

Recognising outstanding contributions in the fight against COVID-19



List of Awardees

(I) A*STAR BOARD

The Public Administration Medal (Gold)

Dr Benjamin Koh Khay Wee

Deputy Secretary (Development), Ministry of Health Board Member, Agency for Science, Technology and Research

(II) A*STAR-HOSTED NATIONAL PLATFORMS – GOVERNING BOARDS AND STEERING COMMITTEES (*The National Platforms are italicised.*)

The Public Administration Medal (Gold)

Dr Cheong Wei Yang Deputy Secretary (Technology), Ministry of Health *National Robotics Programme Steering Committee Member*

Prof Seet Hun Yew Benjamin

Deputy Group Chief Executive Officer (Education & Research), National Healthcare Group HQ Experimental Drug Development Centre Governing Board Co-Chair Singapore Biodesign Steering Committee Member

Mr Kelvin Wong Wee Siong

Chief Executive Officer, Building and Construction Authority Urban Solutions & Sustainability Innovation & Enterprise Steering Committee Member



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The Public Administration Medal (Silver)

Ms Leow Lay May

Director, Energy Division, Ministry of Trade and Industry Low Carbon Energy Research Funding Initiative Steering Committee Member

Ms Liew Ee Wei, Emily

Assistant Chief Executive Officer, Strategic Partnerships & Platforms, Enterprise Singapore Consortium Management Office Oversight Committee Member

Mr Lim Khoon Seng Kenneth

Assistant Chief Executive (Industry & Transformation), Maritime and Port Authority of Singapore Low Carbon Energy Research Funding Initiative Steering Committee Member Technology Centre for Offshore and Marine, Singapore Board of Directors Member

Mr Soh Leng Wan

Assistant Chief Executive, Manufacturing & Engineering, Industry Clusters, Enterprise Singapore Biomedical Sciences Industry Partnership Office Governing Committee Member National Additive Manufacturing Innovation Cluster Governing Board Member National Robotics Programme Steering Committee Member Advanced Manufacturing Training Academy Training Council Member

Dr Soon Kwang Wei Danny

Chief Executive Officer, Consortium for Clinical Research and Innovation Experimental Drug Development Centre Governing Board Member



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The Public Administration Medal (Bronze)

Ms Ng Lee Hoon Julia

Assistant Chief Executive, Enterprise Development Group, Workforce Singapore Advanced Manufacturing Training Academy Training Council Member

Prof Tan Say Beng

Group Chief Research Officer, Singapore Health Services Senior Associate Dean, Research, Duke-NUS Medical School Executive Director, National Medical Research Council Biomedical Advisory Council Member Biomedical Sciences Industry Partnership Office Governing Committee Chair Experimental Drug Development Centre Governing Board Member Diagnostics Development Hub Oversight Committee Member

Ms Tang Zhi Hui

Director, Multi-Ministry Taskforce Secretariat, Ministry of Health Low Carbon Energy Research Funding Initiative Steering Committee Member

Ms Tay Shi'an

Director, Innovation, Research and Development Division, Ministry of Trade and Industry Low Carbon Energy Research Funding Initiative Steering Committee Member



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(III) A*STAR PARTNERS

The Public Service Star

Dr Syed Fidah Bin Ismail Alsagoff

Joint Head, Enterprise Development Group (Singapore), Temasek International Pte Ltd Head, Life Sciences, Temasek International Pte Ltd

The Public Service Medal

Mr Abel Ang Boon Thong

Group Chief Executive Officer Advanced MedTech Holdings

Mr Ng Boon Heong

Chief Executive Officer, Temasek Foundation Deputy Chief Executive Officer, **Temasek Trust** Managing Director, Institutional Relations, Temasek International Pte Ltd

The Public Administration Medal (Bronze)

A/Prof Sunil Kumar Sethi

Senior Consultant, Laboratory Medicine, National University Health System Stronghold Diagnostics Lab

Mr Ma Chao Hong Director Ramatex Group

Dr Khoo Shih Managing Director, Investment (Life Sciences) Temasek International Pte Ltd

Dr Tan Yang Sheng Daniel Chief Executive Officer Parkway Laboratories

Dr Yan Junrong Benedict Senior Consultant, Laboratory Medicine, National University Health System Stronghold Diagnostics Lab



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(IV) NATIONAL-LEVEL WORKGROUPS INVOLVING A*STAR + A*STAR-LED TEAMS

The President's Certificate of Commendation recognises organisations, including departments and functional units that have gone the extra mile in the fight against COVID-19.

