

Scott Molony, Steven Arcangeli and Scott Horton, seniors at Oak Ridge High School in Oak Ridge, Tennessee, won the team category and will share a \$6,000 scholarship for developing a computational tool that might one day help scientists develop a system for turning plant matter into ethanol.

The Winners

In his winning project, *Exploring the Guenon Mystery: An Evolutionary Analysis Using Phylogenetic Trees*, Arjun Ramamurti combined multiple methodologies to help unravel the mystery of how guenon monkeys are evolving.

“Mr. Ramamurti designed an innovative approach that combines state-of-the-art DNA analysis with traditional methods of analyzing physical and behavioral traits,” said judge Mary-Lou Pardue, Boris Magasanik Professor, Department of Biology, MIT. “His research offers new insights into how traits develop in primates – and even humans – during evolution.”

Fluent in Tamil and Spanish, Mr. Ramamurti is also a highly accomplished cellist who has studied at the New England Conservatory and served as assistant principal cellist with the Massachusetts All-State Orchestra. He spent six weeks this past summer in India teaching English to 5th-7th graders. His mentor on the project was Dr. Susan Offner, a biology teacher at Lexington High School.

In their winning team project, *Linking Supercomputing and Systems Biology for Efficient Bioethanol Production*, Scott Molony, Steven Arcangeli and Scott Horton contribute to a growing body of research on creating organisms that can produce alternative fuels.

“This team developed a computational tool that combines computer science, bioinformatics and systems biology to gain fundamental insights into the relationship between genes and biochemical pathways,” said judge Pawan Sinha, a professor at MIT’s Department of Brain and Cognitive Sciences. “This tool could one day help bioengineers design an efficient ethanol-producing biological system.”

Based partly on the team’s work, the Oak Ridge National Laboratory received a major grant to continue this promising research. The team’s mentors were Dr. Nagiza Samatova, Mr. Chris Symons, Dr. Byung-Hoony Park, and Dr. Tatiana Karpinets, all with Oak Ridge National Laboratory.

Scott J. Molony is a member of his high school cross-country team, editor-in-chief of the school literary magazine, and a varsity member of the Scholar’s Bowl Academic Team. Possible college majors include Philosophy/Theology, Japanese and Mathematics.

Steven Arcangeli was a finalist in the National Chemistry Olympiad last year. His high school team finished 20th nationally in the National Science Olympiad. Mr. Arcangeli is a member of the National Honor Society, Math Club and Science Club. He expects to major in materials engineering in college.

Scott Horton became interested in science because of his parents, who both work at Oak Ridge National Laboratory. He was a member of the second place regional team in the Physics Bowl and plans to major in engineering in college. He aspires to work in a laboratory.

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:

- Karthik Kasaraneni, Choate Rosemary Hall, Wallingford, CT
- Sudarsana Mohanty, Lincoln School, Providence, RI
- Kevin Shen, College Park High School, The Woodlands, TX
- Shu Wan, Classical High School, Providence, RI

Team runners-up were:

- Tessa Churchill and Holly Jacobson, Greely High School, Cumberland, ME
- David Price, Liberal Arts and Science Academy, Austin, TX, Jacob Shapiro, Upper Arlington High School, Upper Arlington, OH and Stephanie Chan, William P. Clements High School, Sugar Land, TX
- Mengwen Zhang, Penn High School, Mishawaka, IN and Kristen Anderson, Bremen Public High School, Bremen, IN

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 Arjun Ramamurti, Scott Molony, Steven Arcangeli and Scott Horton 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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