



## 19<sup>th</sup> Annual AAMU STEM Day Awardees

*A.S.C.E.N.D. - Advancing STEM Collaboration, Education, & New Discoveries*

### Undergraduate Poster Presentations

#### *1<sup>st</sup> Place Group*

Name(s) and Co-Authors	Faculty Mentor(s)	Department	Abstract Title
Junia Williams*, Dana Indihar, Amya Joy, Kyra Comfort, Kaleb Harris	Dr. Dana Indihar	Biological Sciences	Attacking Cutibacterium acnes: modeling phage endolysin proteins & their contribution to replication
Prathista Johnson Christadas*, H. Singh, T. Thatipamula, K. Medabalimi M. Verghese	Dr. Martha Verghese	Food and Animal Sciences	Functional and Antioxidant Potential of Adansonia digitata (Baobab) Powder.
Zyiah Mikes*, Yi Zhai, Sharon Greenblum	Dr. Xianyan Kuang and Dr. Qunying Yuan	Biological Sciences	Brachypodium Distachyon Root Transporters
Keyshawn Johnson*, Jalen Whisenhunt* Elica Moss	Dr. Elica Moss	Natural Resources & Environmental Sciences	Investigating PFAS in Influent from Alabama A&M University and Effluent from the Huntsville Spring Branch Wastewater Treatment Plant within the Indian Creek Watershed, Huntsville, Alabama
Lauren Pettus*, Tyesha L. Farmer	Dr. Tyesha Farmer	Biological Sciences	Evaluating the Functional Consequences of HEXA Asp492 Variants in Tay-Sachs Disease

\*Indicates students presenting at STEM Day

### *2<sup>nd</sup> Place Group*

<b>Name(s) and Co-Authors</b>	<b>Faculty Mentor(s)</b>	<b>Department</b>	<b>Abstract Title</b>
Myana Chenier*, August Ragland*, Nathaniel Ogunkunle	Dr. Nathaniel Ogunkunle	Food and Animal Sciences	Transition stress: An Unavoidable Stressful in Livestock industry
Essence Carter*, Elton Mawire*, Bevin Williams*	Dr. Chance Glenn	Electrical Engineering & Computer Science	Design and Fabrication of a Rotational Biofield Sensor Element
Nancy Mbomson, Jeremy Kane, Madeline Searcy, Rachelle Johnson	Dr. Rachelle Johnson	Biological Sciences	Epigenomic profiling reveals novel intracrine gene targets of parathyroid hormone-related protein(PTHrP) in breast cancer
Ta'Kira Whitt*, Vinay Madala*	Dr. Lamin Kassama	Food and Animal Sciences	Effect of Printing Temperature on the Physical Properties of Soy Protein Isolate-Enriched Cookie Dough for 3D-Printing
Isaiah Thompson*, Joshua Strickland*, Abdoulie Bojang*, Peter Bryant*	Dr. Pinder	Mechanical & Civil Engineering and Construction Management	Mars Entry, Descent, and Landing Simulation — A Multiphase MATLAB Analysis

### *3<sup>rd</sup> Place Group*

<b>Name(s) and Co-Authors</b>	<b>Faculty Mentor(s)</b>	<b>Department</b>	<b>Abstract Title</b>
Olasubomi Awodipe*, Emmanuel Aina*, Solomon Agyire*, Taiwo Olawepo, Mercy Akinyemi, Moshopefoluwa Omotoso, Vincent Anim-Addo	Dr. Ed Pearson, Rahmat Herron	Electrical Engineering & Computer Science	Semina: AI-Driven Intrusion Detection in SCADA/ICS Environments for Water Utilities
Jade Ray*, Imani Williams*	Dr. Dana Indihar	Biological Sciences	From Wastewater to the Clinic: Comparing CTX-M Antibiotic Resistance Proteins from Phages
Mya Reeves*, Dana Indihar, Kameron Hinton, Ty'keria Mason, Kaila Reynolds	Dr. Dana Indihar	Biological Sciences	Computational Characterization of HIV-1 Group M Subtype K and L Envelope Glycoprotein Dynamicomes
Goodluck Badewole*, Ibrahim Bello*, Gabriel Chambers*, Asia Harris*, Amber Jamison*, Taylor Pippins*	Dr. Ed Pearson	Electrical Engineering & Computer Science	PhishGuard: AI-Powered Phishing Detection for Students and Everyday Users
Jori Shorter*	Dr. Mebougna Drabo	Mechanical & Civil Engineering and Construction Management	Enhancing Civil Engineering Site Evaluations Through Drone Technology

