



FOR IMMEDIATE RELEASE

Projects advancing research in cardiology, gene therapy and mathematics recognized at A*Star Talent Search 2018

More than 620 projects tackling real-world problems submitted for the competition

SINGAPORE, 26 April 2018 – 191 inquisitive young minds and researchers were gathered in Biopolis today to celebrate future innovations at the **A*Star Talent Search (ATS)** and **Singapore Science and Engineering Fair (SSEF)** Awards Presentation Ceremony 2018. 2013 Nobel Laureate in Chemistry Professor Arieh Warshel, Chief Judge of the ATS 2018, was present to award students for research excellence in biomedical engineering, environmental sciences, materials sciences and medical sciences.

2018 submissions clearly demonstrate innovative and critical thinking skills in finding solutions to pressing needs and debunking precepts in established areas of knowledge. This year's submissions include, research on the use of alternative gene Cpf1s for Type II CRISPR system in the fight against viral infections. New precise biosensors were proposed to maximize production of useful biomolecules such as antibiotics. One submission had successfully innovated a process on the electrochemical treatment of sludge.

A total of 123 awards, including 24 Gold, 27 Silver, 32 Bronze and 40 Merit awards were given out at SSEF 2018. These SSEF award winners were eligible to proceed for ATS, which recognises student projects that excel in scientific research across multiple disciplines. Beyond the quality of their submitted projects, their creativity and critical thinking abilities are also considered in the rigorous selection process. Eight individuals were subsequently shortlisted as finalists for the ATS.

A*STAR Talent Search (ATS)

A total of 612 students from secondary and tertiary institutions registered for this year's A*STAR Talent Search.

Chief Judge Professor Arieh Warshel who presided over the ATS 2018 final judging panel was a joint winner of the Nobel Prize in Chemistry in 2013 for pioneering the development of multiscale models for complex chemical systems. The judging panel consisted of distinguished scientists and researchers from A*STAR, Science Centre Singapore and universities including Singapore University of Technology and Design President Prof. Chong Tow Chong, and Science Centre Singapore Chief Executive Associate Professor Lim Tit Meng.

Professor Ng Huck Hui, Executive Director, A*STAR Graduate Academy said, "The projects displayed a high-level of critical thinking, problem-solving abilities, and maturity beyond the years



of the young participants. A*STAR Talent Search and Singapore Science and Engineering Fair are key platforms where we seek to ignite curiosity and solidify resolve in solving pressing challenges among budding scientists. Through these competitions, students can interact with like-minded compatriots in their pursuit of knowledge, future careers in science and technology, and contribute to Singapore's future economy."

The first prize for the Student Category at this year's ATS was bagged by Vijayakumar Ragavi from NUS High School of Mathematics and Science. She designed a humanised Hypertrophic cardiomyopathy model that recapitulates the disease phenotype. The subsequent findings lay the foundation for gaining insights into disease pathology and therapeutic intervention.

In the School Category, NUS High School of Mathematics and Science clinched the top position. Schools are ranked and awarded based on a points system tied to the results of their students' projects.

Science Centre Singapore's Chief Executive, Associate Professor Lim Tit Meng, said, "The Centre's mission is to promote interest, curiosity and creativity in science and technology. One impactful way of achieving this is by engaging students in STEM projects that encourage inquiry and innovation. Initiatives such as SSEF and ATS with a strong research focus not only celebrate the ability of our youth to find solutions to real-world challenges but also help us to identify and nurture our next generation of scientists and engineers. These platforms energize our youth to expand their vision and stretch their ability to harness the power of STEM."

Intel International Science and Engineering Fair (Intel ISEF)

Following their success at SSEF, six projects across five categories have been selected to represent Singapore at the Intel ISEF, the world's largest international pre-college science competition. The selected students will represent Singapore on an international stage, where they will compete with 1,800 students from over 75 countries, regions and territories to showcase their independent research.

This year's competition will take place at Pittsburgh, Pennsylvania, from 13 to 18 May 2018.

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About Singapore Science and Engineering Fair & A*STAR Talent Search

The Singapore Science and Engineering Fair (SSEF) and the A*STAR Talent Search (ATS) are flagship science outreach programmes jointly organised by A*STAR, Science Centre Singapore and the Ministry of Education. Both competitions have provided students with opportunities to showcase their stellar research work and encouraged them to further explore science and technology for over a decade now.

The SSEF is an annual competition for students in secondary schools and junior colleges to showcase their research projects. Selected winners go on to compete at the Intel International Science and Engineering Fair (ISEF), the world's largest pre-college science competition.



The ATS is the pinnacle award that shortlists from SSEF participants and identifies top young scientific talents from amongst students aged 15 to 20 years old with a strong aptitude for science and technology. The projects are reviewed by an extensive network of scientists from local and international universities, defence and medical research organisations, and A*STAR research institutes. ATS finalists present their work to a distinguished panel of judges, headed by an internationally eminent Chief Judge.

About the Agency for Science, Technology and Research (A*STAR)

The Agency for Science, Technology and Research (A*STAR) is Singapore's lead public sector agency that spearheads economic oriented research to advance scientific discovery and develop innovative technology. Through open innovation, we collaborate with our partners in both the public and private sectors to benefit society.

As a Science and Technology Organisation, A*STAR bridges the gap between academia and industry. Our research creates economic growth and jobs for Singapore, and enhances lives by contributing to societal benefits such as improving outcomes in healthcare, urban living, and sustainability.

We play a key role in nurturing and developing a diversity of talent and leaders in our Agency and research entities, the wider research community and industry. A*STAR's R&D activities span biomedical sciences and physical sciences and engineering, with research entities primarily located in Biopolis and Fusionopolis. For ongoing news, visit www.a-star.edu.sg.

About Science Centre Singapore

Science Centre Singapore, a non-formal educational institution and leading regional Science Centre, along with its group of attractions, brings out the wonders of science, technology, engineering and mathematics through its unique blend of exhibitions, educational programmes and events. A custodian of creativity and innovation, Science Centre Singapore has captured the evolution of scientific developments for nearly four decades.

The Centre and its partners have played a pivotal role in transforming the way students and the public interact with and learn about science, technology, engineering and mathematics. Since 1997, the Centre has welcomed over 30 million visitors and inspired them with more than 1,000 exhibits spread across 14 exhibition galleries and outdoor exhibition spaces.

The Centre's group of attractions include Omni-Theatre, Snow City and KidsSTOP™. The Omni-Theatre is an immersive dual-technology edutainment destination fitted with Southeast Asia's largest seamless dome screen and featuring the latest and brightest 8k digital fulldome system in the world. Snow City is Singapore's only permanent indoor snow centre offering an Arctic inspired experience at Singapore's first ice gallery and snow chamber. KidsSTOP™ - Where every child gets to Imagine, Experience, Discover and Dream - is Singapore's first children's science centre offering an enriching experience through purposeful play for children aged 18 months to 8 years old.

For more information, please visit www.science.edu.sg



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