

Student Presentation Awards at the 2017 Collegiate Division Meetings

Western Region

Christian Brothers University
Memphis, Tennessee
1 April 2017

Oral Presentation Winners

Organismal Biology

- First Place—*Kyle Fiornelli*. A novel technique for assessing biomarkers of stress in snakes. *Christian Brothers University, Memphis, Tennessee.*
- Second Place—*Alex Wolf*. Accumulation of heavy metals by chironomids in the Wolf River, Memphis, Tennessee. *White Station High School, Memphis, Tennessee.*
- Third Place—*Jacob Mann*. Effects of *Microstegium vimineum* competitive interactions on focal plant growth and local species diversity. *Christian Brothers University, Memphis, Tennessee.*

Health and Medical Science

- First Place—*John B. Buttross, Jr.* Quantification of amyloid beta in Alzheimer's Disease mouse models. *Christian Brothers University, Memphis, Tennessee.*
- Second Place—*Nuti M. Desai*. rAAV targeting GD3 synthase protects against MPTP-induced nigrostriatal destruction and Parkinsonian symptoms. *Christian Brothers University, Memphis, Tennessee.*
- Third Place—*Damian Kaminski*. Amelioration of high glucose induced apoptosis on retinal explants with adipose-derived stem cell conditioned media. *Christian Brothers University, Memphis, Tennessee.*

Physics, Engineering, and Computer Science

- First Place—*John Frizzell*. The LED Mirror. *Christian Brothers University, Memphis, Tennessee.*
- Second Place—*Juan Avalos and Anh Kha Le*. Wireless Power Transfer. *Christian Brothers University, Memphis, Tennessee.*
- Third Place—*Tranh N. Truong*. Solar Controller. *Christian Brothers University, Memphis, Tennessee.*

Poster Presentation Awards

- First Place—*Andrea Perez-Munoz, Patrick Woody, James W. Rodgers, and Jamonte D. Wilson*. Brain responses indicate that task difficulty and distractor salience create competition for attention. *Christian Brothers University, Memphis, Tennessee.*
- Second Place—*Hannah E. Schultz*. Lichens of the Ghost River State Natural Area, Fayette County, Tennessee. *Christian Brothers University, Memphis, Tennessee.*

Third Place—*Erica C. Carcelen*. Protected areas of southeastern region of the United States. *Rhodes College, Memphis, Tennessee.*

Middle Region

Belmont University
Nashville, Tennessee
8 April 2017

Chemistry/Physics/Mathematics

- First Place—*David K. Zhang*. The biexciton puzzle. *Vanderbilt University, Nashville, Tennessee.*
- Second Place—*Bailey S. Rose*. Cavity ring-down spectroscopy of gas-phase ions prepared via electrospray ionization. *Belmont University, Nashville, Tennessee.*
- Third Place—*Libby Ligon*. Synthesis, characterization, and unusual solvation and luminescent properties of terbium amine complexes. *Belmont University, Nashville, Tennessee.*
- Honorable Mention—*Howsikan Kugathasan*. Biotransformation of cycloastragenol and curcumin. *Fisk University, Nashville, Tennessee.*
- Honorable Mention—*Keegan Hoffman*. A precision magnetic mapper for the UCNTau experiment. *Tennessee Technological University, Cookeville, Tennessee.*

Bio I: Ecology/Zoology/Botany

- First Place (tie)—*Anna Anderson*. Decomposition rates of *Acer saccharum* and *Lonicera maackii* in mixed litter bags. *Belmont University, Nashville, Tennessee.*
- First Place (tie)—*Curtis Brown*. The effects of isoflurane on learning and spatial memory in *Danio rerio*. *Belmont University, Nashville, Tennessee.*
- Third Place—*Joanna Sorrell*. The effect of prey size on its antipredator behavior in a snail crayfish system. *Belmont University, Nashville, Tennessee.*
- Honorable Mention—*Jaquantey Bowens*. Effects of precipitation changes on switchgrass physiology, roots and biomass. *Tennessee State University, Nashville, Tennessee.*

