

BMHRC

BULLETIN

Vol. 5 | 2022



**BORNEO MEDICAL AND HEALTH RESEARCH CENTRE
FACULTY OF MEDICINE AND HEALTH SCIENCES
UNIVERSITI MALAYSIA SABAH**

Editorial Board



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Prof. Dr. Kamruddin Ahmed



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Ms. Noraini Philip



Ms. Azalina Farina Abd Aziz

Note from the editor

2022 was the year of COVID-19 recovery, where lockdowns were eased, travel bans were lifted and students started returning to in-person classes. Scientific research worldwide has indeed been affected by the pandemic but the recovery period sees opportunities coming back. In 2022, BMHRC has been presented with exciting collaborations with well-established national and international research partners. With these strategic collaborations, new projects are being carried out, bringing the Centre to greater heights. 2023 will surely be an interesting year for BMHRC. I hope you enjoy this issue of the bulletin. Feel free to connect with us.

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Published Papers

In 2022, BMHRC has successfully published 16 papers, an increase of six papers from the previous year. Hopefully, more papers will be published in the coming years.

No	Authors	Title	Journal
1.	Mori, D., John, J.L., Sabri, S.I., Shaharom, S.M., Iha, H., Yamaoka, Y., Matsumoto, T., & Ahmed, K	Seroepidemiological survey of the prevalence of <i>Helicobacter pylori</i> infection in Sabah, Malaysia	IJID Regions
2.	Ngwe Tun, M.M., Mori, D., Sabri, S.B., Kugan, O., Shaharom, S.B., John, J., Soe, A.M., Nwe, K.M., Dony, J.F., Inoue, S., Morita, K., & Ahmed, K	Serological evidence of Zika virus infection in febrile patients and healthy blood donors in Sabah, Malaysian Borneo, 2017–2018	The American Journal of Tropical Medicine and Hygiene
3.	Naserrudin, N.A., Hod, R., Jeffree, M.S., Ahmed, K., & Hassan, M.R.	Expert consensus on a proposed study framework to explore factors influencing <i>Plasmodium knowlesi</i> malaria preventive behavior: A Modified Delphi Method Protocol	International Journal of Environmental Research and Public Health
4.	Naserrudin, N.A., Monroe, A., Culleton, R., Hod, R., Jeffree, M.S., Ahmed, K., & Hassan, M.R.	Reimagining zoonotic malaria control in communities exposed to <i>Plasmodium knowlesi</i> infection	Journal of Physiological Anthropology
5.	Naserrudin, N.A., Hod, R., Jeffree, M.S., Ahmed, K., & Hassan, M.R.	The emerging threat of <i>Plasmodium knowlesi</i> malaria infection: A concept paper on the vulnerable factors in human	International Journal of Environmental Research and Public Health
6.	Naserrudin, N.A., Hod, R., Jeffree, M. S., Ahmed, K., Culleton, R., & Hassan, M.R.	The role of human behavior in <i>Plasmodium knowlesi</i> malaria infection: A systematic review	International Journal of Environmental Research and Public Health
7.	Hossain Parash, M.T., Rahman, M.M., Naushaba, H., Haque, S., & Shimmi, S. C.	Simple linear regression approach for evaluating models to estimate stature based on upper limb dimensions of adult Bangladeshi males	Egyptian Journal of Forensic Sciences
8.	Puah, P.Y., Lee, D.J., Puah, S.H., Lah, N.A., Ling, Y.S., & Fong, S.Y.	High-throughput metabolomics reveals dysregulation of hydrophobic metabolomes in cancer cell lines by <i>Eleusine indica</i>	Scientific Reports
9.	Fong, S.Y., Mori, D., John, J.L., Giloi, N., Jeffree, M.S., & Ahmed, K.	MUMPS outbreak in university students: First detection of MUMPS virus genotype F in Borneo	Tropical Medicine and Health
10.	Haron, N.A., Rahim, S.S., Jani, J., Yusof, N.A., Amin, Z., Khoo, H.Y., Lee, H.Y., Khor, C.S., Tan, K.K., Hassan, M.R., Wong, C.M., Agustar, H.K., Samsusah, A.A., Hod, R., & Bakar, S.A.	Data of knowledge towards Zika virus infection in Sabah, Malaysia.	Data in Brief

