NATIONAL RESEARCH FOUNDATION
PRIME MINISTER'S OFFICE
SINGAPORE

# Exceptional talent driving scientific innovation conferred Singapore's top honours

1 The **President's Science and Technology Awards (PSTA) 2025** honoured leaders and innovators who made exceptional contributions to the science and technology (S&T) ecosystem in Singapore. The PSTA 2025 ceremony was held on 3 October at the University Cultural Centre, National University of Singapore (NUS).

2 Administered by the National Research Foundation (NRF), the awards comprise the President's Science and Technology Medal (PSTM)[1], the President's Science Award (PSA)[2], the President's Technology Award (PTA)[3], and the Young Scientist Awards (YSA)[4]. President Tharman Shanmugaratnam and NRF Chairman Mr Heng Swee Keat, presented the respective awards below:

Awards presented by President:

- PSTM: Professor Tan Eng Chye, President, NUS
- PSA: Professor Lisa Fong Poh Ng, Executive Director, A*STAR Infectious Diseases Labs
  *[Prof Ng is concurrently Executive Director at A*STAR's Biomedical Research Council]*
- PSA: Professor Lim Chwee Teck, NUS
- PTA: Professor Ng Geok Ing, Nanyang Technological University, Singapore (NTU Singapore)
  *[Prof Ng is concurrently Executive Director of the National Semiconductor Translational and Innovation Centre for Gallium Nitride (NSTIC-GaN)]*

YSA awards presented by NRF Chairman:

- Dr Andy Tay Kah Ping (NUS)
- Dr Chan Yi Hao (A*STAR Infectious Diseases Labs)
- Dr Liu Ziwei (NTU Singapore)
- Dr Wang Xinchao (NUS)

3 Elaborating on the significance of the awards, **Professor Tan Chorh Chuan, Permanent Secretary (National Research Development)**, said: "Talent and cutting-edge S&T are critical for translating research into outcomes which significantly contribute to Singapore's competitiveness and continued growth. PSTA celebrates the achievements of remarkable research leaders who are breaking new ground in S&T and its application. It also underscores the value that Singapore places on research and innovation. This is particularly important as we launch the RIE2030 plan later this year – it signals our intent to keep

[1] The PSTM recognises individuals who have made distinguished, sustained and exceptional contributions, and played a strategic role in advancing Singapore's development through promotion and management of S&T. The accomplishments and contributions would generally be acknowledged by the S&T ecosystem as having a significant impact on the ecosystem's capabilities or international stature.

[2] The PSA recognises accomplishments generally acknowledged by other SS&T practitioners as being significant and impactful to their field. They need not have led to practical applications or products.

[3] The PTA recognises accomplishments that have led to transformative changes in the use or potential of technology in Singapore or further afield. The relevant technology need not be fully adopted or deployed at the point of nomination, but its potential must be acknowledged, and it must have progressed beyond academic or theoretical potential and be in the process of translation or adoption by end-users.

[4] The YSA is awarded to researchers aged 40 years and below, who are actively engaged in R&D in Singapore, and who have shown great potential to be world-class researchers in their fields of expertise. This award is administered by the Singapore National Academy of Science (SNAS) and supported by NRF.

Singapore as an attractive place for researchers and innovators to do pioneering work and achieve high impact."

**PSTM: Transformative contributions that advanced Singapore's RIE landscape**

4 The recipient of the apical, PSTM, award, **Professor Tan Eng Chye**, President of NUS, was recognised for his visionary leadership and lifelong dedication to driving science and technology (S&T) research at NUS and in Singapore. He substantially advanced the recruitment and development of top talent, from leading academics to promising young researchers, and brought NUS research to new levels of world-class excellence. Under his leadership, NUS education became more flexible and interdisciplinary, and he also expanded mentorship and entrepreneurship programmes. Prof Tan shaped a deeply collaborative culture within NUS, and pushed for stronger partnerships between NUS and research groups across Singapore as well as with leading centres worldwide. Prof Tan played a critical role in placing Singapore's S&T capabilities and achievements firmly on the world map.

**PSA and PTA: Breakthroughs in science and technology delivering real-world impact**

5 PSA recipient **Professor Lisa Ng** has led high-impact research on mosquito-borne viruses, especially Chikungunya. Her work revealed how infections trigger both helpful and harmful immune responses, and how these may explain why patients recover differently. These novel insights are underpinning improvements in the development of diagnostics, vaccines and treatments and strengthening outbreak readiness in Singapore and the region.

6 In the field of cancer, PSA recipient **Professor Lim Chwee Teck** has transformed our understanding of how cancers spread and how circulating cancer cells survive the intense physical and mechanical stresses they are exposed to as they travel through the blood circulatory system. Through creating novel insights into cancer progression, his research is informing new ways of detecting and treating cancer as well as steering pharmaceutical innovation, which benefit patients and healthcare systems.

