



Research Day 2014

UNIVERSITY OF SOUTH CAROLINA AIKEN

*...a Forum
of Discovery*

April 11th, 2014
Student Activities Center, 10:00-4:30 pm

Sponsored by USC Aiken Alumna, Ms. Celeste Suggs

Friday, April 11, 2014
10 am-5 pm

Oral Presentations – Humanities and Social Sciences

SAC Mezzanine

1:30-3:00 pm

Session 1

Prof. Jack Benjamin, Presiding

1:30 Capturing Cultures: The Advantages of Short Story Cycles to the Representation of American Multicultural and Ethnic Groups

Taylor Rodgers (English Major)

Faculty Mentor: Dr. Drew Geyer

1:45 An Examination of Bug Bounty Programs in E-Commerce

Jonathan Larry (Business Administration Major)

Faculty Mentor: Dr. Ravi Narayanaswamy and Dr. Leanne McGrath

2:00 Adaptation: Exploring Memoir to Film

Kayla Pruitte (Communications Major)

Faculty Mentor: Dr. Spring-Serenity Duvall

Break – 15 minutes

Session 2

Prof. Jack Benjamin, Presiding

2:30 Hip-Hop as a Postmodernist Expression of the Blues

Sean Wills (History Major)

Faculty Mentor: Dr. Willie Strong

2:45 How Can Writing Therapy Be Implemented at USC Aiken?

Jennifer Gilmore (English Major)

Faculty Mentor: Dr. Matthew Miller

Oral Presentations – Sciences

SAC Mezzanine

11:30 am-3:30 pm

Session 1

Dr. Edward Callen, Presiding

11:30 Optimization of a Silver-Silicon Substrate for SERS Applications

Katie Whipkey (Chemistry Major), Rachel Strickhouser, Matt Wellons, Brian Anderson
Faculty Mentor: Dr. Chad L. Leverette

11:45 Targeted Insertion of the Transposable Element, *mPing*, by Manipulation of Transposase Proteins

Ashley Strother (Biology Major)
Faculty Mentor: Dr. Nathan Hancock

12:00 Accuracy of the Azumio Instant Heart Rate App at Rest and During Exercise

Ashton Celec (Exercise and Sports Science Major), Sam LaMunion
Faculty Mentor: Dr. Brian Parr

12:15 The effect of pro-apoptotic proteins tBid and Bax on cells expressing HIV-1 Tat

Claudia Fulmer (Biology Major)
Faculty Mentor: Dr. William Jackson

12:30 Analysis of Polychlorinated Biphenyls in Bonnethead Sharks (*Sphyrna tiburo*) Using Gas Chromatography-Electron Capture Detection

Citayah Burton (Chemistry Major), Jason R. O'Bryhim
Faculty Mentor: Dr. Gary Mills and Dr. Chad L. Leverette

12:45 Measuring the effect of anti-HIV tat siRNAs on HIV replication

Emily M. Webb (Biology Major)
Faculty Mentor: Dr. William Jackson

1:00 Can Sports Supplements Be Replaced By Food?

Kyle Sprow (Exercise and Sports Science Major)
Faculty Mentor: Dr. Brian Parr

Break – 30 minutes

Session 2

Dr. William H. Jackson, Presiding

1:45 The Synthesis of Palladium (II)-NHC Compounds and their Employment as Cross-Coupling Catalysts

Dominick Colosimo (Chemistry Major)
Faculty Mentor: Dr. Gerard Rowe

- 2:00 **Data Simulation Shows the Likelihood of Ties in the Scoring of Bridge**
Dillon Gooding (Mathematics/Computer Science Major), Miles Hall
Faculty Mentor: Dr. Thomas Reid
- 2:15 **An Examination of Core Strength and Stability in Normal Weight and Obese Adults**
Allison Jolley (Exercise and Sports Science Major)
Faculty Mentor: Dr. Brian Parr
- 2:30 **Synthesis and Reactivity of Copper Compounds Containing Acid Functionalized 1,4,7,-Triazacyclononane Ligands**
Shelby Behnke (Chemistry Major)
Faculty Mentor: Dr. Gerard Rowe
- 2:45 **The Effect of High Sucrose Diet on Cognition in Rats**
Rachel Roberts (Biology Major)
Faculty Mentor: Dr. Michelle Vieyra
- 3:00 **Water Quality Parameters and the Toxicity of Zinc in Samples from the Edisto River**
Aubrey Danielson (Chemistry Major)
Faculty Mentor: Dr. Michele Harmon and Dr. Chad L. Leverette
- 3:15 **The Effects of Sugar Consumption on Body Fat and Fasting Glucose Levels in Rats**
Breanna Marshall (Biology Major)
Faculty Mentor: Dr. Michelle Vieyra

