





# 2019 Student Projects

## Senior Division

The Effect of *in ovo* Ascorbic Acid Submergence on Eggshell Conductance, Chick Body Mass and Initial Post-Hatch Growth Rate in Commercial Meat Chickens Colin Detrick (Saratoga Springs)

Intercropping Solanum tuberosum and Calendula officinalis to Attract the Coleomegilla maculata as a Biological Control Method for Leptinotarsa decemlineata and Macrosiphum euphorbiae Populations

Jessica Petteys (Hudson Falls)

Environment or Beekeeping Management Practices: What affects survival rate in Honey Bee colonies with Varroa mite infestations? Sena McLaughlin (Hudson Falls)

Effect of pH, Salinity, and the Alzheimer's-Associated Amyloid-Beta Protein on Memory Formation and Regenerative Abilities in Planaria Abrielle Swartz (Hudson Falls)

Say Goodbye to Compression Garments: A Novel Design for a Lymphedema Flex-Tech Sneaker Nguyen Tran, Chung Tran (South Colonie)

#### **5 Cylinder Radial Engine**

Austin Kwon, Garrett Drake, Eric Brunco (North Colonie)

# Relationship between Math and Music Michelle Moczulski (Bethlehem)

Comparing Hardware and Software Solutions of Brain-Computer Interfaces Using Tobii Dynavox Communicator 5

Vaishali Gupta (North Colonie)

#### Waves in Motion

Soroush Saririan, Alex Smith (Shenendehowa)

#### **Brexit**

Jasmine Edmonds, Rosalind Furan (South Colonie)

#### **Untold Mysteries**

Abeerah Akhtar (North Colonie)

A Big Problem from a Small Device:

A Call for Vaping Education in Capital District Schools

Sunnah Yasin, Mariyam Moqbil (South Colonie)

Cultural Fantasy Shipping Container Studio
Hannah Wang, Marie Miller, Shantala Mehta, Chloe Baldwin
(North Colonie)

# - Junior Division

#### The Void Above

Danil Donchuk (New York Mills)

Understanding ARVC's Present and Future Sareena Gurung, Meghana Bhupati (Guilderland)

The Effect of Nitrogen in Free Range and Caged Chicken Manure on Plant Growth

Isaac Kwasniewski (Hudson Falls)

### **How Black Holes Affect Space Time**

Victoria Iacabucci, Abby Beauregard, Lelaina Beauregard (Voorheesville)

**Car Crash Analysis** 

William Makranszky (Tech Valley)

### **Building a Microscope**

Nicholas Allen (Tech Valley)

### **Renaissance Revival**

Mina Olsson, Ashlee Jensis, Cayden Hobart (Tech Valley)

#### **Aquatic Mechatronics**

Shane Thrasher (Tech Valley)

#### **Beliefs Documentary**

Cynthia "Haven" Cooper, Noah Grinder (Tech Valley)

#### Live from the Cold War

Simon VanKuren, Edwin VanWagner (Tech Valley)

#### **Biology of the Middle Ages**

Jack Whitaker, Tobey Condon (Tech Valley)