

## APS Presents Awards to Outstanding High School Students at the 60th Annual International Science and Engineering Fair

The 60th Annual Intel International Science and Engineering Fair (ISEF), presented by Agilent Technologies, was held in Reno, NV May 11-16, 2009. Nearly 1,600 students from 51 countries, regions, and territories competed in the world's largest pre-college science competition awards. During the two days of awards ceremonies, over \$4 million in scholarships, cash prizes, and awards were distributed in categories ranging from behavioral science to engineering and medicine. More than 500 Intel International Science and Engineering Fair participants received scholarships and prizes for their work. Prizes included scholarships, cash awards, scientific field trips to foreign countries and the grand prizes: three \$50,000 scholarships from Intel. Grand awards included 19 "Best of Category" winners who each received a \$5,000 Intel scholarship and a new laptop. Special Awards are presented by over 70 scientific, professional and educational organizations and include scholarships, summer internships, book and equipment grants and scientific field trips.

For the 14th year, the APS presented four Special Awards in the form of cash prizes, certificates and student subscriptions for the best projects in the physiological sciences. This year's APS judging

team included Robert Hester from the Univ. of Mississippi Medical Center and Mark Knuepfer from St. Louis Univ.

The convention center was packed with posters displaying projects ranging from physiological based research done at home or at large medical schools, to complex robotics complete with computer driven controls. Students spent two days being interviewed by judges representing a variety of disciplines, and participated in a panel discussion featuring several Nobel Laureates. As judges, we previewed almost 80 projects to select 16 that best fit the category of "physiology." We interviewed each of these finalists to evaluate their involvement in the project and to determine their understanding of the science and experimental design behind the project. After two days of judging, we chose the following projects to receive APS awards for excellence in physiological research.

Receiving \$1,500 and first place was Zinan Zhang, 16, a junior at Chamblee Charter High School in Chamblee, GA for his project entitled "Adenosine 2b Receptor: A Novel Therapeutic Target for Irritable Bowel Syndrome." Zhang was also awarded a best of category award for Medicine and Health Sciences-presented by National Institutes of Health receiving a fourth

place award and \$500. Zinan displayed enthusiasm and desire of a young bench scientist.

Jasmine Roberts, 15, of Paul Wharton High School, Tampa, FL received second place and \$1,000. Her project was entitled "Does Chronic Hyperglycemia Have an Effect on Alzheimer's Amyloid-Beta Pathology in the Brain?"

Melissa Mc Dowell, 16, of Saint Joseph's Academy, Baton Rouge, LA was awarded one of the two third place awards of \$500 for her project entitled "Differentiation of Bovine Adipose Derived Adult Stem Cells." McDowell was also awarded a best of category award for Animal Sciences presented by Intel receiving a fourth place award and \$500.

Third place was also awarded to Stephanie Mian Wang, 17, of Roslyn High School in Roslyn Heights, NY. Stephanie's work was titled, "The Novel Property of the Circulating Hormone AM and Its Binding Protein: Neuroprotection in Hypoxia." Wang was also awarded a best of category winner for Medicine and Health Sciences-presented by National Institutes of Health receiving a third place award and \$1,000.

The winners also received a certificate, a t-shirt, and a one-year subscription to APS publications.

These projects are a small example of the many outstanding projects we had the opportunity to judge. The finalists at the fair were outstanding high school students and were extremely knowledgeable and enthusiastic about their projects. The Intel ISEF is a wonderful event and I was honored to represent APS at this celebration of the scientists of tomorrow. ❖

*Robert L. Hester  
University of Mississippi  
APS Education Committee*



The winners of the APS Special Awards at the 2009 Intel ISEF. Pictured from left to right are Mark Knuepfer, Stephanie Wang, Melissa Mc Dowell, Zinan Zhang, Jasmine Roberts, and Robert Hester.