

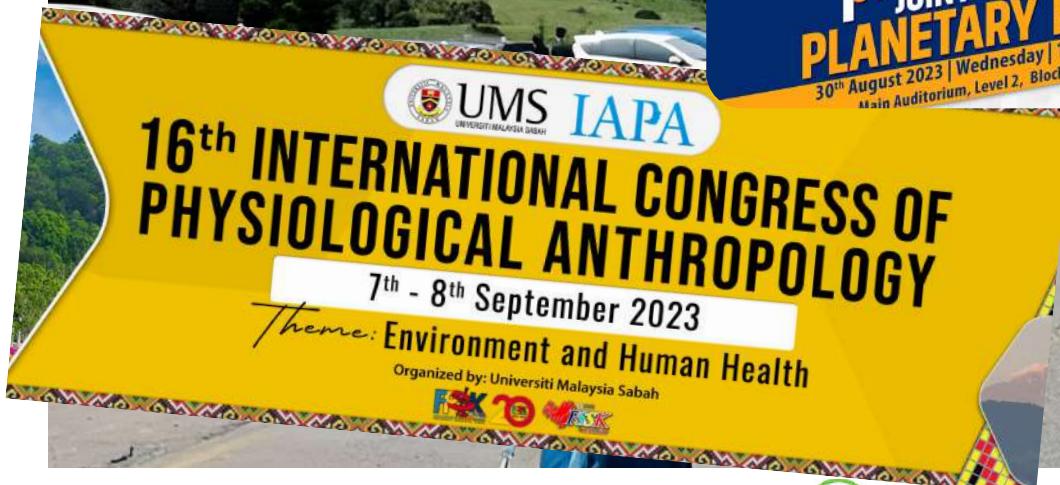


# BMHRC

BORNEO MEDICAL AND HEALTH RESEARCH CENTRE

# BULLETIN

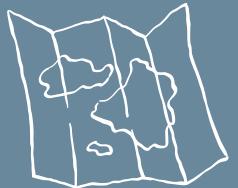
VOLUME 6 | 2023



# BMHRC EDITORIAL BOARDS

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Mr. Jaeyres Jani

# LETTER *From the* EDITOR

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I am delighted to present the latest volume of our bulletin, where we bring you a curated selection of news, articles, and updates on the happenings within our community and beyond in 2023. This bulletin is a testament to our commitment to keeping you informed and engaged with the latest developments in BMHRC's research areas.

In this volume, you will find a diverse range of topics covered, from scientific events organised by BMHRC to insights from our research projects with our national and international collaborators in 2023. We have highlighted important events and noteworthy achievements of our members that showcase the vibrancy and dynamism of our community.

Our bulletin serves as a platform for knowledge-sharing, collaboration, and inspiration. It is a reflection of the collective efforts of our team and the valuable contributions of our readers and collaborators. Together, we can continue to create a space where ideas flourish, connections are made, and progress is achieved.

I encourage you to explore this bulletin, immerse yourself in the stories and updates shared, and be inspired by the remarkable work being done within our community. Your feedback and support are invaluable to us as we strive to deliver content that informs, educates, and entertains.

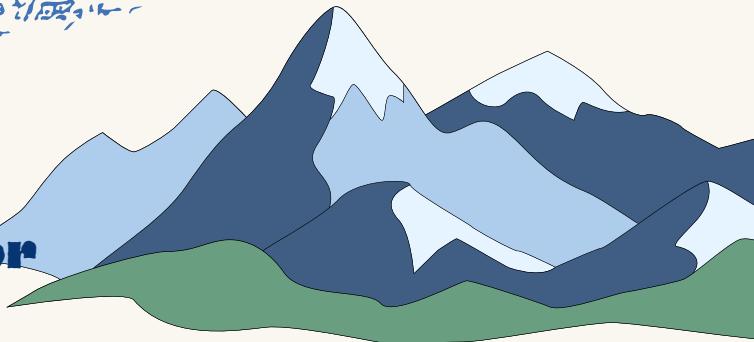
We look forward to bringing you more exciting updates in the future.

