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**FLORIDA AND NEW YORK STUDENTS CAPTURE \$100,000 SCHOLARSHIP PRIZES
IN 2015 SIEMENS COMPETITION IN MATH, SCIENCE & TECHNOLOGY**

**Maria Elena Grimmer of Jupiter, Fla. Wins \$100,000 Individual Prize;
Kimberly Te and Christine Yoo, both of Manhasset, N.Y., Win \$100,000 Team Prize**

WASHINGTON, DC, December 8, 2015 — Three students, one from Jupiter, Fla. and a team from Manhasset, N.Y., were awarded grand prizes of \$100,000 scholarships for their significant research in the Siemens Competition in Math, Science & Technology, the nation's premier research competition for high school students. The winners were selected from nearly 1,800 student project submissions.

Maria Elena Grimmer, a senior at Oxbridge Academy of the Palm Beaches in West Palm Beach, Fla., won the \$100,000 Grand Prize in the Individual category for her work to identify a potential new water purification method.

Kimberly Te and Christine Yoo, both seniors at Manhasset High School in Manhasset, N.Y., will share the \$100,000 Grand Prize in the Team category for their project on a more natural and cost-effective way to clean oil spills.

The 16th annual awards were presented at The George Washington University, host of the 2015 Siemens Competition National Finals.

Video, photos and bios at <http://siemensusa.synapticdigital.com/US/Siemens-Foundation>.

"Congratulations to Maria Elena, Kimberly and Christine, this year's Siemens Competition winners. These three young women have demonstrated an incredible commitment to the advancement of science, math and technology as well as a resolve to tackle some of our world's most challenging environmental issues," said David Etzwiler, CEO of the Siemens Foundation. "The way these students approached their problems showed a real joy in discovery, even with limited resources, that resulted in solutions that may dramatically change our future. We look forward to seeing how their accomplishments will drive a stronger, cleaner world for all of us."

This year's panel of judges was comprised of nationally renowned scientists and mathematicians headed by lead judge Dr. Yongwu Rong, Mathematics Professor and Associate Dean for Research & Strategic Initiatives of Columbian Colleges of Arts & Sciences at The George Washington University.

The Winning Individual

Maria Elena Grimmer, recipient of a \$100,000 college scholarship, impressed judges with her project titled *Adsorption of Sulfamethazine from Environmentally Relevant Aqueous Matrices onto Hypercrosslinked Adsorbent MN250*.

Maria Elena found a new method to remove sulfamethazine, a commonly used veterinary antibiotic which is a common contaminant damaging both soil and the aquatic ecosystem. Maria Elena's method utilized small plastic beads, which can be reused, applied at scale, and implemented using delivery systems already in place for treating drinking water.

Maria Elena first became interested in her topic because she wanted to know why her well water was brown. She has spent years researching this issue, looking at the removal of fulvic and humic acids (color) from water before her current research on sulfamethazine.

"Throughout her research and discoveries, Maria Elena demonstrated the unabashed curiosity and resolve that inspires other scientists to question the world around them and strive to make it better," said competition judge Dr. Randy Wayne, Associate Professor, Section of Plant Biology at Cornell University. "Her journey of discovery showed perseverance and exhibited a unique and organic approach, not only in the subject matter she undertook but in her methodology and resource use. She never stopped asking questions, and never stopped trying to find the answers."

Maria Elena anticipates majoring in engineering in college, and her favorite high school course is computer science. She is a member of her school's weekly Computer Science Club and believes computer modeling and programming skills will prove useful in any scientific or engineering discipline.

Outside of the classroom, Maria Elena is a mural artist and Art Club teacher's assistant at the Weiss Elementary School. In this capacity, she paints murals in the school hallways and helps students with art projects. She also plays clarinet and is a member of her school's Fencing Club. In January 2013, she became the youngest author to publish original research in the 43-year history of the *Journal of Environmental Quality*.

Maria Elena's mentor is Dr. Hui Li, associate professor of Environmental and Soil Chemistry at Michigan State University.

The Winning Team

Kimberly Te and Christine Yoo will share a \$100,000 college scholarship for their project entitled *Natural, Cost-Effective Anodes for Optimized Sediment Microbial Fuel Cells: Engineering a Novel Approach to Harvesting Energy and Cleaning Up Oil Spill Regions*.

