

2013 SATU Joint Research Scheme Project Report – Project F	
Project Title	Medical Device Development Trends in Southeast Asia
NCKU PI / Co-PI	PI: Prof. Fong-Chin Su, Medical Device Innovation Center, NCKU Co-PI: Jimmy Kuan-Jung Li, Medical Device Innovation Center, NCKU
NCKU Host Unit	Medical Device Innovation Center
Foreign Co-PI and Institute	Prof. Chwee Teck Lim / National University of Singapore Prof. Noor Azuan Abu Osman / University of Malaya Prof. Yu Feng Zhou / Nanyang Technological University
Visiting date	2013/9/12~2013/9/14 ;2013/09/29~2013/10/01
<p>I. Objectives To develop innovative medical devices and activate the medical device industry.</p> <p>II. Collaborative Strategy The joint-collaborative teams are formed by the strong groups in the three universities on bio-medical team, robotics, actuation and control, etc. We will collaborate with Prof. Noor Azuan Abu Osman, Prof. Chwee Teck Lim and Prof. Yufeng Zhou on “Research and development in prosthetic biomechanics socket interface”, “Microfluidic Biochip Technologies for Cancer Detection & Diagnosis” and “Shock Wave/Low Intensity Pulsed Ultrasound (SW/LIPUS) in Treating Calcified Tendinitis”. To work together with the local hospitals and clinics, the joint team will study and propose a series of projects towards the design and development for subject-oriented and task-specific devices. Besides, we will try to collaborate with these three universities to develop medical devices on several topics such as biomechanics, biosensors, applications of microelectronics and electromagnetic therapy.</p> <p>III. Summary of Current Progress in Collaborative Research We are going to collaborate with Prof. Chwee Teck Lim on developing several effective microfluidic separation methods instead of the conventional methods of using antibodies, Prof. Noor Azuan Abu Osman on design and development of biomechanical system for normal and disable subjects and on development of novel noninvasive ultrasound device to treat calcific tendinitis Calcific tendinitis.</p> <p>IV. Future Perspectives Prof. Noor Azuan Abu Osman would like to set up manufacturing company in Malaysia. He will introduce Deputy Dean Faculty of Dentistry UM, Prof. Yati and Dental Surgeon, Prof Zamri on how to get into strategy. Besides, we plan to Promote the dental related</p>	

SATU Presidents' Forum

of Southeast and South Asia and Taiwan Universities
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technology-business, the faculty exchange and the collaborations between scientists and industries of both countries.	