Dr. Alison Fong Siat Yee

Editor

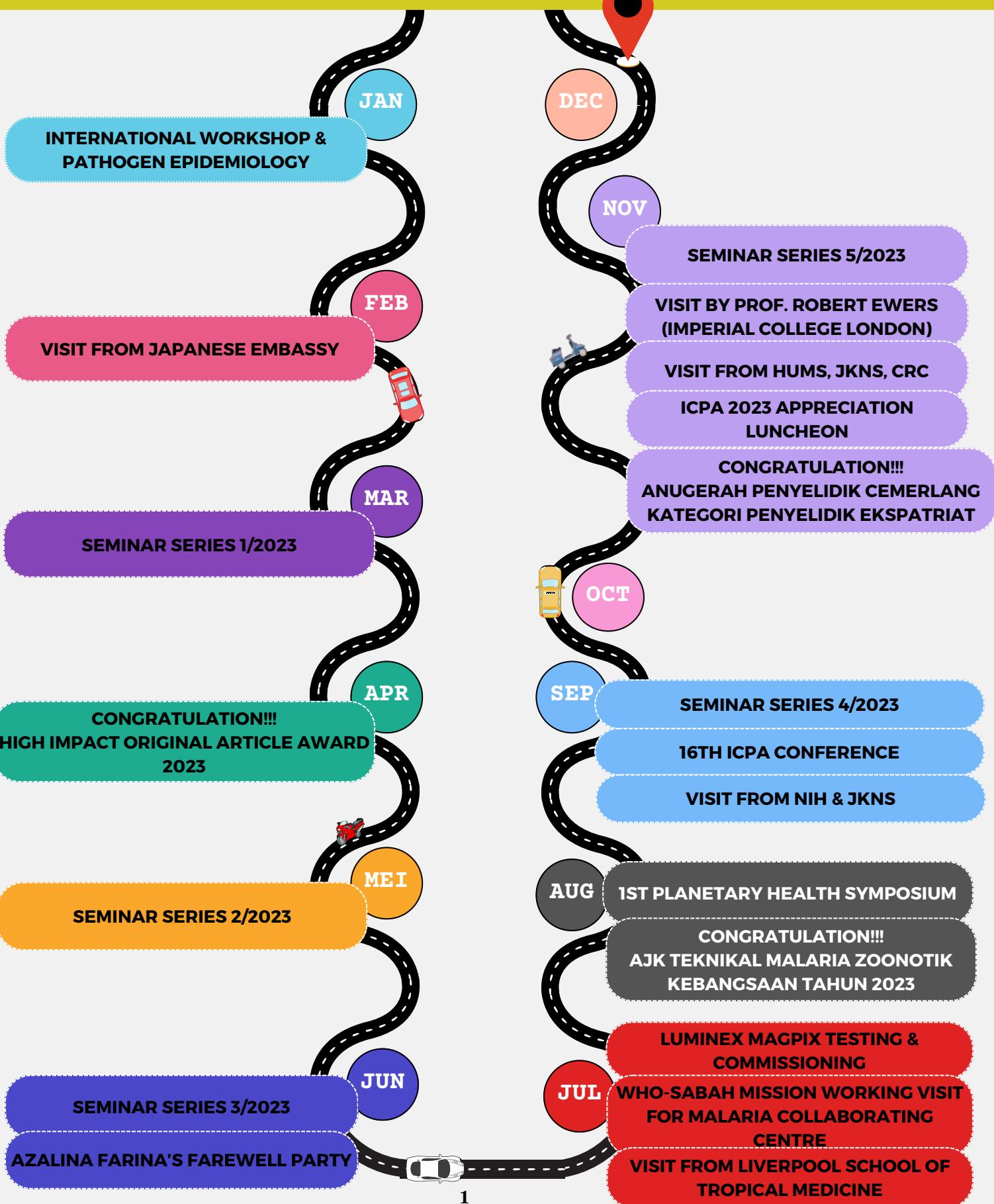
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# 2023

## BMHRC ACTIVITIES



# PUBLISHED PAPERS

Wow, what a journey!

We navigated through the challenges, and here we are – success achieved!

An impressive total of 18 articles published.



