student

*Black Women and Literature: From Complexion to Complexity*

11:00 AM - 12:00 PM | 3RD FLOOR CONFERENCE ROOM | PHYSICAL SCIENCES & ENGINEERING

**Jayson Johnson**, Undergraduate Student

*Hypersonic Heat Transfer Correlations*

**Anirban Goswami**, Graduate Student

*Investigation of critical behavior of layered ferromagnetic Cr<sub>2</sub>Te<sub>3</sub>*

**Kennedi White**, Undergraduate Student

*Variation of the Moon's Solar-Induced Hydrogen Cycle during a Solar Storm*

## SESSION V

1:00 PM - 2:00 PM | 3RD FLOOR CONFERENCE ROOM | PHYSICAL SCIENCES & ENGINEERING

**Ayron Fears**, Undergraduate Student

*Implementation of a Floating Point Arithmetic System*

**Jalen Garner**, Undergraduate Student

*Theoretical modeling of magnetic phase evolution in bulk  $n[\text{Bi}_2\text{Te}_3] \times \text{MnBi}_2\text{Te}_4$*

**Cameron Lewis**, Graduate Student

*Implementing a Graph Neural Network-based Bundle Adjustment on a FPGA-based SLAM Autonomous Platform*

**Eric Seabron**, Junior Faculty / Lecturer / Instructor

*Structure Driven Light-Matter Interactions in Photonic Materials*

## SESSION IV

2:00 PM - 3:00 PM | 3RD FLOOR CONFERENCE ROOM | PHYSICAL SCIENCES & ENGINEERING

**Marvin Atwell**, Undergraduate Student

*Implementation of BANG-BANG and PID control algorithms in autonomous vehicles*

**Sai krishna Narayanan**, Graduate Student

*Thickness-dependent properties of color centers in hexagonal boron nitride: a first principles study*

**Nathan Roseboro**, Undergraduate Student

*Design and Optimization of a Standoff Raman Optical System for Lunar Exploration*

**Cyrille armel Sayou ngomsi**, Graduate Student

*Different passivation schemes to control properties of near-surface silicon vacancy in silicon carbide*

## SESSION V

3:00 PM - 4:00 PM | 3RD FLOOR CONFERENCE ROOM | PHYSICAL SCIENCES & ENGINEERING

**Laray M. Hare**, Graduate Student

*In-situ Standoff Raman Spectroscopy Using a Cube Rover and a Long-Distance Microscope for Lunar Science and Exploration*

**Ashley Simmons**, Undergraduate Student

*Design & Synthesis of Dithiocarbamate Ester Derivatives of the Tetrahydroisoquinoline Sub-Structure of Emetine for Studies in Prostate Cancer Cell Lines*

**Yaman Siwakoti**, Undergraduate Student

*Investigation of Quantum Effects, Vibrational Modes, Absorption Bands of Various Quantum Dots through Experimental and Computational Methods for Sensing Applications*

**Tao Wei**, Senior Faculty

*Atomistic Simulations of Crosslinked Polyamide Membrane for Water Desalination  
Interdisciplinary Research Building Third Floor Conference Room*

## SESSION VI

4:00 PM - 5:00 PM | 2ND FLOOR CONFERENCE ROOM | ENVIRONMENTAL SCIENCES & STUDIES

**Charles Verharen**, Senior Faculty

*An Immodest Proposal: A Consortium of Ethical, Sustainable Ecovillages to Reduce Global Poverty*

4:00 PM - 5:00 PM | 2ND FLOOR CONFERENCE ROOM | BIOLOGICAL & BIOMEDICAL SCIENCES

**Pranab Sarker, Post Doc/Resident/Fellow/Research Associate**

*Understanding hydration and antibiofouling of TMAO-polymer surfaces from atomistic modeling*



# POSTER EXHIBITION

**Ghadeer Abdullah**, Graduate Student, Biological & Biomedical Sciences  
*Auranofin Inhibits Ebola Virus Replication by Targeting NP-VP35 Interaction*

**Riad Abdulmoniem**, Professional Student, Biological & Biomedical Sciences  
*Effect of high salt diet on memory and behavior in Apolipoprotein E4 expressing mice*

**Ali Abdus-shakoor**, Undergraduate Student, Physical Sciences & Engineering  
*Bracing for Impact: Modeling Hypothetical Detonations with NukeMap and Python*

**Jean claude Abeck**, Graduate Student, Social Sciences  
*Mercenaries, Conflicts, and the Military-Industrial Complex in Sub-Saharan Africa*

**Sameer Acharya**, Undergraduate Student, Physical Sciences & Engineering  
*Unlocking the Road Ahead: Predicting Future Car Locations with Rank Learning*

**Simeon Adesina**, Senior Faculty, Translational & Clinical Sciences  
*Development of PSMA-Targeted Drug Loaded Nanoparticles for Combination Therapy of Advanced Prostate Cancer*

**Gaurav Adhikari**, Undergraduate Student, Physical Sciences & Engineering  
*Evaluating Impact of Emoticons and Pre-processing on Sentiment Classification of Translated African Tweets*

