

Davidson Fellow
Benjamin Song
\$25,000 Scholarship Recipient



Personal Info

Age: 16
Audubon, Pennsylvania

School, College and Career Plans

A rising senior at Methacton High School, Benjamin plans to major in biomedical sciences at MIT, Stanford or University of Pennsylvania. He hopes to pursue a career as a physician or biomedical researcher.

Davidson Fellows Submission (Science)

In his project, "*Epigenetic Biomarker Assay for Urine DNA Based Screening for Colon Cancer*," Benjamin researched colon cancer biomarkers in urine. Colon cancer is the second leading cause of cancer death in the United States, even with the sensitive but invasive colonoscopy. Benjamin designed and tested polymerase chain reaction assays targeting a known colon cancer epigenetic marker. His work shows potential for a urine test for colon cancer that is noninvasive, fast, affordable and sensitive. In addition, his method could be adapted to virtually any cancers with known DNA alterations.

Biography

Benjamin has been enrolled in public school throughout his academic career and has taken many Advanced Placement classes. He had the opportunity to participate in a research program at Drexel University and the Hepatitis B Foundation, which he feels was a unique experience.

Benjamin's family helped take care of a 5-year-old girl after her mother died of breast cancer and while her father was terminally ill with liver cancer. After watching the devastation cancer wrecked upon this family, Benjamin decided he wanted to devote his research to fighting this disease. He faced many challenges but he was able to work on his project with strong support from his mentor and family. Benjamin's dedication culminated in a poster presentation at the 6th Early Detection Research Network Scientific Meeting.

Benjamin's interests outside of science are playing the piano which he has done for 11 years. He also plays violin in the school orchestra and will be the concertmaster this fall. Benjamin loves to play basketball as well.

Please see next page.



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cont.

Honors/Awards

- 2010 Davidson Fellow
- 2010 Intel International Science and Engineering Fair (ISEF) Fourth Place
- 2010, 2008, 2007 Pennsylvania Junior Academy of Science First Place
- 2010-2005 Montgomery County Science Research Competition First Place
- 2010-2005 Delaware Valley Science Fair First and Second Place
- 2010 American Junior Academy of Science Pennsylvania Delegate
- 2010 BioGeneius Competition Regional Finalist
- 2009 Intel ISEF First Place; American Assoc. for Clinical Chemistry Honorable Mention
- 2009 American Young Inventor Gallery
- 2009 Siemens Competition Fifth Place
- 2009-2003 World Piano Competition Semifinalist, Second and Third Places
- 2009 American Fine Arts Festival Winner

Community Activities

Benjamin plays piano at the local nursing home with his friends as well as his church. He performed a piano solo for the Hope for Henry Foundation and the Annual Pottstown Cancer Survival Dinner. Benjamin also presented research to promote science education at the Rohm & Haas Science Explorer Post.

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