

Background info on Intel ISEF 2017

here are scientific categories in Intel International Science and Engineering Fair, Intel ISEF. Within each category the following awards are presented

Raffles Institution

on the **Fourth Award** in the category of Translational Medicine and **special awards** from the National Aeronautics and Space Administration and the National Anti Infection Society

effects of drugs on heart cells in traditional methods of testing drugs on
his method of using induced pluripotent stem cells

	his project was conducted under the mentorship of Professor Ho Chorng Yee and Dr L Npeng from National University of Singapore
Lim Hai Leong Shawn Dominic Yap Wei Ting Lim Wei Leong Bryan Year 4 Chong Institution won a Special Award presented by Mr. Azizi bin Abdul Aziz his Companions Foundation for Giftedness and Creativity in the category of Environmental Engineering, Recycling and Waste Management	Versatile Usage of Spent Coffee as an Eco-Friendly Water Purifier The team's research tackled both issues of water purification and waste management. They developed a water purification bag containing carbon and silver nanoparticles adsorbents synthesised in an eco-friendly manner from coffee waste that was effective in removing heavy metal ions as well as bacteria from water. This has potential applications in water purification for disaster relief and domestic use. This school-based research project was done under the guidance of Mrs. Yeo Yee Hoo from Chong Institution. The team shared that while their research journey had its ups and downs, the journey had instilled in them the importance of perseverance and sheer determination.
Chan Hsi-Min Individual Year 4 Raffles Girls' School, Secondary	Inexpensive and Accurate Test Kit for Zika: Point-of-Care Diagnostics in 10 Minutes with Paper-Based Serological Flow Device Under the category of Bio-medical Engineering, the inexpensive paper-based test kits have been developed for rapid accurate Zika screening. Zika non-structural protein (NS3) in blood can be detected within 10 minutes with excellent sensitivity and selectivity. The assays are multiplexed to provide simultaneous detection and differentiation of Zika and Dengue. Nishi Min conducted her research under the mentorship of Dr. Rohan Nair from the A*STAR Institute of Bioengineering and Nanotechnology (IBN). Nishi Min felt that from participating in dialogues to interacting with fellow competitors and making international friends, the EF was truly a very rewarding experience.