

45TH ANNUAL TENNESSEE STATE UNIVERSITY-WIDE RESEARCH SYMPOSIUM OVERVIEW OF EVENTS

MONDAY, MARCH 27, 2023

8:45 A.M. – 9:00 A.M.	Welcome and Remarks from the Division of Research and Sponsored Programs, Research and Sponsored Program (RSP), Room 163
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Oral Presentations:		Location:
9:00 A.M. – 12:00 P.M.	Faculty Oral Presentations	RSP 163

TUESDAY, MARCH 28, 2023

Oral Presentations:		Location:
9:00 A.M. – 12:00 P.M.	Graduate Engineering – Session 1	RSP Room 009
9:00 A.M. – 12:00 P.M.	Graduate Agricultural Sciences – Session 1	RSP Room 163
9:00 A.M. – 12:00 P.M.	Graduate Life and Physical Sciences – Session 1	RSP Room 209
1:00 P.M. – 4:00 P.M.	Graduate Engineering – Session 2	RSP Room 009
1:00 P.M. – 4:00 P.M.	Graduate – Agricultural Sciences – Session 2	RSP Room 163
1:00 P.M. – 4:00 P.M.	Graduate Life and Physical Sciences – Session 2	RSP Room 209

WEDNESDAY, MARCH 29, 2023

Oral Presentations:		Location:
9:00 A.M. – 12:00 P.M.	Graduate Engineering – Session 3	RSP Room 009
9:00 A.M. – 12:00 P.M.	Graduate Agricultural Sciences – Session 3	RSP Room 163
1:00 P.M. – 4:00 P.M.	Undergraduate – Oral Presentation Interdisciplinary	RSP Room 163

THURSDAY, MARCH 30, 2023

Poster Presentations: * All poster presentations take place in Jane Elliot Hall Auditorium

9:00 A.M. – 12:00 P.M.	Faculty Presentations
9:00 A.M. – 12:00 P.M.	Graduate Agricultural Sciences
9:00 A.M. – 12:00 P.M.	Graduate Engineering
9:00 A.M. – 12:00 P.M.	Graduate Health Sciences
9:00 A.M. – 12:00 P.M.	Graduate Life Sciences
1:00 P.M. – 4:00 P.M.	Undergraduate Posters - Interdisciplinary

FRIDAY, MARCH 31, 2023

12:00 P.M. – 2:00 P.M.	Awards Ceremony and Keynote Address – Dr. Maria Thompson Avon-Williams Campus, The Atrium
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(Overview of Events subject to change)

PRESENTATION SCHEDULES

ORAL PRESENTATION - MONDAY, MARCH 27, 2023

FACULTY ORAL PRESENTATIONS - RSP 163

Presentations may be available from 9:00 AM - 12:00 PM

9:00 AM	FO-01	CLIMATE LEADERSHIP ACADEMY (CLA): A WELL-DESIGNED PLATFORM FOR ENGAGING MINORITY COMMUNITY MEMBERS IN CLIMATE CHANGE RESEARCH, SCIENCE EDUCATION, AND Jianwei Li, Yujuan Chen, Thomas Byl, Reginald Archer, Aditya Khanal, Emmanuel Omondi, Fulya Baysal-Gurel, De'Etra Young, Chandra Reddy <i>Department of Agriculture and Environmental Sciences</i> , College of Agriculture, Tennessee State University
9:20 AM	FO-02	EVALUATION OF BIOLOGICAL CONTROL AGENTS AND CHEMICAL TREATMENTS FOR CONTROL OF BACTERIAL CROWN GALL ON ROSE Dr. Cansu Oksel, <i>Otis L. Floyd Research Center</i> , Tennessee State University, Dr. Prabha Liyanapathiranage, <i>Otis L. Floyd Research Center</i> , Dr. Farhat Avin, <i>Otis L. Floyd Research Center</i> , Dr. Fulya Baysal-Gurel, <i>Otis L. Floyd Research Center</i>
9:40 AM	FO-03	THE SHAPE OF SPACELIFE, ASSUME A SPHERICAL COW Dr. Geoffrey Burks, <i>Physics</i> , Tennessee State University
10:00 AM	FO-04	MICROMECHANICS METHOD FOR BRIDGING BETWEEN DISCRETE AND CONTINUUM: THEORY AND APPLICATIONS Dr. Ranganathan Parthasarathy, <i>Civil and Architectural Engineering</i> , Tennessee State University, Dr. Anil Misra, <i>University of Kansas</i>
10:20 AM	FO-05	ENHANCING GROWTH, DEVELOPMENT AND LIGNOCELLULOSIC BIOMASS TRAITS IN SORGHUM USING BACTERIAL ENDOPHYTES FOR SUSTAINABLE BIOENERGY SYSTEMS Dr. Christine Ondzighi Assoume, <i>Agricultural Environmental and Sciences</i> , Tennessee State University, Mr. Adam Traore, <i>Tennessee State University</i> , Dr. Ahmad Aziz, <i>Agricultural Environmental and Sciences</i> , Dr. Margaret Mmbaga, <i>Agricultural Environmental and Sciences</i>
10:40 AM	FO-07	IDENTIFICATION AND MANAGEMENT OF PSEUDOMONAS SYRINGAE PV. SYRINGAE, THE CAUSAL AGENT OF PSEUDOMONAS LEAF SPOT ON RED MAPLE Dr. Prabha Liyanapathiranage, <i>Otis L. Floyd Research Center</i> , Tennessee State University, Dr. Cansu Oksel, <i>Otis L. Floyd Research Center</i> , Dr. Farhat Avin, <i>Otis L. Floyd Research Center</i> , Mr. Madhav Parajuli, <i>Otis L. Floyd Research Center</i> , Dr. Fulya Baysal-Gurel, <i>Otis L. Floyd Research Center</i>
11:00 AM	FO-06	AN EXAMINATION OF FARMLAND TENURE, PLANNING AND SUCCESSION CHALLENGES FACING TENNESSEE FARMERS: PRELIMINARY RESULTS FROM A STATEWIDE SURVEY Ms. Mary Mafuyai, <i>Agricultural Environmental and Sciences</i> , Tennessee State University, Dr. Kofi Britwum, <i>Agricultural and Environmental Sciences</i> , Tennessee State University