Poster Session

SAC Lobby

12:00-3:30 pm

(Student may setup posters from 10 am to noon. All posters will be on display from 12:00-3:30 pm. Authors in Session 1 should be present from 12:30-2:00 pm. Authors in Session 2 should be present from 2:00-3:30 pm)

Session 1

12:30-2:00 pm

- (RD-1) **Assessment of Palpated Heart Rate Accuracy During the YMCA Bicycle Exercise Testing Protocol**
Jasmin Thompson and Janelle Roberts (Exercise and Sports Science Majors),
Janice Overstreet
Faculty Mentor: Dr. Chris DeWitt
- (RD-2) **Synthesis of a Diels-Alder Cycloadduct 10-aza-1,4,oxidobicyclo[5.4.0]undec-2-ene**
Abbie Covar (Chemistry Major)
Faculty Mentor: Dr. Nandeo Choony
- (RD-3) **Optimizing Germinal Transposition of *mPing* in *Arabidopsis thaliana***
Courtney Burckhalter (Biology Major), Keifer Richardson
Faculty Mentor: Dr. C. Nathan Hancock
- (RD-4) **Identifying Sequences Responsible for the High Transposition Rate of Tourist MITE**
Daymond Parrilla (Biology Major), Kristian Pickerel
Faculty Mentor: Dr. C. Nathan Hancock
- (RD-5) **After-School Literacy Program for at Risk Students from all Family Structures**
Anna Thompson (Psychology Major)
Faculty Mentor: Dr. Keri Weed
- (RD-6) **Determining the Role of Target Site Duplication Sequences on the Transposition of Miniature Inverted Repeat Transposable Elements**
David Gilbert (Biology Major), Catherine Bridges
Faculty Mentor: Dr. C. Nathan Hancock

Session 2

2:00-3:30 pm

- (RD-7) **A Comparative Analysis of 127 Countries**
Hillary Kierspe (Sociology Major)
Faculty Mentor: Dr. Christine Wernet

- (RD-8) **Horses, Mindfulness, and Physiological Response: Simulated Interactions**
Tyisha Henderson (Psychology Major)
Faculty Mentor: Dr. Keri Weed
- (RD-9) **Transfection of Jurkat Cells by Electroporation**
Erin McLaughlin (Biology Major)
Faculty Mentor: Dr. William Jackson
- (RD-10) **The Synthesis of Palladium (II)-NHC Compounds and Their Employment as Cross Coupling Catalysts**
Manuel Dominguez (Chemistry Major), Dominick Colosimo
Faculty Mentor: Dr. Gerard Rowe
- (RD-11) **Cloning a Self-Inactivating Retroviral Vector to Express Anti-HIV RNAs**
Crystal Ryan (Biology Major)
Faculty Mentor: Dr. William Jackson

Awards Ceremony: SAC Mezzanine, 4pm

With Gratitude

We wish to thank USC Aiken alumna, Ms. Celeste Suggs, for her generous contribution and continuous support of Research Day.

We also wish to thank the following for their assistance.

Dr. Maria Anastasiou
Prof. Jack Benjamin
Dr. Edward Callen
Dr. Rebecca Carr
Dr. Bill Claxon
Dr. April DeLaurier
Dr. Andy Dyer
Dr. Monty Fetterolf
Dr. Bill Harpine
Prof. Brandy Horne
Dr. Bill Jackson
Dr. Chad Leverette
Dr. Tom Mack
Ms. Carol McKay
Ms. Dale McCarthy
Dr. Jeff Priest
Prof. Brad Reinhart
Dr. Gerard Rowe
Dr. Charmaine Wilson



“I do believe that exposure educates us --- exposure to information, to experiences, to different types of people or 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, Ms. Celeste Suggs*