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NEWS RELEASE

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LIVER DISEASE AND BRAIN INJURY RESEARCH BRINGS STUDENTS CLOSER TO NATION'S HIGHEST SCIENCE HONOR FOR HIGH SCHOOL STUDENTS

WINNERS OF SIEMENS COMPETITION IN MATH, SCIENCE & TECHNOLOGY REGIONAL FINALS AT UNIVERSITY OF NOTRE DAME REVEALED

John Wen of Iowa City, Iowa, Wins Top Individual Prize; Edgar Wang, Wayne Shu and Justin Yuan of Troy, Michigan, Win Top Team Prize

SOUTH BEND, INDIANA, November 19, 2011 — The shortlist of contenders for the highest science honor awarded to American high school students narrowed tonight as the winners of the Siemens Competition in Math, Science & Technology Region 3 Finals were announced. Research that may help in the treatment of childhood liver disease earned top honors and the $3,000 Individual scholarship for John Wen of Iowa City, Iowa. Research with the potential to create treatments for neurodegenerative diseases such as Alzheimer's won the $6,000 Team scholarship for Edgar Wang, Wayne Shu and Justin Yuan of Troy, Michigan.

The students presented their research this weekend to a panel of judges from the University of Notre Dame, host of the Region 3 Finals. They are now invited to advance to the National Finals in Washington, DC, December 2-5, 2011, 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 the College Board.

"The Siemens Competition has a proud history of attracting awe-inspiring research projects from America's best and brightest and we are pleased to see that this year is no exception," said Jeniffer Harper-Taylor, president of the Siemens Foundation. "We can all take heart in the remarkable work being done by this next generation of young innovators as exemplified by John Wen, Edgar Wang, Wayne Shu and Justin Yuan."

The Winning Individual

John Wen, a senior at West High School in Iowa City, Iowa, won the individual category and a $3,000 college scholarship for his biology project, which explored the most common cause of childhood liver failure and the leading cause of liver transplants in children in the United States.

His project, entitled *A novel lectin-like ubiquitin ligase degrades disease-causing A1AT-Z,* studied liver disease, specifically characterized by the deficiency of the Alpha 1-Antitrypsin (A1AT) protein in children.

“Mr. Wen demonstrated a deep understanding of his topic,” said competition judge Dr. Crislyn D’Souza-Schorey, Professor of Biological Sciences at Notre Dame. “His research enhances the current understanding of how the A1AT-Z mutant enzyme is removed from liver cells. This work is beneficial in that it could inform new therapies to treat the number one genetic cause of liver disease in children.”

John Wen is the first student from his school to be named a National Finalist in the Siemens Competition. A National AP Scholar with Distinction, he is also an accomplished pianist who took part in the prestigious Aspen Music Festival and has performed on NPR’s “From the Top.” After recent floods devastated his home state, he performed in benefit concerts to help Iowa's music program recover. His mentor on the project was Dr. Kevin Glenn.

The Winning Team

Edgar Wang and Justin Yuan, both seniors, and Wayne Shu, a junior, all of Troy High School in Troy, Michigan, won the team category and will share a $6,000 scholarship for their project, *MicroRNA 17-92 Cluster Mediates Sonic Hedgehog Induced Neurogenesis on Neural Stem Cells After Stroke,* which studied the molecular changes that occur in the brain after stoke, focusing on neural stem cells.

“This team’s energy, comprehension of their research topic, and exemplary teamwork captured the imagination of the judges,” said competition judge Dr. Rebecca Wingert, Assistant Professor of Biological Sciences at Notre Dame. “Their research found that particular molecules that can regulate gene expression were produced in response to stroke and were linked to neural cell proliferation. Their research may contribute to future medical treatments for brain injury and neurodegenerative diseases.”

Edgar Wang was a finalist in the Future Problem Solvers International Competition, a gold medalist in the World Piano Competition Young Artists Division and a National Chemistry Olympiad finalist with honors. He aspires to be a biochemist.

Justin Yuan is the president of the Spanish club and plays trumpet in his school’s marching band, as well as piano and guitar. A member of the Boy Scouts and a long distance runner for the track team, he hopes to study chemistry, biology or pre-medicine in college.

Wayne Shu is president of his class Student Government and Model United Nations. A passionate musician, he is the leader of his school’s a capella group and concert master of its orchestra. He loves to write music and play the piano, violin, guitar, ukulele and harmonica. The team’s mentor on the project was Dr. Michael Chopp, Henry Ford Hospital.

Regional Finalists

The remaining regional finalists each received a $1,000 scholarship. Regional Finalists in the individual category were:

- Anirudh Prabhu, West Lafayette Junior/Senior High School, West Lafayette, Indiana
- Nicholas Sun, Rock Bridge High School, Columbia, Missouri

- Lilly Wang, Lake Forest High School, Lake Forest, Illinois
- Michael Yan, Orange High School, Pepper Pike, Ohio

Team Regional Finalists were:

- Surya Bhupatiraju and William Kuszmaul, Lexington High School, Lexington, Massachusetts
- Harsha Vemuri, Theja Bhamidipati and Vaibhav Vavilala, Carmel High School, Carmel, Indiana
- Michael Zhang, Belmont High School, Belmont, Massachusetts, and Yongyi Chen, Bedford High School, Bedford, Massachusetts
- Andrew Zhou, John Burroughs School, St. Louis, Missouri, and Joel Sher, Parkway Central High School, Chesterfield, Missouri

The Siemens Competition
Launched in 1998, the Siemens Competition is the nation's premier science research competition for high school students. An all-time record of 2,436 students registered to enter the Siemens Competition this year for an unprecedented 1,541 projects submitted. Three hundred seventeen students were named semifinalists and 96 were named regional finalists, representing 21 states. Entries are judged at the regional level by esteemed scientists at six leading research universities which host the regional competitions: California Institute of Technology, Carnegie Mellon University, Georgia Institute of Technology, Massachusetts Institute of Technology, University of Notre Dame and The University of Texas at Austin.

Follow the Siemens Foundation on Twitter (www.twitter.com/sfoundation) and Facebook (www.facebook.com/SiemensFoundation) to learn about the remarkable research being done by this year's brilliant Siemens Scholars. Then visit www.siemens-foundation.org at 9:30am EST on December 5 for a live webcast of the National Finalist Awards Presentation.

The Siemens Foundation
The Siemens Foundation provides more than $7 million annually in support of educational initiatives in the areas of science, technology, engineering and mathematics (STEM) in the United States. Its signature programs include the Siemens Competition in Math, Science & Technology, Siemens Awards for Advanced Placement, and The Siemens We Can Change the World Challenge, which encourages K-12 students to develop innovative green solutions for environmental issues. By supporting outstanding students today, and recognizing the teachers and schools that inspire their excellence, the Foundation helps nurture tomorrow's scientists and engineers. The Foundation's mission is based on the culture of innovation, research and educational support that is the hallmark of Siemens' U.S. companies and its parent company, Siemens AG. For more information, visit www.siemens-foundation.org.

The College Board
The College Board is a mission-driven not-for-profit organization that connects students to college success and opportunity. Founded in 1900, the College Board was created to expand access to higher education. Today, the membership association is made up of more than 5,900 of the world's leading educational institutions and is dedicated to promoting excellence and equity in education. Each year, the College Board helps more than seven million students prepare for a successful transition to college through programs and services in college readiness and college success — including the SAT® and the Advanced Placement Program®. The organization also serves the

education community through research and advocacy on behalf of students, educators and schools. For further information, visit www.collegeboard.org.

Video and photos of winners available on request.

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