Dengue vaccine research and development in Thailand was pioneered at the Center for Vaccine Development of Mahidol University by the late Professor Natth Bhamarapravati in 1980. Thanks to his vision, Mahidol University has been recognised as one of the World Leaders in the development of a vaccine for dengue. For the past two decades the work by Professor Sutee Yoksan has built on Professor Bhamarapravati’s legacy and his successful interventions and breakthroughs. Attenuation attempts developed by scientists at Mahidol University have been generally accepted to be the best reliable dengue vaccines approach to protect children against wild type dengue viruses circulating in nature. The university has successfully licensed dengue vaccine candidates to several vaccine manufactures including Pasteur Merieux serum et vaccin (now Sanofi Pasteur), Kaketsuken of Japan and Serum Institute of India. At present the University is now aiming to establish dengue vaccine production capability in Thailand.

The field of dengue vaccine development is entering a new era. The application of molecular techniques to an analysis of disease-casing organisms coupled with a better understanding of the immune system are resulting in the development of a range of molecular dengue vaccines. The major goal of the article written by Prof. Usa Thissayakorn demonstrates the results of the phase III efficacy trials of the dengue vaccine produced by Sanofi Pasteur as conducted in both Asia and Latin America. The overall efficacy against all four dengue viruses was reported to be around 60%. It could lower the severity of the disease and revealed significant reduction in hospitalization. However, the vaccine is not recommended to be used in children younger than nine years old. The idea at present might be that the live attenuated dengue vaccines initiated by Professor Natth might be an answer in the immunization of children from 1-8 years of age.

In Memoriam -Professor Natth Bhamarapravati (1928-2004)

Professor Natth Bhamarapravati. The world’s first immunization of a tetravalent dengue vaccine in children, 1992