

## Summer Undergraduate Research Symposium 2016 Category Winners and Runner Ups

### Agricultural & Environmental Sciences Category (8 posters)

**Winner:** *Understanding change in tree ring growth over time without using method of detrending.*  
**Emily C. Bushman** & Amy Hessel. (Emily, a geology major and Honors student at WVU from Martinsburg, WV, was a participant in the SURE program.\*)

### Biological Sciences Category (13 posters)

**Winner:** *Examining the neurodevelopmental expression patterns of *gsx1* and *gsx2* in zebrafish.*  
**Sarah Peterson** & Sadie A. Bergeron. (Sarah, a biology major and Honors student at WVU from Scott Depot, WV, was supported in research by the Henry W. Hurlbutt Memorial Fund from the Department of Biology.)

**Runner Up:** *Polymorphisms in *DIP5* contribute to glyphosate resistance in *Saccharomyces cerevisiae*.*  
**Audrey Biega** & Jennifer Gallagher. (Audrey, a biology major and Honors student at WVU from Wheeling, WV, was a participant in the SURE program.\*)

### Engineering Category (17 posters)

**Winner:** *Comparison of pristine and thermally degraded nanoclay toxicity in human lung epithelial cells.*  
**Soofia N. Lateef**, Alixandra Wagner, Andrew White & Cerasela Zoica Dinu. (Soofia, a chemical engineering major and Honors student at WVU from Bridgeport, WV, was self-supported in research.)

**Runner Up:** *Electroluminescent characterization of on-orbit III-V nitride-based LEDs.*  
**Catherine G. O'Hearn**, Matthew Pachol & Jeremy Dawson. (Catherine, an electrical engineering major at WVU from Buckhannon, WV, was a participant in the SURE program and was funded via the NSF LSAMP KY-WV Mid-Level Alliance Phase II grant.)

### Health Sciences Category (19 posters)

**Winner:** *High fructose corn syrup-55 consumption changes hypothalamic *AGRP* gene expression in female Sprague-Dawley rats.*  
**Sundus S. Lateef**, Kaitlin Mock, Vagner A. Benedito & Janet C. Tou. (Sundus, a chemistry and biology double major and Honors student at WVU from Bridgeport, WV, was a participant in the SURE program.\*)

**Runner Up:** *Incorporation of benzalkonium chloride to improve the antimicrobial properties of lignocellulosic material.*  
**Oliver Lin**, Gloria Oporto & Jacek Jaczynski. (Oliver, a biomedical engineering major and Honors student at WVU from Morgantown, WV, was supported in research through the USDA-NIFA program.)

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### Nanoscience Category (13 posters)

**Winner:** *Fabrication of hierarchical nanostructures for surface-enhanced Raman scattering biosensors.* **Kathrine Curtin**, Sujan Kasani, Peng Zheng & Nianqiang Wu. (Katherine, a chemistry major at Saint Vincent College, was a participant in the NSF-funded NanoSAFE REU program.)

**Runner Up:** *Optical imaging of dipole ordering in nickelate polar metal.* **Jordan D. Sosa**, Cen Cheng & Ming Yang. (Jordan, an engineering and physics double major at the University of Tulsa, was a participant in the NSF-funded NanoSAFE REU program.)

### Physical Sciences Category (16 posters)

**Winner:** *Functionalizing vinyl arenes to produce new derivatives of non-steroidal anti-inflammatory pharmaceuticals.* **Kayla Kroner**, Trina Perrone & Brian Popp. (Kayla, a chemistry major at Drake University, was a participant in the NSF-funded Chemistry REU program.)

**Runner Up:** *Synthesis of silver (I) complex intermediates.* **Caitlin M. Embly**, Aaron P. Honeycutt & Jessica M. Hoover. (Caitlin, a chemistry major at Northern Virginia Community College/University of Virginia, was a participant in the NSF-funded Chemistry REU program.)

### Social Sciences & Non-STEM Category (7 posters)

**Winner:** *In-group and out-group interactions explained with truth default theory.* **Conrad S. Trump** & Keith Weber. (Conrad, a communication studies and world languages double major and Honors student at WVU from Berkeley Springs, WV, was a participant in the SURE program.\*)

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Category winners and runner ups of the 2016 Summer Undergraduate Research Symposium held at West Virginia University on July 28, 2016.