**Baiyee-ndang Agbor-baiyee**, Staff, Biological & Biomedical Sciences  
*Pathway-Focused Analysis Reveals Key Genes Associated with Renal Fibrosis in an Accelerated Mouse Model of Diabetic Kidney Disease*

**Asrar Ahmad**, Post Doc/Resident/Fellow/Research Associate, Biological & Biomedical Sciences  
*Ebola virus modification to PP1-targeting compound enhances PP1 binding to NP and facilitate capsid formation*

**Muhammed Ahmed**, Professional Student, Biological & Biomedical Sciences  
*Initial Assessment of the External Auditory Morphology in Semi-aquatic Pinnipeds*

**Alejandro Alexander**, Undergraduate Student, Biological & Biomedical Sciences  
*Chip Assay Indicates: PP1 is Able to Bind to HIV-1 LTR*

**Alejandro Alexander**, Undergraduate Student, Environmental Sciences & Studies  
*Oxidation of Iodide by *Cupriavidus necator**

**Fatemah Alhakami**, Graduate Student, Biological & Biomedical Sciences  
*Ferroportin Q248H Mutation Leads to a Moderate Iron Load in Slc40a1Q248H/Q248H Mice*

**Awn Alqahtani**, Graduate Student, Physical Sciences & Engineering  
*quantum invariant theory and twisting of quantum groups*

**Chloe Alston**, Undergraduate Student, Biological & Biomedical Sciences  
*Phages Gangan, Isolation and Characterization from a soil sample collected from the Howard University campus*

**Tatiana Ammosova**, Junior Faculty / Lecturer / Instructor, Biological & Biomedical Sciences  
*The host protein phosphatase 1 is recruited by Ebola virus nucleoprotein to activate viral transcription factor VP30*

**Nadrat Amos**, Undergraduate Student, Ethics, Law & Religion  
*Alternatives to incarceration: Is restorative justice diversion more effective in deterring first time offenders from recidivism in Washington and California?*

**Tsion Andine**, Professional Student, Translational & Clinical Sciences  
*Impact of Race and Insurance Type on Outcomes following Bariatric Surgery*

**Ahmari Anthony**, Professional Student, Social Sciences  
*"What Can We Imagine": Abolitionist Social Work Utilizing the Black Perspective*

**Kelechi Anusiem**, Undergraduate Student, Biological & Biomedical Sciences  
*DNA BARcoding*

**Surakshya Aryal**, Undergraduate Student, Physical Sciences & Engineering  
*Skin Tone Detection using K-means Clustering*

**Yusuf Ashktorab**, Undergraduate Student, Biological & Biomedical Sciences  
*A Bioinformatic Analysis of an Unknown Ant Specimen Found in Washington D.C.*

**Iyanuoluwa Awomuse**, Undergraduate Student, Social Sciences  
*Africa Under Western Eyes: Western Media's Perception of African Culture and its Effects on their Identity Development*

**Tiffani Baker**, Undergraduate Student, Biological & Biomedical Sciences  
*Ant DNA Barcoding*

**Jonathan Barnes**, Graduate Student, Physical Sciences & Engineering  
*A.I. Modeling of Climate Change Change to Understand Human Health Impacts*

**Perpetue Bataille backer**, Graduate Student, Translational & Clinical Sciences  
*Synthesis and Characterization of a Targeted Peptide Drug Conjugate for the Treatment of Glioblastoma*

**Ashleigh Bellamy**, Professional Student, Biological & Biomedical Sciences  
*Falsies "An Esthetic Compromise to Infection Control"*

**Olabisi Bello**, Undergraduate Student, Environmental Sciences & Studies  
*Initial and Secondary Growth Kinetics Analysis of *Shewanella oneidensis* MR-1 cultures in Complex and Minimal Media*

**Marcy Beutlich**, Graduate Student, Social Sciences  
*The Effects Police Brutality in News Media on Health Outcomes: Exploring Black Identity and Rumination*

**Naina Bhatia-dey**, Junior Faculty / Lecturer / Instructor, Biological & Biomedical Sciences  
*Chemosensory abilities in neurodevelopmental disorders: genetic and epigenetic regulatory pathways during early development, aging, health and disease*

**Mashayla Billups**, Undergraduate Student, Social Sciences  
*A Content Analysis of Black Newspapers and Community Development Before and After the 1898 Wilmington Massacre*

**Alexander Boakye**, Undergraduate Student, Biological & Biomedical Sciences  
*Viscoelastic response of commercial mucin to HIV pseudotyped virus*

**Cade Boggan**, Undergraduate Student, Physical Sciences & Engineering  
*Implementation of the Near Field Refractor Problem Solver Algorithm*

**Chavonne Bowen**, Graduate Student, Physical Sciences & Engineering  
*Jet Flow- Shockwave Interactions in a Hypersonic Flow using a Continuum Method*

