



Research Day 2015

UNIVERSITY OF SOUTH CAROLINA AIKEN

*...a Forum
of Discovery*

April 10th, 2015

Student Activities Center, 10:00-4:30 pm

Sponsored by USC Aiken Alumna, Ms. Celeste Suggs

Friday, April 10, 2015

Oral Presentations – Humanities and Social Sciences

Session 1: SAC Mezzanine Room A (1:30 – 2:30)

Prof. Dewey Scott-Wiley, Presiding

- 1:30 **Can People Make Connections with Technological Communication?**
Lauren Baker (Communications Major)
Faculty Mentor: Dr. William D. Harpine
- 1:45 **Gamel Woolsey: A Southern Poet?**
Janice Caitlin Butler (English Major)
Faculty Mentor: Dr. Tom Mack
- 2:00 **A Guide to Select Historical Properties in Aiken County**
Ajay Krishnakumar (History Major)
Faculty Mentor: Professor Alexia Helsley
- 2:15 **Why we Need an African Approach to Understanding “Development”**
Luntadila Cesar Paulo (Accounting and Finance Major)
Faculty Mentor: Dr. Heather Peterson

Session 2: SAC Mezzanine Room A (2:45 – 3:30)

Prof. Dewey Scott-Wiley, Presiding

- 2:45 **The Chinese Economic Phenomenon and Mao’s Legacy: Because of or in Spite of?**
William Bradford Prothman-Roberts (Finance and Accounting Major),
Ajay Krishnakumar, Alexander Adkins, Han Zhang
Faculty Mentor: Dr. Douglas Higbee
- 3:00 **The Rise of “Scottishness:” A Result of Nationalism or Anti-Thatcherism?**
Andrew Quirk (History Major)
Faculty Mentor: Dr. Heather Peterson
- 3:15 **Digital Story Telling: Switzerland & Nestle**
Antwon Dallas (Business Administration - Management Major)
Faculty Mentor: Dr. Linda C. Rodriguez

Oral Presentations – Sciences

Session 1: SAC Mezzanine Room A (10:30 – 11:45)

Dr. Edward Callen, Presiding

- 10:30 **An Examination of Lateral Hostility Experiences of Undergraduate Student Nurses**
Andrew Boggs (Nursing Major)
Faculty Mentor: Dr. Thayer McGahee
- 10:45 **Optimizing Germinal Transposition of *mPing* in *Arabidopsis thaliana***
Courtney Burckhalter (Biology Major)
Faculty Mentor: Dr. C. Nathan Hancock
- 11:00 **Developing a Retroviral Vector to Express Enhanced Green Fluorescent Protein**
Jennifer Deily (Biology Major)
Faculty Mentor: Dr. William H. Jackson
- 11:15 **The Synthesis of Palladium(II)-NHC Compounds for Cross-Coupling Catalysis**
Manuel Dominguez (Chemistry Major), Dominick Colosimo
Faculty Mentor: Dr. Gerard Rowe
- 11:30 **The Attitudes and Beliefs of Nurses Towards Traditional Chinese Healthcare Practices**
Amy He (Nursing Major)
Faculty Mentor: Dr. Rebecca Carr

Session 2: SAC Mezzanine Room B/C (10:30 – 12:00)

Dr. William Jackson, Presiding

- 10:30 **Intra-Genotypic Competition of the Invasive Grass *Aegilops triuncialis***
Amanda Jones (Biology Major), Jennifer Jackson, Tyler Shealy
Faculty Mentor: Dr. Andrew Dyer
- 10:45 **The Effects of Chronic Stress, High Sugar Diet, and Exercise on Depressive Symptomatology and Associated Physiology in Sprague-Dawley Rats**
Austin Kaiser (Biology and Psychology Major)
Faculty Mentor: Dr. Michelle Vieyra
- 11:00 **The Dose Dependent Effects of Caffeine on Cognitive Performance and Neuronal Activation**
Helen Morris (Biology Major)

Faculty Mentor: Dr. Michelle Vieyra

- 11:15 **Office-Based Workout**
Stephanie Youngblood, Hannah Grooms, Kelsey Schettino (Exercise and Sports Science Majors)
Faculty Mentor: Dr. Brian Parr
- 11:30 **Synthesizing Functional Polyester Fabrics by Incorporating Copper Nanoparticles**
Olaoluwa Shorinwa (Mechanical Engineering Major)
Faculty Mentor: Dr. Bethany Fralick
- 11:45 **Targeted Insertion of the Transposable Element, mPing**
Ashley Strother (Biology Major)
Faculty Mentor: Dr. Nathan Hancock