**Denotes Presenters*

PRESENTATION SCHEDULES

ORAL PRESENTATION - TUESDAY, MARCH 28, 2023

GRADUATE ORAL - ENGINEERING - SESSION 1 - RSP 009

Presentations may be available from 9:00 AM - 12:00 PM

9:00 AM	GO-ENGR-01	MICROMECHANICS BASED HOMOGENIZATION OF TRUSS LATTICES WITH EXPERIMENTAL VALIDATION Kehinde Omotayo*, Samal Aminashairi. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Ranganathan Parthasarathy, Anil Misra
9:20 AM	GO-ENGR-02	TRAFFIC OPERATIONAL SIMULATION OF RAILROAD HIGHWAY CROSSING Irene Akyoo*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Deo Chimba
9:40 AM	GO-ENGR-03	EVALUATING INCIDENT DURATION WITH RESPECT TO INCIDENT TYPES IN TENNESSEE Bryson Mgani*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Deo Chimba
10:00 AM	GO-ENGR-04	AI/ML BASED TRAIN ARRIVALS AND DELAYS PREDICTION AT RAILWAY-HIGHWAY GRADE CROSSINGS Emmanuel Samson*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Deo Chimba
10:20 AM	GO-ENGR-05	AN AUTOMATIC HIGHWAY ROAD SIGNAL DETECTION BY USING ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING METHOD Al Amin*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Deo Chimba, Kamrul Hasan

GRADUATE ORAL- AGRICULTURAL SCIENCES - SESSION 1 - RSP 163

Presentations may be available from 9:00 AM - 12:00 PM

9:00 AM	GO-AGNS-01	DEVELOPING GENE EDITING SYSTEM FOR TOMATOES TO GENERATE STRESS TOLERANT LINES Jun Guo*, Dybia Jain, Kajol Pradhan*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Suping Zhou, Sonali Roy
9:20 AM	GO-AGNS-02	EVALUATION OF BROCCOLI VARIETIES FOR WINTER PRODUCTION IN NON-HEATED GREENHOUSE IN MIDDLE TENNESSEE. Kajol Pradhan*, Priya Thapa, Dibya Thapa Magar, Jun Guo. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Suping Zhou
9:40 AM	GO-AGNS-03	ANTIFUNGAL EFFECTS OF VOC'S PRODUCED BY BACILLUS SPECIES AGAINST OOMYCETE PATHOGEN PHYTOPHTHORA CAPSICI Jamille Robinson*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Suping Zhou, Ouyang Lizhi, John Ricketts
10:00 AM	GO-AGNS-04	COLLECTION OF GERMINATING TOMATO POLLEN USING LASER CAPTURE MICRODISSECTION FOR IDENTIFICATION OF HEAT-INDUCED PROTEOMES Dibya Thapa Magar*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Suping Zhou

**Denotes Presenters*

ORAL PRESENTATION - TUESDAY, MARCH 28, 2023 *(Continued)*

GRADUATE ORAL- AGRICULTURAL SCIENCES - SESSION 1 - RSP 163

Presentations may be available from 9:00 AM - 12:00 PM

10:20 AM	GO-AGNS-05	EVALUATION OF BACTERIAL ENDOPHYTES FOR CONTROLLING SOUTHERN BLIGHT IN HEMP PRODUCTION Mustapha Olawuni*. <i>Agricultural and Environmental Science</i> , College of Agriculture. Advisor(s): Margaret Mmbaga
11:00 AM	GO-AGNS-06	PLANT COVER AND WINTER MORTALITY OF WINTER CANOLA (BRASSICA NAPUS L.) IN TENNESSEE Sudip Bishwokarma*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Jason de Koff, Firuz Yuldashev
11:20 AM	GO-AGNS-07	EVALUATION OF DIFFERENT GROWTH MEDIA AND FORMULATION METHODS FOR ECONOMIC PRODUCTION OF BIOLOGICAL CONTROL AGENTS FOR TOMATO PRODUCTION Peter Eyegheleme*. <i>Agricultural and Environmental Science</i> , College of Agriculture. Advisor(s): Margaret Mmbaga
11:40 AM	GO-AGNS-08	ANTIBIOTIC RESISTANCE IN BACTERIA ISOLATED FROM GOAT MEAT IN NASHVILLE, TENNESSEE Moses Owusu*. <i>Family and Consumer Sciences</i> , College of Agriculture. Advisor(s): Agnes Kilonzo-Nthenge

GRADUATE ORAL - LIFE AND PHYSICAL SCIENCES - SESSION 1 - RSP 209

Presentations may be available from 9:00 AM - 12:00 PM

9:00 AM	GO-LPS-01	RAPID DETECTION OF PATHOGENIC E. COLI BASED ON CRISPR TECHNOLOGY Pallavi Rathore*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ali Taheri, Agnes Kilonzo-Nthenge, Korsi Dumenyo, Zeinab Yadegari
9:40 AM	GO-LPS-04	ANALYSIS OF KEY FACTORS INVOLVED IN DEVELOPMENTAL ARREST IN WINDOWED EGGS FOR GENOME EDITING AND TRANSGENESIS STUDIES Rhia Nelson*, Nevein Soliman, Jailyn Jamison, Sammatha Stiff. <i>Biological Sciences</i> , College of Life Sciences. Advisor(s): Xiaofei Wang, Ann Bohannon-Stewart
10:00 AM	GO-LPS-05	MOLECULAR DIVERSITY AND FUNCTIONAL IMPLICATION OF AMPHIBIAN INTERFERON COMPLEX: REMARKING IMMUNE ADAPTATION IN VERTEBRATE EVOLUTION Oluwaseun Adeyemi*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Sang Yongming
10:20 AM	GO-LPS-06	RESISTANCE PROFILE OF PATHOGENIC BACTERIA IN GOAT AND SHEEP FECAL SAMPLES FROM TENNESSEE AND GEORGIA Basnet Ashesh*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Basnet Ashesh, Agnes Kilonzo-Nthenge
11:00 AM	GO-LPS-07	ANTIBIOTIC USE PRACTICES AND ANTIMICROBIAL RESISTANCE IN SMALL-SCALE GOAT AND SHEEP FARMING Tobenna Aniume*. <i>Family and Consumer Sciences</i> , College of Agriculture. Advisor(s): Agnes Kilonzo-Nthenge

**Denotes Presenters*

ORAL PRESENTATION - TUESDAY, MARCH 28, 2023 (Continued)

GRADUATE ORAL - LIFE AND PHYSICAL SCIENCES - SESSION 1 - RSP 209

Presentations may be available from 9:00 AM - 12:00 PM

11:20 AM	GO-LPS-08	INACTIVATION OF FOODBORNE PATHOGENS ON SURFACES BY ULTRAVIOLET LIGHT EMITTING DIODE SYSTEMS Aakash Sharma*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ankit Patras, Housyn Mahmoud
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GRADUATE ORAL - ENGINEERING - SESSION 2 - RSP 009

