

HyunJeong Jin, Jordan Winters, Ronnie Cela-Bedoya & Kanyanta Mwenya.....Bio-Chemistry

School for Science & Math at Vanderbilt, Nashville
"The Effects of Oxytocin on *Nasonia vitripennis* and *Nasonia giraulti* on Longevity, Number of Offspring, Diapause and Receptor Gene Expression"

Emily Alsentzer, Holden Bitner & Laura Moribe.....Ecology

School for Science & Math at Vanderbilt, Nashville
"Recolonization of Algal Assemblages after Flooding in Nashville Creeks"

Imani Chatman & Caroline Daws.....Chemistry

Siegel High School, Murfreesboro
"The Effects of pH on Enzyme Catalysis"

Vanessa Fuentes.....Micro-Biology

Smyrna High School, Smyrna
"The Influence of Resistance and Soap Concentrations on the Inhibition of Growth in *E. coli*"

Sidhartha Sinha & Daniel Hutchison.... Micro-Biology

Smyrna High School, Smyrna
"The Effect of Ampicillin and Temperature on *E. coli* Growth Rates"

Brian Allen, Samantha Soebbing, Ian McFadden, Lynn Matrisian & Oliver McIntyre.....Chemistry

Siegel High School, Murfreesboro
"The Effect of pH on NIR-Dyes: Applications for Proteolytic Beacon Optical Probes"

Kevin Clavin.....Medicine & Health

Pope John Paul II High School, Hendersonville
"Tumor and Stromal Elements are Required for Macrophage Polarization Following Induced Lung Tumor Metastasis"

Ashley E. Corson.....Medicine

Greenbrier High School, Greenbrier
"Measuring Rate of Pasage of Aspirin and Bufferin® through a Semi-permiable Membrane"

Anh Pham, Jamine Robinson & Joey Barnett.....Developmental Biology

Hume-Fogg Academic High School, Nashville
"Tgfr2 and Tgfr3 siRNA Knockdown Reduces Endocardial Cell Transformation in Chick Embryos in *Vitro*"

Catherine Caffey, Lauren Lu & Shanna Rucker.....Ecology

The School for Science & Math at Vanderbilt, Nashville
"The Effect of Fertilizer Pollution on Algal Profiles in Richland and Henry Creeks"

Daniel Lawhon.....Environmental Science

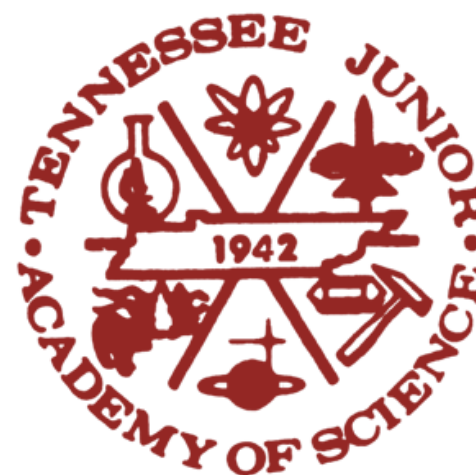
Greenbrier High School, Greenbrier
"Effects of the Firing Process for Eastern Dark-Fired Tobacco on Air, Water, and Soil Quality"

Jenny S. Gray.....Molecular Biology

Hume-Fogg Academic High School, Nashville
"cAMP Signaling Cascade Regulates the Na-K-2Cl Cotransporter"

TENNESSEE JUNIOR ACADEMY OF SCIENCE

ANNUAL MEETING



BELMONT UNIVERSITY
Nashville, Tennessee

FRIDAY, APRIL 15TH, 2011

Sponsored by the
Tennessee Academy of Science

TENNESSEE ACADEMY OF SCIENCE

OFFICERS

Jeff BolesPresident
Tennessee Technological University, Cookeville

William H. Andrews.....President Elect
Oak Ridge National Laboratory, Oak Ridge

Michael A. Gibson.....Immediate Past President
University of Tennessee at Martin, Martin

Teresa Fulcher.....Secretary
Pellissippi State Technical Community College, Knoxville

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

Stephen J. Stedman.....Editor
*Tennessee Academy of Science Journal
Tennessee Technological University, Cookeville*

TENNESSEE JUNIOR ACADEMY OF SCIENCE

Sponsored by the

TENNESSEE ACADEMY OF SCIENCE

Jack Rhoton.....Director
Tennessee Junior Academy of Science

READING COMMITTEE

Jack Rhoton.....East Tennessee State University
William N. Pafford.....East Tennessee State University
Gary Henson..... East Tennessee State University
Timothy McDowell..... East Tennessee State University

LOCAL ARRANGEMENTS

C. Steven Murphree.....Belmont University

JUDGES

M. Gore Ervin.....Middle Tennessee State University
Elbert Myles.....Tennessee State University
Ningfeng Zhao.....East Tennessee State University
Preston J. MacDougall.....Middle Tennessee State University

PROGRAM

Friday, April 15th, 2011

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

Stephen Theyken.....**Physics**
Webb School of Knoxville, Knoxville
"Yes, there are atoms. A Comparison of Three Independent Methods of Determining Avogadro's Number"

Gavin B. Nixon.....**Chemistry**
Greenbrier High School, Greenbrier
"Reaction-Driven Mixing During Acid/Base Neutralization"

Katie Holmes & Andrea Tipton.....**Zoology**
Cleveland High School, Cleveland
"Potential Site for the Translocation and Propagation of the Smoky Madtom, *Noturus baileyi*"

Jin Kim, Josh Schultz & Clayton Eldrod.....**Zoology**
Siegel High School, Murfreesboro
"The Effects of Gender on the Operant Conditioning of Mice"

Wade Hubbs**Biology**
Camden Central High School, Camden
"Evaluation of Climate Trends and Salamander Population Densities: A Three-Year Study"

Della Coleman.....**Physics**
Northwest High School, Clarksville
"Crystallization with Vibrations II"

Joseph Griggs.....**Medicine & Health**
Pope John Paul II High School, Hendersonville
"Characterization of Immune Response Resulting from Acute Genetic or Pharmacological Inhibition of Notch Signaling"

Ahbid Zein-Sabatto, Vikas Kumar, Shuvajit Das & Ravikanth Konjeti.....**Physics**
School for Science & Math at Vanderbilt, Nashville
"The Effects of Surface Area, Distance, and Voltage on the Production of Hydrogen by Means of Short-Pulse Hydrolysis"

Ryan Driscoll & Anne Holmes.....**Chemistry**
School for Science & Math at Vanderbilt, Nashville
"Effects of Airplane Deicer on *O.placidus* in Tennessee Waterways"

Elizabeth Glass.....**Environmental Science**
Pope John Paul II High School, Hendersonville
"The Toxicity of Different Concentrations of Roundup on *Echiniscus*"

Gavin Dorrity.....**Environmental Science**
Northwest High School, Clarksville
"The Effects of Surface Area on Electrical Production in a Microbial Fuel Cell"