Session 3: SAC Mezzanine Room A (12:30 – 1:15)
Dr. Edward Callen, Presiding

- 12:30 **Stigma Related to Student Sexual Orientation**
Micah Hurtt (Psychology Major)
Faculty Mentor: Dr. Meredith Elzy
- 12:45 **Golf Academy Feasibility Study**
Andrew Ward (Business Administration-Finance Major)
Faculty Mentor: Dr. Paul Newsom
- 1:00 **Synthesis and Reactivity of Metal Compounds Containing Acid Functionalized Ligands**
Emma H. Foerster (Chemistry Major), Shelby Lee Behnke, Sarah N. Weaver, Jeremy S. Weeks, Mark W. Bezpalko, Bruce M. Foxman
Faculty Mentor: Dr. Gerard Rowe

Session 4: SAC Mezzanine Room B/C (12:30 – 2:00)
Dr. William H. Jackson, Presiding

- 12:30 **siRNA-Mediated Downregulation of an Essential HIV Regulatory Gene**
Emily M. Webb (Biology Major)
Faculty Mentor: Dr. William H. Jackson
- 12:45 **Precise Repair of mPing Excision Sites is Facilitated by TSD Microhomology**
David Gilbert (Biology Major), M. Catherine Bridges, Ashley E. Strother, Courtney E. Burckhalter
Faculty Mentor: Dr. C. Nathan Hancock

- 1:00 **Synergistic Effect Between Caffeine and Sugar on Cognitive Performance**
Sandra Urquiza (Psychology and Biology Major)
Faculty Mentor: Dr. Michelle Vieyra
- 1:15 **Response to Stress Between Populations and Genotypes of the Invasive Grass *Aegilops triuncialis***
Tyler Shealy (Biology Major)
Faculty Mentor: Dr. Andy Dyer
- 1:30 **Bioaccumulation of Mercury in Crayfish Inhabiting an Aquatic Retention System**
Jeremy Hargis (Biology Major)
Faculty Mentor: Professor Bradley D. Reinhart
- 1:45 **Filling Critical Gaps in Life History for Silk Snapper in Order to Ensure Sustainable Management**
Dorothy Clemons-Erby (Biology Major)
Faculty Mentor: Dr. Virginia Shervette

Session 5: SAC Mezzanine Room B/C (2:30 – 3:15)
Dr. Timothy Lintner, Presiding

- 2:30 **Raman Spectra of EDAB and its Analogs in Various Solvents**
Sommer E. Farmer (Chemistry Major)
Faculty Mentor: Dr. Monty L. Fetterolf
- 2:45 **A Class of Groups**
Megan Taylor (Mathematics and Computer Science Major)
Faculty Mentor: Dr. Zhenheng Li
- 3:00 **Making CRISPR/Cas9 Constructs to Target Genes in the Phf21a Complex Involved in Craniofacial Development in Zebrafish**
Khadijah Jihad (Biology Major)
Faculty Mentor: Dr. April DeLaurier

Poster Session

SAC Lobby

Session 1

12:30-2:00 pm

- (RD-1) **Behavioral Variables Affect the Bout Structure of Spontaneous Running in Rats**
Haley J. Boyd (Psychology Major). Michael F. Nash.
Faculty Mentor: Professor Daniel Hoffman
- (RD-2) **Developing mPing-based Activation Tags**
Tiana LaTrell Chandler (Biology Major), Daymond Parrilla, Mary Beth Roby
Faculty Mentor: Dr. C. Nathan Hancock
- (RD-3) **Assessing the Need for a Trityl Group as a Steric Buttress to Initiate a Diels-A**
Chitravati D. Choony (Chemistry Major), Jeremy Fulmer, Trevian Loveless, Lukas Earhart
Faculty Mentor: Dr. Nandeo Choony
- (RD-4) **Relationships between Math Anxiety, Working Memory, and Math Performance**
Ifeoluwa Ekundayo (Nursing Major)
Faculty Mentors: Dr. Laura Swain and Dr. Keri Weed
- (RD-5) **Mercury Bioaccumulation in Southern Kingfish from Coastal South Carolina**
Alexis Harvin (Biology Major)
Faculty Mentor: Dr. Virginia Shervette
- (RD-6) **The Effect of Cognitive Task Load on the Ability to Balance**
Tyisha Henderson (Psychology Major), Carly Osborn, Marissa Wagner
Faculty Mentor: Dr. Keri Weed
- (RD-7) **Virtual Child Rearing in Developmental Context**
Lauryn Johnson (Psychology Major), Brittany Jones
Faculty Mentor: Dr. Meredith Elzy
- (RD-8) **Accurate Techniques for Age and Growth Determination of Gray Triggerfish**
Brittany Jowers (Biology Major)
Faculty Mentor: Dr. Virginia Shervette