Authors	Title	Journal
<b>Lia Natasha Amit, Jecelyn Leaslie John, Daisuke Mori, Abraham Zefong Chin, Andau Konodan Mosiun, Kamruddin Ahmed</b>	Increase in rotavirus prevalence with emergence of genotype G12P[6] in Sabah, Malaysia	Archives of Virology
Kimberly M. Fornace, Hillary M. Topazian, Isobel Routledge, Syafie Asyraf, Jenarun Jelip, Kim A. Lindblade, Mohd Saffree Jeffree, Pablo Ruiz Cuenca, Samir Bhatt, <b>Kamruddin Ahmed, Azra C. Ghani, Chris Drakeley</b>	No evidence of sustained nonzoonotic Plasmodium knowlesi transmission in Malaysia from modelling malaria case data	Nature Communications
Kimberly M. Fornace, Gabriel Laporta, Indra Vythilingham, Tock hing Chua, <b>Kamruddin Ahmed, Nantha K Jeyaprakasam, Ana Maria Ribeiro de Castro Duarte Amirah Amir, Wei Kit Phang, Chris Drakeley, Maria Anice M Sallum, Yee Ling Lau</b>	Simian Malaria: a narrative review on emergence, epidemiology and threat to global malaria elimination	Lancet Infectious Diseases
Kimberly M. Fornace, Chris J. Drakeley, Kim A. Lindblade, Jenarun Jelip & <b>Kamruddin Ahmed</b>	Zoonotic malaria requires new policy approaches to malaria elimination	Nature Communications
Nurul Athirah Naserrudin, Pauline Yong Pau Lin, April Monroe, Richard Culleton, Sara Elizabeth Baumann, Shigeharu Sato, Bipin Adhikari, Kimberly M Fornace, Rozita Hod, Mohammad Saffree Jeffree, <b>Kamruddin Ahmed, Mohd Rohaizat Hassan</b>	Exploring barriers to and facilitators of malaria prevention practices: a photovoice study with rural communities at risk to Plasmodium knowlesi malaria in Sabah, Malaysia	BMC Public Health
Nurul Athirah Naserrudin, Sam Froze Jiee, Bobby Habil, Anisah Jantim, Ahmad Firdaus Bin Mohamed, Jiloris Julian Frederick Dony, Siti Syarifah Akma Ibrahim, Kimberly M. Fornace, Mohd Rohaizat Hassan, Mohammad Saffree Jeffree, Rozita Hod, Richard Culleton and <b>Kamruddin Ahmed</b>	The public health response to a Plasmodium malariae outbreak in Penampang district, Sabah during a COVID-19 movement control order	Malaria Journal



Authors	Title	Journal
Nurul Athirah Naserrudin, Pauline Pau Lin Yong, April Monroe, Richard Culleton, Sara Elizabeth Baumann, Shigeharu Sato, Rozita Hod, Mohammad Saffree Jeffree, <b>Kamruddin Ahmed</b> & Mohd Rahaizat Hassan	Seeing malaria through the eyes of affected communities: using photovoice to document local knowledge on zoonotic malaria causation and prevention practices among rural communities exposed to <i>Plasmodium knowlesi</i> malaria in Northern Borneo Island	Malaria Journal
Ahmad Syatir Tahar, Eng Joe Ong, Andy Rahardja, Dewi Mamora, Khwang Thong Lim, <b>Kamruddin Ahmed</b> , Dorothy Kulai, Cheng Siang Tan	Emergence of equine-like G3 and porcine-like G9 rotavirus strains in Sarawak, Malaysia: 2019–2021	Journal of Medical Virology
Nurul Athirah Naserrudin, Rozita Hod, Mohammad Saffree Jeffree, <b>Kamruddin Ahmed</b> , Mohd Rahaizat Hassan	International modified Delphi study on malaria preventive behaviour: new themes, contexts and framework for future research on <i>Plasmodium knowlesi</i> malaria	BMJ Open
Nurul Athirah Naserrudin, April Monroe, Pauline Yong Pau Lin, Sara Baumann, Richard Culleton, Shigeharu Sato, Rozita Hod, Mohammad Saffree Jeffree, <b>Kamruddin Ahmed</b> , Mohd Rahaizat Hassan	The One Health Approach to Addressing Zoonotic Malaria in Rural Northern Borneo: Challenges and Solutions	One Health Cases
Nurul Athirah Naserrudin, Pauline Yong Pau Lin, April Monroe, Sara Elizabeth Baumann, Bipin Adhikari, Anna Cohen Miller, Shigeharu Sato, Kimberly M. Fornace, Richard Culleton, Phaik Yeong Cheah, Rozita Hod, Mohammad Saffree Jeffree, <b>Kamruddin Ahmed</b> and Mohd Rahaizat Hassan	Disentangling the intersection of inequities with health and malaria exposure: key lessons from rural communities in Northern Borneo	Malaria Journal
Noraini Philip and <b>Kamruddin Ahmed</b>	Leptospirosis in Malaysia: current status, insights, and future prospects	Journal of Physiological Anthropology



