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
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
Tayler 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
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, \textit{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 (\textit{Sphyrna tiburo}) Using Gas Chromatography-Electron Capture Detection
Citiyah 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
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

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

Synthesis and Reactivity of Copper Compounds Containing Acid Functionalized 1,4,7,-Triazacyclononane Ligands
Shelby Behnke (Chemistry Major)
Faculty Mentor: Dr. Gerard Rowe

The Effect of High Sucrose Diet on Cognition in Rats
Rachel Roberts (Biology Major)
Faculty Mentor: Dr. Michelle Vieyra

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

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

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We also wish to thank the following for their assistance.

Dr. Maria Anastasiou
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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