

**POSTER SESSION**  
**Swain Hall Lobby**  
**10:30 AM-12:30 PM**

*Posters set up 8-10 a.m., all posters must be on display by 10:00 a.m.*

**BIOLOGY: CELLULAR**

- 1 IDENTIFYING WHICH SUBCELLULAR COMPARTMENTS IN THE BRAIN EXPRESS PDE9A AND HOW THAT EXPRESSION CHANGES WITH AGE  
Neema Patel and Michy Kelly, University of South Carolina
- 2 CULTURING MURINE ADIPOSE-DERIVED STEM CELLS AS SPHEROIDS IN THE PRESENCE OF TRICHOSTATIN A AND 5-AZACYTIDINE ALTERS GENE EXPRESSION  
Elizabeth McAbee and Matthew Stern, Winthrop University
- 3 PORCINE ACELLULAR MUSCLE MATRIX SCAFFOLDS SUPPORT RECELLULARIZATION BY MYOGENIC CELLS  
Natalie Mseis, Carolina Pham, and Matthew Stern, Winthrop University
- 4 THE CORRELATION BETWEEN ENVIRONMENTAL HYDROCARBON CONTAMINATION AND PARASITIC INFECTION IN FUNDULUS HETEROCLITUS  
Michaela McElveen, Michelle Troup and Marlee Marsh, Columbia College
- 5 ASSESSING THE FUNCTION OF KLEPTOPLASTY WITHIN FORAMINIFERA  
Joshua Squires, Tyler Aulffo, Nyquashia Edwards, Lauren Schexnayder, and Megan Cevasco, Coastal Carolina University and Massachusettes Institute of Technology
- 6 MPING AS A TOOL FOR TRANSPOSON MUTAGENESIS IN ZEBRAFISH  
Alec Jones and April Delaurier, University of South Carolina Aiken
- 7 EPIGENETIC MODIFIERS 5-AZACYTIDINE AND TRICHOSTATIN A ALTER ADIPOSE-DERIVED STEM CELL GENE EXPRESSION  
Melissa Barr and Matthew Stern, Winthrop University
- 8 CHARACTERIZATION AND CLONING OF A DEVELOPMENTAL MUTANT ALLELE IN *C. ELEGANS*  
Taylor Hinds and Daniel Williams, Coastal Carolina University
- 9 CHARACTERIZING GALACTOSEMIA IN *C. ELEGANS*  
Ashley Pribble and Daniel Williams, Coastal Carolina University
- 10 DEVELOPMENT OF A BICISTRONIC VECTOR SYSTEM TO TEST ANTI-HIV 1 SIRNAS THAT TARGET THE ACCESSORY PROTEIN VIF  
Rebecca Beaudry and William Jackson, University of South Carolina Aiken
- 11 EXAMINING THE INFLUENCE OF REGULATORY PATHWAYS ON IMPORTIN EXPRESSION  
Ramsha Shams, Quentell Wagener, and Christine Byrum, College of Charleston

- 12 THE EFFECT OF KARYOPHERIN DISTRIBUTION AND EXPRESSION ON THE EARLY DEVELOPMENT OF THE SEA URCHIN  
Devon Hathaway, Paul Siegwald, Greg Mcfadden, Melanie Overcash, and Christine Byrum, College of Charleston
- 13 INVESTIGATION OF  $\Delta$ 9-TETRAHYDROCANNABINOL (THC)-MEDIATED REGULATION OF MYELOID-DERIVED SUPPRESSOR CELLS (MDSCS) IN MICE  
Arianna Miskin and Narendra Singh, University of South Carolina
- 46 ANGIOGENESIS AND MAST CELLS IN PRECANCEROUS PROSTATE  
Ahmed Aladhami, Michael Hobensack, Nabihah I. Kumte, Alena P. Chumanevich, Taryn L. Cranford, Reilly T. Enos, Kandy T. Velázquez, Ioulia Chatzistamou, John W. Fuseler, E. Angela Murphy, and Carole A. Oskeritzian, University of South Carolina School of Medicine