Authors	Title	Journal
Hu-Hu Chen, Xin Li, Mohd Hijaz Mohd Sani and <b>Jaeyres Jani</b>	Enhanced Antitumor and Anti-Metastasis Efficiency via Combined Treatment with Carvacrol and Doxorubicin	Pakistan Journal of Zoology
Hema Thopla Govender, Getha Krishnasamy, <b>Jaeyres Jani</b> , Lili Sahira Husin	Draft Genome Sequence of <i>Streptomyces malaysiensis</i> TY049-057, a Potential Heavy Metal-Tolerant Strain Recovered from Tin Tailings	Microbiology Resource Announcement
Nur Azreen Saidon, Alina Wagiran, Abdul Fatah A Samad, Faezah Mohd Salleh, Farhan Mohamed, <b>Jaeyres Jani</b> , Alona C Linatoc	DNA Barcoding, Phylogenetic Analysis and Secondary Structure Predictions of <i>Nepenthes ampullaria</i> , <i>Nepenthes gracilis</i> and <i>Nepenthes rafflesiana</i>	Genes
Grace Joy Wei Lie Chin, <b>Jaeyres Jani</b> , Salley Venda Law, Kenneth Francis Rodrigues	Whole genome sequence data of a marine bacterium, <i>Marinobacter adhaerens</i> PBVC038, associated with toxic harmful algal bloom	Data in Brief
Mohd Iskandar Jumat, <b>Jaeyres Jani</b> , Zainal Arifin Mustapha, Kenneth Francis Rodrigues, Nornazirah Azizan, Armando Acosta, Maria E. Sarmiento, Kai Ling Chin	Small RNA datasets of drug-susceptible <i>Mycobacterium tuberculosis</i> strains from Sabah, Malaysia	Data in Brief
<b>Jaeyres Jani</b> , Kai Ling Chin, Zainal Arifin Mustapha	Whole Genome Sequence Analysis of a <i>Mycobacterium iranicum</i> , a Newly Identified Non-Tuberculosis Mycobacteria, Strain SBH312 Isolated in Sabah, Malaysia	Borneo Journal of Medical Sciences

# DIGITAL ARTICLE

We're featured in the Asahi Shimbun Digital !!!  
Want to read more about this article?  
Just search the link below:

<https://www.asahi.com/withplanet/article/15068979>



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change/environment

Asahi Shimbun Digital > with Planet > story > **Monkey malaria spreads in Malaysia; “development” increases contact with monkeys**

## Story

### Monkey malaria spreads in Malaysia; “development” increases contact with monkeys

Monkey malaria is a malaria parasite carried by monkeys that is transmitted by mosquitoes. The number of infected people is said to be increasing in Malaysia and Borneo. What is behind this? We conducted an on-site interview.



BY KEN FUJITANI  
PHOTOGRAPHY BY RYO ICHIKAWA

# BmHRC seminars 2023



*"Be a student as long as you still have something to learn and this will mean all your life."*

— Henry L. Doherty

# SERIES 1/2023

## Prof. Dr. Rita Colwell



FACULTY OF MEDICINE AND HEALTH SCIENCES  
BORNEO MEDICAL  
AND HEALTH RESEARCH CENTRE

### SEMINAR SERIES 1/2023

21<sup>st</sup> MARCH 2023 (TUESDAY) | 11:00AM – 12:00PM  
MAIN AUDITORIUM, BLOCK B LEVEL II FPSK UMS

Talk title:

