



# DELAWARE VALLEY SCIENCE FAIRS, INC.

## **Intel International Science and Engineering Fair 2016 Awards Ceremony May 13, 2016 Phoenix, Arizona**

Society for Science and the Public, in partnership with the Intel Foundation, announced Awards of the Intel International Science and Engineering Fair (ISEF) 2016. Student winners are ninth through twelfth graders who earned the right to compete at the Intel ISEF 2016 by winning a top prize at a local, regional, state, or national fair. This year's Intel International Science and Engineering Fair featured approximately 1,700 young scientists selected from 422 affiliate fairs in more than 75 countries, regions and territories.

## **Award winners from the Delaware Valley Science Fairs**

### **Biomedical and Health Sciences:**

**Ralph Ignacio Lawton**, 17, 12<sup>th</sup> Grade, PA Leadership Charter School, West Chester, PA  
*The Smoking Gun: Toxicological Effects of Electronic Cigarettes on Epithelial Cells using Air Liquid Interface, Year Two.*

Grand Award: Second Place - \$1,500

Special Award: National Anti-Vivisection Society: First Place - \$5,000

Special Award: - MIT – Lincoln Laboratory, Ceres Connection – Lifetime Naming of an Asteroid

### **Biomedical Engineering:**

**Michael Zhang**, 18, 12<sup>th</sup> Grade, Conestoga High School, Berwyn, PA  
*Design and Assembly of CRISPR/Cas9-Based Virus-like Particles for Orthogonal and Programmable Genetic Engineering in Mammalian Cells.*

Grand Award: First Place - \$3,000

Special Award: National Aeronautics and Space Administration: Third Place - \$1,000

Special Award: - MIT – Lincoln Laboratory, Ceres Connection – Lifetime Naming of an Asteroid

### **Microbiology:**

**Rachana Mudipalli**, 17, 11<sup>th</sup> Grade, Downingtown STEM Academy, Downingtown, PA  
*The Identification of ATPase Activity Regulation in Tetrahymena thermophila: Understanding the Function of the Malarial ATP Synthase in Order to Develop New Antimalarials.*

Grand Award: Third Place - \$1,000

### **Plant Sciences:**

**Sophia Edith Swartz**, 16, 10<sup>th</sup> Grade, Central Bucks High School South, Warrington, PA  
*Molecular-Based Genotyping of Lactuca sativa for Accelerated Genotypic Selection.*

Grand Award: Second Place - \$1,500

Special Award: - MIT – Lincoln Laboratory, Ceres Connection – Lifetime Naming of an Asteroid

### **Translational Medical Sciences:**

**Shayan Daniel Farmand**, 16, 11<sup>th</sup> Grade, Methacton High School, Eagleville, PA  
*Novel TolC Inhibitors: Computer Aided Drug Discovery for MDR-Conferring Efflux Pumps.*

Grand Award: Third Place - \$1,000

Special Award: American Association of Pharmaceutical Scientists – Third Place - \$500

**Anjali Chakradhar**, 14, 9<sup>th</sup> Grade, High Technology High School, Lincroft, NJ  
*Design and Evaluation of Betulin-Based Anti-Cancer Compounds.*

Grand Award: Fourth Place - \$500

Special Award: American Association of Pharmaceutical Scientists – Fourth Place - \$250

**Julienne Chaqour**, 15, 9<sup>th</sup> Grade, High Technology High School, Lincroft, NJ

*The Effect of the Plant Hormone Abscisic Acid on the Sprouting of Blood Vessels in vitro.*

Special Award: American Physiological Society – First Place - \$1,500

### **Mathematics:**

**Karthik Yegnesh**, 16, 10<sup>th</sup> Grade, Methacton High School, Eagleville, PA  
*Cosheaf Theoretical Constructions in Networks and Persistent Homology.*

Special Award: American Mathematical Society – Certificate of Honorable Mention

Special Award: K. T. Li Foundation – Second Place - \$1,000

Special Award: Mu Alpha Theta, Mathematics Honor Society – First Place - \$1,500

Special Award: NSA Research Directorate – Second Place - \$1,000

### **Systems Software:**

**Kunal Varun Singh**, 18, 12<sup>th</sup> Grade, High Technology High School, Lincroft, NJ

*Classification of Subtle Morphological Features for Individual Nuclei in Stained Glioma Tissue Slides.*

Grand Award: Fourth Place - \$500

*Since 1949, Delaware Valley Science Fairs, Inc. (DVSF) has stimulated interest in science, technology, engineering and mathematics (STEM) among middle and high school students in the tri-state region. Our vision is to bring parents, teachers and industry together to stimulate and nurture young people so that they can grow and develop into contributing members of the community. DVSF's philosophy is that students learn by doing. They learn how to think, how to identify problems that need to be solved, and to design solutions to those problems.*

*For more information, visit [www.DVSF.org](http://www.DVSF.org) or call  
Henry Disston, President and Executive Director, at: 215-895-5840.*