

BEST STUDENT PRESENTATION AWARDS AT THE 2001 ANNUAL MEETING OF THE
TENNESSEE ACADEMY OF SCIENCE

Oral presentations

Botany

- First place—Dwayne Estes. The Vascular Flora of Rattlesnake Falls, Maury County, Tennessee. *Middle Tennessee State University, Murfreesboro, Tennessee*
- Second place—Linn Ann Welch. Preliminary Report on Native Plant Landscaping for Management of Archaeological Sites in Middle Tennessee. *Middle Tennessee State University, Murfreesboro, Tennessee*
- Third place—Mark S. Green. Micropropagation of the Venus Fly-trap, *Dionaea muscipula*, Using in-vitro Techniques. *Tennessee Technological University, Cookeville, Tennessee*

Cell and Molecular Biology

- First place—Spence R. Dowlen. Differential Effects of Reovirus Type 3 on Transformed and Non-Transformed Cells. *Middle Tennessee State University, Murfreesboro, Tennessee*
- Second place—Andrea L. Kuntaraf. Using Time-lapse Imaging to Detect Centrosomal Defects Leading to Aneuploidy. *Southern Adventist University, Collegedale, Tennessee*
- Third place—Melanie J. Messina. Allelopathic Effects of Herbal Extracts. *Middle Tennessee State University, Murfreesboro, Tennessee*

Chemistry

- First place—James A. Henderson. Novel Selenium Containing Tryptophan Analogs and Their Potential Use in the Determination of Three Dimensional Protein Structures. *Tennessee Technological University, Cookeville, Tennessee*
- Second place—Ramdas S. Pophale. Signatures as Descriptors in Two Dimensional Quantitative Structure Relationship. *Tennessee Technological University, Cookeville, Tennessee*
- Third place—Celeste M. Matthews. Effects of Experimental Conditions on Coverage of Fumed Silica by Organosilanes. *Middle Tennessee State University, Murfreesboro, Tennessee*

Engineering and Engineering Technology

- First place—Parag S. Kanade. Use of a Heat-Flow Meter Apparatus to Evaluate Reflective Insulation Systems. *Tennessee Technological University, Cookeville, Tennessee*
- Second place—Barath Baburao. Thermodynamic Modeling of Hydrogen Fluoride Mixtures. *Tennessee Technological University, Cookeville, Tennessee*
- Third place—Stephen T. Worth. Assembly Line Simulation at White Hydraulics, Inc., Hopkinsville, Kentucky. *Austin Peay State University, Clarksville, Tennessee*

Health and Medical Sciences

- First place—Michael G. DeCuyper. Photolyase: A DNA Repair Enzyme. *Tennessee Technological University, Cookeville, Tennessee*

Math and Computer Science

- First place—Tim Agee. A Trapezoidal Type Method With Rational Coefficients for Initial Value Problems. *Austin Peay State University, Clarksville, Tennessee*

Microbiology

- First place—Daniel R. French. Identification of Selected Bacterial Pathogens from the Venom and Oral Cavities of *Agkistrodon contortrix mokasen* and *Agkistrodon contortrix contortrix*, Northern and Southern Copperheads. *Austin Peay State University, Clarksville, Tennessee*
- Second place—Shawn C. Robichaud. Isolation and Identification of Amylase-Producing Microorganisms. *Middle Tennessee State University, Murfreesboro, Tennessee*

Science and Math Teaching

- First place—Don R. Perine. Characterizing the Learning Styles of African Americans (Seventh Grade Science Students; College Science Students; Middle, High School, and College Science Teachers; and Science Professionals) as Identified by Dunn, Dunn, and Price Learning Style Inventories. *Middle Tennessee State University, Murfreesboro, Tennessee*

Zoology

- First place—Shawn A. Thomas. Scent Marking and Mate Choice in the Prairie Vole (*Microtus ochrogaster*). *University of Memphis, Memphis, Tennessee*

- Second place—Brian D. Carver. Capture Trends From a Mark-Recapture Study of Male and Female Raccoons (*Procyon lotor*) in Western Tennessee. *University of Memphis, Memphis, Tennessee*
- Third place—Roger A. Baldwin. Association of Selected Habitat Variables to Capture Success of Raccoons (*Procyon lotor*), Virginia Opossums (*Didelphis virginiana*), and Striped Skunks (*Mephitis mephitis*). *University of Memphis, Memphis, Tennessee*

Poster Presentations

Agriculture

- First place—Mary Cherry. Comparative Characterization of Selected *Hypericum* Species with AFLP and HPLC Analyses. *Tennessee State University, Nashville, Tennessee*

Cell and Molecular Biology

- First place—Amanuel K. Bariagaber. The Effect of Lowering Cellular Levels of cAMP on the Cytotoxic Function of Human Natural Killer Cells. *Tennessee State University, Nashville, Tennessee*

Chemistry

- First place—David G. Figueredo. A Portable Demonstration of Vat Dyeing Simulated with Indigo Carmine. *Middle Tennessee State University, Murfreesboro, Tennessee*
- Second place—Tim Decha-Umphai. Synthesis and Analysis of Selenium Alkoxides. *Middle Tennessee State University, Murfreesboro, Tennessee*
- Third place (tie)—Nick Bridges. Absorption Studies of Cd(II) and Cu(II) by Mono- and Di-Phosphinic Acids Impregnated on a Solid Support. *Tennessee Technological University, Cookeville, Tennessee*
- Third place (tie)—Duane M. Hatch. New Insights Concerning the Use of Beta-Chloroalanine and Monovalent Cations in the Tryptophan Synthase Spectrophotometric Kinetic Assay. *Tennessee Technological University, Cookeville, Tennessee*

Microbiology

- First place—Eric Freundt. Advantages in Interspecies Competition of *Escherichia coli* Selected for Resistance to Antimicrobial Triclosan. *Middle Tennessee State University, Murfreesboro, Tennessee*

Physics and Astronomy

- First place—Travis Laurance. Effect of Phase on Fast Fourier Transforms with Applications to Time-Series Photometry. *Middle Tennessee State University, Murfreesboro, Tennessee*
- Second place—C. Brad Bennett. Investigation of Metal-Dielectric Multilayer as an Improved Biochemical Sensor. *Middle Tennessee State University, Murfreesboro, Tennessee*

Science and Math Teaching

- First place—Dara Grissom. Bringing Technology and Consumerism to Physical Science Laboratories. *Middle Tennessee State University, Murfreesboro, Tennessee*

Zoology

- First place—Pamela Monger. Trophic Transfer of Metals from Seagrass to Epiphytes and Grazing Invertebrates. *Middle Tennessee State University, Murfreesboro, Tennessee*
- Second place—Tamara J. Berthel. Activity of Common Snapping Turtles in a Seasonally Drying Wetland. *Middle Tennessee State University, Murfreesboro, Tennessee*
- Third place—Ken J. Davenport. A Trichopteran Survey of Several Tributaries of Sulphur Fork Creek and Red River, Robertson County, Tennessee. *Austin Peay State University, Clarksville, Tennessee*