

MALAYSIAN JOURNAL OF
Medicine and Health Sciences
Vol. 21 SUPP 11, November 2025

MALAYSIAN JOURNAL OF

Medicine and Health Sciences

Vol. 21 SUPP 11 / November 2025

“2nd International Conference on
Biomedical Engineering & Health
Sciences 2024
(2nd ICBMEHS 2024)”

Malaysian Journal of Medicine and Health Sciences Vol. 21 SUPP 11, November 2025



Faculty of Medicine and Health Sciences
Universiti Putra Malaysia
43400 UPM Serdang
Selangor Darul Ehsan
Malaysia
<http://medic.upm.edu.my/>

UPM Press
Universiti Putra Malaysia
43400 UPM Serdang
Selangor Darul Ehsan
Malaysia
<http://penerbit.upm.edu.my>

PENERBIT
UPM
UNIVERSITI PUTRA MALAYSIA
PRESS



A scientific journal published by Universiti Putra Malaysia Press

The Malaysian Journal of Medicine and Health Sciences (MJMHS) is published by the Faculty of Medicine and Health Sciences, Universiti Putra Malaysia. The main aim of the MJMHS is to be a premier journal on all aspects of medicine and health sciences in Malaysia and internationally. The focus of the MJMHS will be on results of original scientific research and development, emerging

Editorial Board

Editor in Chief:

Prof. Dr. Rukman Awang Hamat

Coordinator:

Dr. Tan Kit Aun

Members:

Prof. Dr. Normala Ibrahim

Prof. Dr. Christopher Lim Thiam Seon

Prof. Dr. Ching Siew Mooi

Prof. Dr. Sharmili Vidyadaran

Prof. Dr. Loh Su Peng

Prof. Dr. Ling King Hwa

Prof. Dr. Andee Dzulkarnaen Zakaria

Prof. Dr. Sethu Thakachy Subha

Prof. Dr. Pike-See Cheah

Assoc. Prof. Dr. Rajesh Ramasamy

Assoc. Prof. Dr. Nor Afiah Mohd Zulkefli

Assoc. Prof. Dr. Wan Aliaa Wan Sulaiman

Assoc. Prof. Dr. Habibah Abdul Hamid

Assoc. Prof. Dr. Zubaidah Nor Hanipah

Assoc. Prof. Dr. Intan Hakimah Ismail

Assoc. Prof. Dr. Ho Yu Bin

Assoc. Prof. Dr. Karmegam Karuppiyah

Assoc. Prof. Dr. Sarva Mangala Praveena

Assoc. Prof. Dr. Roslaini Bin Abd. Majid

Assoc. Prof. Dr. Ashley Edward Roy A/L Soosay

Assoc. Prof. Dr. Subashini Chellappah Thambiah

Assoc. Prof. Dr. Sanjiv Rampal A/L Datuk

Lekhraj Rampal

Dr. Navin Kumar A/L Devaraj

Dr. Razif Abas@Buang

Dr. Sandra Maniam

Dr. Ruziana Masiran

Dr. Manraj Singh Cheema

Dr. Amilia Afzan Binti Mohd Jamil

Dr. Azlina Binti Yusuf

Dr. Fahisham Taib

Dr. Lau Su Yin

Madam Shalin Lee Wan Fei

Lead Guest Editor:

Dr Raimi Bin Dewan@ Abdul
Rahman

Head of Committee:

Dr Siti Ruzita Binti Mahmod

Assoc. Prof. Ir. Dr Maheza Irna

Mohamad Salim

Dr Nurizzati Mohd Daud

International Editorial Member

Prof. Dr. Hendrik Setia Budi

Assoc. Prof. Dr. Bipin T Varghese

International Advisory Board

Prof. Dr. Cecilia A. Essau

Prof. Dr. David Brendan Price Prof. Dr.

S Suresh Kumar Assoc. Prof. Dr. Sean

Semple Dr. Martin Wong Chi Sang