Presentations may be available from 9:00 AM - 12:00 PM

1:00 PM	GO-ENGR-07	DESIGN OF A SOLAR POWER AND WIRELESS POWER TRANSMISSION SYSTEM FOR DYNAMIC ELECTRIC VEHICLE CHARGING WITH AI BASED LOAD FORECASTING. Richard Wiencek*. <i>Electrical and Computer Engineering</i> , College of Engineering. Advisor(s): Sagnika Ghosh
1:20 PM	GO-ENGR-08	OPTIMAL FREQUENCY FOR OPTIMAL PERFORMANCE AND EFFICIENCY OF A SINGLE-PHASE WIRELESS POWER TRANSMISSION SYSTEM Richard Wiencek*. <i>Electrical and Computer Engineering</i> , College of Engineering. Advisor(s): Sagnika Ghosh
1:40 PM	GO-ENGR-09	PHYSICS BASED DATA PREPROCESSING TO INCREASE THE ACCURACY OF DEEP LEARNING BASED TRAFFIC STATE ESTIMATION Daryl Mupupuni*. <i>Electrical and Computer Engineering</i> , College of Engineering. Advisor(s): Liang Hong, Kamrul Hasan, Leehyun Keel
2:00 PM	GO-ENGR-10	A DECISION-BASED ENSEMBLE FRAMEWORK FOR INTRUSION DETECTION IN THE INTERNET OF VEHICLES Varshini Guduru*. <i>Electrical and Computer Engineering</i> , College of Engineering. Advisor(s): Kamrul Hasan, Saleh Zein-Sabatto, Deo Chimba
2:20 PM	GO-ENGR-11	DEEP LEARNING-BASED APPROACH FOR DEVICE AUTHENTICATION USING RF FINGERPRINTING: IDENTIFYING MALICIOUS TRANSMITTER Ekramul Haque*. <i>Electrical and Computer Engineering</i> , College of Engineering. Advisor(s): Kamrul Hasan
3:00 PM	GO-ENGR-12	PRECISELY IDENTIFIED FAULTY PRODUCTS IN MANUFACTURING INDUSTRIES THROUGH LIMITED DATA BY USING MACHINE LEARNING TECHNIQUES Al Amin*. <i>Electrical and Computer Engineering</i> , College of Engineering. Advisor(s): Kamrul Hasan
3:20 PM	GO-ENGR-13	PHYSICS REGULATED DEEP LEARNING FOR TRAFFIC DENSITY ESTIMATION WITH SMALL NOISY DATA Anupama Guntu*. <i>Electrical and Computer Engineering</i> , College of Engineering. Advisor(s): Liang Hong, Kamrul Hasan, Leehyun Keel

**Denotes Presenters*

GRADUATE ORAL- AGRICULTURAL SCIENCES - SESSION 2 RSP 163

Presentations may be available from 1:00 PM - 4:00 PM

1:00 PM	GO-AGNS-09	AN INVESTIGATION ON NURSERY GROWERS' PERCEPTION OF BOXWOOD BLIGHT DISEASE AND ASSESSMENT OF EFFICACY OF ITS MANAGEMENT Bhawana Ghimire* . <i>Otis L. Floyd Research Center</i> , College of Agriculture. Advisor(s): Fulya Baysal-Gurel, Ankit Patras, Brahmaiah Pendyala
1:20 PM	GO-AGNS-10	EFFECT OF PLANT DEFENSE ELICITOR IN PREVENTING AMBROSIA BEETLE ATTACKS IN FLOWERING DOGWOODS EXPOSED TO SIMULATED FLOOD Madhav Parajuli* . <i>Otis L. Floyd Research Center</i> , College of Agriculture. Advisor(s): Fulya Baysal-Gurel, Jason B. Oliver, Karla Addesso
1:40 PM	GO-AGNS-11	EVALUATION OF FUNGICIDES AND APPLICATION INTERVALS FOR THE Christina Jennings* . <i>Otis L. Floyd Research Center</i> , College of Agriculture. Advisor(s): Fulya Baysal-Gurel
2:00 PM	GO-AGNS-12	IDENTIFICATION OF FUNGAL SPECIES CAUSING CANKER DISEASE ON REDBUD (Cercis sp.) AND DEVELOPMENT OF AN EFFECTIVE DETECTION TOOL Pratima Subedi* . <i>Otis L. Floyd Research Center</i> , College of Agriculture. Advisor(s): Fulya Baysal-Gurel
2:20 PM	GO-AGNS-13	EFFECTIVENESS OF FLOWERING PLANTS IN ATTRACTING ARTHROPOD NATURAL ENEMIES IN VEGETABLE PRODUCTION Yuna Gaire* . <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Kaushalya Amarasekare, Firuz Yuldashev, Sarah Kilcoyne
3:00 PM	GO-AGNS-14	ASSESSMENT OF THE EFFECTIVENESS OF LOW-COST ETHANOL DETECTORS IN DETERMINING FLOOD STRESS IN DOGWOOD (Cornus florida L.) TO FACILITATE ON-SITE DETECTION OF TREES VULNERABLE TO AMBROSIA Anju Poudel* . <i>Otis L. Floyd Research Center</i> , College of Agriculture. Advisor(s): Karla Addesso, Jason Oliver, Paul O'Neal
3:20 PM	GO-AGNS-15	HERBICIDE STRESS AND FLATHEADED BORER ATTACKS IN RED MAPLE CULTIVARS Asmita Gautam* . <i>Otis L. Floyd Research Center</i> , College of Agriculture. Advisor(s): Karla Addesso, Jason Oliver, Anthony Witcher, Cindy Perkovich
3:40 PM	GO-AGNS-16	STANDARDIZING CURRENT RESEARCH PROTOCOLS TOWARDS GENETIC MODIFICATION FOR ANDROGENIC RESPONSIVE MICROSPORES OF RECALCITRANT SORGHUM BICOLOR Aron Felts* . <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ahmad Aziz, C. Ondzighi-Assoume, Dilovan Yahya

GRADUATE ORAL - LIFE AND PHYSICAL SCIENCES - SESSION 2 - RSP 209

Presentations may be available from 1:00 PM - 4:00 PM

1:00 PM	GO-LPS-09	ASSOCIATION BETWEEN HEALTHCARE PROVIDERS' WORKLOAD ON PATIENT OUTCOMES: A SYSTEMATIC REVIEW Bennett Crane*, Cal Gamache*, Ben Nguyen*, Brandon Trent* . <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Deborah Edmondson
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**Denotes Presenters*

