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NEWS RELEASE

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STUDENTS FROM NEW YORK NAMED REGION FOUR SIEMENS COMPETITION WINNERS

Winners From Regional Competition Move on to National Finals in Washington, D.C.

Dominick Rowan (Armonk, N.Y.) Wins Top Individual Honors;
Kimberly Te and Christine Yoo (Manhasset, N.Y.) Win Top Team Honors

ISELIN, NJ, Nov. 23, 2015 – Months of research and preparation in science, technology, engineering and mathematics (STEM) fields paid off for three students named National Finalists in the Siemens Competition in Math, Science & Technology after earning top spots in Region Four. **Dominick Rowan** of Armonk, N.Y. earned top individual honors and a $3,000 scholarship for research to detect new exoplanets. A study on engineering a novel approach to harvesting energy and cleaning up oil spill regions earned **Kimberly Te** and **Christine Yoo**, both of Manhasset, N.Y., the $6,000 shared team scholarship and spots in the finals of the nation's premier research competition for high school students.

The students presented their research this weekend to a panel of judges at Carnegie Mellon University, host of the Region Four Finals. The top winners are now moving to the final round to present their work at the National Finals in Washington, D.C., December 4-8, 2015, where $500,000 in scholarships will be awarded, including two top prizes of $100,000. The Siemens Competition, a signature program of the Siemens Foundation, is administered by Discovery Education.

"When you meet these young men and women, and come to understand their knowledge and passion for serving people through science, you can't help but feel better about the future," said David Etzwiler, CEO of the Siemens Foundation. "Getting to know students who display passion and determination for taking on real-world problems and who work to find innovative and attainable solutions is inspiring."

The Winning Individual for Region Four
Dominick Rowan, a senior from Byram Hills High School in Armonk, N.Y., won the individual category and a $3,000 scholarship for his project entitled, "Determining the Frequency of Jupiter Analogs and the Announcement of a Jupiter Analog Orbiting HD32963."

Dominick's research detected a new Jupiter-like planet and calculated how many stars host a Jupiter-like planet in the Milky Way galaxy. His project allows the world to evaluate the commonality of the Solar System.

"Dominick discovered a new planet – only the 20th Jupiter-like planet that has ever been discovered," said competition judge Matt Walker, Assistant Professor in the physics department and the McWilliams Center for Cosmology at Carnegie Mellon University. "Finding other Jupiters is important because

Jupiter may have helped to make life on Earth possible, helping to clear out asteroids in the inner solar system. Ultimately this research gets to the profound question of, 'Are we alone?'"

Dominick found his passion for exoplanet detection after reading an article in *Scientific American.* It was from this that he became fascinated with other worlds and wanted to explore the topic further. Looking to the future, Dominick is interested in pursuing a career as a scientific researcher. He first became interested in science when he joined his middle school's Science Olympiad team.

Beyond academics, Dominick plays a variety of instruments, including the French horn, piano, guitar and bass guitar. He is also a member of his high school's track team, running in both the winter and spring seasons.

Dominick's mentor is Dr. Stefano Meschiari, a W. J. McDonald Postdoctoral astronomer at the University of Texas at Austin.

The Winning Team for Region Four

Kimberly Te and Christine Yoo, both of Manhasset, N.Y., won the team category and will share a $6,000 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-Polluted 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.

"The creativity of the concept and its potential impact was most impressive," said competition judge Shawn Litster, Associate Professor and the Russell V. Trader Faculty Fellow in the Department of Mechanical Engineering at Carnegie Mellon University. "The microbes of one of the fuel cell electrodes extract the energy from the hydrocarbon sediment. A natural plant-based precursor was identified as a low cost, high performance anode 3D-structure."

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 High School.

Regional Finalists

The remaining regional finalists each received a $1,000 scholarship.

Regional Finalists in the individual category were:

- Edric Chen, The Kew Forest School, Forest Hills, N.Y.
- Sarah Lee, Syosset High School, Syosset, N.Y.
- Kameron Sedigh, Kings Park High School, Kings Park, N.Y
- Julian Ubriaco, Kings Park High School, Kings Park, N.Y.

Team Regional Finalists were:

- Jun Yan He, Manhasset Senior High School, Manhasset, N.Y. and Bongseok Jung, Herricks High School, New Hyde Park, N.Y.
- Alia Rizvon and Vishal Nyayapathi, Half Hallow Hills High School East, Dix Hills, N.Y.
- Kevin Sadhu, Manhasset Senior High School, Manhasset, N.Y. and Arvind Sridhar, Bellarmine College Prep School, San Jose, Calif.
- Kunal Shah, Syosset High School, Syosset, N.Y.; Brian Rhee, Half Hollow Hills High School East, Dix Hills, N.Y. and Roshan Patel, Ward Melville Senior High School, East Setauket, N.Y.

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 present their research in a closed, online forum, and entries are judged at the regional level by esteemed scientists at six leading research universities which host 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. A live webcast of the National Finalist Awards Presentation will also be available online at 11 a.m. EST on December 8 at www.siemens-foundation.org.

Interviews, video and photos available by visiting
http://siemensusa.synapticdigital.com/US/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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