The President's Certificate of Commendation

- Advanced Remanufacturing and Technology Centre (ARTC)
- Airflow Study (involving A*STAR staff)
- Bioprocessing Technology Institute (BTI)
- Diagnostics Development Hub (DxD Hub)
- Singapore Institute of Manufacturing Technology (SIMTech)
- Stronghold Diagnostics Lab (SDL)

Advanced Remanufacturing and Technology Centre (ARTC)

The drawing of vaccination from the vial and subsequent dilution was an ardous step of vaccine preparation identified by nurses and vaccine administrators. To address this need, ARTC developed the Automated Vaccine Innoculation Dispenser (AVID) to perform the role of vaccine extraction. This relieved the nurses greatly from stress and fatigue at the peak of COVID-19 vaccination programme. The ARTC machines also expedited the process by removing manual labour and served well for redundancy preparations. The ARTC machines were warmly welcomed by the nurses and contributed substantively to the National Vaccination Programme.

Airflow Study

During the hospital's cluster in April/May 2021, NEA and A*STAR came forward to conduct air flow studies within the hospital wards. These studies helped the hospital to understand the general air flow patterns within the wards such that viable solutions could be put forth to help improve and enhance the safety of the wards. The studies were then shared at various platforms such as forums and seminars for knowledge sharing purposes. The Facilities team also shared this learning with other restructured hospitals as a practice of cross-learning and information sharing of best and adoptable practices.



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Bioprocessing Technology Institute (BTI)

As COVID-19 vaccines are a new class of therapeutics developed for emergency use, testing capabilities were not readily available and needed to be established expeditiously. This prompted the formation of a team comprising domain experts from BTI and HSA that were tasked to develop analytical assays for different vaccine product types and build up the talent pool to perform validated analytical test methods. The team worked long hours in the laboratory to optimise the test methods, overcome technical challenges and establish the assay platforms. All these activities were executed at an unprecedented pace. The team had pushed hard and ultimately achieved the targets under very tight timelines.

Diagnostics Development Hub (DxD Hub)

During the COVID-19 pandemic, DxD Hub developed the Resolute 2.0 PCR test kits, in partnership with DSO National laboratories, and the Bio Rapid Automated Volume Enhancer (BRAVE) system that works with Resolute. Resolute eliminated the need for RNA extraction from specimens, which in turn minimised potential human errors and shortened the results delivery time significantly. The BRAVE system automated some of the manual steps usually required in sample processing, thereby saving time, manpower and costs, while maintaining high accuracy and speed of testing, and protected laboratory staff from unnecessary exposure to biohazards.

Singapore Institute of Manufacturing Technology (SIMTech)

SIMTech partnered CMTG in its exploratory project to create and develop the Mendix Digitalised Tracking System, a customized vehicle tracking application designed to augment CMTG's conveyance operations. SIMTech staff listened attentively to the issues faced and were proactive and innovative in suggesting new ideas and solutions to meet CMTG's needs. Upholding a strong spirit of innovation, they leaned forward to support this initiative, providing quick and prompt adjustments whenever CMTG provided feedback on areas of improvement. Despite the numerous iterations and upgrading requirements of the app, their staff were always patient, understanding and remained firmly committed to the project. As a result of this collaborative effort with SIMTech's team of dedicated staff, Mendix was developed as an initial prototype to allow CMTG to monitor the conveyance process in real-time. This provided valuable oversight of conveyances and allowed CMTG to have greater awareness and responsiveness to unexpected situations.



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Stronghold Diagnostics Lab (SDL)

SDL was set up solely for the purpose of COVID-19 PCR testing to support the national pandemic management efforts. A*STAR responded in the early months of the COVID pandemic to set up a clinical laboratory that could process up to 13,000 PCR swabs a day. A*STAR spearheaded a tripartite partnership that included the National University Health System (NUHS) and Temasek Foundation, embarking on the mammoth task of creating a huge clinical laboratory, Stronghold Diagnostics Lab, from scratch. This included the procurement of the equipment, recruitment and training of staff, and optimizing the workflow from specimen receipt and result reporting in the COVID Testing Repository. During the two years of operation, over a million swabs were processed. At its peak, around four thousand swabs were processed daily. Stronghold Diagnostics Lab also contributed to the routine rostered testing of NUHS staff for several weeks. All of these efforts contributed immensely to maintaining the public health and safety of our country.



