

APPOINTMENT OF CHIEF EXECUTIVE OFFICER AND CHANGES TO BOARD MEMBERS AT AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH

- 1. The Ministry of Trade and Industry (MTI) today announced:
 - The appointment of Chief Executive Officer (CEO) for the Agency for Science, Technology and Research (A*STAR), and
 - Changes to A*STAR Board Members.

Appointment of CEO, A*STAR

- 2. Rear Admiral (RADM) Frederick Chew Chih Chiang, 43, will be appointed as CEO, A*STAR from 1 April 2019. RADM Chew is currently Deputy Secretary (Technology) at the Ministry of Defence a position he will continue to helm until the middle of the year.
- 3. Prior to his current appointment, RADM Chew held various key positions in MINDEF and the Singapore Armed Forces (SAF), including Director of Joint Operations, Commander Maritime Security Task Force and Head of Naval Plans. He has made many significant contributions in his various appointments. As Deputy Secretary (Technology) in MINDEF, RADM Chew was instrumental in optimising the Defence Technology ecosystem, in particular strengthening MINDEF's partnership with Industry. As Director of Joint Operations, RADM Chew strengthened operational planning, contingency responses and internal communications for the SAF. RADM Chew commanded the SAF Task Groups deployed to the Gulf of Aden under Operation Blue Sapphire in 2011 and 2012.
- 4. RADM Chew is currently a Board Member of the Defence Science & Technology Agency (DSTA) and DSO National Laboratories. He will also be appointed as a Board Member of A*STAR from 1 April 2019.

Role changes with the appointment of Non-Executive Chairman and CEO to A*STAR

- 5. MTI earlier announced that Ms Chan Lai Fung, Permanent Secretary (Education), will be appointed as Non-Executive Chairman, A*STAR on 1 April 2019. Ms Chan will steer A*STAR in charting its strategic direction and priorities under the national Research, Innovation and Enterprise (RIE) 2020 plan and guide the planning for RIE2025.
- 6. As CEO, RADM Chew will assume the executive leadership role and responsibilities of A*STAR. This includes formulating A*STAR's strategic goals, engaging key government and industry stakeholders, driving the implementation of A*STAR's strategies, initiatives and programmes, and building A*STAR's organisational capabilities.



7. Mr Loh Khum Yean, Permanent Secretary for MTI, said, "I would like to welcome Frederick into the MTI family. With their vast experience across diverse backgrounds, I am confident that Lai Fung and Frederick will be able to take A*STAR to greater heights and further its mission of advancing scientific discovery and technological innovation, to create economic growth and improve the lives of Singaporeans."

Changes to A*STAR Board Members

8. In addition to RADM Chew's appointment as a Board Member to A*STAR from 1 April 2019, there will also be other changes to the A*STAR Board which will take effect on 1 February 2019. The new and re-appointed Board Members are below:

Appointment of New Board Members

- RADM Frederick Chew Chih Chiang, Deputy Secretary (Technology), MINDEF (with effect 1 April 2019)
- Prof Stefan Catsicas, Science and Technology Strategy Advisor, Nestlé S.A
- Mr Anton S. Huber, Former Chief Executive Officer, Digital Factory Division, Siemens AG
- Dr Benjamin Koh Khay Wee, Deputy Secretary (Development), Ministry of Health

Re-appointment of Board Members

- Prof Isaac Ben-Israel, Chairman, Israel Space Agency
- Dr William Chin, Bertarelli Professor Emeritus of Translational Medical Science and Professor Emeritus of Medicine, Harvard Medical School
- Prof Chong Tow Chong, President and Acting Provost, Singapore University of Technology and Design
- Prof Barry Halliwell, Chairman, Biomedical Research Council (BMRC), Senior Advisor, Academic Appointments and Research Excellence, Office of the Senior Deputy President and Provost, and Tan Chin Tuan Centennial Professor, National University of Singapore
- Prof Lily Kong, President and Lee Kong Chian Chair Professor of Social Sciences, Singapore Management University
- Dr Omkaram Nalamasu, Senior Vice President and Chief Technology Officer, Applied Materials, and President, Applied Ventures LLC
- · Prof Sir Keith O'Nions, Chairman, Cambridge Enterprise Limited
- Prof Sir John O'Reilly, Chairman, Science and Engineering Research Council (SERC), and Chairman, NICC (Standards) Ltd
- Mr Yee Ping Yi, Deputy Secretary (Planning), Ministry of Finance