**Climate, Oceans, and Human Health: What Cholera can Teach Us about COVID-19**

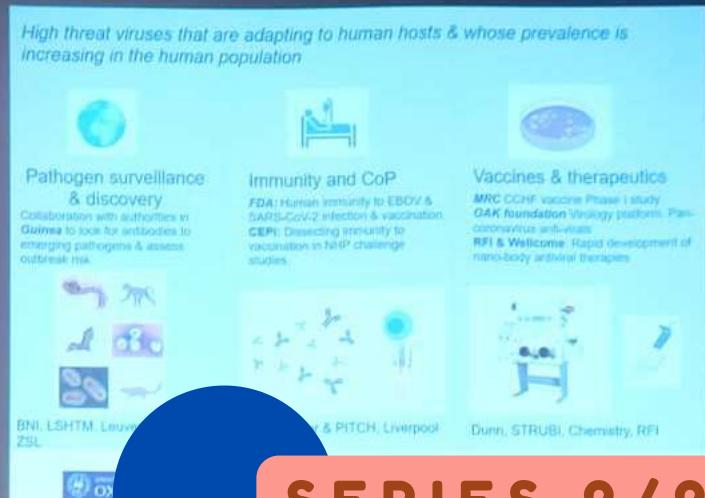


**PROF. DR. RITA COLWELL**  
US Embassy Malaysia Science Envoy  
Distinguished University Professor at the University of Maryland at College Park and at Johns Hopkins University Bloomberg School of Public Health.

For more information, please contact us:-

Ms. Jecelyn Leaslie John  
[jecelyn@ums.edu.my](mailto:jecelyn@ums.edu.my)





SERIES 2/2023

## Ms. Hannah Klim

 **UMS**  
UNIVERSITI MALAYSIA SABAH

**FACULTY OF MEDICINE AND HEALTH SCIENCES**  
**BORNEO MEDICAL**  
**AND HEALTH RESEARCH CENTRE**

### SEMINAR SERIES 2/2023

3<sup>rd</sup> MAY 2023 (WEDNESDAY) | 2:30PM – 3:30PM  
BILIK TAYANGAN, MEDICAL MUSEUM , BLOCK E,  
GROUND FLOOR FPSK UMS

**Talk title:**  
**Measuring human-animal contact and serological responses to develop targeted surveillance for avian influenzas in Malaysian Borneo**

  
**Ms. Hannah Klim**  
The University of Oxford  
Doctor of Philosophy in Clinical Medicine

For more information, please contact us:-  
Ms. Jecelyn Leaslie John  
[jecelyn@ums.edu.my](mailto:jecelyn@ums.edu.my)



## SERIES 3/2023

# Dr. Aminur Rahman



**UMS**  
UNIVERSITI MALAYSIA SABAH

FACULTY OF MEDICINE AND HEALTH SCIENCES  
BORNEO MEDICAL  
AND HEALTH RESEARCH CENTRE

**SEMINAR SERIES 3/2023**

2<sup>nd</sup> JUNE 2023 (Friday) | 10:00AM – 11:00AM  
BILIK TAYANGAN, MEDICAL MUSEUM , BLOCK E,  
GROUND FLOOR FPSK UMS

Talk title:  
**Drowning Is Preventable In Low- and Middle-Income Countries: Bangladesh as an Example**

Optional: to join online  
  
Scan me for Webex link

**Dr. Aminur Rahman**  
Deputy Executive Director & Director,  
International Drowning Prevention and Research  
Division  
Centre for Injury Prevention and Research,  
Bangladesh

For more information, please contact us:-  
Ms. Jecelyn Leaside John  
[jecelyn@ums.edu.my](mailto:jecelyn@ums.edu.my)





**UMS**  
UNIVERSITI MALAYSIA SABAH

FACULTY OF MEDICINE AND HEALTH SCIENCES  
**BORNEO MEDICAL  
AND HEALTH RESEARCH CENTRE**

**SEMINAR SERIES 4/2023**

4<sup>th</sup> SEPTEMBER 2023 (MONDAY) | 10:00AM – 11:00AM  
BILIK TAYANGAN, MEDICAL MUSEUM, BLOCK E  
GROUND FLOOR FPSK UMS