Bio II: Cellular/Micro/Health Med. Sciences

- First Place—*Brian R. Song*. Expansion on the nematode scent detection test: evaluating *C. elegans* attraction to non-small cell lung cancer. *Belmont University, Nashville, Tennessee.*
- Second Place—*Kerry Sommers*. Treatment effects of emetine on HCT-116 cells. *Belmont University, Nashville, Tennessee.*

Third Place—*Mohamed Darwish*. The effect of piracetam on *Danio rerio* with ethanol-induced memory impairment. *Belmont University, Nashville, Tennessee.*

Honorable Mention—*Madeline Johnson*. Caffeine's effect on the chemotaxis of *C. elegans* after a short exposure time. *Belmont University, Nashville, Tennessee.*

Eastern Region

Pellissippi State Community College
Knoxville, Tennessee
21 April 2017

Oral Presentation Awards

First Place—*Nathan Falconnier, Lily Turaski, Tara Walker, and Patricia Zingg*. Evaluation of optimal dye combinations in gel electrophoresis separation for general biology lab courses. *Pellissippi State Community College, Knoxville, Tennessee.*

Second Place—*Ridge Sliger and Michael Freake*. Suitability of the Tumbling Creek eastern hellbender (*Cryptobranchus alleganiensis*) population as a potential source for at-risk hellbender populations. *Lee University, Cleveland, Tennessee.*

Third Place—*Samantha Cole, Rachel Mullins, Sunny Kennedy, Ashley Reynolds, Erin Jennings, Laura Kelly Vaughan, and Vanessa Fitsanaksis*. Evaluation of mitochondrial function in PARK2 knock out *C. elegans* exposed to the pesticide manzate. *King University, Bristol, Tennessee.*

Honorable Mention—*Sunny Kennedy, Erin Jennings, Ashley Reynolds, Rachel Mullins, Samantha Cole, Vanessa Fitsanaksis, and Laura Kelly Vaughan*. Generation and analysis of mitochondrial function in a novel strain of *C. elegans* selected for resistance to the pesticide Touchdown. *King University, Bristol, Tennessee.*

Honorable Mention—*Haley B. Davis and Saeed Rahmanian*. CRISPR: The future of genetically modified genes, a review of current literature. *Roane State Community College, Oak Ridge, Tennessee.*

Honorable Mention—*Sawyer Smith and Paul Threadgill*. *Gopherus polyphemus* population distribution in Ichetucknee Springs State Park, Florida. *Maryville College, Maryville, Tennessee.*

Poster Presentation Awards

First Place—*Erin A. Schrenker, Ethan A. Carver, Jose M. Barbosa, and Thomas P. Wilson*. Measuring the presence of the amphibian pathogen *Batrachochytrium dendrobatidis* in east Tennessee. *The University of Tennessee at Chattanooga, Chattanooga, Tennessee.*

Honorable Mention—*Cullen Harris, Paul-Erik Bakland, Joanna Elmore, David Hedrick, Nyssa Hunt, Austin Vanover, Team Salamander and Thomas Wilson*. The Status and Conservation of the eastern hellbender (*Cryptobranchus alleganiensis*): Directions for the Future. *The University of Tennessee at Chattanooga, Chattanooga, Tennessee.*

Honorable Mention—*Macall A. Nabors, Thomas P. Wilson, Ethan A. Carver, Jose M. Barbosa, and Team Salamander*. Prevalence of *Batrachochytrium dendrobatidis* (*Bd*) in watercourses situated in southeast Tennessee. *The University of Tennessee at Chattanooga, Chattanooga, Tennessee.*

Honorable Mention—*Kelly Daniels and Thomas Wilson*. Comparing unmanned aerial vehicles (UAVs) to traditional field methods in surveying of basking riverine turtles. *University of Tennessee at Chattanooga, Chattanooga, Tennessee.*