ORAL PRESENTATION - TUESDAY, MARCH 28, 2023 *(Continued)*

GRADUATE ORAL - LIFE AND PHYSICAL SCIENCES - SESSION 2 - RSP 209

Presentations may be available from 1:00 PM - 4:00 PM

1:20 PM	GO-LPS-10	FABRICATION OF ACTIVE FOOD PACKAGING MATERIALS FROM NATURAL POLYMERS VIA ELECTROSPINNING Wenjun Zhu*, Karla Robles. <i>TIGER Institute</i> , College of Engineering. Advisor(s): Richard Mu, Ying Wu, Akira Ueda, Virginia Lorenz
1:40 PM	GO-LPS-11	ELECTROHYDRODYNAMIC FABRICATION OF CORE-SHELL MICROPARTICLES FOR CONTROLLED-RELEASE IMMUNOTHERAPY OF OVARIAN CANCER Karla Robles*. <i>TIGER Institute</i> , College of Engineering. Advisor(s): Richard Mu, Todd Giorgio, Ying Wu, Nadya Mason, Akira Ueda
2:00 PM	GO-LPS-12	EFFECTS OF WARMING ON SWITCHGRASS PHOTOSYNTHESIS AND LEAF CHLOROPHYLL CONTENT Christina Kieffer*, Navneet Kaur. <i>Biological Sciences</i> , College of Life Sciences. Advisor(s): Dafeng Hui, Jianwei Li
2:20 PM	GO-LPS-13	IMPACTS OF NITROGEN FERTILIZER, GREENHOUSE, AND CROP SPECIES ON Avedananda Ray*. <i>Biological Sciences</i> , College of Life Sciences. Advisor(s): Dafeng Hui

**Denotes Presenters*

PRESENTATION SCHEDULES

ORAL PRESENTATION - WEDNESDAY, MARCH 29, 2023

GRADUATE ORAL - ENGINEERING - SESSION 3 - RSP 009

Presentations may be available from 9:00 AM - 12:00 PM

9:00 AM	GO-ENGR-14	DESIGN AND SIMULATION OF OPTIMAL MICROFLUIDIC DESIGN FOR EFFECTIVE FLUID MIXING Christopher Buford*. <i>Mechanical and Manufacturing Engineering</i> , College of Engineering. Advisor(s): Landon Onyebueke, Lizhi Ouyang, Richard Mu, Sabrina Torres
9:20 AM	GO-ENGR-15	THE GROWTH OF GALLIUM OXIDE NANOWIRES Geordan Dorsey*, Antonio Moore. <i>TIGER Institute</i> , College of Engineering. Advisor(s): Richard Mu, Akira Ueda, Eugene Collins
9:40 AM	GO-ENGR-16	DEVELOPING NEW POLLEN GRAIN COUNT METHOD USING MACHINE LEARNING TO EVALUATE HEAT TOLERANCE OF TOMATOES Priya Thapa*, Shourav Bin Rabbani, Kajol Pradhan, Jun Guo, Dibya Thapa Magar. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Suping Zhou, Manar D. Samad, Hui Li, Sonali Roy
10:00 AM	GO-ENGR-17	DEVELOPMENT OF A COMPUTATIONAL MODEL FOR ACCELERATED AGING AND MATERIAL DEGRADATION IN VARYING TEMPERATURE AND Grady Clopton*. <i>Mechanical and Manufacturing Engineering</i> , College of Engineering. Advisor(s): Mohammad Habibi
11:00 AM	GO-ENGR-19	COMPARATIVE ANALYSIS OF THE MECHANICAL PROPERTIES OF 3-D PRINTED SPECIMENS Ifeanyi Okoye*. <i>Mechanical and Manufacturing Engineering</i> , College of Engineering. Advisor(s): Landon Onyebueke, Richard Mu
11:20 AM	GO-ENGR-20	FABRICATION OF MULTIFERROIC POLYMERIC FIBERS – A PLATFORM FOR SENSORY APPLICATION Simbarashe Kanjanda*. <i>TIGER Institute</i> , College of Engineering. Advisor(s): Richard Mu, Akira Ueda

GRADUATE ORAL- AGRICULTURAL SCIENCES - SESSION 3

Presentations may be available from 9:00 AM - 12:00 PM

9:00 AM	GO-AGNS-17	MUNG BEAN VARIETY INTRODUCTIONS TO TENNESSEE Joshua Relyea*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Matthew Blair
9:20 AM	GO-AGNS-18	MUNG BEAN AS AN ALTERNATE CROP FOR SMALL AND MID-SIZED FARMERS. A COMPARATIVE ECONOMIC ANALYSIS Satya Tiwari*, Fisseha Tegegne, Dafeng Hui. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Prabodh Illukpitiya
9:40 AM	GO-AGNS-19	SCREENING AND GENE EXPRESSION ANALYSIS OF COWPEAS AND BLACK-EYED PEAS FOR ALUMINUM TOLERANCE. Max Miller*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Matthew Blair, Dr. Hui Li

**Denotes Presenters*

ORAL PRESENTATION - WEDNESDAY, MARCH 29, 2023 *(Continued)*

GRADUATE ORAL- AGRICULTURAL SCIENCES - SESSION 3

Presentations may be available from 9:00 AM - 12:00 PM

10:00 AM	GO-AGNS-20	YIELD CHARACTERIZATION AND GEOSMIN QUANTIFICATION OF GRAIN Lahari Nekkalapudi*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Matthew Blair, Dr. Hui Li
10:20 AM	GO-AGNS-21	USING BIOTECHNOLOGY TO INCREASE SEED PRODUCTION AND SUSTAINABLE VEGETABLE OIL YIELDS IN SOYBEAN Gabriel Carrasquillo*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Christine Ondzighi Assoume, Matthew Blair
11:00 AM	GO-AGNS-22	PROMOTING SMART CONTRACTS FOR SPECIALTY CROPS: EXAMINING FOOD BUYERS' WILLINGNESS TO PARTICIPATE IN BLOCKCHAIN SYSTEM Devashish Bhandari*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Prabodh Illukpitiya
11:20 AM	GO-AGNS-23	COFFEE CHAFF AS AN ALTERNATIVE SUBSTRATE COMPONENT FOR CONTAINER-GROWN WOODY ORNAMENTALS Jacob Rawls*. <i>Otis L. Floyd Research Center</i> , College of Agriculture. Advisor(s): Anthony Witcher
11:40 AM	GO-AGNS-24	ESTABLISHMENT OF SELECTED COOL SEASON COVER CROPS FOR MIDDLE TENNESSEE NURSERIES Grayson DeLay*. <i>Otis L. Floyd Research Center</i> , College of Agriculture. Advisor(s): Anthony Witcher

UNDERGRADUATE - ORAL PRESENTATION (INTERDISCIPLINARY)

