



**Davidson Fellow
Fan Yang**

(\$10,000 Scholarship Recipient)



Personal Info

Fan Yang
Age: 17
Davis, California

School, College and Career Plans

Fan graduated from Davis Senior High School. Due to her strong interest in combining biomedical research and material science, she is majoring in biomaterial engineering at Johns Hopkins University. Her lifelong dream is to become an expert scientist with the intention to make a difference in human life.

Davidson Fellows Submission (*Science*)

In her project "Identification of Bacterial Adhesion Antagonists for Contact Lenses & Intraocular Lenses," Fan discovered a way to reduce the risk of eye infections to contact lens wearers and cataract patients who have intraocular lenses. By identifying three compounds that possess antibacterial adhesion properties, Fan demonstrated the feasibility of a compound-grafted lens to prevent bacteria and biofilm formation. In the future, anti-adhesion contact lenses and intraocular lenses could be developed to fight lens-related infections. Moreover, the use of anti-adhesion therapy could be applied to eye diseases and other health care problems.

Biography

Fan completed her first research project when she was in the sixth grade and remembers how excited she was when her teacher posted her project. Since then, Fan has spent each summer vacation in the Combinatorial Chemistry Lab and Biofilm Research Center at the University of California, Davis as an intern doing research projects. She looks to her everyday experiences to inform and inspire her research.

Fan enjoys fencing, tennis and Web design, but her favorite activity is writing. Her Chinese essay "Learning Chinese and Keeping My Roots" was published in the internationally circulated *China Daily* on May 29, 2000. In the future, she plans to publish a collection of essays, "Teenager's Life in America," in China.

Fan also enjoys drawing and has been studying at the Art Instruction School in her spare time. Fan has become a very good Chinese Chess player and likes to listen to country music.

Please see next page.



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Fan Yang
(Cont.)

Honors/Awards

- 2005 Davidson Fellow
- 2005 Intel International Science and Engineering Fair, Second Place Biochemistry Division
- 2005 Chinese American Award
- 2005 Monsanto/Cologne Biotechnology Scholarship
- 2005 National Junior Science and Humanity Symposium, Regional Delegate for Northern California and Nevada
- 2005 Most Aspiring Women Scientist Award, Sacramento
- 2005 Sacramento Science and Engineering Fair, Grand Prize Winner
- 2004 Siemens Westinghouse Competition, Bronze Medalist
- 2004 Davis Senior High School Advanced Placement Chemistry Student of the Month
- 2003 National Honor Roll
- 2001 Chinese International Youth Composition Competition, Second Prize
- 1998 National Physical Fitness Award

Community Activities

Fan is very active in the Chinese Scholar and Student Association at the University of California, Davis. She has volunteered as both an activity director in athletics and a career outreach director.

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