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Nathan Han, 15, of Boston was awarded first place for developing a machine learning software tool to study mutations of a gene linked to breast cancer at Intel International Science and Engineering Fair, a program of Society for Science and the Public.

Using data from publicly available databases, Han examined detailed characteristics of multiple mutations of the BRCA1 tumor suppressor gene in order to "teach" his software to differentiate between mutations that cause disease and those that do not. His tool exhibits an 81 percent accuracy rate and could be used to more accurately identify cancer threats from BRCA1 gene mutations. Han received the Gordon E. Moore Award of $75,000, named in honor of the Intel co-founder and fellow scientist.

The world needs more scientists, makers and entrepreneurs to create jobs, drive economic growth and solve pressing global challenges," said Mr Ashutosh Chadha, director, Corporate Affairs Group, Intel South Asia. "Intel believes that young people are the key to innovation, and we hope that these winners inspire more students to get involved in science, technology, engineering and math, the foundation for creativity."

This year's Intel International Science and Engineering Fair featured more than 1,700 young scientists selected from 435 affiliate fairs in more than 70 countries, regions and territories. In addition to the top winners, more than 500 finalists received awards and prizes for their innovative research, including 17 "Best of Category" winners, who each received a $5,000 prize. The Intel Foundation also awarded a US$1,000 grant to each winner's school and to the affiliated fair they represent. Additionally, the Intel Foundation presented a select number of students with experiential awards, including the new 11-day trip to China to attend the country's largest national science competition, speak with researchers at Intel's lab in Shanghai, and visit the Panda Research Base in Chengdu.