11.	Chin, G.J., Law, S.V., Rodrigues, K.F., Jani, J., & Anton, A.	Dataset of genome sequence, de novo assembly, and functional annotation of <i>Ruegeria</i> sp. (PBVC088), a marine bacterium associated with the toxin-producing harmful dinoflagellate, <i>Pyrodinium bahamense</i> var. <i>Compressum</i>	Data in Brief
12.	Mustapha, Z.A., Jani, J., Stanis, C.S., Abdull Majid, D.S., Ling, C.K., Teo, R., & Ahmed, K.	Whole-genome sequencing of streptomycin-resistant <i>Mycobacterium tuberculosis</i> strain SBH145 from Sabah, Malaysia	Microbiology Resource Announcements
13.	Said, I., Kouakou, Y.I., Omorou, R., Bienvenu, A.L., Ahmed, K., Culleton, R., & Picot, S.	Systematic review of <i>Plasmodium knowlesi</i> in Indonesia: A risk of emergence in the context of capital relocation to Borneo.	Parasites & Vectors
14.	Naserrudin, N.A., Hassan, M.R., Jeffree, M.S., Culleton, R., Hod, R., & Ahmed, K.	A systematic review of asymptomatic <i>Plasmodium knowlesi</i> infection: an emerging challenge involving an emerging infectious disease	Malaria Journal
15.	Sugumaran, R., Padam, B.S., Yong, W.T.L., Saallah, S., Ahmed, K., & Yusof, N.A.	A retrospective review of global commercial seaweed production – current challenges, biosecurity and mitigation measures and prospects	International Journal of Environment Research and Public Health
16.	Lim, K.J., John, J.L., Rahim, S.S.S.A., Avoi, R., Hassan, M.R., Jeffree, M.S., Ibrahim, M.Y., & Ahmed, K.	A 1-year cross-sectional study on the predominance of influenza among hospitalized children in a tropical area, Kota Kinabalu, Sabah	Journal of Physiological Anthropology



Seminar

BMHRC SEMINAR SERIES 1/2022

BMHRC has successfully organised a face to face seminar after a year of conducting virtual seminars due to pandemic COVID-19. The first on-site seminar conducted in 2022 was on leveraging earth observation data to characterise infectious disease dynamic: tracking the emergence of zoonotic Malaria in Sabah presented by Dr. Kimberly Fornace.