Presentations may be available from 1:00 PM - 4:00 PM

1:00 PM	UGO-01	HARVESTING SOLAR ENERGY USING PEROVSKITE PHOTOVOLTAIC CELLS FOR IMPROVED APPLICATIONS IN PORTABLE DEVICES Elijah Rachell*, Alexis Bell*. <i>Mechanical and Manufacturing Engineering</i> , College of Engineering. Advisor(s): Mohammad Habibi
1:20 PM	UGO-02	COMPUTATION OF PER ATOM STRAIN IN CLASSICAL MOLECULAR DYNAMICS SIMULATIONS Andrew Mikhaeil*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Ranganathan Parthasarathy
1:40 PM	UGO-03	REVERSING THE ENTREPRENEURIAL CURSE: ASSESSING ISSUES FACED AS A SELF-EMPLOYED BUSINESS OWNER Anarra Williams*. <i>Family and Consumer Sciences</i> , College of Agriculture. Advisor(s): LaPorchia Davis
2:00 PM	UGO-04	SWEET SORGHUM YIELDS PER HARVESTS IN TENNESSEE SUMMER AND FALL OF 2022 Paris Johnson*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ahmad Aziz, Dilovan Yahya, Aron Felts
2:20 PM	UGO-05	THE EFFECT OF CYSTEINE ON THE SYNTHESIS OF MELANINS Jaila Winford*. <i>Chemistry</i> , College of Life Sciences. Advisor(s): Koen Vercruysse

**Denotes Presenters*

UNDERGRADUATE - ORAL PRESENTATION (INTERDISCIPLINARY)

Presentations may be available from 1:00 PM - 4:00 PM

3:00 PM	UGO-06	PAR-4 AND ITS EFFECTS ON CARDIOVASCULAR DISEASE Sabrina Noel*, Ann Ebhouu, Ifezie Tooohukwu, Alfred Gbomina. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Carla Gardner-Jones, Evanageline Motley, Larry Alexander
3:20 PM	UGO-07	WNT SIGNALING MODULATION IN CHRONIC WOUNDS Sandra Noel*, Delany Bradford, Hannah Barge. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Sarika Saraswati
3:40 PM	UGO-08	THE REDUCTION OF NITROUS OXIDE EMISSIONS WITH BIOCHAR APPLICATIONS USING SWITHGRASS Sarena Noel*, Christina Kieffer, Avendananda Ray, Navneet Kaur. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Dafeng Hui

**Denotes Presenters*

PRESENTATION SCHEDULES

POSTER PRESENTATION - THURSDAY, MARCH 30, 2023

FACULTY POSTER PRESENTATIONS - ELLIOTT HALL AUDITORIUM

Presentations may be available from 9:00 AM - 12:00 PM

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| FP-01 | USE OF FLOWERING PLANTS FOR PEST MANAGEMENT IN VEGETABLE PRODUCTION
Dr. Kaushalya Amarasekare, <i>Agricultural Environmental and Sciences</i> , Tennessee State University,
Dr. Firuz Yuldashev, <i>Agricultural Environmental and Sciences</i> , Tennessee State University, Ms.
Yuna Gaire, <i>Agricultural Environmental and Sciences</i> , Tennessee State University |
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| FP-03 | ECONOMIC IMPACT AND MANAGEMENT OF BOXWOOD BLIGHT DISEASE IN THE U.S. NURSERY INDUSTRY
Dr. Kumuditha Hikkaduwa Epa Liyanage, <i>Otis L. Floyd Research Center</i> , Tennessee State University, Bhawana Ghimire, <i>Otis L. Floyd Research Center</i> , Tennessee State University, Dr. Fulya Baysal-Gurel, <i>Otis L. Floyd Research Center</i> , Dr. Charlie Hall, <i>Department of Horticultural Sciences</i> , Texas A&M University, College Station, TX 77843 |
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| FP-04 | AN ANALYSIS OF SOCIOECONOMIC DIFFERENCES IN FARMLAND OWNERSHIP AND SUCCESSION IN TENNESSEE
Mrs. Mary Mafuyai, <i>Agricultural and Environmental Sciences</i> , Tennessee State University, and Dr. Kofi Britwum, <i>Agricultural and Environmental Sciences</i> , Tennessee State University |
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| FP-06 | ELUCIDATING THE ROLE OF SFRP2 IN MODULATING ORGAN FIBROSIS
Dr. Sarika Saraswati* <i>Biological Sciences</i> , Tennessee State University, Ms. Delany Bradford, <i>Biological Sciences</i> , Ms. Meiling Melzer, Vanderbilt University Medical Center, Nashville, TN |
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**Denotes Presenters*

PRESENTATION SCHEDULES

POSTER PRESENTATION - THURSDAY, MARCH 30, 2023

GRADUATE SCIENCES - AGRICULTURAL - ELLIOTT HALL AUDITORIUM

Presentations may be available from 9:00 AM - 12:00 PM

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| GP-GSA-01 | IDENTIFICATION OF PROTEINS AND BIOLOGICAL PROCESSES AFFECTED BY USE OF ESSENTIAL OIL ON FRESH STRAWBERRIES
Kajol Pradhan*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Suping Zhou |
| GP-GSA-02 | GENOME-WIDE ASSOCIATION STUDY FOR ROOT SYSTEM ARCHITECTURE TRAITS IN FIELD SOYBEAN [GLYCINE MAX (L.) MERR.]
Pallavi Rathore*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ali Taheri, Korsi Dumenyo |
| GP-GSA-03 | COMPARATIVE TRANSCRIPTOMICS REVEALS SMALL RNA COMPOSITION AND DIFFERENTIAL MICRORNA RESPONSES UNDERLYING INTERFERON-MEDIATED ANTIVIRAL REGULATION IN PORCINE ALVEOLAR MACROPHAGES
Jiuyi Li*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Yongming Sang, Laura C. Miller |
| GP-GSA-04 | JOHNSON GRASS AND PIGWEED ECOTYPES IN TENNESSEE COUNTIES FOR DNA PROFILING
Rafeq Jambi*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ahmad Aziz, Dilovan Yahya |
| GP-GSA-05 | SCREENING AND RESPONSE OF COMMERCIAL COWPEA [<i>Vigna unguiculata</i> (L.) Walp.] CULTIVARS TO LOW pH AND ALUMINUM TOXIC CONDITIONS.
Max Miller*. <i>Agricultural Sciences and Environmental</i> , College of Agriculture. Advisor(s): Matthew Blair, Hui Li |
| GP-GSA-06 | CONVENTIONAL MUNG BEAN PRODUCTION IN WEST TENNESSEE (SHELBY COUNTY)
Joshua Relyea*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Matthew Blair, Bruce Kirksey |
| GP-GSA-07 | UNDERSTANDING ABIOTIC SURFACE INTERACTION MECHANISMS OF NUCLEOTIDES ON SOIL MINERALS
Diptesh Banerjee*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Sudipta Rakshit, Ali Taheri |
| GP-GSA-08 | FABRICATION OF ANTIMICROBIAL PACKAGING MATERIALS USING NATURAL POLYMERS BY COAXIAL-ELECTROSPRAY
Zicheng Yi*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Zicheng Yi, Richard Mu, Ying Wu |
| GP-GSA-09 | 'USER-INSPIRED' UV-C TECHNOLOGIES TO CONTROL MICROORGANISMS AT CHILLING STATIONS IN DEVELOPING COUNTRIES
Amritpal Singh*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ankit Patras, Brahmaiah Pendyala |
| GP-GSA-10 | PROJECT ACTIVITIES TO HELP LOCAL NURSERY AND GARDEN CENTERS TO MINIMIZE THE IMPACTS FROM THE COVID-19 PANDEMIC
Jun Guo*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Suping Zhou, Ouyang Lizhi, John Ricketts |

