2015 Celebration of Scholars: Exposition of Faculty and Student Research, Scholarship and Creativity

Monday, August 24, 2015
11:30am - 1:30pm

Stern Student Center
Ballroom
The purpose of Undergraduate Research and Creative Activities is to expand opportunities for undergraduate students and faculty to work collaboratively in scholarly work. Research and creative activities may be defined in different ways across disciplines, but in the context of this program these endeavors are defined as “any intellectual, inquiry-based project undertaken by the undergraduate student that advances the knowledge of the student in an academic discipline, immerses the student in the culture of the discipline, and leads to new scholarly insights or the creation of new works that add to the wealth of the discipline.”

Faculty-student collaboration in academic research and creative works is one of the most enriching and rewarding experiences on an undergraduate campus. In fact, this activity is so important that it is becoming one of the standards of excellence by which nationally pre-eminent undergraduate institutions are measured. It is hoped that the faculty-student teams who work on these projects will continue their collaborative efforts into the ensuing academic year and beyond. It is also expected that the teams participating in projects funded by the URCA program will serve as ambassadors of excellence beyond the College of Charleston campus.

Undergraduate Research and Creative Activities
6 Green Way, 2nd Floor
Charleston SC 29424
843.953.6592
urca@cofc.edu
http://urca.cofc.edu

https://www.facebook.com/urcaofc

Additional funding provided by the
Howard Hughes Medical Institute Undergraduate Science Education Grant
POSTER TITLES and PRESENTERS

1. *But is it a Bottle? Quantitative and Qualitative Analysis of Roman Glass Vessels*
   **Student:** Sarah Legendre (Classics and Archaeology - SURF)
   **Faculty Mentor:** Allison Sterrett-Krause (Classics)

2. *Dynamics of Almost Parallel and Nearly Circular Vortex Filaments*
   **Students:** Allison Conger (Mathematics - NSF - 1109017), Danielle Massé (Mathematics & Physics - NSF - 1109017)
   **Faculty Mentor:** Stéphane Lafortune (Mathematics)

3. *Modeling Mental Imagery*
   **Student:** Grier Jones (Biochemistry - Mathematics Scholarship)
   **Faculty Mentors:** Garrett Mitchener (Mathematics), Thomas Naselaris (MUSC - Neurosciences)

4. *Contemporary Apotheosis: A Vision Explored in Painting*
   **Student:** Heather Thornton (Studio Art - SURF)
   **Faculty Mentor:** Sara Frankel (Studio Art)

5. *Letter to a Man Deconstructed: Analyzing Choreographic Interpretations of Mental Illness*
   **Student:** Carly Harward (Dance & Communication - SURF)
   **Faculty Mentor:** Gretchen McLaine (Theatre & Dance)

6. *Preeclampsia Due to High Levels of Nkx2-5*
   **Student:** Ka’Dedra Andrea Creech (Biology - SURP & NIH-R25HL092611)
   **Faculty Mentor:** Kyu-Ho Lee (MUSC - Pediatrics)

7. *The Impact of Demographic Variables on the Acquisition of HIV and STDs*
   **Student:** Sierra Raven Small (Public Health - SURF)
   **Faculty Mentor:** Michael A. Hemphill (Health & Human Performance)

8. *The Effectiveness of Castor Oil as a Natural Alternative to Labor Induction*
   **Students:** Grace Moxley (Biology), Kendall Banks (Business Administration), Ashlan Bishop (Art History - Honors College Summer Enrichment Grant and Bonner Leaders Summer Service Stipend)
   **Faculty Mentors:** Andrea L. DeMaria (Health & Human Performance), Beth Sundstrom (Communication)