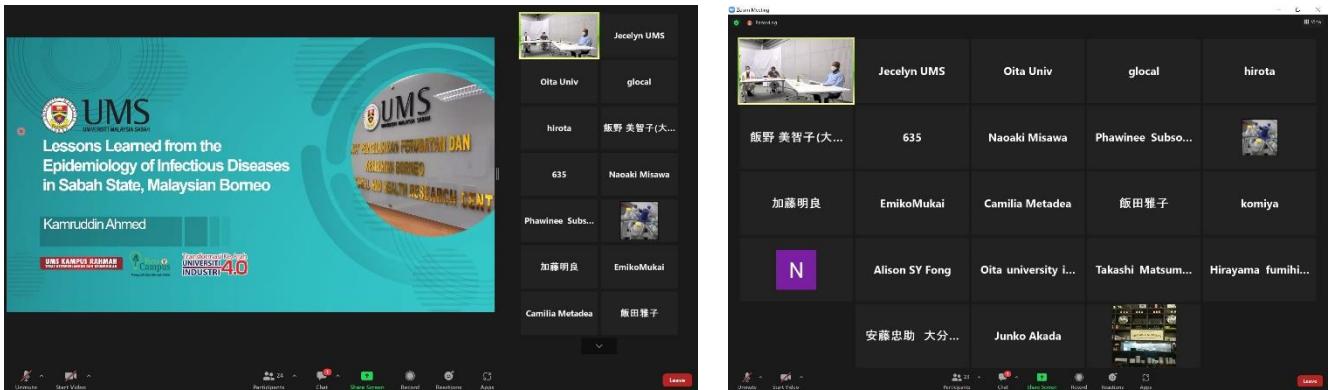


How to improve cell culture success?

On the 5th of August 2022, we co-organised a talk with ACCVA Solutions Sdn. Bhd. on ways to maximise cell culture success with advanced technologies. The talk was given by a representative from Thermo Scientific, Singapore and was attended by staff and postgraduate candidates working with different types of cell cultures.



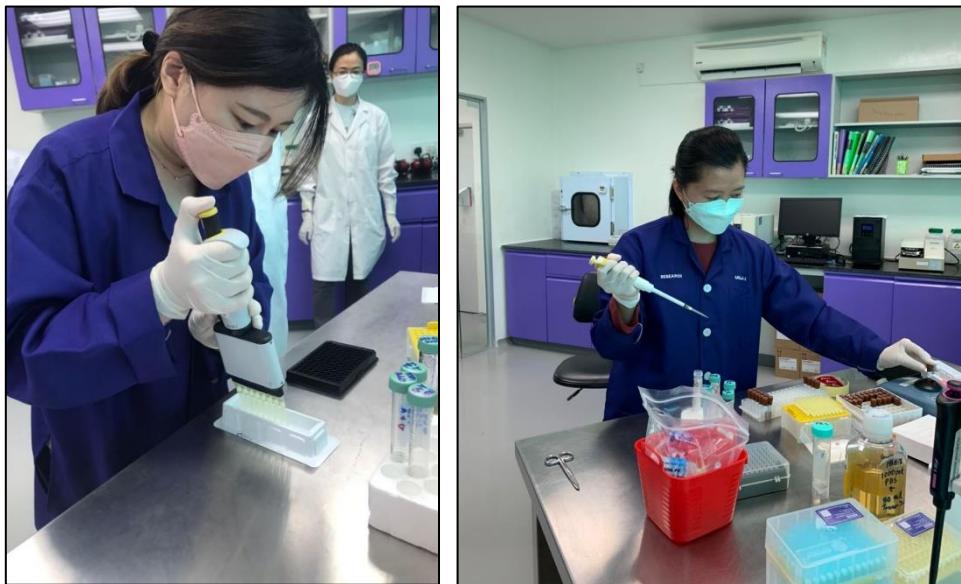
Online seminar in collaboration with Oita University



As part of the UMS-Oita University MoA agreement, both institutions successfully organised an online seminar titled "*Lesson learned from the epidemiology of infectious disease in Sabah state, Malaysian Borneo*" on the 11th of August 2022, presented by Prof. Dr. Kamruddin Ahmed. This sharing session was attended by staff and postgraduate students from Oita University.

Training

Luminex & Bioinformatic Training supported by
EcoHealth Alliance (EHA)



As part of UMS-EcoHealth Alliance (EHA) MoU agreement, EHA supported two staff from BMHRC (Dr. Fong Siat Yee @ Alison and Ms. Jecelyn John) to attend the Bio-Plex and bioinformatic trainings on the 21st to 25th of March 2022 at PERHILITAN, Kuala Lumpur, and 26th to 28th of April 2022 at Le Meridien Hotel, Kota Kinabalu, respectively.