**Autumn Bowers**, Undergraduate Student, Biological & Biomedical Sciences  
*DNA Barcoding Ants to classify species and identify changes in Ant populations across Washington DC*

**Chauncey Bridges**, Professional Student, Education & Outreach  
*The Effects of COVID-19 on Player Performance and Game Availability in the National Football League*

**Bianca Briscoe**, Graduate Student, Environmental Sciences & Studies  
*The Global Sustainable Strategies to Achieving Net Zero Carbon in Buildings*

**Janiya Brooks**, Undergraduate Student, Biological & Biomedical Sciences  
*Regional and Temporal Analysis of Microglia Activation in a Model of Pediatric-HIV Infection*

**Kamryn Brown**, Undergraduate Student, Biological & Biomedical Sciences  
*DNA Ant Barcoding*

**Donovan Bryant**, Graduate Student, Biological & Biomedical Sciences  
*Profiling Glycans of the IgG1 Monoclonal antibody using Lectins Authors: Donovan Bryant, TzuLan Chang, Ayobami Ogundiran, Jason Lam, Preethi Chandran.*

**Saniyah Callender**, Undergraduate Student, Biological & Biomedical Sciences  
*COMBATING OBESITY IN AFRICAN AMERICAN WOMEN USING SPORTS*

**Aleyah Calomese**, Undergraduate Student, Biological & Biomedical Sciences  
*Ant Atlas: T. Immigras & Climate Change*

**Juan'unique Campbell**, Undergraduate Student, Biological & Biomedical Sciences  
*The Impact of Malnutrition on Wound Healing Progression: Elderly Individuals*

**Gabriel Carter**, Professional Student, Biological & Biomedical Sciences  
*Effect of high salt diet on Renal functions in Apolipoprotein E4 expressing mice*

**Candace Casimir**, Undergraduate Student, Social Sciences  
*Perceptions of Cultural Identity and Gender Norm Conformity in Diverse School Contexts*

**Tzu-lan Chang**, Post Doc / Resident / Fellow / Research Associate, Biological & Biomedical Sciences  
*pH, Serum, and Calcium Influenced Viral-Aggregates vs. Dispersedly Similar Viruses with Complex N-Glycans on Their Envelop Proteins such as VSVg*

**Emma Charles**, Undergraduate Student, Physical Sciences & Engineering  
*Propagation of Excitons and Spin waves in CrSBr*

**Alissa Charvonia**, Graduate Student, Social Sciences  
*Balancing Trust and Research Fidelity: Ethical and Methodological Challenges and Recommendations for Conducting Community-Based Research with Socio-Politically Vulnerable Groups*

**Zaria Chatman**, Undergraduate Student, Social Sciences  
*A Critical Analysis of "The Racial Contract" by Charles W. Mills*

**Melody Chepkoech**, Graduate Student, Physical Sciences & Engineering  
*Microstructure and Fatigue Performance of Additively Manufactured 316L Stainless Steel*  
**Amaria Clark**, Undergraduate Student, Social Sciences  
*Age, State, and Trait Anxiety in an Adult Black Community*

**Armani Clay**, Undergraduate Student, Biological & Biomedical Sciences  
*Sickle Cell Anemia Disease in African Americans: An update*

**Jordan Clemetson**, Undergraduate Student, Physical Sciences & Engineering  
*Machine learning approach to process and analyze large spectral data sets of lunar analog minerals*

**Kelsey Coates**, Undergraduate Student, Humanities  
*Food or Foe? Western Perspectives Toward Entomophagy*

**Marsha Cooksey-webster**, Undergraduate Student, Social Sciences  
*Mental Health Services Utilization Rates among African American Adolescents*

**Jabari Courtney**, Undergraduate Student, Social Sciences  
*Born Naked and the Rest is Truly Drag: Impression Management and the Intersection of Identity and Performance on Social Media*

**Temitope Creppy**, Undergraduate Student, Education & Outreach  
*Lead Exposure Effects on Chicago Children*

**Ciana Cummings**, Undergraduate Student, Translational & Clinical Sciences  
*The effect of exercise on the immunological function of erythrocytes in humans*

**Frederica Cunningham**, Professional Student, Social Sciences  
*"Needs Assessment for early infiltration, exposure and inclusion of diversity within the occupational therapy profession"*

**George Daniel**, Graduate Student, Biological & Biomedical Sciences  
*Incarceration as a Risk Factor for Impairment in Cognitive Functioning*

**Shania Davidson**, Undergraduate Student, Biological & Biomedical Sciences  
*Cadherin-11 Antagonism Effect on Cardiac Fibrosis in Chronic Kidney Disease*

**Makenna Davis**, Undergraduate Student, Biological & Biomedical Sciences  
*Functional characterization of a small RNA in Staphylococcus aureus that may regulate drug resistance genes*

**Darnell Davis**, Graduate Student, Biological & Biomedical Sciences  
*A New Approach for Active Coronavirus Infection Identification by Targeting the Negative RNA Strand- A Replacement for the Current Positive RNA-based qPCR Detection Method*