In Appreciation

- 9. The following Board Members have stepped down or will be stepping down upon the completion of their term:
 - Mr Bruce Brown, Retired Chief Technology Officer, Procter & Gamble
 - Dr William A. Hawkins III, Former Chairman and CEO Medtronic, Senior Advisor, EW Healthcare Partners
 - · Prof Siegfried Russwurm, Former Chief Technology Officer, Siemens AG
 - Ms Tan Li San, Deputy Secretary (Industry & Information), Ministry of Communications and Information
- 10. MTI would like to thank all the outgoing Board Members for their contributions and welcome the new Board Members to A*STAR.

(The write-ups of the new Board Members, and the full list of Board Members can be found in <u>Annex A</u> and <u>Annex B</u> respectively.)

MINISTRY OF TRADE	AND INDUSTRY
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For media queries, please contact:

Lim Woan Assistant Director, Corporate Communications Division Tel: 6332 8446

Email: Lim_Woan@mti.gov.sg



Annex A

New A*STAR Board Members



(with effect 1 April 2019)

RADM Frederick Chew Chih Chiang Chief Executive Officer, Agency for Science, Technology and Research

RADM Frederick Chew Chih Chiang is the Deputy Secretary (Technology) in MINDEF. A Naval Officer by vocation, he has held various command and staff appointments in the Ministry of Defence (MINDEF) and the Singapore Armed Forces (SAF). Some of his notable appointments include Commander of Maritime Security Task Force/Maritime Security Command (MSTF/MARSEC), Director of Joint Operations (DJO), and Deputy Secretary (Technology) (current appointment).

During his appointment as DJO, he oversaw the SAF's contributions to the Philippines during the Marawi crisis at the operational level. He also contributed to expanding MINDEF/SAF's defence policy space across a range of bilateral and multilateral engagements, including the Five Powers Defence Arrangement (FPDA).

As Commander of MSTF/MARSEC Command, he was responsible for 24/7 maritime security operations to safeguard Singapore's sovereignty and security.

RADM Chew graduated with a Masters of Engineering (First Class Honours) from the Imperial College of Science, Technology and Medicine. He holds a Master of Science in Management from Stanford University. RADM Chew is an SAF Overseas Scholar. He is also a recipient of the Lee Kuan Yew Scholarship and Fulbright Award.





Prof Stefan Catsicas Science and Technology Strategy Advisor Nestlé S.A

Professor Stefan Catsicas is a Swiss Citizen of Italian and Greek origin and has a background that spans academia and business. He obtained his PhD in Natural Sciences from the University of Lausanne, Switzerland and continued with post-doctoral studies on the principles of neuronal development at the Scripps Research Institute in San Diego, USA.

He started his career as the Head of Neurobiology at the Glaxo Institute for Molecular Biology in Geneva. Returning to academia, he joined the University of Lausanne as Professor and Chairman of the Cell Biology and Morphology Institute, and later as Vice-President Research and Professor of Cellular Engineering at the Swiss Federal Institute of Technology in Lausanne. He was also the Founder and President of Tilocor Life Sciences Sàrl.

In 2005, he co-founded a private group of biotechnology companies and his passion for education brought him back to academia in 2011 as Provost and Executive Vice President of the King Abdullah University of Science and Technology.

Professor Catsicas was appointed the Science and Technology Strategy Advisor of Nestlé S.A, effective 1 January 2018. Professor Catsicas was the Executive Vice President for Innovation, Technology and R&D, and Chief Technology Officer of Nestlé S.A, from 1 September 2013 until 31 December 2017. He was also the Chairman of Nestlé Institute of Health Sciences and a board member of Nestlé Health Science S.A., Nestlé Skin Health, and Nutrition-Wellness Venture AG until 31 December 2017. He is also an active board member for the Foundation Solar Impulse, Lausanne and Biomedical Research Council of A*STAR, Singapore. Since September 2015 he has been nominated member of the International Board of Governors of the New York Academy of Sciences, USA, and of the Industry Advisory Board of Swiss Innovation Park, Switzerland.