- (RD-9) **The Efficiency of Humic Substances in the Remediation of Bacterial Contamination**
Marilyn W. Mason (Biology Major)
Faculty Mentor: Dr. Garriet Smith
- (RD-10) **Developing a Fusion Gene Under the Control of an HIV-1 LTP Promoter**
Erin McLaughlin, Natalie Arthur (Biology Major)
Faculty Mentor: Dr. William Jackson
- (RD-11) **Investigating the Temporal Organization of Operant Behavior**
Michael F. Nash (Psychology Major), Haley Boyd
Faculty Mentor: Professor Daniel Hoffman
- (RD-12) **Effects of Antioxidant Consumption on the Frequency of Student Illness**
Melissa Lane (Nursing Major)
Faculty Mentor: Dr. Thayer McGahee

Session 2

2:00-3:30 pm

- (RD-13) **Identifying Sequences Responsible for the High Transposition Rate of mPing**
Daymond Parrilla (Biology Major), Kristian Pickrel
Faculty Mentor: Dr. C. Nathan Hancock
- (RD-14) **In Cold Blood's Plead to Insanity**
Amber Perry (Communications Major)
Faculty Mentor: Dr. Matthew Miller
- (RD-15) **Effects of Different Types of Music on a Person's Perception of Emotions Within**
Holly Reese (Psychology Major), Elise Davis, Marla Dixon
Faculty Mentor: Dr. Keri Weed
- (RD-16) **Building Constructs to Study Bone Development in the Zebrafish Model**
Brianna Snelling (Biology Major)
Faculty Mentor: Dr. April DeLaurier
- (RD-17) **The Effects of Chronic Stress, Exercise and Sugar Consumption on Body Weight and Fat Percentage in Rats**
Christina Thomas and Heather Jones (Biology Major)
Faculty Mentor: Dr. Michelle Vieyra

- (RD-18) **“Remembering USCA:” The Career and Papers of Jane Tuten, Library Director**
Dylan Timmerman (History Major)
Faculty Mentor: Professor Alexia Helsley
- (RD-19) **Identifying the Gene Underlying a Jaw Mutation in Zebrafish**
Kayce Vanpelt (Biology Major)
Faculty Mentor: Dr. April DeLaurier
- (RD-20) **Optimizing In Vitro Fertilization Procedures in Zebrafish**
Madelyn Wasden (Biology Major)
Faculty Mentor: Dr. April DeLaurier
- (RD-21) **Perceptions of Teen Pregnancy by Health Care Providers**
Shameeka Webster (Psychology Major)
Faculty Mentor: Dr. Keri Weed
- (RD-22) **Cloning an Anti-HIV-1 siRNA into the Retroviral Vector, p1744**
Austin Worden (Biology Major)
Faculty Mentor: Dr. William Jackson
- (RD-23) **Group Training Techniques: Preparing Undergraduates for Service Learning**
Anna Louise Thompson (Psychology Major)
Faculty Mentor: Dr. Keri Weed
- (RD-24) **Developing a DNA Transposon-Based Vector to Express Anti-HIV Genes**
Brittney L. Adams (Biology Major)
Faculty Mentor: Dr. William H. Jackson
- (RD-25) **Evaluating mPing Transposition in Mimulus lewisii**
Autumn Busbee (Biology Major), Yaowu Yuan
Faculty Mentor: Dr. C. Nathan Hancock

Awards Ceremony: SAC Mezzanine, 4pm

With Gratitude

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We also wish to thank the following for their assistance:

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“I do believe that exposure educates us—exposure to information, to experiences, to different types of people of ways of living and to Research Day presentations—all these exposures give us different views. In sorting and comprehending these views, we are learning.”

- *USC Aiken alumna*