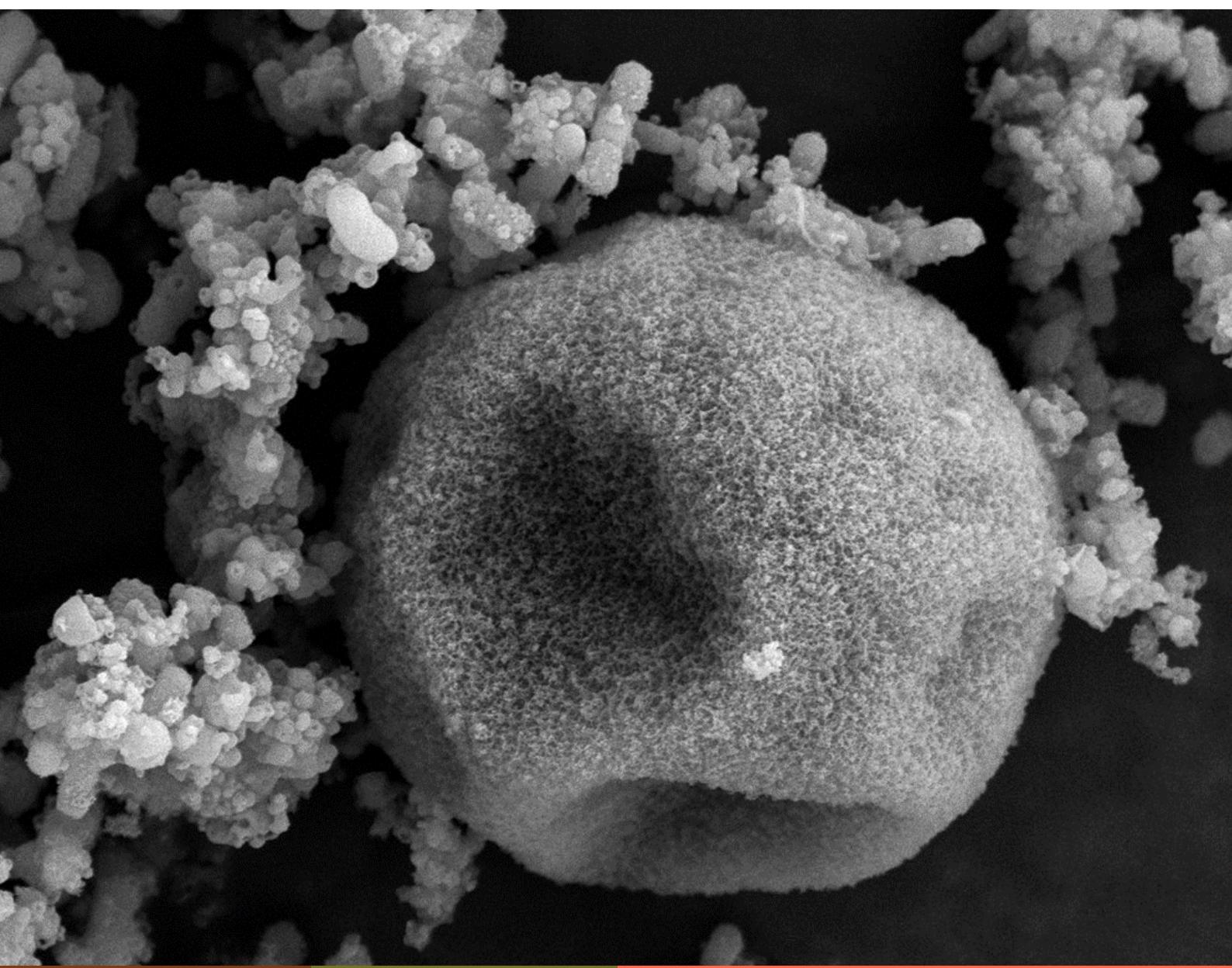


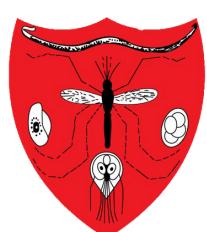
Tropical Biomedicine



VOL. 39

NO. 1

MARCH 2022



MALAYSIAN SOCIETY OF
PARASITOLOGY AND TROPICAL MEDICINE

Tropical Biomedicine

Official organ of the Malaysian Society of Parasitology and Tropical Medicine

Editor in Chief

Chandrawathani Panchadcharam, DVM, PhD

Associate Editor

Low Van Lun, PhD

Journal Production Team

Chen Chee Dhang, PhD (Managing Editor)
Chang Kum Wah, MSc
Victoria Foo

Editorial Management Team

Tan Tiong Kai, PhD (Managing Editor)
Lau Koon Weng, PhD
Premalatha Bathmanaban

Editorial Board

Adela Ida Jiram, MMedSc
Adzzie Shazleen Azman, PhD
Banchob Sripa, PhD
Chandramathi Samudi Raju, PhD
Cheong Fei Wen, PhD
David Lee Kim Sung, PhD
Heo Chong Chin, PhD
Indra Vythilingam, PhD
Hiroshi Yamasaki, PhD
Khairul Anuar Abdullah, PhD

