

## 58<sup>th</sup> Annual Mercer Science and Engineering Fair

The 58<sup>th</sup> Mercer Science and Engineering Fair (<http://mercersec.org>) was host to over 420 registered students from 36 schools in the Bart Ludeke Center at Rider University in Lawrenceville, NJ. The fair is open to all students in grades 4-12 who attend school in Mercer County, NJ. It is free courtesy of the fair's major sponsors that include Rider University, local companies including Covance, Educational Testing Service, Voicenet and Hovione plus international companies including Qinetiq, Digi International and Eurotech. The fair has been held at Rider University for the past 28 years.

The Senior Division (grades 9-12) Grand Prize winner is Hannah Jin of West Windsor-Plainsboro High for her project: *The Effects of Static Magnetic Fields (SMFs) on the Biomineralization of Osteoblasts*. She received an all expense paid trip to compete in the Society for Science & the Public' Intel International Science and Engineering Fair held in Los Angeles, CA this May. She can also compete in SUNY Oswego's Genius Olympiad along with the 1st Runner-up: Rebecca Wolf, Hamilton High East and the 2nd Runner Up: Vijay Narayan, West Windsor-Plainsboro High. The Senior Division students had to present their projects to numerous judges during a four hour judging session.

The top winners in the Junior Division (grades 6-8) move on to the Broadcom Master competition. The 50 finalists of this competition travel to Washington, D.C. for the finals. The fair has had a student reach the finals.

School and science administrators and parent teacher organizations interested in science and engineering should check out the fair's website to find out how their students can participate in next year's fair. Students can work on their projects starting in the summer.

### **Mercer Science and Engineering Club**

#### **Elementary Division:**

**Superior Achievement:** Meghan DiMercurio, Villa Victoria; Christian Fang, Lawrence Intermediate; Hamza Lodhi, Perry L. Drew Elementary; Patrick Horan, Sayen Elementary;

**Outstanding Achievement:** Anna Spadaccini, University Heights Elementary; Marc Jordine, Morgan Elementary; Casey Weber, Ethel McKnight Elementary; Peter Garlisi, Alexander School; Nia Maywar, Villa Victoria;

**Meritorious Achievement:** Christian Charache, Walter C. Black Elementary; Erin Burns, Robinson Elementary; Nicole Dunn, Mercerville Elementary; Eleanor Bukosky, Villa Victoria; Neil Arora, Grace N. Rogers Elementary; Sophia DeFrank, University Heights Elementary;

**Honorable Mention:** Casey Navarro, Morgan Elementary; Renata Teichmann, Lalor Elementary; Dustin Bullock, Mercerville Elementary; Julia Rauscher, Yardville Heights Elementary; Anitej Biradar, Perry L. Drew Elementary; Daniel Ornosky, Wilson Elementary; Wilson Gonzalez, McGalliard Elementary; Cameron DeMarie, Morgan Elementary; Mariah Kondash, St. Ann's; Cristina Rubino, Yardville Heights Elementary; Isabelle Miranda, Morgan Elementary;

#### **Junior Physical Division**

**Superior Achievement:** Meghan Calcagno, St. Gregory the Great; Simran Suri, Chapin School; Robert O'Keefe, St. Gregory the Great;

**Outstanding Achievement:** Olivia Olshevski, Villa Victoria; Vanessa Woolfolk, Villa Victoria; Madison McNulty, St. Ann's;

**Meritorious Achievement:** Michael Andrusiewicz, St. Gregory the Great; Matthew Cuccagna, St. Gregory the Great; Nicholas Peist, St. Ann's;

**Honorable Mention:** Alexandra Vo, Villa Victoria; Alexa DelMonte, St. Ann's; Sam Martorana, Chapin School; Madison Hart, St. Gregory the Great; Jaya Armstead, Villa Victoria;