9. *Fulfilling the Promise of Telemedicine: A Case Study of Planned Parenthood*
   **Students:** Mamiko Higa (Public Health - SURF), Maja Grzejdziak (Public Health & Biology - SURF), Stephanie Meier (B.S. Biology & Masters Candidate - Communication)
   **Faculty Mentors:** Andrea DeMaria (Health & Human Performance), Beth Sundstrom (Communication)
10. **Formative Audience Research to Develop a Telemedicine Intervention**  
    **Students:** Ellie Smith (Public Health - SURF), Stephanie McInnis (B.A. International Business & Masters Candidate - Communication)  
    **Faculty Mentors:** Beth Sundstrom (Communication), Andrea DeMaria (Health & Human Performance)

11. **Fulfilling the Promise of Telemedicine: Interviews with Telemedicine Experts in South Carolina**  
    **Students:** Maja Grzejdziak (Public Health & Biology - SURF), Mamiko Higa (Public Health - SURF), Stephanie Meier (B.S. Biology & Masters Candidate - Communication)  
    **Faculty Mentors:** Merissa Ferrara and Beth Sundstrom (Communication)

12. **It’s Your Place: Development and Evaluation of an Evidence-Based Bystander Intervention Campaign**  
    **Students:** Colby Gabel (Public Health), Maja Grzejdziak (Public Health & Biology), Kathleen Booth (Public Health & International Studies)  
    **Faculty Mentors:** Beth Sundstrom and Merissa Ferrara (Communication), Andrea DeMaria (Health & Human Performance)

13. **Effects of Stimulus Amplitude and Duration on Type II Excitability Neurons**  
    **Students:** Lindsay Evans (Computer Science & Psychology - SURF & NSF IOS-1054914), Dave Austin (Physics & Mathematics - HHMI & NSF IOS-1054914)  
    **Faculty Mentor:** Sorinel Oprisan (Physics & Astronomy)

14. **Phase Resetting Curves for Type 1 PRCs**  
    **Students:** Dave Austin (Physics & Mathematics - HHMI & NSF IOS-1054914), Lindsay Evans (Computer Science & Psychology - SURF & NSF IOS-1054914)  
    **Faculty Mentor:** Sorinel Oprisan (Physics & Astronomy)

15. **Spatial-temporal Evolution of Non-Equilibrium Fluctuations and Correlations Functions**  
    **Student:** Lincoln Fraley (Physics - HHMI)  
    **Faculty Mentors:** Sorinel Oprisan and Ana Oprisan (Physics & Astronomy)

16. **Investigating Non-Equilibrium Fluctuations in the Presence of Magnetic Field**  
    **Student:** Ashley Rice (Physics - SURF)  
    **Faculty Mentor:** Ana Oprisan (Physics & Astronomy)

17. **Singlet Oxygen Quantum Yield of Gold Nanorods**  
    **Student:** Miranda Roesing (Biochemistry & Physics - Physics & Astronomy Scholarship)  
    **Faculty Mentor:** Linda R. Jones (Physics & Astronomy)

18. **Penetration of Near Infrared Laser Light Through Various Fabrics, Wraps, and Bandages**  
    **Student:** Ashley Gartner (Biology - HHMI)  
    **Faculty Mentor:** Linda R. Jones (Physics & Astronomy)
19. **Effectiveness of 800nm Low Level Light Treatment for the Reduction of Muscle Fatigue**  
   **Student:** Uniqa Roberson (Exercise Science - HHMI)  
   **Faculty Mentor:** Linda R. Jones (Physics & Astronomy)

20. **Exoplanet and Circumstellar Disk Studies with the Hubble Space Telescope**  
   **Student:** Clay Gardner (Mathematics & Computer Science - SSM Dean’s Scholarship, Physics & Astronomy Scholarship, SC Space Grant, HHMI)  
   **Faculty Mentor:** Joseph Carson (Physics & Astronomy)

21. **Measuring the Circumstellar Disk Around the Sun-like HD 181327**  
   **Student:** Jameson Sanders (Academic Magnet High School - HHMI)  
   **Faculty Mentor:** Joseph Carson (Physics & Astronomy)