Lee Han Lim, PhD
Lydia R. Leonardo, DRPH
Mak Joon Wah, MBBS, PhD
Nurhafiza Zainal, PhD
Ooi Hong Kean, DVM, PhD
Pairot Pramual, PhD
Petrus Tang, PhD
Pollie LM Rueda, PhD
Rahmah Noordin, PhD
Ravichandran Manickam, PhD

Reuben Sharma, DVM, PhD
Sam Mohan, DVM, MSc
Seleena Benjamin, MSc
Sinniah Barathan, PhD
Siti Nursheena Mohd Zain, PhD
Stephen Ambu, PhD
Tan Kim Kee, PhD
Veeranoot Nissapatorn, MBBS

Information for Subscribers

- Tropical Biomedicine is now issued quarterly – March, June, September and December.
- For manuscript submission, please visit <https://msptm.org/journal/>
- Correspondence concerning manuscripts of articles for publication should be sent to the Editor of Tropical Biomedicine by email: editor.msptm@gmail.com
- Correspondence concerning production of galley proof and payment of page charges should be sent to the production team of Tropical Biomedicine by email: production.msptm@gmail.com
- The journal, Tropical Biomedicine, is free and is available online in the MSPTM website (www.msptm.org)

Cover Illustration

Artwork presented by Ms. Adedolapo Aminat Rauff-Adedotun, Universiti Sains Malaysia

"*Blastocystis* sp., a century-long enigma"

This image shows the scanning electron micrograph of *Blastocystis* sp. isolated from Malaysian quail birds. *Blastocystis* is a ubiquitous intestinal unicellular protist of human and several other animals. This isolate is spherical, with a dimpled and fibrous spongy cell surface. Bacteria colonies are seen attached to the cell surface. The speciation of *Blastocystis* and its role in host gut health and disease is still unclear. Understanding the ultrastructure of *Blastocystis* may aid in the deciphering of *Blastocystis* biology.

59th MSPTM COUNCIL MEMBER 2021/2022

President

Dr. Chen Chee Dhang

Vice President

Dr. Lucas Low Van Lun

Past President

Dr. Sam Mohan Aruputham

Hon. Secretary

Dr. Lee Li Li

Hon. Treasurer

Mrs. Roziah Ali

Council Members

Dr. Mehru Nisha
Dr. Stanley Tan Tiong Kai
Dr. Nor Azlina Abdul Aziz
Dr. Azdayanti Muslim
Dr. Paul Cliff Simon Divis
Dr. Intan Haslina Binti Ishak
Mrs. Rosilawati Rasli
Assoc. Prof. Dr. Juriah Binti Kamaludeen

Tropical Biomedicine Copyright Notice

© Malaysian Society of Parasitology and Tropical Medicine 2022. *Tropical Biomedicine* is a gold open access journal. Articles published are licensed under a Creative Commons Attribution Non-commercial 4.0 International License ([CC BY-NC 4.0](https://creativecommons.org/licenses/by-nc/4.0/)) and are freely available to download, save, reproduce, and transmit strictly for non-commercial, scholarly, and educational purposes only. Reproduction and transmission of content for the above purposes are permitted with the condition that the author(s) and all original sources are duly credited. Permission must be obtained from the [Malaysian Society of Parasitology and Tropical Medicine](http://www.msptm.org) prior to the use, reproduction, or distribution of content for commercial purposes.

