

# 4 scientists clinch President's Science and Technology awards

Prof who spent 30 years building biomedical research community here gets top honour

Gena Soh

A professor who dedicated 30 years to building up the biomedical research community in Singapore was on Friday honoured with the President's Science and Technology Medal, the highest recognition of research scientists and engineers here.

Professor Hong Wanjin, 62, the executive director of the Institute of Molecular and Cell Biology (IMCB), which is part of the Agency for Science, Technology and Research (A\*Star), received the award from President Halimah Yacob at a ceremony held at the Istana.

Leading the research institute since 2011, Prof Hong brought together institutions such as the National Cancer Centre Singapore (NCCS), SingHealth, Duke-NUS Medical School, Nanyang Technological University (NTU) and National University of Singapore (NUS) to collaborate more closely through joint programmes.

He said the cross-pollination

among these faculties enabled many upstream discoveries that benefited patients.

For instance, the IMCB-NCCS joint Programme set up in 2014 brought together scientists and clinicians to develop new innovations like potential cancer therapeutics.

He added that some of these discoveries have been translated into medical spin-offs such as Intra-ImuSG, a home-grown biotechnology company, which develops cancer immunotherapies with minimal side effects, among other things.

Since Prof Hong began his stint as the head of IMCB, he has been responsible for 15 such spin-offs, raising a total of around \$30 million in funds.

Prof Hong said: "In the over 30 years I have been here, it has been very rewarding to watch the biomedical community grow and mature as Singapore built up the biomedical sciences sector into the economic pillar it is today... I am very proud that our research has

contributed to the growth of Singapore."

Another veteran who was recognised at the 2022 President's Science and Technology Awards on Friday was Professor Wang Rong, 59, from NTU, who received the President's Technology Award for her contributions in the field of membrane science and technology.

Over the past 14 years, she has made many pioneering contributions to the field and is best known for creating a filter membrane that is being trialled for use in water reclamation projects. Singapore presently reclaims water through NEWater, a water reclamation initiative that meets up to 40 per cent of the nation's water needs.

She said: "Water is very important for our society and our sus-

tainability, especially in the face of climate change. As the core technology for water reclamation and seawater desalination is a membrane-based reverse osmosis process, Singapore's water resilience now depends on our ability to produce water efficiently."

The membrane she created requires lower pressure to work, and so allows a significant energy saving of up to 50 per cent. It was successfully upscaled and tested in a reclamation plant.

She said: "Not everyone has the opportunity to carry out such exciting work that covers the full spectrum of a research and innovation cycle, from fundamental research to technology translation, and to the eventual commercial deployment for clean water production. There is no better place than

here in Singapore to do world-class research."

Prof Wang said the filters also have the potential to be used in desalination, wastewater treatment and even gas purification, among other applications.

Two young scientists were also honoured on Friday with the Young Scientist Award, given to promising scientists aged 35 and below.

Dr Bi Renzhe, 35, a research scientist from A\*Star, received the award for developing new technologies and devices that use laser-based imaging to diagnose diseases.

Assistant Professor Koh Ming Joo, 35, from NUS was given the accolade for his research in waste chemical recycling.

As he gave Dr Bi and Prof Koh

their awards, Deputy Prime Minister Heng Swee Keat said that science and technology has played a critical role in Singapore's development and that it is important to honour those who make significant contribution to the field.

Citing the global shortage in scientific talent, DPM Heng added that Singapore must continue to attract and retain a critical mass of top scientific talent here, while also nurturing young scientists into becoming global talents themselves.

He said: "Talent lies at the heart of what has made our science and technology community vibrant. With a strong community of scientists, we can build a better future for Singapore and the world."

genasoh@sph.com.sg



From left: President's Science and Technology Awards 2022 recipients Hong Wanjin, Wang Rong, Koh Ming Joo and Bi Renzhe. Prof Hong received the President's Science and Technology Medal, the highest recognition of research scientists and engineers here. Prof Wang received the President's Technology Award, while Prof Koh and Dr Bi were given the Young Scientist Award at a ceremony held at the Istana on Friday. PHOTO: LIANHE ZAOBAO