# 2016 Blue Ridge Highlands Regional Science Fair March 4 - 5, 2016 – Radford University

# VIRGINIA STATE SCIENCE AND ENGINEERING FAIR DELEGATES

# **Animal Sciences**

102 Kadie Hudson *The Genetic Influence of Coagulation on Fly Control in Dairy Cattle* Southwest Virginia Governor's School Sponsor: Rebecca Phillips

103

Emily Llaneras Slaying the Destructor Part II: Dosage Optimization and Effects of Oxalic Acid on Honeybee Hives Southwest Virginia Governor's School Sponsor: Krista Stith

### **Behavioral and Social Sciences**

206 Griffin McAvoy *Making the Write Choice: A Notable Difference* Tazewell High School Sponsor: Greg Deskins

# Biomedical and Health Sciences Biomedical Engineering Computational Biology and Bioinformatics

301 Julian Elmasry *Revolutionary Blood Test Tube 2.0* Southwest Virginia Governor's School Sponsor: Jared Brown

306 Emma Stowe and Emma Strickland *Can We Build a Bone? BMP-2 Delivery for Osteoblastic Differentiation* Blacksburg High School

#### Sponsor: Katharine Davis

303 Carly Porter Acceptance of Fecal Transplant Therapy Southwest Virginia Governor's School Sponsor: Rebecca Phillips

#### Cellular and Molecular Biology Microbiology Plant Sciences

403

Morgan Fisher *Effect of Water Source on Occurrence of Bacteria and Mycobacterium avium DNA in Shower Heads* Southwest Virginia Governor's School Giles High School Sponsor: Krista Stith

401

Leah Bianchi *Metagenomics Analysis of Phosphate Accumulating Microbial Consortium* Blacksburg High School Sponsor: Katharine Davis

402

Noah Dabney Sugar as Knowledge and Power: How Sugars Impact the Growth of Tree Roots Home School Sponsor: Eric Beers

# Chemistry Materials Science

501

D. Jacob Clary and Wesley Meredith Electronic Wristbands That Alarm When Separated Southwest Virginia Governor's School Sponsor: Jerri England

#### Earth and Environmental Sciences Physics and Astronomy

603 Alex Tomiak *Gaussian Rifle: Relationship Between Distance and Magnetic Stages* George Wythe High School Sponsor: Delores Craig

# Embedded Systems Robotics and Intelligent Machines Systems Software

704 Patrick Thomas *Deciduous Tree Leaf Identification with Artificial Neural Networks* Southwest Virginia Governor's School Sponsor: Rick Fisher

# Engineering Mechanics Environmental Engineering

802 Isaac Payne *Aerodynamic Camper Device* Southwest Virginia Governor's School Sponsor: Greg Riffe

801 Jonathan Tyler Neeble *Hydroelectric Power Generator* Southwest Virginia Governor's School Sponsor: Matthew Frazier