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(V) A*STAR AWARDEES

The Public Administration Medal (Gold)

Mr Frederick Chew CEO, A*STAR Chief, Public Sector Science and Technology Policy and Plans Office, Prime Minister's Office

The Public Administration Medal (Silver)

Prof Lim Keng Hui Assistant CEO, SERC **Prof Loh Xian Jun** ED, IMRE and ISCE

Dr Masafumi Inoue Lead Scientist, DxD Hub

Prof Lisa Ng ED, ID Labs ED (Talent & Strategic Initiatives), BMRC

Prof Tan Sze Wee Assistant CEO, Innovation & Enterprise

The Public Administration Medal (Bronze)

Dr Andre Choo ED, BMRC Deputy ED, BTI

Prof Alfred Huan Chief Scientific Advisor (National Platforms) Prof Damian O'Connell CEO, EDDC

Dr Kang Chang Wei Senior Scientist / Department Director, IHPC **Mr Jonathan Goh** Deputy Director, SIMTech

Prof Lam Kong Peng ED, SIgN

Dr Sidney Yee Advisor, Innovation & Enterprise

Dr David Low CEO, ARTC ED, SIMTech

Dr Sebastian Maurer-Stroh ED, BII



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Mr Philip Lim Chief Risk Officer, ERM Office Senior Director, Procurement

Prof Ng Huck Hui Assistant CEO, BMRC

Prof Laurent Renia A*STAR Senior Fellow, ID Labs Professor of Infectious Diseases, NTU

Dr Weng Ruifen Deputy CEO, DxD Hub

The Commendation Medal

Ms Adeline Sham Head, BMRC

Dr Davy Cheong Senior Scientist, IMRE

Dr Gurpreet Singh Senior Scientist, IBB **Prof Liu Jianjun** Distinguished Institute Fellow, GIS

Mr Ooi Yau Yen Principal Research Engineer , ARTC

Mr Suresh Sachi DCE (Corporate) General Counsel A*STAR

Dr Yang Yinping Senior Scientist / Group Manager, IHPC **Dr Jonathan Loh** Research Director, IMCB

Prof Ren Ee Chee Principal Investigator, SlgN

Prof Patrick Tan ED, GIS

Dr Ady Suwardi Scientist, IMRE

Ms Lisa Chong Deputy Director, Corporate Communications

Dr Joses Ho Senior Post-Doctoral Research Fellow, BII **Dr Anand Kumar Andiappan** Principal Investigator, SIgN

Dr Rick Goh Senior Scientist / Department Director, IHPC

Dr Huang Weimin Senior Scientist, I²R



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Mr Jong Teck Keong Deputy Director, Office of Safety, Facilities and Admin

Mr Lee Tze Chuen Research Manager, BII

Dr Liu Yong Senior Scientist / Deputy Department Director, IHPC

Dr Qu Zhengzhong Senior Scientist, DxD Hub

Dr Shalini d/o Suku Maran Former Head, BMRC

Dr Tan Hong Kiat Deputy Director, Innovation & Enterprise

Dr Xu Xiangguo Senior Scientist / Deputy Department Director, IHPC **Dr Lai Ghee Chuan** Head, Innovation & Enterprise

Ms Jolynn Leong Senior Research Engineer, ARTC

Ms Amanda Loo Deputy Director, ID Labs

Dr Rosa So Division Head, Healthcare & MedTech, I²R

Dr Shanshan Wu Howland Head (Immunogenomics Group), SIgN

Mr Thanawin Trakoolwilaiwan Senior Research Officer, IBB

Dr Yang Yiyan Covering ED, IBB **Ms Lee Duan Yu** Acting Director, Planning & Policy

Ms Melissa Lim Director, Procurement

Dr Ng Say Kong Principal Scientist, BTI

Dr Seow Yiqi Deputy Director, IBB

Dr Ivan Tan Senior Scientist, IMRE

Dr Wang Cheng-I Senior Principal Investigator, SlgN

Dr Yin Xiao Feng Senior Scientist / Innovation Lead, IHPC