

Professor Luke Pyung-Se LEE
Tan Chin Tuan Centennial Professorship [Engineering]
From 4 January 2016

Director
Biomedical Institute of Global Healthcare Research and
Technology (BIGHEART) @ NUS

Associate President (International Research and
Innovation), Office of Deputy President (Research and
Technology), National University of Singapore



Professor Lee received both his BA and PhD from University of California Berkeley. He is the Arnold and Barbara Silverman Distinguished Professor at the Department of Bioengineering, UC Berkeley. He is also the Director of UC Berkeley's Biomedical Institute of Global Healthcare Research & Technology. Professor Lee is also a Fellow of the Royal Society of Chemistry and the American Institute of Medical and Biological Engineering (AIMBE).

Professor Lee is an internationally distinguished scientist in bionanoscience. His highly innovative and interdisciplinary work is having a tremendous impact on the broader research community worldwide, and he has become a leading scientist, inventor, and pacesetter in the field of bionanophotonics and microfluidic quantitative cell biology.

RESEARCH / STUDIES

With more than ten years of extensive R&D and industrial experience in integrated optoelectronics and superconducting electronics, Professor Lee's current research interests include quantum electron transfers in living organisms, molecular diagnostics of infectious and neurodegenerative diseases, and in vitro neurogenesis, with a focus both on studying fundamental quantum nanobiology and on solving ill-defined problems of global healthcare.

His work at the interface of biological, physical, and engineering sciences for medicine has been recognized by many honours that include the NSF Career Award and Fulbright Scholar Award. Professor Lee received the 2009 IEEE EMBS William J. Morlock Award for his extensive contribution to the field of BioMEMS and advanced tools for quantitative biology. In 2010, he received the Ho-Am Prize for his discovery of Plasmon Resonance Energy Transfer (PRET), the development of quantum nanobiophotonics for optical gene regulations and molecular imaging (Photonic RNA Switch and Gene Circuit).