Talk title:  
**Why Must I Be A Teenager at All?**

**PROF. BARRY BOGIN**  
President, International Association of  
Physiological Anthropology (IAPA)

Professor Emeritus of Biological  
Anthropology, Loughborough University,  
UK

For more information, please contact us:-  
Ms. Jecelyn Leaslie John  
[jecelyn@ums.edu.my](mailto:jecelyn@ums.edu.my)

**SERIES 4/2023**

**Prof. Dr.  
Barry Bogin**

## SEMINAR SERIES 5/2023

22<sup>ND</sup> NOVEMBER 2023 (WEDNESDAY) | 2.30PM – 3:30PM  
MAIN AUDITORIUM, BLOCK B LEVEL II, FPSK, UMS

**S E R I E S 5 / 2 0 2 3**

## Prof. Dr. Rachel Lowe

Talk title:

**Decision-support tools for climate-sensitive  
disease prediction and preparedness**



**PROF. RACHEL LOWE**

ICREA Research Professor  
Global Health Resilience Group Leader  
Lancet Countdown in Europe Director  
Global Health Resilience Group | Earth  
Sciences Department  
Barcelona Supercomputing Center (BSC)

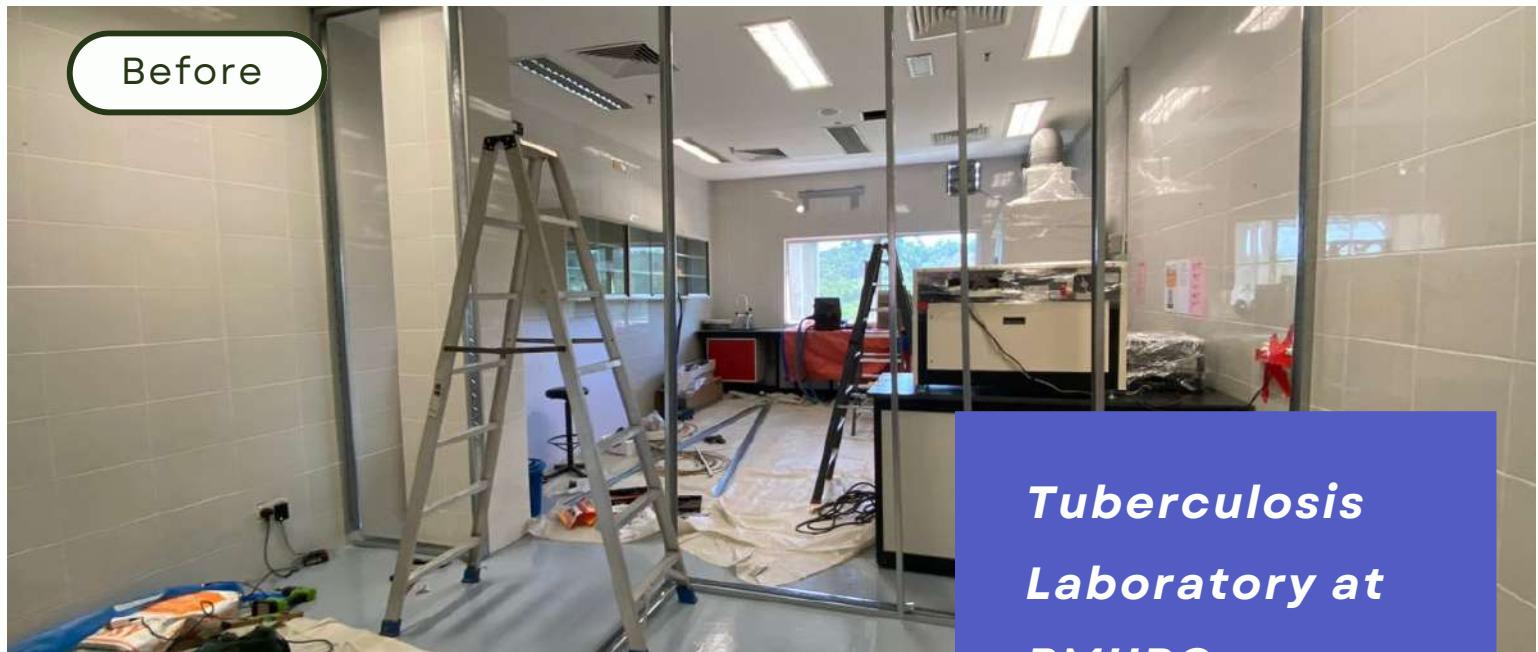
For more information, please contact us:-