**Denotes Presenters*

POSTER PRESENTATION - THURSDAY, MARCH 30, 2023 *(Continued)*

GRADUATE ENGINEERING - ELLIOTT HALL AUDITORIUM

Presentations may be available from 9:00 AM - 12:00 PM

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| GP-GSE-01 | DEVELOPMENT OF RECHARGEABLE CEMENT CONCRETE-BASED BATTERIES USING IRON AND NICKEL AS ANODE AND CATHODE MATERIALS
Mercy Sammy*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Lin Li, Shihui Liu |
| GP-GSE-02 | INVESTIGATION OF PHOTODEGRADATION OF IMIDACLOPRID AND THIAMETHOXAM IN AQUEOUS ENVIRONMENT UNDER UVA, UVB AND SUNLIGHT EXPOSURE
Sylvia Kirwa*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Lin Li, Roger Painter, Andrea Gardiner |
| GP-GSE-03 | PRELIMINARY STUDY OF ENERGY STORAGE OF CONCRETE BATTERY BASED ON IRON ANODE-ZINC CATHODE DORCAS MACHIMU, SHIHUI LIU, LIN LI
Dorcas Machimu*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Shihui Liu, Lin Li |
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GRADUATE SCIENCE - HEALTH SCIENCES - ELLIOTT HALL AUDITORIUM

Presentations may be available from 9:00 AM - 12:00 PM

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| GP-GSH-01 | A SYSTEMATIC REVIEW OF SCHOOL COUNSELOR CONTENT IN ACA
Pamela Pugh*, Pranathi Shankar*. <i>Psychology</i> , College of Education. Advisor(s): Lauren Rocha |
| GP-GSH-02 | WHY GIVE BIRTH? AN EXPLORATORY STUDY OF THE DEVELOPMENT OF FEAR IN CHILDBIRTH
Imani Rivers*. <i>Psychology</i> , College of Education. Advisor(s): Lauren Rocha |
| GP-GSH-03 | ASSESSING DIVISION I STUDENT-ATHLETE CAREER SELF-EFFICACY AS THEY PREPARE TO ENTER THE WORKFORCE
Korab Idrizi*. <i>Psychology</i> , College of Education. Advisor(s): Lauren Rocha |
| GP-GSH-04 | AN EXPLORATION OF IMPOSTER SYNDROME AND ITS PSYCHOLOGICAL EFFECTS ON BLACK WOMEN IN COLLEGE
Kayla Womack*. <i>Psychology</i> , College of Education. Advisor(s): Lauren Rocha |
| GP-GSH-05 | MULTIRACIAL IDENTITY AND SELF-DISCLOSURE
Kiana McClintick*. <i>Psychology</i> , College of Education. Advisor(s): Lauren Rocha |
| GP-GSH-06 | SHIFTING THE NARRATIVE: FROM SURVIVING TO THRIVING
Reniece Martin*. <i>Psychology</i> , College of Education. Advisor(s): Lauren Rocha |
| GP-GSH-07 | INCLUSIVE CLASSROOMS AND PEER PERCEPTION OF STUDENTS WITH DISABILITIES
Jordyn Rosenblum*. <i>Psychology</i> , College of Education. Advisor(s): Lauren Rocha |
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**Denotes Presenters*

POSTER PRESENTATION - THURSDAY, MARCH 30, 2023 *(Continued)*

GRADUATE SCIENCE - HEALTH SCIENCES - ELLIOTT HALL AUDITORIUM

Presentations may be available from 9:00 AM - 12:00 PM

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| GP-GSH-08 | EXPLORING AFRICAN AMERICANS STUDENTS' PERCEIVED THERAPEUTIC OUTCOMES BASED ON THE RACE AND GENDER OF THEIR THERAPIST(S)
Rhea Harrison*. <i>Psychology</i> , College of Education. Advisor(s): Lauren Rocha |
| GP-GSH-09 | FAMILY FACTORS AND STRESS MANAGEMENT: HOW DOES FAMILY FACTORS AFFECT CHINESE INTERNATIONAL STUDENTS IN THE U.S NAVIGATING STRESS IN COLLEGE?
Fanchen Gao*. <i>Psychology</i> , College of Education. Advisor(s): Lauren Rocha |
| GP-GSH-10 | THE IMPACT OF WOMEN IN SPORT
Maya Howard*. <i>Human Performance and Sport Sciences</i> , College of Health Sciences. Advisor(s): Jason Smith, Poliala Dickson, Robbie Cochrum, James Heimdal, Tim Jones |
| GP-GSH-11 | THE NEED FOR SPORT PSYCHOLOGY PROGRAMS AT THE COLLEGIATE LEVEL
Julia Koogler*. <i>Human Performance and Sport Sciences</i> , College of Health Sciences. Advisor(s): Poliala Dickson, Jason Smith, Robbie Cochrum, James Heimdal, Tim Jones |
| GP-GSH-12 | COACHING MINORS AT HBCUS
Bryce Daniet*. <i>Human Performance and Sport Sciences</i> , College of Health Sciences. Advisor(s): Jason Smith |
| GP-GSH-13 | THE IMPACT OF ADULT PLAY ON QUALITY OF LIFE
Morgan Jackson*, Kaela Kreis*, De'Shaundra Larry*, Valeri Balistreri*. <i>Occupational Therapy</i> , College of Health Sciences. Advisor(s): Lisa Porter |
| GP-GSH-14 | THE IMPORTANCE OF OCCUPATIONAL THERAPY IN CAREGIVERS' OCCUPATIONAL BALANCE AND GRIEF PROCESSING IN END-OF-LIFE CARE
Chardea Harrison*, Emily Bailor*, Jusin Brown*, Keyuna Bufford*. <i>Occupational Therapy</i> , College of Health Sciences. Advisor(s): Lisa Porter |
| GP-GSH-15 | IMPACTS ON MENTAL HEALTH FOR A TYPICAL ADULT WITH A SIBLING WITH A DISABILITY
Nardeen Abskharaun*, Jennifer Bumpous*, Chloe Hixson*, Briera Miles*. <i>Occupational Therapy</i> , College of Health Sciences. Advisor(s): Lisa Porter |
| GP-GSH-16 | SUBSTANCE-USE ADDICTION: LINKS WITH SENSORY PREFERENCES AND INDIVIDUALS' AWARENESS OF THEIR SENSORY PATTERNS
Karina Speth*, Jennifer Sulcer*. <i>Occupational Therapy</i> , College of Health Sciences. Advisor(s): Lisa Porter |
| GP-GSH-17 | PREFERRED TEACHING METHODS OF STUDENTS IN A MASTER OF OCCUPATIONAL THERAPY PROGRAM
Katie Bass*, Lauren Meyers*, Abby McCarthy*. <i>Occupational Therapy</i> , College of Health Sciences. Advisor(s): Lisa Porter |
| GP-GSH-18 | EMERGING PRACTICE OT IN SPORTS
Erica Batchelor*, Lauryn Caruthers*, D'Arrikyia Fields*. <i>Occupational Therapy</i> , College of Health Sciences. Advisor(s): Lisa Porter |
| GP-GSH-19 | IDENTIFYING A NEED FOR COPING SKILLS CLASSES IN COLLEGES TO IMPROVE QUALITY OF LIFE OUTCOMES
Brooke Bailey*, Monique Willoughby*. <i>Occupational Therapy</i> Occupational Therapy, College of Health Sciences. Advisor(s): Lisa Porter |