**Terri Davis**, Graduate Student, Social Sciences  
*Voicing Concerns: Counter Stories of African Americans Lived Experiences of Eminent Domain and the Resulting Impact on Generational Wealth*

**Nyree Dawson**, Junior Faculty / Lecturer / Instructor, Education & Outreach  
*An Interprofessional Approach to Oral Healthcare During Pregnancy*

**Allyse Dees**, Undergraduate Student, Physical Sciences & Engineering  
*Toxics and Extreme Weather Effects for Different Insulation Materials*

**Tamyra Dickens**, Undergraduate Student, Education & Outreach

*The Impact of Social Competence on Social Anxiety and Fear of Negative Evaluation among Third Grade Children*

**Trista Dolcy**, Undergraduate Student, Biological & Biomedical Sciences

*Is the Keto Diet an Appropriate Medical Nutrition Therapy for Pregnant Women with Gestational Diabetes?*

**Elan Donnellan**, Graduate Student, Translational & Clinical Sciences

*Comparing Response in Autonomic Activity and the Perceived Stress Scale across Gender*

**Lakeiya Dulcio**, Graduate Student, Social Sciences

*The Impact of Gendered Racism and Racist Sexism on the Identity Development and Mental Health of Black Women*

**Chidubem Egboluche**, Graduate Student, Social Sciences

*Identifying The Barriers To The Implementation Of The Six Core Element Of Healthcare Transition In SCD Transition Program: A Conceptual Framework*

**Chidi Eke**, Post Doc/Resident/Fellow/Research Associate, Biological & Biomedical Sciences

*Success Rate Between Nu-smile Crowns and Stainless-steel Crowns for Primary Anterior Teeth*

**Elizabeth Ekpe**, Professional Student, Biological & Biomedical Sciences

*The perceived risk of lifestyle choices on cancer development among obese adults in the United States*

**Oumsalama Elhelu**, Graduate Student, Biological & Biomedical Sciences

*Involvement of stress in the S. mansoni and Biomphalaria glabrata relationship and the effect of stress -inhibitor drugs on the host-pathogen interaction*

**Sumaya Elkashif**, Undergraduate Student, Humanities

*The Arabization of Africa and Its Double Destruction of the African Identity: SUDAN*

**Kaleyra Ervin**, Undergraduate Student, Biological & Biomedical Sciences

*DNA Ant Barcoding*

**Felix Eshun**, Undergraduate Student, Physical Sciences & Engineering

*Evaluating the Robustness of Open-Source Face Verification Models*

**Dante Ewell**, Professional Student, Translational & Clinical Sciences

*Resistin: A novel signaling molecule in the development of inflammation, insulin resistance, and Type 2 Diabetes Mellitus*

**Raven Flowers**, Undergraduate Student, Biological & Biomedical Sciences

*Bioinformatic Approaches to African Ancestry, the Development of Sickle Cell Disease and the Advancement of Precision Medicine*

**Morgan Ford**, Undergraduate Student, Biological & Biomedical Sciences

*Refining a computational Cellular Potts Model model of the posterior Lateral Line primordium (PLLp) in zebrafish by exploring the effects of changes in parameters*

**Reid Funderburk**, Undergraduate Student, Biological & Biomedical Sciences

*The effect background music in video games plays on attention span*

**Hope Games**, Undergraduate Student, Social Sciences

*Telling Our Stories*

**Rajae Gayle**, Graduate Student, Biological & Biomedical Sciences  
*Protein intake and conformity with the Dietary Reference Intakes in the United States: Analysis of the National Health and Nutrition Examination Survey, 2017–2020*

**Sama Ghadiri gargari**, Graduate Student, Physical Sciences & Engineering  
*Tribo-electrification Behavior of Milled Yellow Pea Powders*

**Hamid Ghaffari nazarlou**, Graduate Student, Environmental Sciences & Studies  
*Effects of operating parameters on membrane fouling*

**Naomi Godwin**, Undergraduate Student, Biological & Biomedical Sciences  
*Sickle Cell Anemia in the Black Diaspora*

**Jordan Graves**, Graduate Student, Biological & Biomedical Sciences  
*The Effects of Stress on Reproductive Biomechanics*

**Jordan Gray**, Undergraduate Student, Physical Sciences & Engineering  
*Optimized Preparation of Polymer-Grafted Barium Titanate Nanocomposites using Atomic Transfer Radical Polymerization*

**Victoria Greer**, Undergraduate Student, Social Sciences  
*THE BLACK RURAL POPULATION: A FORGOTTEN PEOPLE FROM AMERICAN CONSCIOUSNESS*

**Trevon Griffin**, Undergraduate Student, Biological & Biomedical Sciences  
*A Comprehensive Analysis of the Nutritional Status of Vitamin D and Zinc Levels Before and During COVID-19 in Children And Young Adults*

**Shaniya Hampton**, Undergraduate Student, Biological & Biomedical Sciences  
*Antcestry*

**Julianna Harden**, Undergraduate Student, Biological & Biomedical Sciences  
*Identification of Yellow Dock herbal supplement contents using DNA barcoding technology*

