An introduction to Excellent Center for Drug Discovery (ECDD), the drug screening platform in Thailand

Excellent Center for Drug Discovery (ECDD) was recently established in 2016 through collaboration between Faculties of Science and Faculty of Medicine Ramathibodi Hospital, Mahidol University and Thailand Center of Excellence for Life Sciences (TCELS). ECDD was setup as one of the most integrated and state-of-the-art platform for High-Throughput, High-Content Screening in Thailand and used to investigate effects of library of nucleotides (dsRNA, siRNA, shRNA), chemicals and natural compounds to discover potential drugs for important diseases associated with aging and infection and anti-cancer. There are two major objectives including (1) to discover drug candidates through screening of approved drugs, natural compounds, and synthetic molecules using induced pluripotent stem cells (iPS) or other cell-based models of human diseases; (2) to be a service center for standardized drug and toxicity screening. In addition, ECDD has prepared personnel and systems for compound management and multi-divisions for early drug development. ECDD opens for collaborative research and development with investigators from all sectors to lead and ensure the successful development of novel therapeutic innovations with high commercial promise to enhance the country’s competitiveness and place Thailand as a regional center for drug discovery.

Biography

Suparerk Borwornpinyo graduated from Chiangmai University with B.Sc. in Animal Science in 1995. He earned his M.Sc. in 2000 and Ph.D. in 2006 from North Carolina State University, Raleigh, USA in the area of specialization in the production of transgenic chickens to express bacterial β-galactosidase and the subsequent utilization of lactose as a feed stuff. During 2010-2011, he, as a visiting scientist, had been trained in cell and gene therapy for beta-thalassemia at the Institut des Maladies Emergentes et des Thérapies Innovantes, CEA de Fontenay aux Roses, France. He serves as a full-time lecturer in the Department of Biotechnology, Faculty of Science, Mahidol University and a scientific consultant in cell and gene therapy unit, Ramathibodi Hospital Research Center, Faculty of Medicine, Ramathibodi Hospital, Bangkok. In 2015, he led a group of scientists and physicians in the field of drug development to establish Excellent Center for Drug Discovery (ECDD) in the cooperation among TCELS, Faculty of Science and Faculty of Medicine, Ramathibodi Hospital, Mahidol University. Now, he serves as a Chief Operating Officer of ECDD.