Ms. Jecelyn Leaslie John  
[jecelyn@ums.edu.my](mailto:jecelyn@ums.edu.my)



# LAB UPGRADE

Before



The Tuberculosis Laboratory has recently undergone a significant upgrade, marking a milestone in the centre's commitment to cutting-edge research. The renovation project, initiated on June 1, 2023, and successfully completed on June 21, 2023.

Situated on the 1<sup>st</sup> floor of Block E, Faculty of Medicine and Health Science (FHMS), UMS, the renovated laboratory is now equipped to host the Luminex-Based Multiples Microsphere Immunoassay Serology Testing Platform Set-Up.

***Tuberculosis  
Laboratory at  
BMHRC  
Upgraded for  
Advanced  
Research***





Key improvements include the installation of partition walls coated with epoxy, creating a changing room with a handwashing sink for enhanced hygiene protocols before entering the lab. To accommodate the new testing platform, the facility underwent the installation of a 3-phase electric socket to support an autoclave machine, ensuring efficient sterilization processes.

Safety measures were also prioritized with the inclusion of an emergency eyewash station. Additionally, the upgrade involved the installation of air conditioning and exhaust fans to regulate the laboratory's temperature, fostering a comfortable working environment for researchers.



As part of the renovation process, an unused electrical appliance was removed, optimizing the space for the installation of the Luminex-Based Multiplex Microsphere Immunoassay Serology Testing Platform.

It is hoped that this enhanced laboratory will contribute to the centre becoming a one-stop center for research in the region. The improved infrastructure and cutting-edge technology position the laboratory to make significant strides in tropical endemic research and related fields, paving the way for a brighter future in medical research in Borneo.





***Investment in laboratory development and increasing research capacity at the Faculty of Medicine and Health Sciences, UMS through a research agreement that will benefit Sabah State.***

Universiti Malaysia Sabah is pleased to announce a significant laboratory development initiative at the Faculty of Medicine and Health Sciences made possible through a research agreement with Conservation Medicine and EcoHealth Alliance. This mutually beneficial collaboration will pave the way for transformative advancements in serological assays and the further characterisation of viruses for zoonotic disease surveillance and outbreak investigations.



Through this partnership, we will strengthen biosafety and biosecurity through laboratory development by renovating an existing laboratory and the donation of equipment including an autoclave and emergency shower. More than RM300,000 funds has been allocated, allowing us to create a specialized workspace optimized for experimentation and analysis, providing an environment that fosters multidisciplinary collaboration. Recently, a serology multiplex system funded by the US NIH through a NIAID CREID network grant, EID-SEARCH (U01AI151797) has been provided. This will help increase the research capacity of Sabah, enabling us to screen human and wildlife samples for exposure to novel pathogens providing, vital data to help improve zoonotic disease surveillance in the state. Through this laboratory development, we aim to empower our researchers, and partners to improve disease surveillance and research outcomes especially in Sabah state.

We thank Conservation Medicine and EcoHealth Alliance for their visionary support and unwavering commitment to this research agreement. Their investment in this lab renovation and increasing research capacity will propel us towards new frontiers of scientific discovery and position us as a hub for cutting-edge research.

# WORKSHOP

January 16 – January 20, 2023

## International Workshop on Pathogen Epidemiology

**[Jan.16<sup>th</sup> – 20<sup>th</sup> , 2023]** Venue: Day1 Lecture Zoom & OITA Univ. Teleconference room  
Day2-5 OITA Univ. Teleconference room

*Oita University(RCGLID) – Universiti Malaysia Sabah – University of Glasgow*  
**Day 1 Jan.16<sup>th</sup> 14:00 - 17:00**

Prof. Kamruddin Ahmed

- Lecture: Molecular epidemiology of *Mycobacterium tuberculosis* using whole genome sequencing.