**Jennifer Hayes**, Graduate Student, Translational & Clinical Sciences  
*Use of Quantum Computing to Assess the Effect of SARS-CoV-2 Mutations on Remdesivir*

**Ashley Haynes**, Undergraduate Student, Biological & Biomedical Sciences  
*An analysis of the various ant species living on Howard University's campus*

**Pierce Hodges**, Undergraduate Student, Biological & Biomedical Sciences  
*Evaluating Perceptions of the Effectiveness of a Community Advisory Group for Stroke Education & Prevention Initiatives in an Underserved Community*

**Latoya Hogg**, Graduate Student, Social Sciences  
*Factors Influencing the Impostor Phenomenon in Black Social Work Ph.D. Students Attending Historically Black Colleges and Universities.*

**Papa Hoyeck**, Graduate Student, Biological & Biomedical Sciences  
*The conditional deletion of NIP1 in the liver drives an imbalance in Iron homeostasis*

**Robert Hudson**, Undergraduate Student, Social Sciences  
*Hidden Agenda: Analyzing News Framing On Police Brutality and Race in 2020*

**Ayotimofe Idowu**, Undergraduate Student, Biological & Biomedical Sciences

*MiaA is necessary for GroS and GroL expression in E. coli upon heat shock*

**Makenzie Jackson**, Undergraduate Student, Biological & Biomedical Sciences

*The effects Environmental Disturbances have on the Biodiversity of Ants at Howard University*

**Nia James**, Professional Student, Biological & Biomedical Sciences

*Elucidating the role of TCR expression in Mycosis Fungoides: A Preliminary Analysis of Skin of Color biospecimens from Howard University Department of Dermatology*

**Kennedy James**, Undergraduate Student, Education & Outreach

*Exploring Social Studies Curriculum Through a Black Lens*

**Chania Johnson**, Undergraduate Student, Biological & Biomedical Sciences

*Cherry Blossom Road: The Ant's Perspective*

**Briayanna Johnson**, Graduate Student, Education & Outreach

*Complexities of Identity: A Qualitative Study of HBCU STEM Doctoral Students Pursuing a Career in Academia*

**Jheannelle Johnson**, Undergraduate Student, Biological & Biomedical Sciences

*A Conceptual Framework of Type II Diabetes Mellitus and Alzheimer's Disease in African Americans*

**Ashleigh Johnson**, Undergraduate Student, Biological & Biomedical Sciences

*Alkoy*

**Mahogany Johnson**, Undergraduate Student, Social Sciences

*Development of Culturally-Relevant Scenarios to Examine Gender-Based Attitudes of Black College Students toward Substance Users*

**Niomi Jones**, Undergraduate Student, Biological & Biomedical Sciences

*Exploring Ant Diversity at Howard University: DNA Barcoding Investigation Ant Species*

**Chelsey Jones**, Undergraduate Student, Biological & Biomedical Sciences

*Targeting the JAK/STAT signaling pathway in Hidradenitis Suppurativa: From Bench to Clinic*

**Khloe Kelley**, Undergraduate Student, Biological & Biomedical Sciences

*Differentially Expressed Viral and Interferon-Regulated Genes in Multiple Sclerosis Patients*

**Latanya Khissy beyniouah**, Undergraduate Student, Biological & Biomedical Sciences

*DNA Barcoding Abstract*

**Christine Kindler**, Graduate Student, Social Sciences

*Peace Conversation Circles: Promoting Agonistic Historical Dialogue in Post-Genocide Rwanda*

**Ayanfeoluwa Kolawole**, Undergraduate Student, Biological & Biomedical Sciences

*Investigation of the role of Holliday Junction Resolvases in the Repair of Retrotransposon Integration*

**Aminata Kone**, Undergraduate Student, Social Sciences

*College Students Perceptions of Culture, Gender and Coping*

**Darian Lasenby**, Graduate Student, Social Sciences

*The Academic Implications of Childhood Trauma Among Students of Afro-Descent: A Subjective Analysis*

**Andrea Magallanes**, Graduate Student, Translational & Clinical Sciences

*An occupational therapy sensory based intervention approach in a trauma informed care model with victims of homelessness and trauma*

**Jaden Magee**, Undergraduate Student, Biological & Biomedical Sciences

*Battling Body Image with Nutrition*

**Vidhyanand Mahase**, Graduate Student, Biological & Biomedical Sciences

*Genetic variations affecting ACE2 protein stability and binding affinity in minority populations.*

**Ian Mahone**, Professional Student, Biological & Biomedical Sciences

*Re-evaluation of Phocidae Auditory Terminology, Emphasizing Osteology of the Ossicular Chain and Middle Ear*

**Courtney Mahugu**, Undergraduate Student, Biological & Biomedical Sciences

*DNA Ant Barcoding*

**Amber Malone**, Graduate Student, Social Sciences

*Preparing Your Seat at the Table: An Intricate Examination of the Professional Ambitions of Post Professional Minority Occupational Therapy Students and Practitioners*