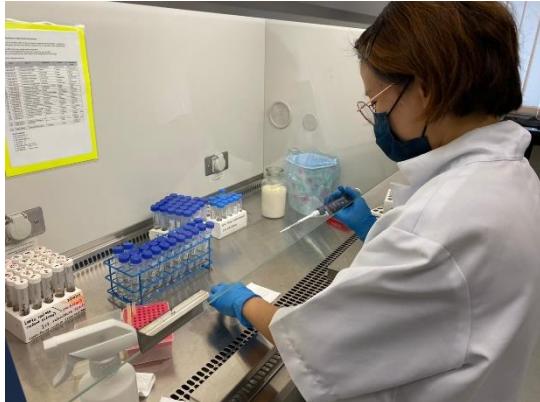
During the Bio-Plex training, participants were introduced to the Bio-Plex technology and its application, operating the machine and performing data analysis using Excel. Afterwards during the bioinformatics training, participants were taught how to analyse the data obtained from the Bio-Plex training using R.



Leptospirosis Lab



In 2022, BMHRC reached another milestone, where a new laboratory, The Leptospirosis Lab, has been established. This adds to the number of research laboratories in BMHRC, totalling to nine laboratories. Leptospirosis is an endemic zoonotic disease in Malaysia, and Sabah is among the states that has recorded high number of cases. Currently, one master student is working on a leptospirosis project. With the establishment of this laboratory, the Centre hopes that more leptospirosis studies will be conducted in Sabah and will directly or indirectly contribute to the management of this disease.



Internship Experience

Daphne Adrian
BSc. candidate, Faculty of Tropical Forestry, UMS
[14.03.2022 - 01.07.2022]



"Had a lot of opportunities to learn from the Centre during my 16 weeks of internship here. Thank you BMHRC for the great hospitality and conducive environment!"

Stay safe and take care."

Ag Shazmeer bin Ag Safree
BSc. candidate, Faculty of Tropical Forestry, UMS
[14.03.2022 - 01.07.2022]

"It is an honour for me to be a part of BMHRC for 4 months as an intern. I would like to personally thank all of the BMHRC staff for providing me with invaluable experiences. I particularly enjoyed working in the field of molecular epidemiology and infectious disease since it is also my passion to work in this field at a research facility like BMHRC."



Gloria Gelawat
BSc. candidate, Management and Science University (MSU)
[02.05.2022 – 10.06.2022]



“I would like to thank you for the opportunity you provided me to do my internship in BMHRC. The skills I learned here while internship period at the laboratory and all the experience I gained has instilled a new confidence in me, something I wouldn't have gain if it weren't for you and your very supporting team. The working environment in the lab was the best part of the internship, it's like a family. The mentors that guided me and helped me in my work really groomed my abilities and have made me better in preparation for my future. Furthermore, the regular training sessions helped me a lot in my work and pushed me to work harder each day. Because of your constant guidance and support, I am more eager than ever to pursue a career in this field. Last but not least, working with you filled me with new vigor and I do really appreciate it with a lot of thanks. Thank you BMHRC!”

Nur Sakinah binti George
BSc. candidate, Management and Science University (MSU)
[13.06.2022 – 22.07.2022]

“First of all, I would like to express my sincere gratitude to BMHRC for their supervision and assistance throughout my internship. My capacity to work for a research project and my ability to handle labs in a more advanced way are both thanks to their leadership and assistance. In addition, BMHRC also has given me the opportunity to boost my self-esteem and maintain effective social interactions in order to be able work with other people. Once more, I want to thank the staff for taking the time to educate me and share their knowledge. They were incredibly accommodating to my requests and always made me feel like a member of the family. Thank you BMHRC!”



Heart-warming Visits

24.02.2022 | KOTA KINABALU DISTRICT HEALTH OFFICE

We were honoured to receive a visit from Kota Kinabalu District Health Officer, Dr. Suhaila Osman. The visitation included introduction to the laboratories in BMHRC and current research at the Centre.



