

**Undergraduate Platform Award Winners**  
**93<sup>rd</sup> Annual Meeting of the South Carolina Academy of Science**  
**Virtual Meeting, April 17, 2021**

**SESSION 1: CELL & MOLECULAR BIOLOGY**

**First Place: Kylie Tager, UofSC Aiken**

DESIGN, CLONING, AND TESTING OF AN ANTI-HIV-1 REV SMALL INTERFERING RNA  
Mentor: William Jackson

**Second Place: Madison Ryan, UofSC School of Medicine**

REGULATORY ROLE OF MICRORNA-34A ON HUMAN MAST CELL INFLAMMATORY GENE  
EXPRESSION  
Mentor: Carole Oskeritzian

**SESSION 2: ENGINEERING**

**First Place: Austin Locklear, UofSC Aiken**

CREATION OF A CIP METHOD FOR THE HEAT EXCHANGERS AT ROLLS-ROYCE  
Co-authors: Carly Dempsey and Melanie Howe  
Mentor: Bethany Fralick

**Second place: Matthew Beeler, UofSC Aiken**

RELIABILITY CENTERED MAINTENANCE  
Co-authors: Adam Harley, Cameron Bedenbaugh  
Mentor: Bethany Fralick

**SESSION 3: FIELD BIOLOGY, CLIMATOLOGY, PHARMACOLOGY, & PHYSIOLOGY**

**First Place: Mary Davidson, Converse College**

DOES EXPOSURE TO SUBLETHAL CONCENTRATIONS OF GLYPHOSATE, 2,4-D AND THEIR  
COMBINED FORMULATION INDUCE OXIDATIVE STRESS IN *EISENIA FETIDA*?  
Co-author: Phylicia Allen  
Mentor: Edna Steele

**Second Place: Korinne Swanson, Coastal Carolina University**

PERCEIVED STRESS LEVELS AND BACTERIOPHAGE PRESENCE ON THE CAMPUS OF COASTAL  
CAROLINA UNIVERSITY  
Co-authors: Madaline Plank and Owen Smith  
Mentor: Paul Richardson

**SESSION 4: ASTRONOMY, CHEMISTRY, COMPUTER SCIENCE, & MATHEMATICS**

**First Place: Colette Sullivan, UofSC Aiken**

PREPARING FUNCTIONAL POLYMER SURFACES BY SURFACE-INITIATED ALKENE METATHESIS

Mentor: Nicholas Marshall

**Second Place: Kyla Bonikowski, UofSC Lancaster**

IMPACTS OF TIME AND WEATHER ON THE FLORAL SCENT EMISSION OF GELSEMIUM  
SEMPERVIRENS

Co-authors: Haley Williams, Steven Weaver, and Annette Golonka

Mentor: Bettie Obi-Johnson

**SESSIONS 5 and 6: PHYSICS**

**First Place: Seth Zoppelt, College of Charleston**

INVESTIGATING CRITICAL OXYGEN USING MAGNETIC LEVITATION

Mentor: Ana Oprisan

**Second Place: Samuel Cathcart, Francis Marion University**

USING MUSR WITH CDO TO DETECT HYDROGEN LIKE DEFECTS IN SEMICONDUCTORS

Mentor: Brittany Baker

**BEST UNDERGRADUATE PRESENTATION AT THE 2021 ANNUAL MEETING**

Colette Sullivan, UofSC Aiken

Runner-up: Seth Zoppelt, College of Charleston

**2021 DWIGHT CAMPER OUTSTANDING UNDERGRADUATE RESEARCH AWARD**

Melanie Howe, UofSC Aiken