

## **Middle TN High School Students Compete at the Intel International Science and Engineering Fair**

Junior Chris King from Creek Wood High School in Dickson County and Junior Charlie Xie from Martin Luther King High School in Nashville exhibited their science research projects May 12-16 at the International Science and Engineering Fair, held this year in Atlanta, GA. King and Xie competed against 1500 finalists from over 50 countries and territories for almost \$4 million dollars in scholarships and prizes. Roughly a quarter of the participants at the ISEF receive awards.

Xie was awarded one of the 2<sup>nd</sup> place awards of \$1,500 in the Medical and Health Sciences category for his work, “Identification of the Molecular Targets Affecting the Action of Amphetamine in the Dopaminergic Pathway”. He also received a special award of a \$20,000 scholarship to the Albany School of Pharmacy in upstate New York.

King was given one of the 3<sup>rd</sup> place awards of \$1,000 in the Electrical Engineering category for his project “Electromagnetic Levitation: A Digital Control System”. He also received a prestigious special award from the U.S. Army – an all expense paid trip for 12 days to Tokyo, Japan to attend the science research “Cherry Blossom Festival”. This was the 2<sup>nd</sup> year for King at the ISEF. An interview of King by “Wired” magazine can be found at <http://blog.wired.com/geekdad/2008/05/intel-isef200-2.html>.

While King’s work was done entirely in a lab in his home, Xie worked in a research lab at Vanderbilt University. They were able to compete at the ISEF as a result of winning the 2 Grand Prize Awards at the Middle TN Science and Engineering Fair, held in March at Austin Peay State University. As sponsor of the ISEF affiliated fair, APSU gives each of the 2 high school grand prize winners an all expense paid trip to the ISEF as well as a one year tuition free

scholarship to APSU. More information, including a list of all awards given at the MTSEF, can be found at [www.apsu.edu/mtsef](http://www.apsu.edu/mtsef). The director of the fair is Dr. Ron Robertson, Associate Professor of Chemistry. He can be reached at [robertsonr@apsu.edu](mailto:robertsonr@apsu.edu).

The Intel ISEF is the world's largest pre-college science competition. Now in its 59th year, the Intel ISEF is the world's only science project competition for students in the ninth through twelfth grades, bringing together students, teachers, corporate executives, and government officials from around the world. Students compete in 15 categories: Behavioral and Social Sciences, Biochemistry, Plant Sciences, Cellular and Molecular Biology, Chemistry, Computer Science, Earth Science, Electrical and Mechanical Engineering, Material Science Engineering, Environmental Science, Environmental Management, Mathematics, Medicine & Health, Microbiology, Physics and Astronomy, Earth Science, and Animal Science. The projects are judged by usually over 1,000 science, engineering, and industry professionals. All judges have a Ph.D. or equivalent degree and/or six years of relevant experience.

Submitted by: Ron Robertson, Director of MTSEF and Associate Professor of Chemistry  
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