22. **Developing Algorithms to Improve Spitzer Space Telescope's Thermal Imaging of Extrasolar Planets**  
   **Student:** David Melnick (Astrophysics - Physics & Astronomy Scholarship)  
   **Faculty Mentor:** Joseph Carson (Physics & Astronomy)

23. **An Innovative System for 3D Imaging**  
   **Students:** Hannah Wilson (Biology - SURF), Ariane McKiernan (Physics - HHMI)  
   **Faculty Mentor:** Joseph Carson (Physics & Astronomy)

24. **AFM Investigation of Graphene Produced with a Lightscribe DVD Burner**  
   **Students:** Matthew Palumbo (Physics - SSM Dean’s Scholarship), Canyon Berry (Physics)  
   **Faculty Mentor:** Alem Teklu (Physics & Astronomy)

25. **Contrasting Magnetohydrodynamic Turbulence with Alpha-Viscosity in Black Hole Accretion**  
   **Student:** Sarina M. Etheridge (Astrophysics & Physics - SURF & NSF AST-1211230),  
   **Faculty Mentor:** P. Chris Fragile (Physics & Astronomy)

26. **Calibration Strategies for a Tipping Bucket Rain Gauge**  
   **Student:** Joshua B Teves (Physics - NSF AGS-1230240),  
   **Faculty Mentor:** Michael L. Larsen (Physics & Astronomy)

27. **Development of a Statistical Model of Rainfall Based on Empirical Observations**  
   **Student:** Katelyn O'Dell (Physics - NSF AGS-1230240),  
   **Faculty Mentor:** Michael L. Larsen (Physics & Astronomy)

28. **Do Negative Incentive Shifts in Food Reward Availability Engender Water Drinking in Rats?**  
   **Student:** Leslie E. Sawyer (Psychology - SURF)  
   **Faculty Mentor:** Chad M. Galuska (Psychology)

29. **Interaction Effects of Temperament and Parenting on Toddler's Ability to Delay**  
   **Student:** Diana Devine (Psychology - SURF)  
   **Faculty Mentor:** Amy Kolak (Psychology)
30. **Sex-Related Differences in the Effects of Estrogen on Axon Regeneration Following Peripheral Nerve Injury**  
   **Students:** Melina Acosta (B.S. Psychology - HHMI), Patricia Copley (B.S. Psychology), Jamie Harrell (B.S. Psychology)  
   **Faculty Mentor:** Jennifer Wilhelm (Psychology)

31. **Satellite Remote Sensing of Water Quality Parameters in Coastal Waters of the U.S.V.I.**  
   **Student:** David M. DeRouen (Geology - SURF)  
   **Faculty Mentor:** K. Adem Ali (Geology & Environmental Geosciences)

32. **Applications of LANDSAT Data for Analysis of Chlorophyll Content in the Western Basin of Lake Erie**  
   **Student:** Jacob Nash (Academic Magnet High School - HHMI)  
   **Faculty Mentor:** K. Adem Ali (Geology & Environmental Geosciences)

33. **Earthquake Locations and Seismic Velocities Using a Minimum of Assumptions**  
   **Student:** Dante Curcio (Geology - Geology Scholarship)  
   **Faculty Mentor:** Steven Juamé (Geology & Environmental Geosciences)

34. **Down the Drain: Methods for Identifying Microplastic throughout Wastewater Treatment**  
   **Student:** Haven Lane (Geology - Geology Alumni Summer Research Grant)  
   **Faculty Mentor:** Barbara Beckingham (Geology & Environmental Geosciences)

35. **Organic Carbon Concentrations and Dynamics in Estuaries and Associated Watersheds**  
   **Student:** Will Vesely (Geology - SURF)  
   **Faculty Mentors:** Timothy Callahan and Vijay Vulava (Geology & Environmental Geosciences)

