



Dr. Andy Tay

Fighting cancer with nanotechnology and biomaterials

Dr. Andy Tay is a Presidential Assistant Professor in the Department of Biomedical Engineering at the National University of Singapore. He received his PhD in Bioengineering from the University of California, Los Angeles, in 2017. He is a 2018 Forbes 30 Under 30 and 2020 World Economic Forum Young Scientist.

Dr. Tay's lab focuses on designing materials for multi-scale immun-engineering. He is collaborating with an international team of scientists from Asia Pacific to integrate cutting-edge technologies in nanofabrication, biomaterials, and bioinformatics to study and treat cancer metastases. Their project aims to better understand the tumor microenvironment to identify biomarkers critical to

metastases and build biological models to screen for anti-cancer therapeutics. International collaboration is crucial because cancer is a leading cause of deaths worldwide and the combined efforts of a multi-disciplinary team with unique scientific expertise is necessary to tackle this disease.

Funds from this Award will be used to facilitate lab exchanges for Dr. Tay to visit and learn scientific techniques from his collaborators and to share his nano-fabrication technology. During these visits, he also plans to present his work in seminars and conferences to broaden his scientific network, recruit outstanding international students for study in Singapore, and promote the value of international scientific collaboration that is highlighted by the Victor Rabinowitch Memorial Award for Young Leaders in International Scientific Cooperation.

Dr. Tay has been actively promoting international scientific communications and diversity through blogs, articles, and op-eds in various forums including a recent article in *Nature Index* where he discusses the importance of international science collaboration and diplomacy. His project exemplifies international scientific collaboration by integrating complementary, interdisciplinary work of rising-star, early-career scientists from multiple countries. In addition to being a highly acclaimed and published researcher, Dr. Tay is committed to making international scientific collaboration - a key aspect of the lifetime work of Victor Rabinowitch – one of his career priorities.