TROPICAL BIOMEDICINE

VOL. 39, NO. 1

Larval trematodes hosted by <i>Biomphalaria straminea</i> in the Brazilian semiarid region: implications for schistosomiasis control Sousa, D.G.S., Carvalho-Costa, F.A., Monteiro, K.J.L., Silva, E.L., Castro, E.S., Sousa, R.L.T. and Moraes Neto, A.H.A.	1
<i>In-vitro</i> activity of β -lactams/trimethoprim-sulfamethoxazole combinations against different strains of <i>Burkholderia pseudomallei</i> Mohamad, N.I., Harun, A., Hasan, H. and Deris, Z.Z.	11
Antibacterial activity of plant essential oils against indigenously characterized methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) Ali, T., Anjum, A.A., Sattar, M.M.K., Ali, M.A., Kamran, M., Tariq, M. and Manzoor, R.	17
Feline platynosomiasis in Klang Valley, Malaysia: Diagnosis, pathology and management Nur-Amalina, N., Watanabe, M., Mazlina, M., Che-Amat, A. and Nor-Azrina, A.A.	26
Potentiality of curcumin on ISHAK scoring system and the expressions of BAX, IL-17A, and EGF in the treatment of <i>Schistosoma mansoni</i> infection using Swiss albino mice El Saftawy, E.A., El-Dardiry, M.A., Abd-Elaal, A.A., Negm, M.S.I. and Amin, N.M.	36
Antibody response of sheep to simultaneous vaccination of foot-and-mouth disease, peste des petits ruminants, sheep pox and goat pox, and bluetongue vaccines Sareyyüpoğlu, B., Gülyaz, G., Sarac, F., Uzar, S., Kabaklı, Ö., Çokçalışkan, C., Gündüzalp, C., Uzun, E.A. and Camli, O.	47
A new record of <i>Rickettsia japonica</i> in ticks infesting a Burmese ferret-badger in Thailand Hirunkanokpun, S., Ahantarig, A., Baimai, V., Pramual, P. and Trinachartvanit, W.	55
Description of the male of <i>Simulium triglobus</i> Takaoka & Kuvangkadilok (Diptera: Simuliidae) from Thailand Pramual, P., Jomkumsing, P., Tangkawanit, U., Wongpakam, K., Bunchom, N. and Takaoka, H.	60
Genetic diversity of Duffy binding protein 2 region II of <i>Plasmodium cynomolgi</i> from wild macaques in Peninsular Malaysia Latif, E.N.M., Shahari, S., Amir, A., Cheong, F.W., Lau, Y.L., Abdullah, M.L. and Fong, M.Y.	66
Natural infection of <i>Blastocystis</i> ST6 among commercial quails (<i>Coturnix coturnix</i>) in Penang, Malaysia Rauff-Adedotun, A.A., Douglas, S.J., Rajamanikam, A., Amira Suriyat, Y. and Farah Haziqah, M.T.	73
Descriptions of adults of <i>Simulium (Gomphostilbia) sachini</i> Takaoka & Henry and <i>S. (G.) willie</i> Takaoka & Thapa in the <i>S. (G.) gombakense</i> species-group (Diptera: Simuliidae) from India Takaoka, H., Thapa, S., Chettri, S. and Henry, W.	78
Imported case of <i>Leishmania tropica</i> cutaneous leishmaniasis in a 10-year-old child in Malaysia Tan, T.K., Yap, N.J., Leong, K.F., Teh, C.S., Tay, S.T. and Lim, Y.A.L.	86
Prevalence of Epstein-Barr virus infection in individuals with nasopharyngeal carcinoma in Malaysia: The first systematic review and meta-analysis Engku Abd Rahman, E.N.S., Irekeola, A.A., Shueb, R.H., Mohamud, R., Mat Lazim, N., Abdullah, B. and Chan, Y.Y.	89

Potential effect of methanol leaf extracts from three <i>Podocarpus</i> species on experimental cryptosporidiosis El-Hawary, S.S., Kirolos, F.N., Taha, K.F., Dahab, A.A., El-Mahis, A.A. and El-Sayed, S.H.	99
<i>Cryptosporidium</i> species in HIV patients in Alexandria, Egypt: distribution and associated clinical findings Mohamed, M.A., Hammam, H.M., El-Taweel, H.A. and Abd El-latif, N.F.	108
Hematological and histopathological changes of rat's hearts experimentally infected with protoscoleces Alsaadawi, M.A., Al-Safar, A.H., Al-Yasari, A.M., Hussein, H.M., Allawi, A.H., Alsalih, N.J. and Kalef, D.A.	117
The association of ABO and Rhesus blood type with the risks of developing SARS-CoV-2 infection: A meta-analysis Soo, K-M., Chung, K.M., Mohd Azlan, M.A.A., Lam, J.Y., Ren, J.W.X., Arvind, J.J., Wong Y.P., Chee, H.Y. and Amin-Nordin, S.	126
A conventional multiplex PCR for the detection of four common soil-transmitted nematodes in human feces: development and validation Hassan, N.A., Noor Badi, F.A., Mohd-Shaharuddin, N., Wan Yusoff, W.S., Lim, Y.A.L., Chua, K.H., Sidi Omar, S.F.N., Chang, L.Y., Majid, H.A. and Ngui, R.	135
Efficacy of <i>Plasmodium falciparum</i> histidine-rich protein 2 (<i>Pfhrp</i> 2) rapid diagnostic test (RDT) and microscopy in the detection of falciparum malaria among symptomatic patients in Akure, Nigeria Awosolu, O.B., Yahaya, Z.S. and Farah Haziqah, M.T.	144
Emergence of resistance genes in fecal samples of antibiotic-treated Philippine broilers emphasizes the need to review local farming practices Imperial, I.C., Pabustan, P.M., Valencia, K.A., Nicdao, M.A. and Ibana, J.	150