### **BIOLOGY: FIELD**

- 14 ACOUSTIC MONITORING OF BAT POPULATIONS IN FLORENCE, SC  
Aaron Robinson and Jeffrey Steinmetz, Francis Marion University
- 15 RESULTS OF A COURSE-BASED STUDY RELATING AMPHIBIAN DISTRIBUTION AND LAND USE FEATURES IN SOUTH CAROLINA  
Leisa M. Rauch and Eran S. Kilpatrick, University of South Carolina Columbia
- 16 PASSIVE ACOUSTIC MONITORING OF BLUEGILL SUNFISH (LEPOMIS MACROCHIRUS) - FIELD AND LABORATORY CALLING PATTERNS  
Michelle Gallo and Jeff Steinmetz, Francis Marion University
- 17 INVESTIGATING THE TOXICITY AND ACCUMULATION OF A MEDICALLY IMPORTANT HERBICIDE 2,4-DICHLOROPHENOXYACETIC ACID (2,4-D) USING EARTHWORM AS A MODEL SYSTEM  
Nicole Lidzbarski, Caitlin Lazurick, Rachel Owings, Jeff Brotherton, and Edna Steele Converse College
- 18 DEVELOPMENT OF METHODS FOR THE DETECTION OF 2,4-D AND GLYPHOSATE IN EARTHWORMS  
Rachel Owings and Jeff Brotherton, Converse College
- 19 ABUNDANCE AND DISTRIBUTION OF MICROPLASTIC PARTICLES IN WINYAH BAY, S.C.  
Dillon King and George Boneillo, Coastal Carolina University

### **BIOLOGY: MOLECULAR**

- 20 APPLICATION OF TOL2-BASED ACTIVATION TAG CONSTRUCTS FOR ZEBRAFISH MUTAGENESIS  
Allison Swiecki and Nathan Hancock, University of South Carolina Aiken
- 21 USING CRISPR/CAS9 TO STUDY THE ROLE OF ZMYM2 AND ZMYM3 IN ZEBRAFISH CRANIOFACIAL DEVELOPMENT  
Terence Willoner and April Delaurier, University of South Carolina Aiken

- 22 DETERMINING THE ROLE OF HOMOLOGOUS RECOMBINATION IN  
REPLICATIVE TRANSPOSITION OF MPING  
Lisette Payero and C. Nathan Hancock, University of South Carolina Aiken
- 23 DETERMINING THE ROLE OF LDLRAP1A IN CRANIOFACIAL DEVELOPMENT IN  
ZEBRAFISH  
Kali Wiggins and April Delaurier, University of South Carolina Aiken
- 24 CLONING A HIV-1 VIF-RESISTANT A3G GENE INTO A LENTIVIRAL VECTOR  
McKenzie Spires and William Jackson, University of South Carolina Aiken
- 25 CLONING A SIRNA TARGETED TO HIV-1 VIF  
Kirstyn Denney and William Jackson, University of South Carolina Aiken

### **CHEMISTRY / BIOCHEMISTRY**

- 26 SYNTHESIS OF PHIDIANIDINE ANALOGS CONTAINING 1,2,3- TRIAZOLES  
David Laws and Bryan Wakefield, Coastal Carolina University
- 27 PHIDIANIDINE ANALOGUES CONTAINING AN ISOXAZOLE RING STRUCTURE  
Breana Wilson, Nehemiah Stafford, and Bryan Wakefield, Coastal Carolina University
- 28 A 1ST GENERATION AMPEROMETRIC GALACTOSE BIOSENSOR  
Gillian Horn, Amanda Burton and Will Case, Converse College
- 29 ANALYSIS OF THE MOLECULAR WEIGHT DISTRIBUTION OF  
POLYHEXAMETHYLENE BIGUANIDE USING EQUILIBRIUM DIALYSIS, SIZE-  
EXCLUSION CHROMATOGRAPHY, DYNAMIC LIGHT SCATTERING, AND ULTRA-  
PERFORMANCE LIQUID CHROMATOGRAPHY-MASS SPECTROMETRY  
Ashley Thompson and Sandy Wheeler, Furman University
- 30 INVESTIGATING PHAGE ACTIVITY WITHIN THE STUDENT POPULATION AT  
COASTAL CAROLINA UNIVERSITY  
Amy Powers, Lisa Pieterse and Paul Richardson, Coastal Carolina University
- 31 COMPARISON OF BACTERIOPHAGE FOUND AT RESIDENTIAL AND  
COMMERCIAL ENVIRONMENTS  
Alexis Setta, Elizabeth Christmas, and Paul Richardson, Coastal Carolina University
- 32 SPECTROSCOPIC CHARACTERIZATION OF FLUTAMIDE-  
POLYVINYLPIRROLIDONE INTERACTION: IMPROVING BIOAVAILABILITY OF  
DRUG MOLECULES.  
Henry Nickson and Bijoy Dey, Claflin University
- 33 DEVELOPMENT OF PRUSSIAN BLUE MODIFIED ELECTROCHEMICAL SENSORS  
STABILIZED WITH NICKEL HEXACYANOFERRATE.  
Mallory Byrne, Kathryn Stillman, and Drew Budner, Coastal Carolina University
- 34 SELF-ASSEMBLED MONOLAYERS OF ALKYL CARBOXYLIC ACIDS ON ZNO  
NANOPARTICLES  
Aerin Richardson and Nicholas Marshall, University of South Carolina Aiken

