#### Baylie Taylor & Kimberly Grez .....Biology

Central Magnet School, Murfreesboro
"The Analytical Comparisons Among Raw Water,

Repurified Water, Popular Name Brand Bottled Water, and Popular Store Brand Water Bottled Water, Regarding Drinikng Quality"

#### David Yue & Sven Byrnes ......Biology

Central Magnet School, Murfreesboro "The Effects of Aspartame on the Reaction Times of Lumbricus terrestris"

#### Pranay Manda.....Biology

Central Magnet School, Murfreesboro
"The Effect of Acute Exercise on the Expression of
Neuregulin-1 in the Skeletal Muscle of FVB/NJ Mice"

#### Hailey Pachucki.....Biology

Central Magnet School, Murfreesboro
"Effects of Different Sour Patch Kid Flavors on Teeth
with Orthodontic Brackets without Oral Hygiene, in Vitro"

#### Sayoni Ghosh & Asfah Mohammed.....Biology

Central Magnet School, Murfreesboro "The Effects of Acai and Goji Berries on Drosophila Melanogaster Life Spans"

#### Yasmeen Murtaza & Nora Johnson.....Biology

Central Magnet School, Murfreesboro
"The Presence of Gram-positive and Gram-negative
Bacteria in Ambulances of Rutherford County Emergency
Medical Services"

## Shannon Johnston, Clifton Matuszewski, Leigh McClanahan, Zahriya Parham & Alexandra Ramsey ......Environmental Science

Siegel High School, Murfreesboro
"Anthropogenic Effects on Leaf Litter Biodiversity of
Deciduous Forest Habitats in Middle Tennessee"

#### Jennifer Cottle, Eduardo Corea-Dilbert, Saba Rehman, Cyndy Vasquez & Xiuya Yao....

......Biochemistry

School for Science and Math at Vanderbilt, Nashville "Optimization of the  $\beta$ -glucosidase Enzyme and Inhibition of Glucose in Various Fungal Species"

#### Thomas Massion & Web Arnold......Physics

School for Science and Math at Vanderbilt, Nashville "Inversion of Electromagnetic Induction Data to Map Shallow Groundwater Pathways at Cockrill Spring"

#### David Feng, Joseph McCauley, Fea Morgan-Curtis & Redoan Salam ......Physics

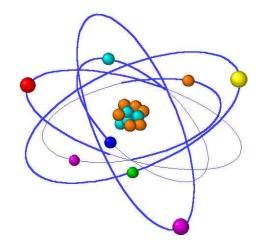
School for Science and Math at Vanderbilt, Nashville "Assessment of the Safety of Medical Implants during 7 Tesla Magnetic Resonant Imaging"

#### Elom Dumenyo, Lillian Ekem, Rebecca Hood & Tahj Starr ......Chemistry

School for Science and Math at Vanderbilt, Nashville "Establishing a Kinetic Standard for Common Interfering Substances in Luminol H<sub>2</sub>O<sub>2</sub> Reactions"

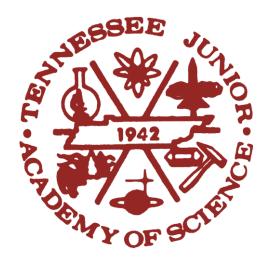
### Andrew Forbes, James Kyne & Yasmin Alvarrado-Rayo ......Engineering

School for Science and Math at Vanderbilt, Nashville "Constructing an Autonomous Robot to Detect Chemiluminescence in Forensic Analysis"



# TENNESSEE JUNIOR ACADEMY OF SCIENCE

#### ANNUAL MEETING



#### **BELMONT UNIVERSITY**

Nashville, Tennessee

FRIDAY, APRIL 17<sup>TH</sup>, 2015

Sponsored by the **Tennessee Academy of Science** 

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Dr. Joel HarpVanderbilt University		

#### PROGRAM Friday, April 17th, 2015

9:00 - 9:30 am	Registration
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

Sullivan High School, Kingsport
"A Possible Exoplanet Transit of KOI2034"

Landon Allison.....Biology

Cleveland High School, Cleveland "Cow Manure Effects on Water Quality in Mouse Creek, Cleveland, Tennesssee"

Xuanlin Li ......Mathematics

The McCallie School, Chattanooga 'Conjecture of Maximum Number of Minimum-Area Triangles Determined by n Lattice Points of which No Any Three are Collinear

John McCaw.....Engineering

Hillsboro High School, Nashville
"The Development of a Low-Cost, Novel
Combination Laminar-Flow and Fume Hood"

Jordan Kilts.....Biology

Kenwood High School, Clarksville
"The Effect of Natural vs. Synthetic Antibiotics on
Escherichia Coll"

Sarah Barnette.....Environmental Science

Cleveland High School, Cleveland

"The Effects of Acid Mine Drainage on a Tributary of Burra Burra Creek in the Copper Basin Mining District"

Ben Cooper......Biology

Cleveland High School, Cleveland "Analysis of the Effect of Depth on a Swimmer's Speed During the Underwater Streamline"

Devpaul Chani...... Chemistry

Pope John Paul II High School, Hendersonville "The Effect of the Concentration of Sodium Thiosulfate on Hydrogen Peroxide Iodine Clock Reaction"

**Blake Drinen, Cole Cleek & Jack Simons... Physics** 

Saint Andrew's Sewanee School, Sewanee

"Dropping Eggs from Various Heights to Find Their Approximate Area of Dispersal"

Lucas McClelan.....Chemistry

Hillsboro High School, Nashville
"Variation in Potable Water Quality Throughout
Davidson County"

Landon Kilgallon.....Computer Science

Columbia Academy, Columbia

"The Development of an Automatic 2048 Player"

Molly Shea......Health Literacy and Communication

Hillsboro High School, Nashville
"Health Literacy and Cancer Communication
Among Youths of Davidson County"