An Introduction to Excellent Center for Drug Discovery (ECDD), Mahidol University, Thailand

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Excellent Center for Drug Discovery (ECDD) was recently established in the beginning of year 2015 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 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 enhance efficacy of gene and cell therapy for the treatment of genetic diseases such as thalassemia and to discover potential drugs for important diseases associated with aging and infection and anti-cancer. There are three major objectives of including (1) to develop procedures for effective gene and cell therapy; (2) 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; (3) to be a service center for drug screening. In addition, ECDD has prepared personnel and systems for compound management and multi-divisions for early drug development. ECDD opens 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 and gene therapy.