36. **Sidescan Sonar Mapping Surficial Geology of the Ashley River**  
   **Student:** Lea Richter (Geology & Political Science - SSM Dean’s Scholarship)  
   **Faculty Mentor:** Scott Harris (Geology and Environmental Geosciences)

37. **Geochemical Fate of Vardenafil through Sorption and Column Transport Experiment**  
   **Student:** Lea Richter (Geology & Political Science - NSF CBET 1236266 & HHMI)  
   **Faculty Mentors:** Vijay Vulava (Geology and Environmental Geosciences), Wendy Cory (Chemistry & Biochemistry)

38. **Water Quality Profile of Natural Waters in Charleston Watershed**  
   **Students:** Porsha Thompson (North Charleston High School - HHMI), Lea Richter (Geology & Political Science - NSF CBET 1236266 & HHMI)  
   **Faculty Mentors:** Vijay Vulava (Geology & Environmental Geosciences), Neal Tonks (Chemistry & Biochemistry)

39. **Geochemical Fate of Diphenhydramine in Soil**  
   **Students:** Rachel Wireman (Geology - NSF-CBET-1236266 ), Casey Jones (B.S. Geology - NSF-CBET-1236266)  
   **Faculty Mentors:** Vijay Vulava (Geology & Environmental Geosciences), Wendy Cory (Chemistry & Biochemistry)
40. *Photodegradation of Bupropion and Gabapentin*
   **Students:** Neha Muppala (Biology & Studio Art - HHMI & NSF CBET-1236266), Kristina Tran (Chemistry - NSF CBET-1236266)
   **Faculty Mentor:** Wendy Cory (Chemistry & Biochemistry)

41. *Degradation Study of Diphenhydramine*
   **Students:** Michael Blanton (Computer Science - HHMI), James Solomon (Biochemistry - HHMI)
   **Faculty Mentor:** Wendy Cory (Chemistry & Biochemistry)

42. *Green Chemistry Principles in the Reuse of Chemical Process Waste-Streams*
   **Student:** Alex Couch (Biochemistry - HHMI)
   **Faculty Mentor:** Neal Tonks (Chemistry & Biochemistry)

43. *Development Synthesis and Degradation Studies of Drug-Infused Biologically Comparable Polymers*
   **Student:** Alexis Violette (Chemistry - SURF)
   **Faculty Mentor:** Neal Tonks (Chemistry & Biochemistry)

44. *The Synthesis and Characterization of BioBased Polyurethane Foams*
   **Student:** Benjamin Stephens (Chemistry - HHMI)
   **Faculty Mentor:** Neal Tonks (Chemistry & Biochemistry)

45. *Examining the Creation of Introductory Chemical Education Laboratory Experiments Centered Around Charleston Water Quality*
   **Student:** Noa HaLevi (Academic Magnet High School - HHMI)
   **Faculty Mentor:** Neal Tonks (Chemistry & Biochemistry)

46. *Raman, Infrared, NMR and ab initio Calculations of 1,1,3,3,5,5-hexafluoro-1,3,5-trisilacyclohexane*
   **Student:** Daniel V. Hickman (Biochemistry - SURF and Henry & Camille Dreyfus Foundation)
   **Faculty Mentor:** Gamil A. Guirgis (Chemistry & Biochemistry)

47. *Spectroscopic Characterization of P3HT-Graphene Composites Synthesized via In-Situ GRIM Methods*
   **Students:** Dillon Presto (Chemistry - SURF), Vivian Song (Academic Magnet High School - HHMI)
   **Faculty Mentor:** Dave Boucher (Chemistry & Biochemistry)

48. *Varying the Ratio of Natural Dyes Cosensitized in Dye Sensitized Solar Cells*
   **Student:** Miranda Schwacke (Academic High School - HHMI)
   **Faculty Mentor:** Dave Boucher (Chemistry & Biochemistry)