**Niaylah Mascall**, Undergraduate Student, Biological & Biomedical Sciences

*The Reproductive Morphology of the Armored Sea Robin*

**Daeja Mathis**, Undergraduate Student, Biological & Biomedical Sciences

*Effect of Plant based diets on hypertension in Black men*

**Talayah Mccoy**, Undergraduate Student, Biological & Biomedical Sciences

*DNA Barcoding of Ants from different species in the D.C Area.*

**Sydney Mcherson**, Undergraduate Student, Social Sciences

*Black Developmental Continuum: A New Theory of Racial Identity*

**Janiah Mcrae**, Undergraduate Student, Biological & Biomedical Sciences

*Identifying and Characterizing Bacteriophages: Deenasa and Devonte*

**Elaine Meredith**, Staff, Social Sciences

*Increasing Access to Safe Active Transportation in a Small Mid-Atlantic Minority City: An Evaluation Plan for the Petersburg Healthy Options Partnerships' Mural Project*

**Bryan Mildort**, Professional Student, Translational & Clinical Sciences

*Automated Summarization of Clinical Notes from Electronic Health Records with Natural Language Processing*

**Alexandra Minnard**, Undergraduate Student, Physical Sciences & Engineering

*Dispersion Effects of Laponite Filler on the Hygroscopic Properties of Nanocomposite Latex*

**Tanmoy Mondal**, Post Doc/Resident/Fellow/Research Associate, Biological & Biomedical Sciences

*TGF- $\beta$ 1 Signaling Pathways in Progression of Non-Alcoholic Fatty Liver Disease in African Americans*

**T'yanna Montague**, Graduate Student, Biological & Biomedical Sciences

*Comparison of Renal Function Estimators and their Impact on HIV Pharmacotherapy Eligibility*

**T'yanna Montague**, Professional Student, Translational & Clinical Sciences

*Comparison of Renal Function Estimators and Their Impact on HIV Pharmacotherapy Eligibility*



**Alexa Moore**, Undergraduate Student, Translational & Clinical Sciences  
*Pediatric Eating Behavior and Anxiety Following a Mentally Fatiguing Task: Interactions with Mood Symptoms*

**Ritha Mutoni**, Staff, Biological & Biomedical Sciences  
*Interaction of Catechol-O-Methyltransferase (COMT) Val158Met with neuropsychiatric and opioid use disorders in a cohort of African Americans*

**Miranda Newheart**, Undergraduate Student, Biological & Biomedical Sciences  
*Role of PFKFB3 in Type 2 Diabetes Mellitus*

**Theophile Ngangmeni**, Undergraduate Student, Environmental Sciences & Studies  
*Chemicals & Indoor Air Quality*

**Heather Noriega**, Graduate Student, Translational & Clinical Sciences  
*Combination of AlphaFold2 and Long-timescale Molecular Dynamics Simulations to Understand Viral Packaging Processes*

**Sofia Ntirampeba**, Undergraduate Student, Biological & Biomedical Sciences  
*Folic Acid Supplementation Use Across Different Racial/Ethnic Groups*

**Marie chantal Nyirahategekimana**, Undergraduate Student, Physical Sciences & Engineering  
*Evaluation of the Effect of pH on Porcine Gastric Mucin III via Dynamic Light Scattering*

**Omotola Ogundipe**, Graduate Student, Translational & Clinical Sciences  
*Development of Targeted Polymer-Drug Conjugates for Ovarian Cancer Chemotherapy*

**Ayobami Ogundiran**, Graduate Student, Biological & Biomedical Sciences  
*Shear-reversible clusters of HIV-1 in solution: stabilized by antibodies, dispersed by mucin*

**Chidubem Okeke**, Post Doc/Resident/Fellow/Research Associate, Translational & Clinical Sciences  
*Adverse childhood experiences (ACEs) and associated health outcomes among adults with skin cancer*

**Nneka Okoro**, Undergraduate Student, Education & Outreach  
*The Impact of Parenting Styles and Family Structure on Social Competence among African American Elementary School Children.*

**Priscilla Okunji**, Senior Faculty, Translational & Clinical Sciences  
*Academic EHR (Simchart) Training and Usability: Students' Perspective*

**Toluwanimi Oladapo**, Undergraduate Student, Biological & Biomedical Sciences  
*Isolation and characterization of subcluster B1 bacteriophages Sinielle, DelRiv, Nyala, and Lumine.*

**Nia Ollivierre**, Undergraduate Student, Biological & Biomedical Sciences  
*Nutritional Status and It's Effect on Infection Rates in the Lifecycle*

**Kehinde Omisore**, Undergraduate Student, Biological & Biomedical Sciences  
*Neurogenetic and NeuroPsychiatric Assessment of Co-Morbid HIV and Substance Use Disorder Patients*

**Pilar Oneal**, Graduate Student, Physical Sciences & Engineering  
*Optimization and Characterization of condensed DNA Nanocontainers having protein cargo for gene editing*

