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News Release

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OREGON AND HAWAII TEENS TAKE REGIONAL TITLE IN NATION'S TOP HIGH SCHOOL SCIENCE COMPETITION

Siemens Competition Regional Winners Announced for West
Next Stop: National Finals and a Shot at $100,000

Dmitry Vaintrob of Eugene, Oregon, Wins Top Individual Prize;
Lucia and Philip Mocz of Mililani, Hawaii, Win Top Team Prize

PALO ALTO, CA, November 4, 2006 — Theoretical Mathematics and Mathematics earned top honors tonight for Dmitry Vaintrob and brother and sister Lucia and Philip Mocz in the Western Regional Finals of the 2006-07 Siemens Competition in Math, Science & Technology, the nation's premier high school science competition.

The prestigious Siemens Competition, a signature program of the Siemens Foundation, is administered by the College Board. As Siemens Competition National Finalists, tonight's winners will be invited to join an elite group of just six individuals and six teams competing at the Siemens National Finals at New York University in New York this December for scholarships ranging from $10,000 to the top prize of $100,000.

"These young science stars are a shining example of American ingenuity at its most inspiring," said Thomas N. McCausland, chairman of the board of the Siemens Foundation. "They have more than upheld the exceptionally high standards set by their predecessors in this Super Bowl of science competitions."

The students presented their research this weekend to a panel of judges from Stanford University, host of the Western Regional Finals.

Dmitry Vaintrob, a senior at South Eugene High School in Eugene, Oregon won the individual category and a $3,000 college scholarship for his research in Theoretical Mathematics which obtained a significant result in an exciting new area of mathematical research. His research could provide fundamental theorems which physicists might apply to ongoing research

involving string theory, a unification theory which attempts to understand the fundamental forces of nature: electricity, magnetism and gravity.

Lucia, a sophomore and Philip, a junior, Mocz, at Mililani High School in Mililani, Hawaii, won the team category and will share a $6,000 scholarship for a mathematics project which resulted in a software solution that could make cancer cells more visible in photographs aiding pathologists in the early detection of cancer.

The Winners

The string topology BV algebra, Hochschild cohomology and the Goldman bracket on surfaces.

Dmitry Vaintrob's project seeks to establish a connection between two different areas of mathematics. This connection may lead to new applications in theoretical physics pertaining to research on string theory and mirror symmetry. With a focus on topological objects in mathematics, Mr. Vaintrob's work taps into insights which are universal and applicable in any field. His mentor is Pavel Etingof, MIT Professor of Mathematics.

"Dmitry Vaintrob obtained a significant result in an exciting new area of mathematical research. For a high school student to have produced such a result in a current area of research is remarkable," said judge, Professor Ralph Cohen of Stanford's Mathematics Department. "Dmitry's research is an enabling mathematical tool for physicists who, in turn, are trying to understand the basic forces of nature."

Mr. Vaintrob is hoping to translate a lifelong fascination with mathematics into a career teaching on a college level. His project is the latest example of mathematic problem solving that has been encouraged by his parents since childhood. Mr. Vaintrob volunteers in two libraries, in his high school and the mathematics library at the University of Oregon. He is also the organizer of the math club in his school. Mr. Vaintrob is a pianist who enjoys reading classical literature and carrying on the Russian tradition of memorizing poetry. He is fluent in Russian, French and English.

Computer-Aided Identification of Cancer from Photomicrographs by Entropy Analysis.

Lucia and Philip Mocz's research could potentially help scientists come up with a more accurate, timely method of identifying cancer. The team created an entropy formulism that provides a new set of tools for the computer-aided identification of cancer. Their mentor is Dr. Andre S. Bachman, from the Cancer Research Center of Hawaii.

The team decided to create a real-world problem based on their strong interest in mathematics. Since the early identification of cancer is time-consuming and depends on the human expert, Lucia and Philip sought a new, automatic method to improve the time and cost efficiency of cancer detection

"Lucia and Philip are true basement experimenters who decided to apply their love of mathematics to search for a solution to a real world problem. Their project works as well as many commercial applications and could aid pathologists in speedier more effective cancer detection," said David Schneider, Assistant Professor of Microbiology and Immunology at Stanford University.

Lucia Mocz, is a member of several clubs and organizations at Miliani High School, including the American Association for Artificial Intelligence, SET (Study of Exceptional Talent) Member, Hawaii Suzuki Association, Hawaii Youth Symphony Association, Math Club, Mu Alpha Theta, Tri-M Music Honor Society and the Mock Trial Team.

Philip Mocz, is also a member of several clubs and organizations including the American Astronomical Society, the Hawaiian Astronomical Society, the American Association for the Advancement of Science, Math Club, Mu Alpha Theta, an the Tri-M Music Honor Society.

The brother and sister team consider their father to be their greatest hero. They remember how excited they were as children to visit a laboratory where they were able to see the tools with which modern scientists work (Lucia and Philip's father is a professor of biochemistry).

Runners-up each received a $1,000 scholarship. In addition, the Siemens Foundation awards $2,000 per project to the high school of every regional finalist.

Runners-up in the individual category were:

- Chales Li, Fullerton, California.
- Benjamin Uy, North Hollywood, California.
- Ziying Wang, Fullerton, California.
- Geoffry Woo, Rolling Hills Estates, California.

Team runners-up were:

- Jay Dhuldhoya, Milan Manchandia and Ervin Teng, Fullerton, California.

- Sean Pi, Torrance, California, Adam Field, Jericho New York and Alex Ramek, Cedarhurst New York.
- Vinayak Ramesh, El Dorado Hills, California and Yomay Shyur, Cupertino, California.
- Xuan Wei and Kevin Marshall, Reno, Nevada.

The Siemens Competition

The Siemens Competition was launched in 1998 to recognize America's best and brightest math and science students. This year, 1,660 students entered the competition.

Entries are judged at the regional level by esteemed scientists at six leading research universities which host the regional competitions: Carnegie Mellon University (Middle States), University of Notre Dame (Midwest), Stanford University (West), Massachusetts Institute of Technology (New England), Georgia Institute of Technology (South), and The University of Texas at Austin (Southwest).

The Siemens National Finals, judged by a panel of nationally renowned scientists and mathematicians, will take place December 1–4 at New York University in New York.

Log on to www.siemens-foundation.org to watch (insert regional winners' names) during a webcast from the Siemens Competition National Finals in New York. Webcast schedule: Student presentations on Sunday, December 3, 12:00pm-5:00pm EST. Live webcast of the national winners press conference on Monday, December 4, from 8:30am EST.

The Siemens Foundation

The Siemens Foundation, established in 1998, is a national leader in math and science education, providing nearly $2 million in scholarships and awards annually. Based in Iselin, New Jersey, the Foundation's signature programs – the Siemens Competition in Math, Science & Technology, the Siemens Awards for Advanced Placement, and the Siemens Teacher Scholarships – recognize exceptional achievement in science, math and technology. 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. operating companies and its parent company, Siemens AG. For more information, please visit www.siemens-foundation.org.

NOTE TO EDITORS: Photos of winners available on request.

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