BEST STUDENT PAPER AWARDS AT THE 1997 ANNUAL MEETING OF THE TENNESSEE ACADEMY OF SCIENCE

Oral Presentations

Botany
First Place—Kristie L. Pinkerton. Cadmium and Zinc Uptake and Translocation in the Pasture Grass (Festuca aundinaceae). Lipscomb University, Nashville, Tennessee.

Cell and Molecular Biology
First Place—Sean O’Donnell. Reovirus Serotype-Dependent Replication in Alveolar Macrophages. Middle Tennessee State University, Murfreesboro, Tennessee.
Second Place—Kurt Haldeman. Regulation of 3H-Oxytocin Binding Sites in Porcine Myometrial Cell Monolayer Cultures. Austin Peay State University, Clarksville, Tennessee.

Chemistry
Second Place—Kelly D. Hopkins. The Individual Nature of Gas Chromatographic Profiles of Human Skin Surface Lipids. Middle Tennessee State University, Murfreesboro, Tennessee.

Engineering & Engineering Technology
Section I
Karen Swisher. The Study of the Pulverization of Polyurethane Foams by Pressure Shear Pulverization to Be Used As Filler in Foaming Systems. Tennessee Technological University, Cookeville, Tennessee.

Section II
First Place—Richard Pasley. Monitoring Brain Trauma: Comparison of Correlation Analysis Techniques of Intracranial and Arterial Pressures. The University of Memphis, Memphis, Tennessee.
Second Place—Heui Seong Lim. Signal Analysis Methods to Improve Reliability of Flow Measures of Condensers and Boilers. The University of Memphis, Memphis, Tennessee.

Geology and Geography

Math and Computer Science
First Place—Donald Bullock. Hand Printed Character Recognition Using Sequence Comparison Techniques. Tennessee Technological University, Cookeville, Tennessee.
Second Place—Steve Barber. Hand Printed Character Recognition Using Picture Description Language. Tennessee Technological University, Cookeville, Tennessee.

Science and Math Teachers
Second Place—Andrea Pryor-Ross. Electronic Calculators: To Graph Or Not To Graph. The University of Memphis, Memphis, Tennessee.

Physics and Astronomy
Microbiology
First Place—Michelle Stinson. Detection of Helicobacter pylori in Sewage by the Polymerase Chain Reaction. *Middle Tennessee State University, Murfreesboro, Tennessee.*
James Nokes. The Detection of Campylobacter jejuni in Milk. *Middle Tennessee State University, Murfreesboro, Tennessee.*
Second Place—Kristina Fusco. The Isolation of Whey-Degrading Microorganisms Using an Agar Medium. *Middle Tennessee State University, Murfreesboro, Tennessee.*
Third Place—Chad Brooks. Evaluation of Ribosomal Protein L9 Gene Sequence Conservation among Classes within Subphylum Vertebrata. *Middle Tennessee State University, Murfreesboro, Tennessee.*

Zoology
First Place—William H. Wade, II. The Effects of Electromagnetic Fields on the Swimming and Feeding Behavior of Ictalurus punctatus (Siluriformes: Ictaluridae). *Austin Peay State University, Clarksville, Tennessee.*
Third Place—Lillian F. Barber. Monitoring of Larval Amphibian Survivorship and Development and Correlation with Fecal Bacteria Levels in Sulphur Fork Creek Watershed, Robertson County, Tennessee. *Austin Peay State University, Clarksville, Tennessee.*

Poster Presentations
Botany

Cell and Molecular Biology
First Place—Sherry Young. The Effect Of Activated Peroxisome Proliferator-Activated Receptor-γ (PPAR-γ) on Signal Transducers and Activators of Transcription (STATs) During 3T3-L1 Adipocyte Differentiation. *Middle Tennessee State University, Murfreesboro, Tennessee.*

Chemistry
First Place—Tim Rogers. Properties of Seven-Coordinate Pentagonal Bipyramidal Mn (II) and Ni (II) Complexes. *Union University, Jackson, Tennessee.*
Second Place—Allen Bailey. Investigation of Trimethyltellurium Iodide as a 125-Tellurium NMR Chemical Shift Reference. *Middle Tennessee State University, Murfreesboro, Tennessee.*
Alicia Hyatt. The Biosynthesis of Selenium and Tellurium Containing Recombinant Histones for Crystallization Studies. *Tennessee Technological University, Cookeville, Tennessee.*

Geology and Geography

Science and Math Teachers
First Place—Deborah Zartman. A Serious Look at Silly Putty. *Middle Tennessee State University, Murfreesboro, Tennessee.*
Second Place—Jennifer Watson. The Western as an Educational Experience in Biology. *Middle Tennessee State University, Murfreesboro, Tennessee.*

Physics and Astronomy
First Place—Rica French. WFPC2 Observations of Star Clusters in the Magellanic Clouds II. The Small Magellanic Cloud Intermediate-Age Populous Cluster NGC 416. *Middle Tennessee State University, Murfreesboro, Tennessee.*

Medical Science
First Place—Jeanne Beals. The Effects of Unilateral versus Bilateral Carotid Body Denervation (CBD) on Respiration. *Austin Peay State University, Clarksville, Tennessee.*
Second Place—Kim Hodges. The Use of Inbred Rat Strains to Study Complex Disease. *Austin Peay State University, Clarksville, Tennessee.*

Zoology
First Place—Kevin C. Fitch. The Amphibians and Reptiles of Dunbar Cave State Natural Area, Montgomery County Tennessee. *Austin Peay State University, Clarksville, Tennessee.*