### **Junior Biological Division**

**Superior Achievement:** Amanda Gill, St. Gregory the Great; Ian Gregg, Lawrence Intermediate; Nicholas Stewart, St. Gregory the Great; Kristen O'Mara, Villa Victoria;

**Outstanding Achievement:** Riley Schmitt, Our Lady of Sorrows School; James Gow, Lawrence Intermediate; Yash Balaji, Timberlane Middle;

**Meritorious Achievement:** Brittany Krall, St. Gregory the Great; Jorina Kardhashi, Chapin School; Alyssa Sikorski, Our Lady of Sorrows School;

**Honorable Mention:** Meredith Taylor, St. Gregory the Great; Kristina Kubala, St. Gregory the Great; Christal Varanyak, Our Lady of Sorrows School;

### **Senior Division**

**Grand Prize:** Hannah Jin, West Windsor-Plainsboro High;

**1st Runner-up:** Rebecca Wolf, Hamilton High East;

**2nd Runner Up:** Vijay Narayan, West Windsor-Plainsboro High;

### **Animal Sciences**

**First Place:** Katie Gaffney, Hamilton High East;

**Second Place:** Megan Munkacsy, Hamilton High East;

**Third Place:** Rachel Golding, Hamilton High East;

### **Behavioral and Social Science**

**First Place:** Julianne Rossi, Hamilton High East;

**Honorable Mention:** Skylen Monaco, Hamilton High East;

### **Biochemistry**

**Honorable Mention:** Rebecca Moon, Hamilton High East;

### **Chemistry**

**First Place:** Stephanie Huie, Hamilton High East;

**Second Place:** Christian Bruni, Hamilton High East;

**Third Place:** Rebecca Lee, Hamilton High East;

### **Energy and Transportation**

**First Place:** Moses Sutton, Trenton Central High;

**Honorable Mention:** Caitlyn Razzano, Villa Victoria;

**Engineering Electrical and Mechanical**

**First Place:** Megan Sibree, Hamilton High East;

**Engineering Materials and Bioengineering**

**First Place:** Shannon O'Mara, Villa Victoria; Vijay Narayan, West Windsor-Plainsboro High;

**Honorable Mention:** Matthew Jensen, Hamilton High East;

**Environmental Management**

**First Place:** Rebecca Wolf, Hamilton High East;

**Honorable Mention:** Carolyn McClure, Hamilton High East;

**Environmental Science**

**First Place:** Michael Morgan, Hamilton High East;

**Second Place:** Samantha Measner, Hamilton High East;

**Third Place:** Rebecca Perry, Hamilton High East;

**Honorable Mention:** Jason Vergara, Hamilton High East;

**Medicine and Health**

**First Place:** Hannah Jin, West Windsor-Plainsboro High;

**Second Place:** Kishan Shah, Hamilton High East;

**Microbiology**

**Honorable Mention:** Jocelyn Mendoza, Trenton Central High; Christina Zujkowski, Hamilton High East; Tyler Schwartz, Hamilton High East;

**Plant Sciences**

**First Place:** Bennett Kapili, Hamilton High East;

**Honorable Mention:** Matthew Podgurski, Hamilton High East; Danielle Renzi, Hamilton High East;

## **Special Awards:**

### **Society For Science & The Public**

**Broadcom Masters Award:** Alyssa Sikorski, Our Lady of Sorrows School; Riley Schmitt, Our Lady of Sorrows School; Nicholas Stewart, St. Gregory the Great; Ian Gregg, Lawrence Intermediate; Yash Balaji, Timberlane Middle; Amanda Gill, St. Gregory the Great; Jorina Kardhashi, Chapin School; James Gow, Lawrence Intermediate; Brittany Krall, St. Gregory the Great; Olivia Olshevski, Villa Victoria; Simran Suri, Chapin School; Vanessa Woolfolk, Villa Victoria; Madison McNulty, St. Ann's; Matthew Cuccagna, St. Gregory the Great; Michael Andrusiewicz, St. Gregory the Great; Meghan Calcagno, St. Gregory the Great; Nicholas Peist, St. Ann's; Robert O'Keefe, St. Gregory the Great;

