

EDITORIAL

Translational Medicine Research

The theme Translational Medicine Research signifies the importance of effective collaboration between scientists and clinicians of various disciplines to bring knowledge developed and insight gained in the laboratories and clinics for the benefit of society. It also reflects the commitment of Institut Perubatan dan Pergigian Termaju (Advanced Medical and Dental Institute), Universiti Sains Malaysia in promoting and disseminating the current research updates and evidence-based findings through scholarly communication.

Translational medicine is a rapidly growing discipline in biomedical research with multi-faceted discipline. It aims to translate fundamental research into medical practice to improve human health via a bench to bedside approach. There are 7 review articles, 23 research articles and 5 case report included in this supplementary issue to cover all areas of translational research medicine with special emphasis on the three following categories;

Transfusion Medicine

Transfusion Medicine is a specialty in medicine that focuses on providing safe and effective blood transfusion and its component to the patients. It involved from blood collection until monitoring the patient after completed transfusion. To cater this need in our country, Institut Perubatan dan Pergigian Termaju (Advanced Medical and Dental Institute), Universiti Sains Malaysia with the collaboration of the Ministry of Health, Malaysia has taken the initiative to offer the Master of Medicine (MMed) in Transfusion Medicine program. This program has started since 2006 and is aimed to train the future medical specialist specifically in the area of transfusion medicine. The program is a four-year program which consisted of lectures, tutorials, laboratory practical, on-site clinical practice, and research modules. It is a unique and the only MMed program offered in South East Asia. Till 2018, there has been 49 Transfusion Medicine Specialist produced from this program who are currently working all over Malaysia. Amongst the research produced from the graduates include study in blood donors, blood component processing, transfusion microbiology, immunohaematology, stem cell therapy, cord blood banking, clinical transfusion as well as patient blood management. Some of these studies have been used as the reference to provide the national guidelines

for transfusion medicine practice in our country. As transfusion medicine is an evolving medical field, future studies will also be directed towards incorporation of the latest technology to provide safe transfusion.

Nuclear Medicine and Medical Imaging

Institut Perubatan dan Pergigian Termaju (Advanced Medical and Dental Institute) had initiated the Master of Medicine (MMed) in Nuclear Medicine in 2012. This is a discipline where it involves the use of radioactive materials to obtain clinical information such as metabolism, function, anatomy, physiology and pathophysiology to diagnose and treat certain diseases. The radiopharmaceutical handling techniques, physics, dosimetry and medical radiation protection are also included in the measure of learning. To date, 37 nuclear medicine physicians have graduated from this program and currently serving various hospitals in Malaysia. Extensive research projects have been carried out focusing on the clinical cases in conjunction with medical physics and dosimetry. The research topics cover various aspects of diagnostic and therapeutic nuclear medicine including thyroid, bone, renal, nuclear cardiology, various types of cancer, infections and others. The use of sophisticated machines such as SPECT-CT and PET-CT assists in producing a good quality of research outcomes.

Applied Health Sciences

From its establishment in 2002, Institut Perubatan dan Pergigian Termaju (Advanced Medical and Dental Institute) has been committed in the prevention and cure of diseases as well as promoting health and well-being of communities by engaging in numerous applied health sciences research. Clusters have been set up in IPPT to spearhead the academic and research activities in the area of Lifestyle Sciences, Oncological & Radiological Sciences, Regenerative Medicine, Infectomics, Integrative Medicine and Craniofacial & Biomaterial Sciences. This supplementary issue highlights the extensive research projects carried out within the Applied Health Sciences section.

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