

# SCIENCE BUDDIES in Action

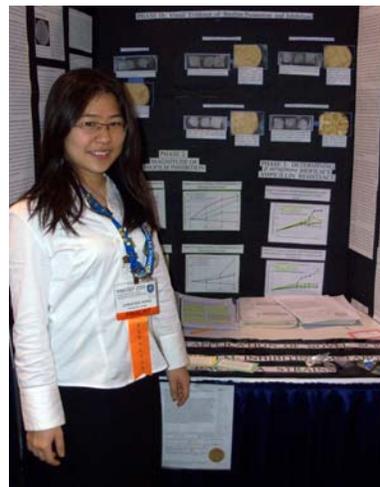


## Student

Christina Wang  
Shanghai American School  
Shanghai, China

## Summary

When Christina Wang decided to participate in her first science fair as a sophomore, she found support on the Science Buddies Ask an Expert Forums for what turned out to be an Intel International Science and Engineering Fair-caliber advanced science project. Continuing with related research as a junior, Christina returned to the Intel ISEF, where she won a 2<sup>nd</sup>-place Grand Award in Microbiology.



## Overview

Science fairs are relatively new at the Shanghai American School where Christina Wang, an American citizen living in Shanghai, is currently a junior. When she signed up, as a sophomore, for her first fair, she thought she wanted to pursue a project related to evolution. After doing background research and contemplating possible projects, including a study of Wisconsin Fast Plants, she began discussing her ideas on the Science Buddies Ask an Expert Forums.

At Ask an Expert, she asked questions, summarized her research and reading of current articles, and refined her direction, all the while demonstrating a seemingly inexhaustible curiosity and enthusiasm for all aspects of the scientific process. With Expert input, Christina narrowed in on a microbiology project analyzing the growth of facultative anaerobe *B. subtilis* under microaerophilic conditions. As her project, and its focus on bacteriology, took shape, she began getting extensive feedback and guidance at Ask an Expert from volunteer Donna Hardy of Bio-Rad.

At Ask an Expert, Christina received assistance with biotechnology lab procedures that were critical to the success of her project, and her evolving mentoring relationship with Donna proved invaluable to both her project and her ongoing development as a young scientist.

"Working with Christina was an amazing experience, both very rewarding and very challenging," says Donna. "It was challenging to keep up with Christina in finding and reading all of the journal articles on her topic, and to suggest ways to do experiments with the limited resources she had available in her high school laboratory."

Christina's sophomore project received the top score at both her school and regional fairs, earning her a place at the Intel ISEF 2009 in Reno, Nevada. As a junior, Christina extended her research and worked on the development of a screen for detecting biofilm-inhibiting metabolites in four bacteria species: *E. coli*, *B. subtilis*, *A. tumefaciens*, and *P. aeruginosa*. Her advanced project earned her a spot at the Intel ISEF 2010 in San Jose, California, where she won a 2<sup>nd</sup>-place Grand Award in Microbiology, with a \$1,500 prize.

The Science Buddies Ask an Expert program and its team of volunteer Experts proved to be an extremely valuable resource for Christina, helping make her first science fair experience a tremendous success, one that may well shape her future.