

Justin Jones.....**Zoology**
Cleveland High School, Cleveland
"The Effects of Redbreast Sunfish Population on the Populations of the Native *Lepomis* Fishes in South Mouse Creek, Cleveland, Tennessee"

Abhi Goyal, Aditya Gudibanda & Will Cox.....**Physics**
School for Science & Math at Vanderbilt, Nashville
"The Development of an Electroosmosis-Based Attosyringe"

Simran Mahtani.....**Physics**
Pope John Paul II High School, Hendersonville
"Ruben's Tube: Determining the Effect of Frequency on Wavelength"

Scherly Gomez, Busra Gungor & Ranine Haidous.....**Molecular Biology**
The School for Science & Math at Vanderbilt, Nashville
"The Regulation of the Egr1 Promoter by c-Myc, A Study Encompassing 1200 Base Pairs"

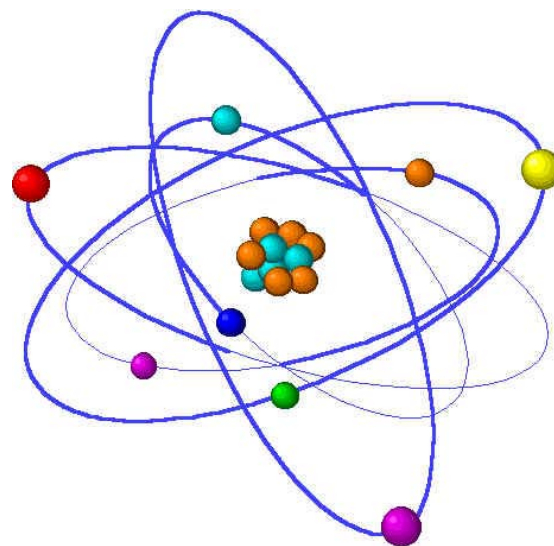
Rachel M. Hinlo.....**Biology**
Pope John Paul II High School, Hendersonville
"The Relationship Between Initial Inhibition Zone Size of Unknown Bacteria and Its Effectiveness in Outcompeting *Serratia marcescens*"

Kishan Bant..... **Environmental Science**
Hillwood Comprehensive High School, Nashville
"The Effect of Glyphosate on *Vanessa cardui*"

Maddie Denton.....**Environmental Science**
Siegel High School, Murfreesboro
"December, 2011 Pathogen Survey of Three Murfreesboro Tennessee Area Streams"

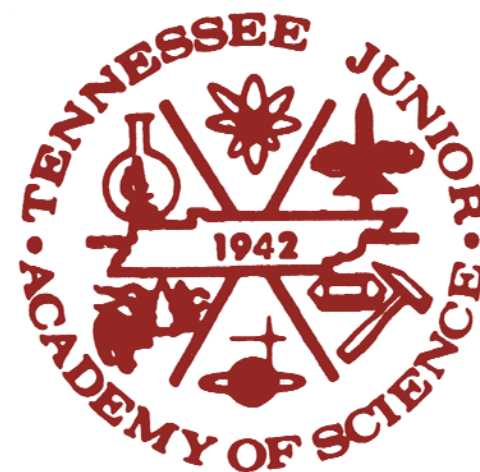
Victoria Cooley, Joseph Flaherty & Samuel Stockard.....**Botany**
Siegel High School, Murfreesboro
"Plant and Microbiological Crust Composition in a Cedar Glade Community"

Emily Peel.....**Physics**
Pope John Paul II High School, Hendersonville
"The Effect of Porosity upon the Strength of a Polymer Scaffold"



TENNESSEE JUNIOR ACADEMY OF SCIENCE

ANNUAL MEETING



BELMONT UNIVERSITY
Nashville, Tennessee

FRIDAY, APRIL 20TH, 2012

Sponsored by the
Tennessee Academy of Science

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Paul E. Koehler.....Oak Ridge National Laboratory
Preston J. MacDougall.....Middle Tennessee State University
Elbert Myles.....Tennessee State University

PROGRAM

Friday, April 20th, 2012

- 9:00-9:30a.m.....Registration
9:30-9:40a.m.....Welcome
9:40-11:30a.m.....Paper Presentations
11:35-noon.....Special Presentations
12:00-1:00p.m.....Lunch
1:00-4:00p.m.....Paper Presentations
4:00p.m.....Adjournment

TENNESSEE JUNIOR ACADEMY OF SCIENCE

Papers to be Presented

Student's Name, School, City, and Title of Paper

- Nathaniel W. Hubbs**.....**Zoology**
Camden Central High School, Camden
"Climate Effects on Juvenile and Adult Salamander
Population Densities: A Four-Year Study"
- Ashley Corson**.....**Physics**
Greenbrier High School, Greenbrier
"Variation of Magnetic Field Strength with Temperature"
- Maximilian Carter & Jonathan Davies**.....**Environmental Science**
School for Science & Math at Vanderbilt, Nashville
"Effects of Light Pollution on Nocturnal Animal Activity"
- Cathleen Humm & Sarah Link**.....**Physics**
Pope John Paul High School, Hendersonville
"The Effects of Circumference on a Parachute's Velocity"
- Gavin B. Nixon**.....**Chemistry**
Greenbrier High School, Greenbrier
"Reaction Driven Mixing: A Second Year Study-Reaction
Kinetics"

Gavin Dorrity.....**Chemistry**
Northwest High School, Clarksville
"The Effects of Plasma Gasification on Different
Waste for the Production and Analysis of Its
Products"

Robert Sellmer.....**Chemistry**
Northwest High School, Clarksville
"The Effectiveness of Various Methods of
Purification of Water"

**Zach Anderson, Braxton Brakefield, Melissa
Guo & Sam Klockenkemper**.....**Electrical
Engineering**
School for Science & Math at Vanderbilt,
Nashville
"The Design and Fabrication of a Capacitance-
Based Sensor Circuit"

Olufunke Tina Anjonrin-Ohu.....**Astronomy**
Sullivan South High School, Kingsport
"Discovering Asteroids"

**Jenny Zheng, Rachel Waters, Zoe Turner-
Yovanovitch**.....**Environmental Science**
School for Science & Math at Vanderbilt,
Nashville
"The Effects of Metro Water Bio-solids on Soil
Quality and Productivity of Buckwheat"

Jarrod Shores.....**Botany**
Siegel High School, Murfreesboro
"An Investigational Analysis on the Growing
Trends of *Opuntia humifusa*"

**Joseph Kennedy, Lauren Pearson &
Amanda Sudberry**.....**Soil Science**
Siegel High School, Murfreesboro
"Soil Composition of a Typical Cedar Glade
Habitat in Middle Tennessee"

Grant Currin.....**Zoology**
Cleveland High School, Cleveland
"Ecological Requirements for *Corbicula fluminea*
Populations"