08.04.2022 | VISITOR FROM UKM



Prof. Datuk Sabarul Afian Moktar from Universiti Kebangsaan Malaysia (UKM) assisted by AP. Dr. Fairrul (Deputy Dean Academic and Internationalisation), AP. Dr. Mohd Firdaus (former Deputy Dean Research and Postgraduate) and Dr. Chin Kai Ling (FPSK postgraduate coordinator), visited BMHRC in conjunction with FPSK's Master and PhD program evaluation. Prof. Dr. Kamruddin Ahmed briefed our distinguished visitor about BMHRC's role in providing research support to staff and students of UMS.



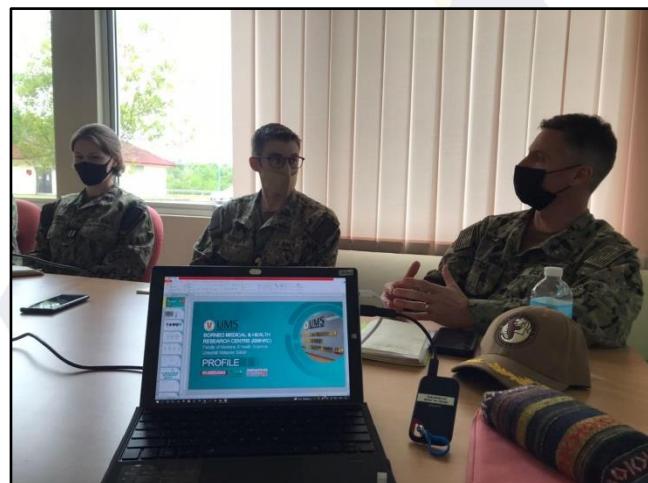
On this day, we welcomed our guests from NAMRU-2 (Navel Medical Research Unit two) and Conservation Medicine to BMHRC. The purpose of the visit was to establish a research collaboration, including upgrading our research laboratories to BSL-2+ level.



On this day, we held a birthday party for March babies, Prof. Dr. Kamruddin Ahmed, AP. Dr. Shigeharu Sato and Ms. Jecelyn John. We also welcomed the new interns, Ms. Daphne Adrian and Mr. Ag Shazmeer, as well as new research assistants, Ms. Cheronie and Ms. Debrra to BMHRC. At the same time, this was also a farewell party to Mr. Syafie, our former research assistant who was with us for the past nine months. He was involved in the project titled "An observational spatiotemporal analysis of routinely collected malaria surveillance reports to assess probability of nonzoonotic *Plasmodium knowlesi* transmission" in collaboration with the London School of Hygiene and Tropical Medicine, UK. We wish everyone a successful journey ahead!

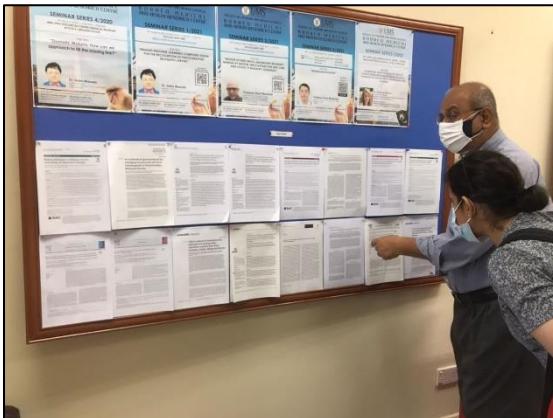


Once again, we welcomed our guests from NAMRU-2 and Kota Kinabalu Regional Military Hospital (HATWKK). This visit mainly focused on strengthening the established research collaboration.



20.09.2022 | FUTURE PHD CANDIDATE

Dr. Sapna Sadarangani from the National Centre for Infectious Diseases, Singapore visited BMHRC to discuss on future research collaboration for her PhD study.