The team engineered a device made of natural, sustainable materials that cleans up oil-polluted areas, and uses the otherwise unusable oil to generate clean energy to be used to power remote sensors. Kimberly and Christine had previously studied the biological effects of pollution on organisms and wanted to focus their research on cleaning up pollutants, specifically oil. They devised an efficient and cost effective device that could degrade hydrocarbons, while also producing electricity – using a loofah sponge.

"Kimberly and Christine's research project is emblematic of the true spirit and joy of science that, as educators, we admire and applaud," said competition judge Dr. John Regan, Civil and Environmental Engineering Professor at The Pennsylvania State University. "They tackled a challenging subject by taking a common material that many of us see and use at home every day and incorporated a fresh, innovative approach to its functionality. The result was an unexpected application – for use in environmental cleanup – that not only is more cost-effective than what is currently being used today but also allows a higher power density. The level of independent work and creativity required to initiate this type of project is distinctive and impressive."

Kimberly Te, a senior at Manhasset Senior High School in Manhasset, N.Y., serves as the project team lead. She hopes to help create new green energy technologies and find ways to sustain the earth. Kimberly aspires to pursue a career in environmental engineering. She currently has a patent pending for a sustainable, cost-effective microbial fuel cell (MFC) designed for energy production and oil spill remediation.

Christine Yoo, a senior at Manhasset Senior High School in Manhasset, N.Y., has previously been a National Finalist for the Chemistry Olympiad as well as a finalist for the International Science and Engineering Fair (ISEF). Christine plays the flute, piccolo, piano and is a member of her school's fencing team. She is also a tutor through TASSEL, a program dedicated to teaching English to Cambodian children.

The team's mentors are Alison Huenger and Peter Guastella, both of whom are science educators at Manhasset Senior High School.

National Finalists

Six individuals and six teams competed at the Siemens Competition National Finals. The remaining National Finalists were awarded the following scholarships:

Individuals

- \$50,000 scholarship – Sanjana Rane, duPont Manual High School, Louisville, Ky.
- \$40,000 scholarship – Milind Jagota, Liberty High School, Bethlehem, Pa.
- \$30,000 scholarship – Andrew Chen, Mission San Jose High School, Fremont, Calif.
- \$20,000 scholarship – Dominick Rowan, Byram Hills High School, Armonk, N.Y.
- \$10,000 scholarship – Vikas Maturi, Carmel Senior High School, Carmel, Ind.

Teams

- \$50,000 scholarship – Emily Cheng, Methacton High School, Eagleville, Pa.; Kelly Jiang, Conestoga High School, Berwyn, Pa. and Gerald Liu, Methacton High School, Eagleville, Pa.
- \$40,000 scholarship – Robert Luo and Helen Zhang, Highland Park High School, Dallas, Texas
- \$30,000 scholarship – Daniel Chae, Thomas Jefferson High School for Science and Technology, Alexandria, Va.; Alan Tan, Irvington High School, Fremont, Calif. and Sidharth Bommakanti, Amador Valley High School, Pleasanton, Calif.
- \$20,000 scholarship – David Zhu and Evani Radiya-Dixit, The Harker School, San Jose, Calif.
- \$10,000 scholarship – Evelyn McChesney and Madeline McCue, Breck School, Golden Valley, Minn.

The Siemens Competition

Launched in 1998, the Siemens Competition is the nation's premier science research competition for high school students. Nearly 4,000 students registered for this year's competition and a total of 1,781 projects were submitted for consideration. 466 students were named Semifinalists and 97 were named Regional Finalists. The students presented their research in a closed, online forum, and entries were judged at the regional level by esteemed scientists at six leading research universities which hosted the regional competitions: Georgia Institute of Technology, Massachusetts Institute of Technology, California Institute of Technology, Carnegie Mellon University, University of Notre Dame and The University of Texas at Austin.

For news and announcements about the Regional Competitions and the National Finals, follow us on Twitter [@SFoundation](#) (#SiemensComp) and like us on Facebook at [Siemens Foundation](#).

The Siemens Foundation

The [Siemens Foundation](#) has invested more than \$90 million in the United States to advance workforce development and education initiatives in science, technology, engineering and math. The Foundation's mission is inspired by the culture of innovation, research and continuous learning that is the hallmark of Siemens' companies. Together, the programs at the Siemens Foundation are helping close the opportunity gap for young people in the U.S. when it comes to STEM careers, and igniting and sustaining today's STEM workforce and tomorrow's scientists and engineers. Follow the Siemens Foundation on [Facebook](#) and [Twitter](#).

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