Rishi Soni
Cleveland High School, Cleveland
"Developing a Fish Image Classification System for Mouse Creek, TN, Using Machine Learning"

Jennifer Li, Nathan Solomon & Rena Shi
School for Science and Math at Vanderbilt, Nashville
"Temperature and Humidity Dashboard Using the Array of Things"

Beatrix Adams, Jed Comia, Ribca Girma
Lucia Hall
School for Science and Math at Vanderbilt, Nashville
"The Effect of Collagen Doses on the Growth of Dugesia tigrina"

Emi Gilmer, Jasmin Neely, Maya Reilly & Seth Shaw
School for Science and Math at Vanderbilt, Nashville
"Effects of Microplastics on the Growth and Germination of Lobelia siphilitica and Achillea millefolium"

Aleyna Loughran-Pierce
School for Science and Math at Vanderbilt, Nashville
"Cooperative Breeding and the Evolution of Birdsong"

Holden Korbey
Hillsboro High School, Nashville
"Density-Dependent Effects of Lonicera maackii (Amur Honeysuckle) Allelopathy"

Paa Kwesi Mensah
Hillsboro High School, Nashville
"Testing the Efficacy of Organic and Chemical Fertilizer on Moulin Rouge Pansies"

Kate Roller
Hillsboro High School, Nashville
"BPA Impacts Plant Growth in Beginning Stages of Life"

Lucas Herculano Houzel
Hillsboro High School, Nashville
"An Analysis of Team Compositions in VALORANT Through a Python Written Web-Scraper"

Isabella Woodward
Hillsboro High School, Nashville
"Determining the Effectiveness of Music City Gold in Crop Yield and Seed Starting"

117 Ts
Tennessine

From across Tennessee; Nashville down to Chattanooga, back up to Cleveland and Greeneville, with home-based research labs in between!

Friday, April 16th 2021
TENNESSEE ACADEMY OF SCIENCE

OFFICERS

Dr. Amy Thompson .................................. President
Austin Peay State University, Clarksville

Dr. Greg Vieira ......................................... President-Elect
Rhodes College, Memphis

Dr. Darlene Panvini ................................. Immediate Past President
Belmont University, Nashville

Dr. Marcia Schilling ................................ Secretary
Austin Peay State University, Clarksville

Dr. C. Steven Murphree .......................... Treasurer
Belmont University, Nashville

Dr. Justin Oelgoetz ................................. Managing Editor
Tennessee Academy of Science Journal
Austin Peay State University, Clarksville

TENNESSEE JUNIOR ACADEMY OF SCIENCE

Sponsored by the
TENNESSEE ACADEMY OF SCIENCE

Dr. Preston MacDougall ............................ Director
Tennessee Junior Academy of Science

READING COMMITTEE

Dr. Preston MacDougall.............................. Middle Tennessee State University

NON-LOCAL ARRANGEMENTS

Zoom Video Communications ...................... San José, California

JUDGES

Dr. M. Gore Ervin ............................. Middle Tennessee State University
Dr. Hanna Terletska ......................... Middle Tennessee State University
Dr. Joel Harp ............................................ Vanderbilt University

PROGRAM

Friday, April 16th, 2021

9:00 - 9:30 am ........ Logging-on to Zoom Meeting
9:30 - 9:40 am .................................. Welcome
9:40 - 12 noon .................. Paper Presentations
12:00 noon - 1:00 pm ................. Lunch
1:00 pm - 4:00 pm ............... Paper Presentations
4:00 pm ........................................ Adjournment

TENNESSEE JUNIOR ACADEMY OF SCIENCE

Papers to be Presented
Student’s Name, Research Classification, School, City, and Title of Paper

Vivian Song .......................................... Chemistry
Hamilton County Collegiate High School, Chattanooga
"The Potential of Different Rice Varieties as a Natural Water-Resistant Adhesive"

Grace Maddox ................................. Environmental Science
Cleveland High School, Cleveland
"Assessing Stream Health as it Pertains to Plethodontid Salamanders within the Cherokee National Forest"

Jennie Bulawa & Sarah Grace Evans ......... Physics
Greeneville High School, Greeneville
"Cymatics in Near-zero Gravity"

Clark Daneiz & Weston Geuther .............. Biology
Christ Presbyterian Academy, Nashville
"The Effects of Temperature and Relative Humidity on Escherichia coli Growth"

George Renaudin, Jace Johnson & Graham Jackson ................................. Botany
Christ Presbyterian Academy, Nashville
"The Effects of Various Nitrate Salts on the Growth of Triticum aestivum in a Standard Ebb-and-Flow Hydroponics System"

Jack Hartert, Elle Murphey, Hamza Yousuf & Ian Henson ............................. Engineering
The School for Science and Math at Vanderbilt, Nashville
"Design, Development, and Testing of Composite Multirotor Drones Using Virtual Programs"

Maya Underwood, Frank Yang ................ Computer Science
The School for Science and Math at Vanderbilt, Nashville
"Virtual Chemistry Classroom Prototype"

Savannah Root .............................. Psychology
Hillsboro High School, Nashville
"The Effectiveness of Teaching Methods during Virtual Learning"

Kurt Schelzig ............................... Electronics
Hillsboro High School, Nashville
"The Development of an Improved Wireless Energy Transmission System and Adapter"

Charles Eichman ............................. Biology
Hillsboro High School, Nashville
"Effects of Diammonium Phosphate on Saccharomyces cerevisiae Growth and Metabolism"

Lunch Break - while Socially Distanced!