

MALAYSIAN JOURNAL OF  
Medicine and Health Sciences  
Vol. 18 SUPP5 Apr 2022  
Supplementary Issue:  
"Environmental and Occupational  
Health Challenges"

MALAYSIAN JOURNAL OF

# Medicine and Health Sciences

Vol. 18 SUPP5 / Apr 2022

*Supplementary Issue:  
"Environmental and  
Occupational Health  
Challenges"*

Malaysian Journal of Medicine and Health Sciences Vol. 18 SUPP5, Apr 2022



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  
P R E S S



A scientific journal published by Universiti Putra Malaysia Press

## About the Journal

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 issues and policy analyses pertaining to medical, biomedical and clinical sciences. The Malaysian Journal of Medicine and Health Sciences is now indexed in the following data bases: Scopus, EBSCOhost, ISC, and Rubriq.

## Editorial Board

Editor in Chief:

Prof. Dr. Normala Ibrahim

Members:

Prof. Dr. Rukman Awang Hamat

Prof. Dr. Christopher Lim Thiam Seong

Prof. Dr. Ching Siew Mooi

Prof. Dr. Sharmili Vidyadaran

Assoc. Prof. Dr. Rajesh Ramasamy Assoc.

Prof. Dr. Sethu Thakachy Subha Assoc.

Prof. Dr. Loh Su Peng

Assoc. Prof. Dr. Nor Afiah Mohd Zulkefli

Assoc. Prof. Dr. Wan Aliaa Wan Sulaiman

Assoc. Prof. Dr. Ling King Hwa

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 Karuppiah

Assoc. Prof. Dr. Subapriya Suppiah

Associate Editor:

Dr. Razif Abas@Buang

Lead Guest Editor:

Assoc.Prof. Dr Sarva Mangala Praveena

Guest Editors:

Prof. Dr. Juliana Jalaludin

Assoc. Prof. Dr Irniza Rasdi

Technical Coordinator:

Dr. Tan Kit Aun

Dr. Manraj Singh Cheema

## International Advisory Board

Prof. Dr. Pierce Anthony Grace

Prof. Dr. David Isaacs

Prof. Dr. P. Ronan O'Connell

Prof. Dr. Graham Alexander Mc Gregor

Prof. Dr. Tan Ser Kiat

Prof. Dr. Gregory Y.H. Lip

Prof. Dr. Roger Pepperell