49. *Investigations into the Organocatalytic ROP of 6-methylcaprolactone*
   **Students:** Kathryn G. Johnson (Biology - SSM Dean’s Scholarship), Evan P. Bailey (Chemistry)
   **Faculty Mentor:** Brooke A. Van Horn (Chemistry & Biochemistry)
50. **Extraction of Peppermint and Spearmint Leaves**  
*Students*: Brittany Wallace-Clark (North Charleston High School - HHMI), Savannah L. Jones (Biochemistry - HHMI)  
*Faculty Mentor*: Timothy J. Barker (Chemistry & Biochemistry)

51. **Zn(OTf)$_2$ Catalyzed Minisci Reactions Between Arylboronic Acids and Heterocycles**  
*Students*: Joyce A. Biaco (Chemistry - SURF), Savannah L. Jones (Biochemistry - HHMI)  
*Faculty Mentor*: Timothy J. Barker (Chemistry & Biochemistry)

52. **Lewis Acid Catalyzed Minisci Reactions**  
*Students*: Savannah L. Jones (Biochemistry - HHMI), Joyce A. Biaco (Chemistry - SURF)  
*Faculty Mentor*: Timothy J. Barker (Chemistry & Biochemistry)

53. **Palladium-Catalyzed Synthesis of Ureas**  
*Student*: Lucien P. Jay (Biochemistry - SURF)  
*Faculty Mentor*: Timothy J. Barker (Chemistry & Biochemistry)

54. **Characterization of the Active Complex of Class I b Ribonucleotide Reductase**  
*Student*: Kristin Hoecker (Biology - HHMI)  
*Faculty Mentor*: Pamela Riggs-Gelasco (Chemistry & Biochemistry)

55. **Cloning, Expression and Purification of Frataxin Mutants**  
*Student*: Taylor Domenick (Biochemistry - HHMI)  
*Faculty Mentor*: Pamela Riggs-Gelasco (Chemistry & Biochemistry)

56. **Biogenesis of Cytochrome c Oxidase: Mechanism of Heme a Synthase**  
*Students*: Nicholas Taylor (Biochemistry - HHMI), Nicholas Harris (Biology - Research Corporation)  
*Faculty Mentor*: Jennifer Fox (Chemistry & Biochemistry)

57. **Heme Analysis by Liquid Chromatography – Mass Spectrometry**  
*Students*: Nicholas Harris (Biology - Research Corporation), Elizabeth Blankenship (B.S. - Biochemistry)  
*Faculty Mentor*: Jennifer Fox (Chemistry & Biochemistry)

58. **Expression of Proteins Homologous to the Bacterial Sulfatase SdsA1**  
*Student*: Grace Waddell (Biochemistry - INBRE)  
*Faculty Mentor*: Jennifer Fox and Marcello Forconi (Chemistry & Biochemistry)

59. **Kemp Eliminase Activity of Ketosteroid Isomerase**  
*Students*: Enis Sánchez (Biochemistry - HHMI), Lauren Fanning (Biology - SSM Dean’s Scholarship), Kate Howe (Home Schooled High School Student - HHMI)  
*Faculty Mentor*: Marcello Forconi (Chemistry & Biochemistry)

60. **SdsA1: A Bioinformatic and Kinetic Study**  
*Students*: Noah Denman (Biology - SURF), Catherine Smith (Chemistry - HHMI)  
*Faculty Mentor*: Marcello Forconi (Chemistry & Biochemistry)
61. **Introduction of IR Probes in Proteins**  
**Student:** Jonathan Derryberry (Biochemistry - INBRE)  
**Faculty Mentor:** Marcello Forconi (Chemistry & Biochemistry)

62. **Elucidating the Mechanistic Importance of Tetrahydrobiopterin in Endothline Nitric Oxide Synthases by Way of X-Ray Crystallography**  
**Student:** James H. Pinner (Biology - HHMI)  
**Faculty Mentor:** Amy Rogers (Chemistry & Biochemistry)