7 PTA recipient **Professor Ng Geok Ing** has made significant contributions in growing Singapore's capabilities in Gallium Nitride (GaN) – an advanced semiconductor technology. His sustained efforts in setting up key facilities, training engineering teams and working closely with defence partners have greatly advanced its application, across a range of use cases. These efforts culminated in the creation of a national platform which positions Singapore among global leaders in GaN technology.

**YSA: Emerging leaders shaping the future of science and technology**

8 The exciting work of our four YSA winners highlights how the next generation of research leaders is already contributing to shaping the future of science and technology.

9 **Dr Andy Tay Kah Ping** (NUS) is advancing regenerative medicine with smart biomaterials that guide the immune system to speed up diabetic wound healing. His novel multi-pronged approach has demonstrated faster healing rates in preclinical studies, opening new possibilities for next-generation therapies.

10 **Dr Chan Yi Hao's** (A*STAR) research in infectious diseases has revealed how the brain defends itself against severe viral infections. His discoveries of new protective factors and vulnerabilities could lead to new approaches for better diagnosis and care of viral encephalitis.

11 Pushing the boundaries of artificial intelligence, **Dr Liu Ziwei** (NTU Singapore) is helping computers perceive and recreate the visual world in three and four dimensions. His work on generative

AI and mixed reality enables realistic digital twins to be created and applied in areas ranging from healthcare to education.

12 **Dr Wang Xinchao** (NUS) is developing ways to train compact AI models with limited resources while keeping high performance, thereby increasing access but with greater efficiency. His methods make advanced AI more accessible, energy-saving and deployable on everyday devices.

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***About the President's Science and Technology Awards (PSTA)***

The President's Science and Technology Awards (PSTA) are Singapore's top honours for research scientists and engineers. Organised by the National Research Foundation, Singapore (NRF), the awards are conferred annually to individuals and teams who push the frontiers of science and technology. The PSTA comprises the President's Science and Technology Medal, the President's Science Award and the President's Technology Award, and also celebrates the Young Scientist Award, administered by the Singapore National Academy of Science and supported by NRF. Learn more about the PSTA at www.psta.gov.sg.

***About the National Research Foundation (NRF)***

The National Research Foundation, Singapore (NRF), set up on 1 January 2006, is a department within the Prime Minister's Office. The NRF sets the national direction for research and development (R&D) by developing policies, plans and strategies for research, innovation and enterprise. It also funds strategic initiatives and builds up R&D capabilities by nurturing research talent. Learn more about the NRF at www.nrf.gov.sg.

Chinese Glossary

| PRESIDENT'S SCIENCE & TECHNOLOGY MEDAL | |
|---|---|
| **Professor Tan Eng Chye**<br>President<br>National University of Singapore | 陈永财教授<br>校长<br>新加坡国立大学 |
| **PRESIDENT'S SCIENCE AWARD** | |
| **Professor Lim Chwee Teck**<br>NUS Society Professor<br>Director, NUS Institute for Health Innovation & Technology<br>Professor, Department of Biomedical Engineering, College of Design and Engineering, National University of Singapore | 林水德教授<br>国大协会讲座教授<br>医疗健康创新与科技研究院院长<br>设计与工程学院生物医学工程系教授<br>新加坡国立大学 |
| **Professor Lisa Ng**<br>Executive Director,<br>A*STAR Infectious Diseases Labs (A*STAR IDL)<br>Executive Director,<br>A*STAR's Biomedical Research Council | 伍芳葆教授<br>院长<br>新科研传染病研究所<br>执行署长<br>生物医药研究理事会<br>新加坡科技研究局 (新科研) |
| **PRESIDENT'S TECHNOLOGY AWARD** | |
| **Professor Ng Geok Ing**<br>Nanyang Technological University<br><br>Executive Director<br>National Semiconductor Translation and Innovation Centre for Gallium Nitride (NSTIC (GaN)) | 黄玉荣 教授<br>南洋理工大学<br><br>执行总监<br>新加坡氮化镓半导体技术转化创新中心 |
| **YOUNG SCIENTIST AWARD** | |
| **Dr Chan Yi Hao**<br>Principal Scientist<br>A*STAR Infectious Diseases Labs (A*STAR IDL) | 曾毅豪博士<br>研究主管<br>新科研传染病研究所<br>新加坡科技研究局 (新科研) |
| **Dr Andy Tay Kah Ping**<br>Presidential Young Professor & Assistant Professor, Department of Biomedical Engineering, College of Design and Engineering, National University of Singapore | 戴嘉平博士<br>杰出青年教授与助理教授<br>设计与工程学院生物医学工程系<br>新加坡国立大学 |
| **Dr Liu Ziwei**<br>College of Computing and Data Science<br>Nanyang Technological University | 刘子纬副教授<br>计算与数据科学学院<br>南洋理工大学 |
| **Dr Wang Xinchao**<br>Presidential Young Professor & Assistant Professor, Department of Electrical and Computer Engineering, College of Design and Engineering, National University of Singapore | 王鑫超博士<br>杰出青年教授与助理教授<br>设计与工程学院电机与电脑工程系<br>新加坡国立大学 |