



For their sterling contributions to Singapore's advance in the scientific field, Mr Say Kwee Teck (left) and Prof Tan Chorh Chuan have been awarded the National Science & Technology Medal. ST PHOTO: SHAHRIYA YAHAYA

Clinician and engineer hailed

They have altered Singapore's scientific landscape

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BETWEEN this clinician and engineer, billions have been generated for Singapore.

For their contributions, Professor Tan Chorh Chuan, deputy chairman of the Agency for Science, Technology and Research, and Mr Say Kwee Teck, senior vice-president of engineering R&D at Seagate Technology International, received the National Science and Technology Medal yesterday – the country's highest scientific honour.

Despite hailing from different sectors, both have had "lasting impact" on Singapore's social and economic sectors, said selection committee member Professor Lui Pao Chuen.

"How do you compare the two?" said Prof Lui, a former medal winner himself. "It's not just about dollars and cents, but how much they've changed Singapore's scientific landscape as well."

Prof Tan, 49, was instrumental in building Singapore's biomed-

ical sciences initiative from its beginning in 2000.

He helped establish programmes that have drawn a star-studded cast of researchers, such as cancer expert David Lane and breast cancer expert Edison Liu.

He also groomed hundreds of budding doctors during his three-year service as dean of the National University of Singapore's medicine faculty.

The avid traveller credits going off the beaten track on vacations for bringing new dimensions to his work. Travelling to places such as Antarctica and Peru helps hone "independence, resourcefulness, and some degree of risk taking" – key ingredients in science research, said Prof Tan.

His focus now is on boosting Singapore's capabilities in biomedical and drug discovery.

Mr Say pioneered Singapore's first disk drive R&D facility at Seagate in 1984, with fewer than 10 employees.

The team, now 300-strong, helped put Singapore on the world map, with more than 1,000 new inventions and 208 US patents under its belt. Seagate's hard disk drives corner about 33 per cent of the global market, and have brought in some US\$12.7 billion (S\$18 billion) this year.

The 53-year-old father of three hopes that the younger gen-

eration will "take up the torch" in R&D to continue Singapore's emerging success.

The medal winners' sterling contributions are indicative of how far Singapore has come in R&D, said Minister for Trade and Industry Lim Hng Kiang, at the awards ceremony last night.

From its humble beginnings in the 1980s, Singapore began to take "more confident steps" in the 1990s, with greater government investment and manpower, he said.

Singapore has now emerged as a global front runner in R&D, as shown by the amount of local and foreign investment in the sector, said Mr Lim, who was the guest of honour.

R&D expenditure increased by about 67 per cent in 2000 to exceed S\$5 billion in 2006. Another S\$13.5 billion from the government will be invested in R&D over a five-year period from 2006 to 2010, noted Mr Lim.

International pharmaceuticals such as Novartis and GSK have also set up shop here, with an investment of about US\$1.5 billion.

Mr Lim also presented prizes to the seven winners of the National Science, National Technology and Young Scientist awards at last night's gala dinner held at the Raffles City Convention Centre.

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NSTA winners at a glance

National Science and Technology Medal

For their sustained and exceptional contributions to Singapore's research and development (R&D) landscape.

■ **Professor Tan Chorh Chuan**

Acting president of National University of Singapore (NUS) and deputy chairman of Agency for Science, Technology and Research (A*Star).

Achievements: Grew Singapore's scientific capability, largely in the biomedical sector.

■ **Mr Say Kwee Teck**

Senior vice-president of engineering, R&D at Seagate Technology International.

Achievements: Initiated and dramatically expanded R&D activities in Singapore.

National Science Award

For scientists in Singapore who have broken new ground in basic scientific knowledge.

■ **Professor Mohan Balasubramaniam**

Temasek Life Sciences Laboratory at the NUS Department of Biological Sciences.

Achievement: Found ways to unravel the mysteries controlling cell division.

■ **Associate Professor Christian Kurtseifer, Associate Professor Valerio Scarani, Assistant Professor Antia Lamas-Linares**

Centre for Quantum Technologies at the NUS Department of Physics.

Achievement: Outstanding theoretical and experimental studies on quantum entanglement.

National Technology Award

For engineers in Singapore who have pioneered the development of engineering techniques and methods.

■ **Dr Patrick Lo Guo-Qiang**

Dr Narayanan Balasubramanian, Dr Navab Singh, Dr Ajay Agarwal. A*Star's Institute of Microelectronics.

Achievement: Pioneered novel transistor architectures and a new class of electronic bio-sensors based on silicon nanowires.

■ **Dr John Yong Ming Shyan, Mr Steven Tong Kin Kong, Dr Chua Beng Wah, Mr Ho Meng Kwong**

A*Star's Singapore Institute of Manufacturing Technology.
Achievement: Developed new liquid forging technology for high steel parts.

Young Scientist Award

For researchers under 36 years old who have shown great potential to be world-class researchers in their fields.

■ **Dr David Chen**

Chemical Synthesis Laboratory, Institute of Chemical and Engineering Sciences at A*Star.

Field: Synthetic chemistry and chemical biology research for novel therapeutics.

■ **Assistant Professor Wang Hongyan**

Duke-NUS Graduate Medical School.

Field: Stem cell renewal, differentiation

■ **Assistant Professor Liu Bin**

NUS Department of Chemical and Biomolecular Engineering.

Field: Research on polymer chemistry and the application of polymers in biosensors and solar cells.