63. **Investigation of the Crystal Structure of Endothelial Nitric Oxide Synthase in the Presence of Novel Tetrahydrobiopterin Analogs**  
**Student:** Joseph Boscia (Biology - SURF)  
**Faculty Mentor:** Amy Rogers (Chemistry & Biochemistry)

64. **Voltammetric Detection of Trace Silver Ions Using Carbon Paste Electrodes**  
**Student:** Olivia Pearce (Chemistry - SURF)  
**Faculty Mentor:** Katherine M. Mullaugh (Chemistry & Biochemistry)

65. **Sulfidation of Silver Nanoparticles**  
**Student:** Nathaniel Fletcher (Chemistry - HHMI & Ralph E. Powe Junior Faculty Enhancement Award)  
**Faculty Mentor:** Katherine M. Mullaugh (Chemistry & Biochemistry)

66. **Aggregation of Silver Nanoparticles**  
**Student:** Maisa Amireh (Chemistry)  
**Faculty Mentor:** Katherine M. Mullaugh (Chemistry & Biochemistry)

67. **Molecular Dynamic Simulations of Fullerene Self-Assembly on Graphene**  
**Student:** F. James Claire (Chemistry - SURF)  
**Faculty Mentor:** Kristin Krantzman (Chemistry & Biochemistry)

68. **Synthesis, Substitution, and Attempted Metalation of a Rigid, Fused Bis-Indenyl “Batwing” Compound**  
**Students:** Travis Varner (Biochemistry - SURF & HHMI), Carson Reed (Biochemistry), Antwan Frazier (North Charleston High School - HHMI)  
**Faculty Mentor:** Richard A. Himes (Chemistry & Biochemistry)

69. **Synthesis, Substitution, and Attempted Metalation of a Rigid, Fused Bis-Indenyl “Batwing” Compound Monitored by TLC**  
**Students:** Antwan Frazier (North Charleston High School - HHMI), Travis Varner (Biochemistry - SURF & HHMI)  
**Faculty Mentor:** Richard A. Himes (Chemistry & Biochemistry)

70. **Titanium-mediated Reactivity of Imine Substrates**  
**Student:** Lucas Freeman (Biochemistry - SURF)  
**Faculty Mentor:** Richard A. Himes (Chemistry & Biochemistry)
71. **Photodegradation of Sertraline and Fluoxetine**  
*Students:* Sylvia Davila (Biochemistry & Marine Biology - HHMI, SC Water Resources Council and NSF CBET 1236266), Jessica Hinson (Biology - HHMI, SC Water Resources Council and NSF CBET 1236266)  
*Faculty Mentors:* Wendy Cory (Chemistry & Biochemistry), Allison Welch (Biology)

72. **The Effect of the Antidepressant Sertraline (Zoloft ®), and Its Photodegradants on Southern Toad (Anaxyrus terrestris) Tadpoles**  
*Students:* Jessica Hinson (Biology - HHMI and SC Water Resources Council and NSF CBET 1236266), Sylvia Davila (Biochemistry & Marine Biology - HHMI, SC Water Resources Council and NSF CBET 1236266)  
*Faculty Mentors:* Allison Welch (Biology), Wendy Cory (Chemistry & Biochemistry)

73. **The Effect of Ibuprofen and Its Photodegradants on Southern Toad Tadpoles**  
*Students:* Victoria Edmund (Biology - HHMI and SC Water Resources Council), Jessica Hinson (Biology - HHMI and SC Water Resources Council and NSF CBET 1236266), Sylvia Davila (Biochemistry & Marine Biology - HHMI, SC Water Resources Council and NSF CBET 1236266)  
*Faculty Mentors:* Allison Welch (Biology), Wendy Cory (Chemistry & Biochemistry)

74. **Salinity Effects on Different Life Stages of Squirell Treefrogs (Hyla squirella)**  
*Student:* Amber Ruby (Biology - SURF)  
*Faculty Mentor:* Allison Welch (Biology)