**Denotes Presenters*

POSTER PRESENTATION - THURSDAY, MARCH 30, 2023 (Continued)

GRADUATE SCIENCE - HEALTH SCIENCES - ELLIOTT HALL AUDITORIUM

Presentations may be available from 9:00 AM - 12:00 PM

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| GP-GSH-20 | EXPLORING THE RELATIONSHIP BETWEEN MENTAL HEALTH EDUCATION AND CAREGIVER SELF-EFFICACY
Miciah Caruthers*, Madelaine Touzeau*, Arden Butler*. <i>Occupational Therapy</i> , College of Health Sciences. Advisor(s): Lisa Porter |
| GP-GSH-21 | THE EFFECT OF AMPUTATION ON BODY IMAGE AND QUALITY OF LIFE
Ella Cannon*, Emma McClellan*, Kelsey Seitz*. <i>Occupational Therapy</i> , College of Health Sciences. Advisor(s): Lisa Porter |
| GP-GSH-22 | A COMPARATIVE REVIEW OF THE EFFECTS OF CORTICOSTEROID INJECTIONS AND RESISTANCE EXERCISE ON WOMAC SCORES OF PATIENTS WITH KNEE OSTEOARTHRITIS
Mina Isaac*, Leilani Lee*, Dalin Parker*, Rebecca Pettross*. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Ronald Barredo |
| GP-GSH-23 | SCREENING FOR PELVIC FLOOR MUSCLE DYSFUNCTION WITH A PRIMARY COMPLAINT OF LOW BACK PAIN IN OUTPATIENT PHYSICAL THERAPY SETTINGS
Rebecca Villpiano*, Emily Enoch*, Sarah Parsons*, Ashlyn Morrison*. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Derek Charles |
| GP-GSH-24 | RETURN TO SPORTS ACL REHABILITATION IN MEN VS WOMEN: WHAT WORKS AND WHAT DOESN'T? A SYSTEMATIC REVIEW
Megan Tidwell*, Miranda Harmon*, Zack Hillis*, Maxwell Maloney*, James Young*. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Richard Clark |
| GP-GSH-25 | A SYSTEMATIC REVIEW: THE EFFECTS OF PREOPERATIVE PELVIC FLOOR MUSCLE TRAINING ON URINARY INCONTINENCE AFTER PROSTATECTOMY
Michael LaRue*, Peter Geroulis, Bryce Reed*, Ben Rosplock*. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Marsha Bowman |
| GP-GSH-26 | SENSORY FEEDBACK EFFECTS ON LOWER EXTREMITY PHANTOM LIMB PAIN WITH MYOELECTRIC PROSTHESES: A SYSTEMATIC REVIEW
Caroline Edmonson*, Ryan Gant*, Andrew Merritt*, Caleb Wharton*. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Karen Smith |
| GP-GSH-27 | ARE NEW GRADUATE PHYSICAL THERAPISTS PREPARED TO MANAGE PELVIC DYSFUNCTION?
Leilani Lee*, Thomas Richard*, Dillon Douglas. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Marsha Bowman |
| GP-GSH-28 | PAIN ATTITUDES AND BELIEFS OF DOCTORATE OF PHYSICAL THERAPY STUDENTS
Maxwell Ashcroft*, Zachary Richard*, Benjamin Sisco*. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): David Lehman |
| GP-GSH-29 | OUTCOMES TO SPINAL FUSION AND ARTIFICIAL DISC REPLACEMENT SURGERIES IN THE CERVICAL SPINE: A SYSTEMATIC REVIEW
Ben Alden*, Megan Hoover*, Abby Howard*, Wyatt Walton*. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Patricia King |

**Denotes Presenters*

POSTER PRESENTATION - THURSDAY, MARCH 30, 2023 (Continued)

GRADUATE SCIENCE - HEALTH SCIENCES - ELLIOTT HALL AUDITORIUM

Presentations may be available from 9:00 AM - 12:00 PM

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| GP-GSH-30 | THE EXTENT TO WHICH THE RIGOR OF UNDERGRADUATE PREREQUISITE COURSES IS AN INDICATOR OF FIRST-YEAR SUCCESS IN A DOCTOR OF PHYSICAL THERAPY PROGRAM

Ulani Robinson*. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Richard Clark |
| GP-GSH-31 | 3RD YEAR TENNESSEE STATE UNIVERSITY PHYSICAL THERAPY STUDENTS' PERCEPTIONS ON PIVOTING TO A HYBRID LEARNING ENVIRONMENT DURING THE COVID-19 PANDEMIC

Roy Etta*. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Derek Charles |
| GP-GSH-32 | ARE PELVIC HEALTH PHYSICAL THERAPISTS READY FOR THE "OPTIMIZING POSTPARTUM OUTCOMES ACT OF 2022" (H.R. 8181)?

