

**News Release** 

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# TEEN SCIENTISTS MOVE TO FINALS IN PRESTIGIOUS COMPETITION

### Intel Science Talent Search Finalists Exemplify Best in Science Education

SANTA CLARA, Calif., Jan. 26, 2005 - Intel Corporation today recognized the 40 finalists who will vie for more than \$530,000 in scholarships in the prestigious Intel Science Talent Search (Intel STS), America's oldest pre-college science competition for high school seniors. Samuel M. Bhagwat of Winston-Churchill High School in Livonia has been selected as the only finalist from Michigan. A bio of Sam's project follows.

"These finalists reflect the best accomplishments of solid, project-based, curiosity-driven education," said Intel CEO Craig Barrett. "What's most encouraging is that these young people are just beginning their scientific journeys. Like many STS finalists before them, this group will be responsible for future discoveries that address critical needs while helping to keep America at the center of innovation."

The Intel STS represents six decades of excellence. Alumni of this program hold more than 100 of the world's most coveted science and math honors, including six Nobel Prizes, three National Medals of Science, 10 MacArthur Foundation Fellowships and two Fields Medals.

This year's annual STS alumni distinguished speaker is a 2004 recipient of the Nobel Prize in physics, Dr. Frank Wilczek. "The Science Talent Search opened up a whole new world for me," Wilczek said. "It was there I first realized working as a scientist could be a reality for me."

### About the Finalists

The finalists will meet in Washington, D.C. March 10-15 to attend the Science Talent Institute, interact with top scientists and participate in rigorous judging sessions. Selected from among 300 semifinalists announced earlier this month, the finalists range in age from 16 to 18. They hail from 15 states, with New York having the most finalists (13) followed by California, Florida, Illinois and Maryland with four each. Research projects include studies on engineering new tissue to heal wounds, improving cancer treatments, developing new energy conversion technology and using ancient textiles to date archaeological sites. In addition to a pursuit of scientific excellence, 80 percent of this year's finalists play a musical instrument, 50 percent volunteer in their community, 47 percent are fluent in a language other than English and 25 percent have perfect SAT scores. This year's diverse group of finalists includes an award-winning poet, a competitive ballroom dancer, a table tennis gold medalist in the U.S. Junior Olympics and a student who founded a nonprofit focusing on social justice.

#### The Awards

The top prize in the Intel STS is a \$100,000 college scholarship. The second-place finalist receives a \$75,000 scholarship and the third-place finalist receives a \$50,000 scholarship. Fourth- through sixth-place finalists are each awarded \$25,000 scholarships, and seventh- through 10th-place winners receive a \$20,000 scholarship. The remaining 30 finalists each receive a \$5,000 scholarship award. In addition to the all-expense-paid trip to Washington, all students attending the competition receive an Intel® Centrino<sup>™</sup> mobile technology-based notebook computer. Winners will be announced at a black-tie banquet on March 15.

Science Service, a nonprofit organization whose mission is to advance the understanding and appreciation of science among people of all ages through publications and educational programs, has administered the program since its inception in 1942. For more information on Science Service, visit <u>www.sciserv.org</u>.

Intel's sponsorship of the STS is part of the Intel® Innovation in Education initiative, a sustained commitment - in collaboration with educators and government leaders worldwide - to help today's students develop the higher-level thinking skills they need to participate and succeed in a knowledge-based economy. For more information, visit <u>www.intel.com/education</u>.

Intel, the world's largest chip maker, is also a leading manufacturer of computer, networking and communications products. Additional information about Intel is available at <a href="http://www.intel.com/pressroom">www.intel.com/pressroom</a>.

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# 64th Annual STS (2004-2005) Finalists Samuel Mohun Bhagwat

#### MICHIGAN

**Samuel Mohun Bhagwat**, 16, of **Livonia** aims at classifying determinantal sequences for his Intel Science Talent Search mathematics project. A determinantal sequence is a sequence  $a_n$  of nonzero integers, one for each integer n, where the determinant  $a_na_{n+3} - a_{n+1}a_{n+2}$  takes on the same fixed nonzero value d for all choices of n. All such sequences have two useful invariants,  $ALPHA = (a_0 + a_2)/a_1 = (a_2 + a_4)/a_3 = ...$  and BETA =  $(a_1 + a_3)/a_2 = (a_3 + a_5)/a_4 = ...$  The sequence is *reduced* if no prime integer divides all the odd-indexed entries, and no prime integer divides all the even-indexed entries; the reduced sequences are the basic building blocks for all others. For reduced sequences, ALPHA and BETA are integers, and Sam classifies the reduced cases when  $0 \le ALPHABETA \le 4$ . For ALPHA and BETA outside this range, he shows there are only finitely many reduced sequences for each choice of d. The son of Dr. Ashok Bhagwat and Helen Gay, Sam studied guitar and his father's native language, Marathi, the last two summers in India. At **Winston Churchill High School** he is captain of the varsity Quiz Bowl team, and his awards include a Grand Award at the Science and Engineering Fair of Metro Detroit. Sam plans to attend Harvard.