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*Honorable Mention Group*

<b>Name(s) and Co-Authors</b>	<b>Faculty Mentor(s)</b>	<b>Department</b>	<b>Abstract Title</b>
Isaac Anokye*, Hidalgo Mudonhi*, Goodwill Kwenda*	Dr. Delores Baker	Electrical Engineering & Computer Science	Enhanced MIT Coffee Can Radar with Integrated Infrared Imaging for Target Detection and Classification for Experiential Learning Platform
Tamyra Dukes*	Dr. Kanaththa Priyankara	Physics, Chemistry, & Mathematics	Lagrangian Coherent Structures analysis of time dependent dynamical systems using Finite-time Lyapunov Exponent
Karter Alexander Woods*, Keyshawn Johnson, Camryn Cummings	Dr. Elica Moss	Community & Regional Planning	Blight to Opportunity: Mapping Brownfields and Socio-Economic Disparities in Alabama Communities
Kentravon Grayson*, Aditya Naldurtiker*, Sherman Cravens, Josh L. Herring	Dr. Josh Herring	Food and Animal Sciences	Development of a Value-Added Venison Sausage Using Quinoa as a Functional Ingredient
Kaylyn M. Green*, K. A. Elder, C. O. Lemley, and John Odhiambo	Dr. John Odhiambo	Food and Animal Sciences	Downregulation of Mitochondrial Metabolism as a Driver for Fetal Adaptation to Maternal Nutrient Restriction During Gestation in <i>Bos taurus</i>

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## Graduate Oral Presentations

### *1<sup>st</sup> Place Group*

Name(s) and Co-Authors	Faculty Mentor(s)	Department	Abstract Title
Elijah Nix*, Sueme Ueno, Renan Souza, Walid Korani, Anthony Trieu, Kankshita Swaminathan, Josh Clevenger	Dr. Josh Clevenger, Dr. Xianyan Kuang	Natural Resources & Environmental Sciences	Validating Candidate Genes and Transforming Peanut ( <i>Arachis hypogaea</i> L.) for Aflatoxin Resistance
Vanessa Njoku*, Nedra Montgomery, Harpreet Singh, Martha Verghese	Dr. Martha Verghese	Food and Animal Sciences	Influence of Selected Processing Methods on the Antioxidant Potential of Black and Red Rice

### *2<sup>nd</sup> Place Group*

Name(s) and Co-Authors	Faculty Mentor(s)	Department	Abstract Title
Tejasri Thatipamula*, H. Singh, K. Medabalimi, J. Boateng	Dr. Martha Verghese	Food and Animal Sciences	Synergistic effects of Ginger and Turmeric in Functional Muffin Development.
Elijah Adedeji*, Jingsong Huang, Eva Zarkadoula, Stephen Babalola	Dr. Stephen Babalola	Physics, Chemistry, & Mathematics	From Alloy Disorder to Light Yield: Understanding Halide Scintillators with First-Principles Modeling

### *3<sup>rd</sup> Place Group*

Name(s) and Co-Authors	Faculty Mentor(s)	Department	Abstract Title
Mariam Yakubu*, Joshua Herring, Judith Boateng	Dr. Judith Boateng	Food and Animal Sciences	Exploring the Impact of High-Pressure Processing and Cooking On Phytochemical Composition and Protein Content of <i>Phaseolus Vulgaris</i> L.
Dr. Raziq Yaqub, Romail Arif*	Dr. Raziq Yaqub	Electrical Engineering & Computer Science	AI-Driven Autonomous Swarms for Proactive Hydrogen Safety: A New Paradigm in Leak Detection and Response

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