- 35 SOLVENT-ISOTOPE EFFECTS ON THE 2,4-<sup>13</sup>C-DIHYDROXYACETOPHENONE  
DIOXYGENASE REACTION  
Haley Cave and Kenneth Roberts, University of South Carolina Aiken
- 36 PRODUCT INHIBITION IN THE REACTION OF 2,4"-DIHYDROXYACETOPHENONE  
Ineisha Herrington and Ken Roberts, University of South Carolinaa
- 37 PH DEPENDENCE OF THE OXIDATIVE CLEAVAGE OF 2,4-  
DIHYDROXYACETOPHENONE (DHA) BY 2,4-DIHYDROXYACETOPHENONE  
DIOXYGENASE  
Jason Weeks and Ken Roberts, University of South Carolina-Aiken
- 39 INTRAMOLECULAR PROTON TRANSFER DYNAMICS IN MALONALDEHYDE  
BASED ON THE HAMILTON-JACOBI EQUATION  
Shaquille Shaw and Bijoy Dey, Claflin University

**MATH / COMPUTER SCIENCE / PHYSICS / ASTRONOMY**

- 39 COMPUTATIONAL METHODS FOR PREDICTING AEROELASTIC FLUTTER  
Katelynn Huneycutt, Spencer Wilder , Jason Howell , and Justin Webster, College of  
Charleston
- 40 3D IMAGING SYSTEM FOR SCREENING AND DIAGNOSING CERVICAL CANCER  
Elyana Crowder and Joe Carson, College of Charleston
- 41 EXPLORING THE THERMAL AND VISCOUS INSTABILITIES IN RELATIVISTIC,  
RADIATIVE, VISCOUS HYDRODYNAMIC SIMULATIONS OF THIN DISKS  
Sarina Etheridge, Chris Fragile, Bhupendra Mishra, Peter Anninos, College of  
Charleston, Nicolaus Copernicus Astronomical Center, Lawrence Livermore National  
Laboratory
- 42 NUMERICAL SIMULATIONS OF A JET-CLOUD COLLISION AND STARBURST:  
APPLICATION TO MINKOWSKI'S OBJECT  
Jason Witry and Chris Fragile, College of Charleston

**MEDICINE / PHARMACOLOGY / PUBLIC HEALTH**

- 43 THE USE OF BONE GROWTH STIMULATORS FOR OSTEOARTHRITIS OF THE  
KNEE  
Logan Willeford and Kenneth Willeford, Coastal Carolina University
- 44 EFFECT OF RESVERATROL ON GUT MICROBIOME IN TNBS-INDUCED COLITIS  
Haider R Alrafas, Brandon, P. Busbee, Prakash Nagarkatti and Mitzi Nagarkatti,  
University of South Carolina School of Medicine and WJB Dorn Veterans Affairs Medical  
Center
- 45 THE INFLUENCE OF PERCEIVED CONTROL OVER TASK DIFFICULTY ON  
COPING WITH MATH ANXIETY  
Christine Hartmann and Keri Weed, University of South Carolina Aiken

**DWIGHT CAMPER OUTSTANDING UNDERGRADUATE  
RESEARCH AWARD**

*The following entries have been nominated for 2017 award:*

EFFECT OF BOT FLY (CUTEREBRA FONTINELLA) PARASITISM ON THE MOVEMENT AND  
MICROHABITAT SELECTION OF WHITE-FOOTED MICE (PEROMYSCUS  
LEUCOPUS)

Allison Johnson, University of South Carolina Upstate

IDENTIFYING WHICH SUBCELLULAR COMPARTMENTS IN THE BRAIN EXPRESS PDE9A  
AND HOW THAT EXPRESSION CHANGES WITH AGE

Neema Patel, School of Medicine, University of South Carolina

INVESTIGATION OF MORINGA OLEIFERA LEAF EXTRACT AND ITS CANCER SELECTIVE  
ANTIPROLIFERATIVE PROPERTIES

Reagen Welch, Southern Wesleyan University