Mr Anton S. Huber Former Chief Executive Officer, Digital Factory Division Siemens AG

Anton S. Huber is a physicist by education and spent most of his career at Siemens serving in different positions in Germany and the United States. He has worked in executive positions in the industrial automation business over the last 15 years.. While in Siemens, he developed and implemented Siemen's digitalisation strategy for industry. His last position was CEO of the Digital Factory Division, which has an annual revenue of about 10 billion euros and employs 45,000 people.

Mr Huber retired from Siemens Sept. 30, 2016. He is now self-employed and advises companies on Industry 4.0 strategies and implementation.





Dr Benjamin Koh Khay Wee Deputy Secretary (Development) Ministry of Health

Dr Benjamin Koh is the Deputy Secretary (Development) in MOH. He oversees issues relating to infrastructure and manpower development for the healthcare sector in Singapore, as well as matters relating to ageing and eldercare.

Dr Koh obtained his medical degree from the National University of Singapore and a Master of Public Health from Harvard University. He has had previous experience handling communicable disease control, international health relations and health service development in the Ministry of Health (MOH).

He has also worked on enterprise and entrepreneurship development in the Ministry of Trade and Industry, and was the Senior Director in charge of service delivery and development in the Ministry of Social and Family Development. He was the Coordinating Divisional Director for Higher Education in the Ministry of Education, overseeing policies on higher education and academic research.



Annex B

A*STAR Board Members (as at 1 February 2019)

Chairman (Retiring 31 March 2019)

Mr Lim Chuan Poh Chairman Agency for Science, Technology and Research

Non-Executive Chairman (with effect 1 April 2019)

Ms Chan Lai Fung
Permanent Secretary (Education)
Ministry of Education

Members

RADM Frederick Chew Chih Chiang (with effect 1 April 2019) Chief Executive Officer Agency for Science, Technology and Research

Dr Raj Thampuran (stepping down from the Board on 31 March 2019) Managing Director

Agency for Science, Technology and Research

Prof Barry Halliwell

Chairman

Biomedical Research Council (BMRC), Agency for Science, Technology and Research

Senior Advisor, Academic Appointments and Research Excellence, Office of the Senior Deputy President and Provost, and Tan Chin Tuan Centennial Professor National University of Singapore

Prof Sir John O'Reilly

Chairman

Science and Engineering Research Council (SERC), Agency for Science,

Technology and Research

Chairman

NICC (Standards) Ltd

Prof Isaac Ben-Israel Chairman Israel Space Agency



Prof Stefan Catsicas Science and Technology Strategy Advisor Nestlé S.A

Dr William Chin Bertarelli Professor Emeritus of Translational Medical Science and Professor Emeritus of Medicine Harvard Medical School

Mr Chng Kai Fong Managing Director Economic Development Board

Prof Chong Tow Chong
President and Acting Provost
Singapore University of Technology and Design

Mr Anton S. Huber Former Chief Executive Officer, Digital Factory Division Siemens AG

Dr Benjamin Koh Khay Wee Deputy Secretary (Development) Ministry of Health (MOH)

Prof Lily Kong
President and Lee Kong Chian Chair Professor of Social Sciences
Singapore Management University

Dr Josephine Kwa Director Barghest Building Performance

Dr Omkaram Nalamasu Senior Vice President & Chief Technology Officer Applied Materials President, Applied Ventures LLC

Prof Sir Keith O'Nions Chairman Cambridge Enterprise Limited



Mr Quek Gim Pew Chief Defence Scientist Ministry of Defence

Prof Subra Suresh President Nanyang Technological University, Singapore

Prof Tan Eng Chye President National University of Singapore

Dr Tatsumi Yamazaki Distinguished Advisor Chugai Pharmaceutical Co., Ltd

Mr Yee Ping Yi Deputy Secretary (Planning) Ministry of Finance