

Singapore advances ASEAN COVID-19 research collaboration

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ASEAN had seen stronger Science, Technology and Innovation (STI) collaboration



Singapore Minister of State, Ministry of Trade and Industry Alvin Tan and Deputy Chief Executive (Research) of A*STAR Prof Andy Hor led the Singapore delegation at the 11th Informal ASEAN Ministerial Meeting on Science, Technology and Innovation (IAMMSTI-11), and the 79th ASEAN Committee on Science, Technology and Innovation (COSTI-79) and related meetings respectively.

Hosted by Thailand, both meetings took place from 15 to 17 June 2021. Meetings were held under the chairmanship of AMMSTI and COSTI to Thailand, with the former chaired by Thailand's Minister of Higher Education, Science, Research and Innovation, Prof. Dr. Anek Laothamatas.

ASEAN Member States reaffirmed their commitment to regional cooperation on science and technology and discussed proposals for research collaboration to boost ASEAN's capabilities in combating COVID-19 and future pandemics. The COSTI-79 and IAMMSTI-11 meetings were conducted in a hybrid format, onsite in Bangkok and attended virtually by ASEAN member states.

New COVID-19 Research Collaboration Proposals

Two COVID-19 research collaboration proposals, initiated by Singapore in 2020, during its chairmanship of COSTI, were officially endorsed at the COSTI-79 and IAMMSTI-11. Both proposals arose from the outcomes of the ASEAN COSTI Forum on COVID-19, initiated and organised by Singapore in October 2020. With the Forum's broad themes of Prevention, Detection, and Therapeutics. Member states shared their collective national experience in dealing with the pandemic and brainstormed ideas for regional cooperation in science and technology which could strengthen ASEAN's technological capabilities against COVID-19.

Singapore-Malaysia Collaboration: *Stepping Up ASEAN's Epidemic Preparedness with Genomic Surveillance*

IAMMSTI-11 and COSTI-79 endorsed a proposal on adding analysis value to genomic surveillance, co-led by Singapore and Malaysia through Singapore's Bioinformatics Institute (BII) and A*STAR Infectious Disease Labs (ID Labs), research institutes under the Agency for Science, Technology and Research (A*STAR), and Malaysia's Institute for Biotechnology (NIBM). The R&D partnership aims to provide accurate and up-to-date genomic information on virus strains detected in the region, leveraging the Global Initiative on Sharing All Influenza Data (GISAI) platform – an international data initiative for sharing of virus genomes, including the coronavirus causing COVID-19, to enable rapid and open access to virus information. This proposed partnership leverages existing biotechnology and bioinformatics capabilities in ASEAN and builds on top of existing national genome sequencing efforts.

The Philippines-Singapore Collaboration: *Tapping on ASEAN Research Networks to Investigate Immunity Against COVID-19 in Regional Populations.*

The Philippines and Singapore are co-leading a regional study to assess the levels of immunity within ASEAN communities at different stages, including before vaccination and the longevity of immunity conferred through vaccination. The study will look into the effectiveness of seroconversion of vaccines, which refers to the development of specific antibodies in the blood serum as a result of a COVID-19 infection or vaccination. This research partnership also taps on the networks fostered through the ASEAN Diagnostics (Dx) Initiative, expanding on the list of priority diseases and pivoting to help meet the challenges of the current pandemic.

ASEAN members states that have confirmed participation in the proposal are Indonesia's Eijkman Institute of Molecular Biology, Malaysia's University of Malaya, Faculty of Medicine, Thailand's King Chulalongkorn Memorial Hospital Bangkok and Vietnam's Oxford University Clinical Research Unit.

This is the first multi-country regional study on the serology response to vaccination. With multiple vaccines being deployed, coupled with the evolving variants of concern (VOCs), this study will potentially offer impactful insights for the scientific community, public health practitioners, government policymakers and industry involved in COVID-19.

Image Caption: *Zoom snapshot of the 11th Informal ASEAN Ministerial Meeting on Science, Technology and Innovation (IAMMSTI-11). Highlighted in yellow is Thailand's Minister of Higher Education, Science, Research and Innovation, Prof. Dr. Anek Laothamatas, who chaired the IAMMSTI-11 meeting. Pictured above Prof. Dr. Anek Laothamatas is Mr Alvin Tan, Minister of State, Ministry of Trade and Industry, Singapore.*