75. **The Effect of pH on Natural Settlement and Metamorphosis in an Invasive Gastropod**  
*Student:* Tess Dooley (Marine Biology - DBI 1262239 & NSF CRI-OA-1416690)  
*Faculty Mentor:* Robert Podolsky (Biology)

76. **Autotomy in the Snapping Shrimp, Alpheus angulosus: A Comparative Study of Drop Latency Behavior**  
*Student:* Patricia Cooney (Biology - SURF)  
*Faculty Mentor:* Chris Korey (Biology)

77. **Bopyrid Isopod Infection of Snapping Shrimp, Alpheus angulosus**  
*Student:* Kelsey Vollmer (B.S. Biology - HHMI)  
*Faculty Mentors:* Melissa Hughes, Chris Korey, and Isaure DeBuron (Biology)

78. **Central Nervous System Neuroanatomy of the Snapping Shrimp, Alpheus angulosus: Towards a Model of Adult Neurogenesis**  
*Students:* Needhee Patel (Biology & Psychology - SURF), Kelsey Vollmer (Biology - HHMI)  
*Faculty Mentors:* Chris Korey (Biology), Mike Ruscio (Psychology)

79. **Tracing the Evolutionary History of Hammerhead Sharks Using Next Generation Sequencing Techniques**  
*Student:* Jasmin Graham (Marine Biology - SURF & NSF DEB-1132229)  
*Faculty Mentor:* Gavin Naylor (Biology)
Temperature Tolerance of the Invasive Seaweed Gracilavia vermiculophylla
Student: Sarah Shainker (Marine Biology - SURF)
Faculty Mentor: Erik Sotka (Biology)

Herbivory Resistance in the Invasive Alga Gracilavia vermiculophylla
Student: Paige Bippus (Marine Biology - SURF)
Faculty Mentor: Erik Sotka (Biology)

Optomotor Response to Simulated Rotations During Tethered Flight in Honey Bees
Student: Anna Collett (Biology - SURF)
Faculty Mentor: Jason Vance (Biology)

Analysis of the Muscleblind Splicing Factor in the Honeybee Apis mellifera During the Nurse-forager Transition
Student: Erin Risner (Biology - HHMI)
Faculty Mentors: Agnes Ayme-Southgate and Jason Vance (Biology)

Analysis of the Sallimus/kettin Protein in the Honeybee Apis mellifera During the Nurse-forager Transition
Student: Laura Galloway (Biology - SURF)
Faculty Mentors: Agnes Ayme-Southgate and Jason Vance (Biology)

Effects of Mutations on Seed Size and Number in Arabidopsis thaliana
Students: Whitney Su (Academic Magnet High School - HHMI), Elsa Cousins (Biology - NSF IOS-10252262, IOS-1146977, IOS-1355106)
Faculty Mentor: Courtney J. Murren (Biology)

The Effect of Temperature on Defensive Behaviors of Texas Horned Lizards
Students: Megan Michalski (Academic Magnet High School - HHMI), Courtney Heuring (B.S. Biology - Masters Candidate - Environmental Studies)
Faculty Mentor: Eric McElroy (Biology)

Comparison of Sprint Speed and Endurance of Phyrnosoma Cornutum between South Carolina Barrier Islands
Students: Emmaline Bendell (Biology - HHMI), Courtney Heuring (B.S. Biology - Masters Candidate - Environmental Studies)
Faculty Mentor: Eric McElroy (Biology)

Swimming Performance and Morphology in Spotted Seatrout Exposed to Kudoa inornata
Student: Shannon Lusk (Marine Biology - HHMI)
Faculty Mentor: Eric McElroy (Biology)

The Condition of the Smithsonian’s Sasaki Cephalopod Collection
Student: James Peyla (Marine Biology)
Faculty Mentor: Michael Vecchione (Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institution)
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