

GERMGUARD® Technology : A Successful Case of Research to Commercialization of Novel Medical Devices

Pitt Supaphol and Pongpol Ekabutr

The Petroleum and Petrochemical College (PPC) and The Center of Excellence on Petrochemical and Materials Technology (PETROMAT), Chulalongkorn University, Bangkok 10310, Thailand

Various medicinal benefits of diverse formulations of mangosteen pericarp and/or uniquely-selected herbal extracts, protected by nano-encapsulation technology, have made GERMGUARD® a novel technology that utilizes the benefits of the nature to fight against a broad-spectrum of pathogenic bacteria and, at the same time, nurture the lives of those affected by them. Numerous scientific evidences confirmed both the safety and the efficacy of formulations. As a result, medical products that have been powered by our GERMGUARD® technology are TRULY the first line of medical products in the world that utilizes the full benefits of selected herbal extracts that evidently help increase the quality of life of many patients in Thailand. The ready-to-use medical devices combined with GERMGUARD® technology, for example, anti-bacterial face mask/filters, wound dressings and coating formulation are already launched in the market. Due to the innovative nature of GERMGUARD® which has been awarded with the 2014 gold medal National Innovation Award from The National Innovation Agency of Thailand (NIA) and 6 international invention awards 2014-2017.

Corresponding author e-mail : pitt.s@chula.ac.th



Healing of an open wound on the belly of a baby affected with giant amphiloccele, a congenital birth defect, after 15 days of using GERMGUARD wound dressing.

Author Biography: (Should not contain more than 100 words.)

Professor Pitt SUPAPHOL has published about 250 publications in international journals, with +9500 citations and an *h*-index of 57. He received numerous awards both in the university and the national levels, e.g., 2002 Young Scientist Award, Foundation for the Promotion of Science and Technology under the Patronage of His Majesty the King; 2007 Outstanding Researcher Award, Chulalongkorn University; 2008 Researcher Receiving the Highest Citation Award, Chulalongkorn University; 2009 Outstanding Researcher Award (Chemical and Pharmaceutical Science), The National Research Council of Thailand (NRCT); 2014 Outstanding Teaching Award, Chulalongkorn University.