### **Rider University**

**Elementary Most Superior:** Hamza Lodhi, Perry L. Drew Elementary;

**Junior Biological Most Superior:** Nicholas Stewart, St. Gregory the Great;

**Junior Physical Most Superior:** Robert O'Keefe, St. Gregory the Great;

**Most Superior:** Hannah Jin, West Windsor-Plainsboro High;

### **Earle S. Rommel Communications Award**

**Elementary:** Casey Navarro, Morgan Elementary;

**Junior:** Rachel Taylor, St. Gregory the Great;

**Senior:** Kishan Shah, Hamilton High East;

**Best Use of Photography:** Emma Kramer, Chapin School;

### **Air Force Research Laboratory**

**Certificate of Achievement:** Stephanie Huie, Hamilton High East; Christian Bruni, Hamilton High East; Moses Sutton, Trenton Central High; Caitlyn Razzano, Villa Victoria; Megan Sibree, Hamilton High East; Matthew Jensen, Hamilton High East; Vijay Narayan, West Windsor-Plainsboro High; Rebecca Wolf, Hamilton High East;

### **U.S. Navy/Marine Corps**

**Junior:** Victoria Seymour, St. Ann's; Cecily Zecca-Naples, Villa Victoria; Emily Wagner, St. Gregory the Great;

**Senior:** Shannon O'Mara, Villa Victoria; Michael Morgan, Hamilton High East;

### **U.S. Army Research Office**

**1<sup>st</sup> Place:** Hannah Jin, West Windsor-Plainsboro High;

**Engineering:** Hannah Jin, West Windsor-Plainsboro High;

**Environmental Sciences:** Samantha Measner, Hamilton High East; Bennett Kapili, Hamilton High East;

**Physical Sciences:** Shannon O'Mara, Villa Victoria;

**Life Sciences:** Rebecca Wolf, Hamilton High East;

**Honorable Mention:** Katie Gaffney, Hamilton High East; Julianne Rossi, Hamilton High East; Rebecca Lee, Hamilton High East; Megan Sibree, Hamilton High East; Vijay Narayan, West Windsor-Plainsboro High; James Soc, Trenton Central High; Carolyn McClure, Hamilton High East; Kishan Shah, Hamilton High East; Jocelyn Mendoza, Trenton Central High;

**NJ Water Environment Association**

**Stockholm Junior Water Prize:** Kara Edwards, Hamilton High East;

**National Oceanic and Atmospheric Administration Award:** Kara Edwards, Hamilton High East;

**Theobald Smith Society**

**1st:** Heather Weidner, Hamilton High East;

**Honorable Mention:** Tyler Schwartz, Hamilton High East; Jocelyn Mendoza, Trenton Central High;

**ASM International Foundation Superior Achievement:** Vijay Narayan, West Windsor-Plainsboro High;

**Association for Women Geoscientists Special Award:** Carolyn McClure, Hamilton High East; Danielle Renzi, Hamilton High East;

**National Society of Professional Engineers Excellence in Engineering:** Shannon O'Mara, Villa Victoria;

**U.S. Metric Association Special Award:** Katie Gaffney, Hamilton High East;

**U.S. Department of Health and Human Services Special Award:** Riley Schmitt, Our Lady of Sorrows School;

**Yale Science and Engineering Association Excellence in Engineering:** Megan Sibree, Hamilton High East;

**The Regional Ricoh Sustainable Development Award:** Rebecca Wolf, Hamilton High East;

**SUNY Oswego Genius Olympiad:** Vijay Narayan, West Windsor-Plainsboro High; Rebecca Wolf, Hamilton High East; Hannah Jin, West Windsor-Plainsboro High;

**Schools with Most Awards:**

**Elementary Division:** Morgan Elementary

**Junior Division:** St. Gregory the Great

**Senior Division:** Hamilton High East