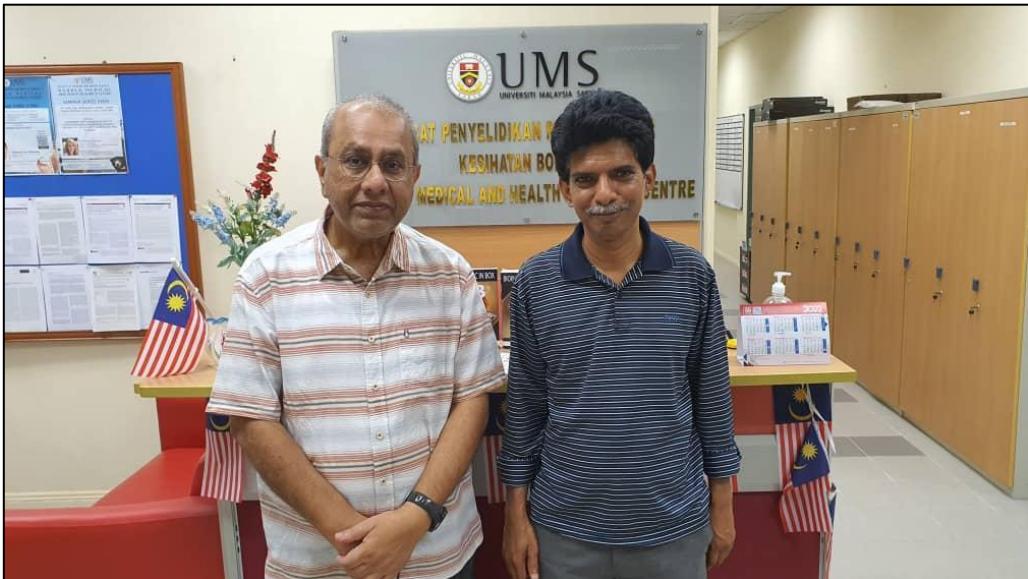
23.09.2022 | MANGROVE DNA RESEARCH

Prof. Dr. Tadashi Kajita and Dr. Noor Haliza Hasan from ITBC UMS visited BMHRC to talk about mangrove DNA studies.



14.10.2022 | UNIVERSITY OF COLOMBO, SRI LANKA

Prof. Dr. Shaman Rajindrajith, Pediatrician from University of Colombo, Sri Lanka visited us to discuss on future research collaboration opportunity.



28.10.2022 | NIH MOH

Thank you to Datuk Dr. Nor Asiah Muhamad and her team from Evidence Based Healthcare Sector of National Institute of Health, Ministry of Health for paying us a visit.



28.10.2022 | NUS & MEDTRONIC

Dr. Mathew Cove from the National University of Singapore (NUS) and Ms. Geilein Tan from Medtronic visited us to discuss on future collaboration on ICU-related clinical trial research.



Congratulations



Heartiest congratulations to Dr. Lia Natasha Amit and Ms. Jecelyn John for completing their postgraduate studies.

They received their scrolls at the 24th UMS Convocation Ceremony on the 10th of December, 2022. On top of that, Dr. Lia Natasha received the "Anugerah Aspirasi Pascasiswazah 2022" and Ms. Jecelyn John received the "Anugerah Pelajar Cemerlang" during the Majlis Anugerah Pascasiswazah (MAP) 2022.

Also, congratulations to their helpful and dedicated supervisors. We wish both of them the very best in their future undertakings.



Farewell

Farewell and Congratulations to RA
Dr. Noraini Philip



We would like to thank Ms. Noraini for her contribution as a research assistant in BMHRC from January – November 2022. We also would like to extend our warmest congratulations to her for receiving her doctorate degree at the 46th Universiti Putra Malaysia Convocation Ceremony. Again, congratulations for getting a lecturer position at Universiti Sains Malaysia. We are so proud of you. We wish you all the best in your future endeavors Dr. Noraini Philip!

Farewell to our Master Student,
Ms. Debra Marcel



Farewell to Ms. Debra, who has completed her work on leptospirosis at BMHRC. Best wishes for continued success.



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