

Strengthening Southeast Asian Academia and Industry Biotechnology and Biomanufacturing Safety and Security - A Workshop

Committee

Mathew Lau

Chair

Mathew Lau is Director of Capability, Technology-Business and Projects at the Bioprocessing Technology Institute (BTI) of the Agency for Science, Technology and Research (A*STAR) in Singapore. His responsibilities include oversight of BTI's export control and confidentiality control programs, and he leads the Biomanufacturing Innovation Academy at BTI. Previously, he served as general manager for Southeast Asia and head of Asia Pacific Technical at Merieux NutriSciences and as chairperson of the Institutional Review Board at Nanyang Polytechnic in Singapore, where he also oversaw the research office and professional and continuing education programs. Lau earned his bachelor's and master's degrees from the National University of Singapore and his Ph.D. in molecular biology and microbiology from the University of New South Wales. He also conducted research at Harvard Medical School and Brigham and Women's Hospital.

(Mary) Stephanie Carranza

Member

Mary Stephanie Carranza is co-founder and managing director of BIOMATS PH, a Philippine biotechnology startup developing bioprinting technologies and biomaterials for biomedical research. She also serves as head of the Biomedical Research Unit at the Clinical and Translational Research Institute of The Medical City-Ortigas, where she leads translational biomedical research programs. Previously, she was laboratory manager at the Philippine Genome Center Protein, Proteomics, and Metabolomics Facility. Her research focuses on biomaterials, tissue engineering, metabolomics, and translational biomedical research, including the development of bioinks and three-dimensional cell culture systems. Carranza has received several honors, including the Leaders in Innovation Fellowship from the Royal Academy of Engineering and the Japan Student Services Organization Short-Stay Scholar Award. She earned a bachelor's degree in biochemistry from De La Salle University and is completing a master's degree in chemistry at the same institution. She also pursued graduate training in biomaterials at Osaka University as a Japanese government (MEXT) scholar.

De-Ming Chau

Member

De-Ming Chau is senior lecturer in the Department of Biomedical Sciences in the Faculty of Medicine and Health Sciences at Universiti Putra Malaysia. His expertise includes research integrity, safety, and security, with a focus on institutional and national policy. His research and training activities address responsible conduct of research, research data management, the ethical use of generative artificial intelligence in research, biosecurity, and dual-use research of concern. Chau serves on the National Committee on Research Integrity of Malaysia and on the Governing Board of the World Conference on Research Integrity Foundation. He co-founded the Young Scientists Network-Academy of Sciences Malaysia responsible conduct of research program and co-led the Southeast Asia Responsible Conduct of Research Project. Chau earned a bachelor's degree in biochemistry from the University of Wisconsin-Madison and a doctorate in pharmacology from Weill Cornell Graduate School of Medical Sciences.

Minh H. Nguyen

Member

Minh Hong Nguyen is a lecturer and researcher in biotechnology at Phenikaa University in Vietnam. Her work focuses on biosafety and applied microbiology, particularly microbial characterization and molecular detection of pathogenic microorganisms. She also studies the safe and regulated application of beneficial microbes to support food safety, environmental sustainability, and secure agricultural practices. She collaborates on international projects focused on biosafety standards, secure microbial applications, and sustainable bioproduction across Southeast Asia.

Wibool Piyawattanametha

Member

Wibool Piyawattanametha is head of the Advanced Imaging Research Center at King Mongkut's Institute of Technology Ladkrabang in Thailand and adjunct professor at Michigan State University. He is also chief executive officer and co-founder of DeepPap and DeepMam, medical artificial intelligence startups focused on imaging technologies for early cancer detection. His expertise includes research security leadership and advanced imaging technologies for clinical diagnostics. Piyawattanametha serves as a lead member of the Consortium for Research Security in Asia and has facilitated workshops on biological threats and semiconductor research security funded by the U.S. Department of State. He is a fellow of the International Science Council and SPIE, the international society for optics and photonics, and was named one of the World Economic Forum's "Top 40 Under 40 Young Scientists." He earned M.S. and Ph.D. degrees in electrical engineering from the University of California, Los Angeles. He previously served on a National Academies committee focused on engaging scientific networks in Southeast Asia to counter misinformation about biological threats.

Barbara A. Schaal

Member

Barbara Schaal is the Mary-Dell Chilton Distinguished Professor of Biology at Washington University in St. Louis. A plant evolutionary biologist, her research uses DNA sequence data to study evolutionary processes including gene flow, geographic differentiation, and crop domestication. At Washington University, she has served as chair of the Department of Biology, director of Tyson Research Center, and dean of Arts and Sciences. Schaal is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, and the American Philosophical Society, and served as vice president of the National Academy of Sciences for eight years. She was appointed a U.S. science envoy by former Secretary of State Hillary Clinton and served on the President's Council of Advisors on Science and Technology from 2009 to 2017. Schaal has also served as president of the Botanical Society of America, the Society for the Study of Evolution, and the American Association for the Advancement of Science. She received the National Science Board Public Service Award in 2019. Schaal earned a bachelor's degree from the University of Illinois Chicago and a Ph.D. from Yale University.

Sasitorn Srisawadi

Member

Sasitorn Srisawadi is research team leader at the National Metal and Materials Technology Center of Thailand's National Science and Technology Development Agency. Her research focuses on additive manufacturing, production process optimization, and composite material fabrication, including development of new three-dimensional printing processes for natural rubber and metal matrix composites. Srisawadi earned a bachelor's degree in industrial engineering from Chulalongkorn University and received M.S. and Ph.D. degrees from North Carolina State University with support from a Thai government scholarship. In addition to her research, she has extensive experience facilitating workshops and collaborative learning activities. She served as co-chair of the Thai Young Scientists Academy from 2019 to 2021 and was selected as a Young Leader Fellow at the 2019 Science and Technology in Society Forum and as a World Academy of Sciences Young Affiliate in 2020.

Kathleen M. Vogel

Member

Kathleen M. Vogel is professor in the School for the Future of Innovation in Society, associate dean for faculty in the Rob and Melani Walton College of Global Futures, and senior global futures scientist in the Julie Ann Wrigley Global Futures Laboratory at Arizona State University. She previously served as a William C. Foster Fellow in the Office of Proliferation Threat Reduction in the U.S. Department of State and as a visiting scholar at Sandia National Laboratories. Vogel's research examines the production of knowledge related to security and intelligence challenges, with expertise in dual-use research of concern, biosecurity threats involving state and non-state actors, and methods for integrating social and technical knowledge into biosecurity assessments. Vogel earned a Ph.D. in biophysical chemistry from Princeton University.

Nia D. Johnson

Staff Officer

Garrett Dunlap

Vice Chair

Garrett Dunlap is Associate Director of Policy and International Engagement at the Engineering Biology Research Consortium (EBRC), where he works to advance engagement with U.S. policymakers by highlighting the economic and societal value of biotechnology and shaping public policies that support the biotechnology community. Previously, he served as Head of Science and Innovation at the British Consulate-General in New York, fostering U.K.-U.S. science and technology collaborations. He also served as a Graduate Fellow at the Wilson Center, a Science Diplomacy Fellow with the Netherlands Innovation Network, and a Fellow for Ending Bioweapons with the Council on Strategic Risks. Dunlap earned a Ph.D. in biological and biomedical sciences from Harvard University and bachelor's degrees in biology and political science from Case Western Reserve University.