**Ololade Oriowo**, Undergraduate Student, Physical Sciences & Engineering  
*Investigating Plant Protein Separation Behavior in Mixtures of Dietary Fibers Utilizing the Tribo-Electrostatic Technique*

**Oluwanifemi Owoseni**, Graduate Student, Translational & Clinical Sciences  
*Synthesis and characterization of targeted SN-38 conjugate for cancer therapy.*

**Oluwaseyi Oyebola**, Undergraduate Student, Biological & Biomedical Sciences  
*Key genetic networks of NAFLD in T2DM African Americans*

**Cristin Payne**, Undergraduate Student, Biological & Biomedical Sciences  
*Smoking and Vitamin C Intake: Effects on Health Status of Older Adults*

**Jose Perez chavez**, Graduate Student, Physical Sciences & Engineering  
*Exploring Exoplanet Diversity through Network Analysis*

**Fadiya Perry**, Undergraduate Student, Translational & Clinical Sciences  
*Reshaping Nutrition Care for Transgender and Gender Diverse Individuals (TGGD)*

**Jada Pherribo**, Undergraduate Student, Biological & Biomedical Sciences  
*DNA Barcoding US Ants*

**Jada Pherribo**, Undergraduate Student, Biological & Biomedical Sciences  
*DNA Barcoding US Ants*

**Morgan Phillips**, Undergraduate Student, Social Sciences  
*Cinematography: a Study on the Framework of Human Connection*

**Aniruddha Pokhrel**, Undergraduate Student, Physical Sciences & Engineering  
*Factors Impacting COVID-19 Mortality and Spread: Combining Clustering and Supervised Modeling*

**Kiya Powell**, Undergraduate Student, Translational & Clinical Sciences  
*Child Nutritional Status in Ethiopia: Challenges and Interventions*

**Sahvanah Prescott**, Undergraduate Student, Social Sciences  
*Political conservatism and moral model of addiction: Pre-registered reanalysis*

**Jasmine Prime**, Undergraduate Student, Education & Outreach  
*A Look at the Effects of Mentorship on Black Undergraduate STEM Students*

**Howard Prioleau**, Undergraduate Student, Physical Sciences & Engineering  
*Feature Importance Analysis for Mini Mental Status Score Prediction in Alzheimer's Disease*

**Rhyon Qawwee**, Undergraduate Student, Biological & Biomedical Sciences  
*Ecological Correlates with Jet propulsion in Frogfishes*

**Terran Quattlebaum**, Graduate Student, Creative Arts & Design  
*African American Multigenerational Housing over the lifespan*

**Catherine Quinlan**, Senior Faculty, Education & Outreach  
*Explorations of Spanish Moss by Elementary-Aged Black Homeschoolers From The DMV*

**Yessenaia Reed**, Undergraduate Student, Biological & Biomedical Sciences  
*Are People with Dark Colored Skin More Prone to Skin Cancers*

**Ashley Riley**, Graduate Student, Social Sciences  
*Belonging in Science: Exploring the Experiences of Notable Black Scientists in S.T.E.M.*

**Serenity Robinson**, Undergraduate Student, Environmental Sciences & Studies  
*Poverty vs Obesity*

**Jamelia Robinson**, Undergraduate Student, Social Sciences  
*Mass Incarceration and the Theory of Punishment*

**Deon Rosell**, Professional Student, Biological & Biomedical Sciences  
*Detailing the basicranial region and hearing apparatus anatomy of the Hawaiian Monk Seal (*Neomonachus schauinsland*)*

**Joseph Sankah**, Undergraduate Student, Physical Sciences & Engineering  
*Addressing Datagaps in Ear Biometrics Research: Diverse Ear Dataset*

**Hrishav Sapkota**, Undergraduate Student, Physical Sciences & Engineering  
*Zero-Shot Classification Reveals Potential Positive Sentiment Bias In African Languages Translations*

**Sydney Sauls**, Undergraduate Student, Environmental Sciences & Studies  
*Data Pollution and Savage Algorithms*

**Olivia Sconyers**, Undergraduate Student, Biological & Biomedical Sciences  
*Identification of protein-protein interactions critical for virulence in *S. aureus**

**Ujjawal Shah**, Undergraduate Student, Biological & Biomedical Sciences  
*Experimenting with Multimodal AutoML: Detection and Evaluation of Alzheimer's Disease*

**Sydney Smith**, Undergraduate Student, Biological & Biomedical Sciences  
*Discovering the Biodiversity of Ants on Howard University's Campus*

**Tiara Smith**, Undergraduate Student, Social Sciences  
*The Impact of Race-Related Stressors on the Psychological Well-Being of African American Women*

**Asia Smith**, Graduate Student, Biological & Biomedical Sciences  
*Free retinol serum analysis in pediatric patients with short bowel syndrome and intestinal failure.*

**Nailah Smith**, Graduate Student, Education & Outreach  
*Dis-"Cypher"-ing Cannabis: How Cannabis Affects Communication and Cognition*

