

Although he served Connecticut for more than 5 decades, Bob's contributions were immeasurable. Connecticut has lost a great mind, teacher, and integral part of its political and progressive infrastructure. Connecticut and the Nation will never forget this great man. He lives on through his words and his tremendous acts of vision and courage as well as his passion for life, the law, and the State of Connecticut.

#### 2012 INTEL SCIENCE TALENT SEARCH

Mr. BLUMENTHAL. Mr. President, today I wish to acknowledge the seven Connecticut students who have been named 2012 Intel Science Talent Search semifinalists. This elite, national competition seeks to honor high school students who excel in a science or math research project in order to "highlight the need for improved math and science education in the United States." Beginning in 1942, the Society for Science and the Public, SSP, has partnered with Westinghouse and then in 1998 with the Intel Corporation to offer this opportunity for young scientists and mathematicians. These 7 students from Connecticut have been selected from over 1,500 applications from around the country, and I am proud that they represent Greenwich, Guilford, Hamden, Lakeville, Wallingford, and Woodbridge Counties. Their hard work, motivation, and curiosity gives me great pride and hope in their ability to change the world. Using their intelligence, ideas, and passion, they can help solve some of our Nation's most pressing issues.

Student Zizi Yu from Amity Regional High School observed the severe food allergies experienced by some of her peers. Through a survey and a case controlled study, she took a closer look at what has been commonly called the hygiene hypothesis, finding a correlation between the age of exposure to certain foods and substances and the prevalence of allergies later in life. After being named a semifinalist on January 25, 2012, Zizi was selected as one of 40 finalists and traveled to Washington, DC, in March to meet with national leaders to present her findings.

William Bennett Hallisey and Ryota Ishizuka took a unique, independent science research class at Greenwich High School, where they were inspired to experiment with the intersection of biology and environmental studies. After learning about research conducted at Stanford University, William adjusted the materials previously used in experimentation and examined how silver nanoparticles and felt substrates could serve as an easily transportable, low-cost, and user-friendly filtration system, removing about 95 percent of a system's bacteria. Ryota Ishizuka looked at ways to harness the potential of microbial fuel cells to generate electricity through hydrogen output. She found that she could create a fully au-

tonomous water treatment system, powering a wastewater treatment reactor, by the reactions of bacteria found in the wastewater itself.

Guilford High School's Yuning Zhang used this competition, in conjunction with work at Yale University's School of Medicine, to express his interest in biomedical research. According to his advanced placement biology teacher, Ruth Heckman, Yuning is "so excited about doing research and wants to make it his future." After isolating kidney cells, growing them in enriched cultures, and staining and characterizing them, he compared these samples to non-selectively grown cells. He found that there was an over 70 percent increase in the amount of stem cells that would grow from selectively grown cells, which has incredible future applications for injury repairing and wound healing.

Aaron Shim of Choate Rosemary Hall used computer models and an opportunity to work alongside Yale chemistry professors to study organometallic complexes and their possible applications for renewable energy. His goal was to further refine the modeling methods of these complexes in order to expedite our understanding and utilization of the way hydrogen is stored in fuel cells. Over the course of his research, Aaron was motivated by and hopes to explore in the future how computers can help "us understand a little bit more about the natural world around us, helping solve real-world problems through their rather abstract power of mathematics and computation."

Hailing from Hamden High School, Yiyuan Hu examined MyD88—a protein involved in the body's immune system—and its role in DNA damage response. Through novel research of infectious diseases as part of Dr. Albert Shaw's laboratory at Yale University's School of Medicine, Yiyuan helped discover unexpected new applications for MyD88 to counter diseases tied to chemicals that help kill bacteria but can also damage DNA. Yiyuan has even inspired other students at Hamden High School to become excited about research and involved in the school's science club.

Student Seung Hyun Lee contemplated the Steiner ratio problem as part of an independent study project in conjunction with his math instructor at his high school, the Hotchkiss School, and Hofstra University's Professor Dan Ismailescu. Seung experimented with the field of combination optimization, a study that combines math and theoretical computer science, with the aim to advance our understanding of the Steiner ratio problem.

The success of these talented young adults is a testament to the care and dedication of the teachers, mentors, and administrators who nurtured them and their projects, giving the time and space for creativity, problem-solving, and experimentation. Even though the

Intel Science Competition has strict rules about independent student work, these brilliant mentors inspire their students to spend their free time researching new ideas and thinking big thoughts.

Greenwich High School's independent science research class is taught by Andy Bramante, who left a 15-year career as a chemical engineer and chemist to inspire high school students to love research. An advanced placement biology teacher at Guilford High School and educator for 36 years, Ruth Heckman was excited to report that she gets to learn from students like Yuning Zhang. Zizi's research was guided by Deborah Day, science research teacher at Amity Regional High School. Kevin Rogers, the head of the science department and chemistry teacher at Choate Rosemary Hall, helped Aaron Shim work with an outside group at Yale University in furtherance of his research. Similarly, the instructor of mathematics at the Hotchkiss School, Marta Eso, worked with Seung Hyun Lee to complete an independent study research project at his high school and also at Hofstra University. And Sonia Beloin, teacher and adviser to the Science Bowl and Science Olympiad clubs at Hamden High School, mentored Yiyuan Hu, helping to facilitate his successful work at the Section of Infectious Diseases at Yale School of Medicine and supporting him to improve his presentation over time.

Several of these students were invited to join high-level study on their chosen topics at several select universities. Yuning Zhang, Aaron Shim, and Yiyuan Hu were invited into cutting-edge laboratories at Yale University. Yuning worked with Dr. Gilbert Moeckel, the director of the Renal Pathology and Electron Microscopy Laboratory at Yale University's School of Medicine. After reading some of their papers, Aaron was invited to join Professor Victor S. Batista's research team at Yale University's Department of Chemistry. Yiyuan Hu assisted Dr. Albert Shaw's laboratory in the Section of Infectious Diseases at the Yale School of Medicine, and Seung Hyun Lee worked in conjunction with Professor Dan Ismailescu from Hofstra University. I applaud this fruitful and nurturing relationship between high school students and universities.

I wish the best of luck to the seven Connecticut 2012 Intel Science Talent Search semifinalists as they continue to inspire others to dedicate their brilliance to STEM fields. I know my colleagues will join me in honoring these impressive accomplishments of our Nation's young people.

#### TRIBUTE TO SALVATORE PRINCIOTTI

Mr. BLUMENTHAL. Mr. President, today I rise to recognize the Stamford Young Artists Philharmonic, SYAP, and most especially, Salvatore