Kariya Jennings*. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Marsha Bowman |
| GP-GSH-33 | EXPLORING CAB MEMBERS' PERCEIVED ROLES, NEEDS, AND SKILLS TO PROMOTE CANCER HEALTH EQUITY

J'la Jenkins*, Philip Morris. <i>Center for Prevention Research (CPR)</i> , Research and Sponsored Programs. Advisor(s): Rebecca Selove, Jennifer Erves, Leah Alexander, Karen Winkfield |
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GRADUATE SCIENCE - LIFE SCIENCES - ELLIOTT HALL AUDITORIUM

Presentations from 9:00 AM - 12:00 PM

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| GP-GSL-01 | WNT SIGNALING MODULATION IN CHRONIC WOUNDS

Hannah Barge*, Sandra Noel. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Sarika Saraswati |
| GP-GSL-02 | RESPONSE PATTERNS OF SIMULATED CORN YIELD AND SOIL NITROUS OXIDE EMISSION TO PRECIPITATION CHANGE

Navneet Kaur*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Dafeng Hui |
| GP-GSL-03 | DIBUTYLTIN STIMULATION OF TUMOR NECROSIS FACTOR A IN HUMAN IMMUNE CELLS: ROLE OF TOLL-LIKE RECEPTOR 4.

Latoya Daniel*, Aleshia Seaton-Terry. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen |
| GP-GSL-04 | HEXABROMOCYCLODODECANE (HBCD) INCREASES PRO-INFLAMMATORY CYTOKINES INTERLEUKIN 1 BETA (IL-1B) AND INTERLEUKIN 6 (IL-6) IN HUMAN PERIPHERAL BLOOD MONONUCLEAR CELLS

April Falconer-Turner*, Kameron Brooks, Eseoghene Ogaga. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen |
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**Denotes Presenters*

POSTER PRESENTATION - THURSDAY, MARCH 30, 2023 *(Continued)*

GRADUATE SCIENCE - LIFE SCIENCES - ELLIOTT HALL AUDITORIUM

Presentations may be available from 9:00 AM - 12:00 PM

GP-GSL-05 **ANTIBACTERIAL AGENT, TRICLOSAN (TCS), ALTERS THE PRODUCTION OF PRO-INFLAMMATORY CYTOKINE INTERLEUKIN 1 BETA FROM HUMAN IMMUNE CELLS: THE ROLE OF MITOGEN-ACTIVATED PROTEIN KINASES**
Wendy Wilburn*. *Chemistry*, College of Life and Physical Sciences. Advisor(s): Margaret Whalen

GP-GSL-06 **COMPARISON OF TLR4 AND TLR1/2 IN PENTACHLOROPHENOL INDUCED STIMULATION OF IL-1B IN HUMAN IMMUNE CELLS**
Aleshia Seaton-Terry*. *Chemistry*, College of Life and Physical Sciences. Advisor(s): Margaret Whalen

UNDERGRADUATE POSTER - INTERDISCIPLINARY

Presentations from 1:00 PM - 4:00 PM

UP-01 **INDIVIDUAL MICROSPORE ISOLATION FROM SWEET SORGHUM CULTIVARS TOWARDS GENETIC ANALYSIS**
Blake Wright*. *Agricultural and Environmental Sciences*, College of Agriculture. Advisor(s): Ahmad Aziz, Dilovan Yahya

UP-02 **THE BENEFITS OF URBAN FORESTS IN TENNESSEE**
Aria McElroy*. *Agricultural and Environmental Sciences*, College of Agriculture. Advisor(s): Yujuan Chen

UP-03 **IMPACT OF COVID-19 IN AGRI-FOOD SYSTEM AND ITS ENVIRONMENTAL EFFECTS**
Kerrington Howard*. *Agricultural and Environmental Sciences*, College of Agriculture. Advisor(s): Prabodh Illukpitiya

UP-04 **K-12 SCHOOL STAKEHOLDERS' PHENOMENOLOGICAL EXPERIENCES WITH TRAUMA-INFORMED TRAINING**
Kirsten Dillard*. *Psychology*, College of Education. Advisor(s): Lauren Rocha, Yn'kioko Tillery

UP-05 **DESCRIPTIVE STATISTICS OF THE IMPACT OF CABLE RAILS SYSTEMS**
Aaron Lamson*. *Civil and Architectural Engineering*, College of Engineering. Advisor(s): Deo Chimba

UP-06 **THE ROLE OF P38 MAP-KINASES IN HBCD-INDUCED INCREASES IN IL-6 PRODUCTION IN HUMAN IMMUNE CELLS**
Eseoghene Ogaga*, April Falconer-Turner. *Chemistry*, College of Life and Physical Sciences. Advisor(s): Margaret Whalen

UP-07 **he role of p44/42 MAP KINASE IN HEXABROMOCYCLODODECANE (HBCD)-INDUCED PRODUCTION OF INTERLEUKIN 6 (IL-6) IN HUMAN PERIPHERAL BLOOD MONONUCLEAR CELLS (PBMCS)**
Kameron Brooks*, April Falconer-Turner. *Chemistry*, College of Life and Physical Sciences. Advisor(s): Margaret Whalen

**Denotes Presenters*

POSTER PRESENTATION - THURSDAY, MARCH 30, 2023 *(Continued)*

UNDERGRADUATE POSTER - INTERDISCIPLINARY

Presentations may be available from 9:00 AM - 12:00 PM

UP-08	THE ROLE OF TLR4 IN PENTACHLOROPHENOL-INDUCED STIMULATION OF INTERLEUKIN 6 PRODUCTION BY HUMAN IMMUNE CELLS Zinia Hunter*, Aleshia Seaton-Terry. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen
UP-09	TRIBUTYLTIN-INDUCED PRODUCTION OF TUMOR NECROSIS FACTOR A IN HUMAN IMMUNE CELLS INVOLVES TOLL-LIKE RECEPTOR 1/2 Sophia Fisher*, Meaghan Lewis. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen
UP-10	TOLL-LIKE RECEPTOR 4 CONTRIBUTES TO TRIBUTYLTIN STIMULATION OF Meaghan Lewis*. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Margaret
UP-11	ANALYZING ESTROGEN RECEPTOR RESPONSE TO BREASTS CANCER CELLS AT STIFFNESS RELATIVE TO THE BONE MARROW Jada Lott*. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen, Julie Rhoades-Sterling
UP-12	MPEMBA EFFECT ON NONAQUEOUS LIQUID: A STUDY OF NON-EQUILIBRIUM FACILITATED FREEZING RATE ENHANCEMENT Alexander San-Marina*. <i>Chemistry</i> , College of Life and Physical Sciences. Advisor(s): Tasneem Siddiquee

**Denotes Presenters*