**Lauryn Smith**, Graduate Student, Environmental Sciences & Studies  
*Ozone Recovery*

**Jasmine Smith**, Undergraduate Student, Social Sciences  
*The Influence of Post World War II Media on American Social Structure and the Social Positions of American Women*

**Malika Smoot**, Graduate Student, Social Sciences  
*Examining accommodations policy and addressing barriers to access in post-secondary institutions*

**Adebisi Sobitan**, Post Doc/Resident/Fellow/Research Associate, Biological & Biomedical Sciences  
*Leveraging computational mutagenesis to study gene expression in transgenic fruit flies*

**Mykaiya Sumling**, Undergraduate Student, Biological & Biomedical Sciences  
*Using Exosomal MicroRNA Signatures to Identify Early Stages of Diabetic Kidney Disease in African American Adults*

**Dougziana Thomas-chan**, Undergraduate Student, Education & Outreach  
*Cultivating Courage in the Classroom*

**Saharsha Tiwari**, Undergraduate Student, Physical Sciences & Engineering  
*Fast-Tracking Your Geospatial Queries with RTree-based Point-in-Polygon and Nearest Neighbor Search*

**Moiya Toliver**, Undergraduate Student, Social Sciences  
*Covid 19, Missed Milestones, Social Interactions, and Mental Health in Black Emerging Adults*

**Mauryah Turner**, Undergraduate Student, Social Sciences  
*The Effects of Acts of Terrorism on Mental Health Within a College Campus*

**Dania Turner**, Undergraduate Student, Biological & Biomedical Sciences  
*Investigation of the Oxidation of Iodide by Bacteria Genes AD-60 and Sequencing of Significant Mutants*

**Llarance Turner**, Graduate Student, Biological & Biomedical Sciences  
*A Whole-Food Plant-Based approach to Reducing METS in Black Men*

**Tochukwu Uyanne**, Graduate Student, Physical Sciences & Engineering  
*Bioremediation of radioiodine contamination via *Shewanella Oneidensis* MR-1 biofilms – a proposed design and kinetic study.*

**Nathan Van-eck**, Undergraduate Student, Environmental Sciences & Studies  
*Curtis Bay Air Quality Issues*

**Journey Vann**, Undergraduate Student, Biological & Biomedical Sciences  
*Ant Collection Research Project*

**Naomi Vinod**, Graduate Student, Social Sciences  
*The Impact Of Having Children In The Home On Psychological Distress Among US Cancer Survivors from 2017-2020: Results From The US Health Information National Trends Survey*

**Ashley Walker**, Graduate Student, Physical Sciences & Engineering  
*Modeling Aerosol Microphysics in Ice Giant Atmospheres*

**Tongxin Wang**, Senior Faculty, Biological & Biomedical Sciences  
*Biomimetic remineralization for tooth caries prevention*

**Jenna Warren**, Graduate Student, Social Sciences  
*The Association of Ethnic Group Membership, Perceived Health, and Psychological Distress Among Female Cancer Survivors: Results from the 2017-2020 US Health Information National Trends Surveys*

**Robert Washington**, Graduate Student, Physical Sciences & Engineering  
*Advancing The Detectability of Atmospheric Species in Terrestrial Atmospheres*

**Micah Watkins**, Undergraduate Student, Biological & Biomedical Sciences  
*Developing a high-throughput selection assay for isoprenoid biosynthesis*

**Tamar Wells**, Undergraduate Student, Creative Arts & Design  
*Enhancing Youth Low School Performance through human centered design.*

**Nia Weston**, Undergraduate Student, Biological & Biomedical Sciences  
*The Impacts of Poverty on the Health of Older Adults and Effective Interventions to Alleviate the Effects*

**Izaak Wilkinson**, Undergraduate Student, Biological & Biomedical Sciences

*The tardigrade's ability to utilize cryptobiotic process of anhydrobiosis through tun formation causes no inhibition to the organisms' speed*

**Christobell Wilson**, Graduate Student, Biological & Biomedical Sciences

*miRNAs, Extracellular Vesicles and Autoimmune diseases*

**Helina Woldeamlak**, Undergraduate Student, Biological & Biomedical Sciences

*The Impact of Adolescent Gut Microbes on Mental Health*

**Guiqin Xie**, Junior Faculty / Lecturer / Instructor, Biological & Biomedical Sciences

*Role of STING in immunotoxin-induced antitumor immunity in HNSCC*

**Qiaobin Yao**, Graduate Student, Biological & Biomedical Sciences

*Computational Saturation Mutagenesis of SARS-CoV-2 ORF3a protein*

**Sarah Youssouf**, Undergraduate Student, Biological & Biomedical Sciences

*Diagnosis, Management, and Prevention of IgE-Mediated Food Allergies in Children: A Systematic Review*

**Sesen Zerhamenet**, Graduate Student, Translational & Clinical Sciences

*The Effect Nutrition has on Frailty Syndrome in the Elderly Population*







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