



## Davidson Fellow Laureate

### Christine Shrock

(\$50,000 Scholarship Recipient)



#### Personal Info

Christine Shrock

Age: 17

Setauket, New York

#### School, College and Career Plans

Christine is a rising senior at Ward Melville High School. She is still considering her options for college and has not decided on a major, although she is interested in a career in either science or medicine.

#### Davidson Fellows Submission (*Science*)

In her project, "Investigating an Allosteric Binding Site for a New Class of HIV-1 Protease Inhibitors," Christine developed an approach to finding a more effective HIV treatment. She studied a region of the HIV protease, a protein crucial for the replication of HIV, and found that this region is a promising target for drugs to bind to change the shape of the protease, preventing it from performing its function. Christine's research is an important contribution to the development of a new class of drugs to reduce the number of infections and deaths caused by HIV.

#### Biography

Christine has always been fascinated by science and nature. During the past year, she conducted HIV research at Stony Brook University. Before she started her formal scientific research, Christine participated for many years in the Science Exploration Camp at Stony Brook University and the Cold Spring Harbor Laboratory's DNA Workshops. Since 2007, the Academy of Applied Science has provided her with partial support for her science research through the Research and Engineering Apprentice Program. She was selected as a 2008 Simons Fellow and participated in the Simons Summer Research Program. Christine was also invited to present her research at the 2008 Mid-Atlantic Regional Meeting of the American Chemical Society.

Attending a private school for her early education, Christine was able to follow an accelerated curriculum for gifted students through the ninth grade. When she entered senior high school, she took various Advanced Placement (AP) courses, including mathematics and science. Having completed the AP curriculum in math, she will continue her math courses at Stony Brook University.

Christine has been playing the violin since the age of 3. Every Saturday, she attends a full-day program at the Pre-College Division of The Juilliard School, where she has been a student, majoring in violin performance, since 2002. Among her other hobbies are figure skating, badminton, rock climbing, and photography.

*Please see next page.*

The Davidson Institute for Talent Development

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**Davidson Fellow Laureate  
Christine Shrock**  
(Cont.)

**Honors/Awards**

- 2008 Davidson Fellow Laureate
- 2008 Simons Fellow
- 2008 Caltech Signature Award Winner
- 2008 National AP Scholar Award
- 2008, 2006 Island Symphony Orchestra Young Performers' Competition Winner
- 2007 Siemens Competition in Math, Science, and Technology Regional Finalist
- 2007 Bachanalia Violin Competition Winner
- 2007 AP Scholar Award
- 2006 Valedictorian, Long Island School for the Gifted Class of 2006
- 2006 National Spanish Exam Level 3, second place
- 2006 Long Island Language Teachers Foreign Language Competition, Spanish Essay Contest, first place
- 2006 Spanish Honor Society Service and Leadership Award
- 2006 Sepalotodo Spanish Team Competition, first place on Long Island
- 2006 Mathletes Team, second place on Long Island
- 2006 Knowledge Masters Team, first place in United States

**Community Activities**

Christine volunteers at the Stony Brook University Hospital's Infant Hearing Screening Program where she interacts with many newborns in the Newborn Intensive Care Unit and their mothers.

Christine has given numerous solo, orchestral, and chamber music violin performances, and she regularly plays at benefit concerts for schools and hospitals, for church services, and for the elderly in nursing homes.

At school, she is involved in both the Spanish Honor Society and the Tri-M Music Honor Society.

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