Dr. Kimberly Fornace

- Lecture: Introduction to spatial epidemiology  
- Practical: Introduction to geographical information system using open source software



**Prof. Kamruddin Ahmed**

Director, Borneo Medical and Health Research Centre, Universiti Malaysia Sabah  
Visiting Professor, RCGLID, Oita University



**Dr. Kimberly Fornace**

Sir Henry Dale Fellow, University of Glasgow  
Assistant Professor, London School of Hygiene and Tropical Medicine



**Ts. Jaeyres Jani**

Medical Laboratory Technologist  
Faculty of Medicine and Health Sciences, Universiti Malaysia Sabah

**Day 2-3 Jan.17<sup>th</sup> -18<sup>th</sup> 9:00 – 17:00**

Ts. Jaeyres Jani

-Lecture and practical: Whole genome sequence analysis using open source software

**Day 4-5 Jan.19<sup>th</sup> -20<sup>th</sup> 9:00 – 17:00(15:00 on 20<sup>th</sup>)**

Ts. Jaeyres Jani

-Lecture and practical: Metagenomic analysis using open source software

**Participants of practical part will be limited to 10 people.**  
**In practical part, please bring your own device, windows preferable.**

**FREE REGISTRATION**



Oita University

Research Center for GLOBAL and LOCAL Infectious Diseases  
glocal@oita-u.ac.jp

## Workshop on Pathogen Epidemiology promotes networking and collaboration among experts.

The International workshop on Pathogen Epidemiology was held from January 16, 2023 until January 20, 2023 at Oita University. The workshop was co-organised by Oita University's Research Centre for Global and Local Infectious Diseases, Universiti Malaysia Sabah, and the University of Glasgow.

The workshop was attended by researchers, lecturers and students from Oita University. Overall, 15 participants were involved. The primary objective of the workshop was to discuss the latest developments and advancements in the field of pathogen epidemiology.





Dr. Kimberly Fornace from the University of Glasgow presented a talk on spatial epidemiology and geographical information system using open source software. She discussed how genomic data could be used to track the transmission and spread of pathogens and to identify potential outbreaks before they occur.

The workshop also included several panel discussions and interactive sessions where participants had the opportunity to discuss their research and share their ideas with other experts in the field. The workshop provided an excellent platform for networking and collaboration among the participants.

Overall, the International workshop on Pathogen Epidemiology was a great success. It brought together experts in the field of pathogen epidemiology from different parts of the world and provided an opportunity for them to share their knowledge and expertise. The workshop was a significant contribution to the field of pathogen epidemiology and helped to advance the understanding of the transmission and spread of infectious diseases.

The keynote speaker at the workshop was the Director of BMHRC, Prof. Kamruddin Ahmed. He spoke about Molecular epidemiology of *Mycobacterium tuberculosis* using whole genome sequencing.



Ts. Jaeyras Jani, Bioinformation from Universiti Malaysia Sabah presented a talk on metagenomic analysis using open source software. He discussed how bioinformatics could be used to analyse large datasets and identify patterns in pathogen transmission and spread.



Participants of the International Workshop on Pathogen Epidemiology at the Research Center for GLOBAL and LOCAL Infectious Diseases (RCGLID), Oita University.

# UMS holds international workshop in Japan

TBP 24.02.2023 P.06

**KOTA KINABALU:** A delegation from the Faculty of Medicine and Health Sciences (FMHS), Universiti Malaysia Sabah (UMS), consisting of the director of Borneo Medical and Health Research Centre, Prof Kamruddin Ahmed and Medical Laboratory Technologist, Ts. Jaeyres Jani conducted the International Workshop on Pathogen Epidemiology recently.

The workshop held at Oita University, Japan was a collaborative effort between Research Center for Global and Local Infectious Diseases Oita University, UMS and the University of Glasgow.

According to FMHS Coordinator of Internationalisation, Dr Praneetha Palasuberniam, the workshop which included

lectures and a hands-on practical session, was open to academicians and graduate students of Oita University.

The lectures were given by Prof Kamruddin, Dr Kimberly Fornace and Sir Henry Dale Fellow from University of Glasgow, and an assistant professor at the London School of Hygiene and Tropical Medicine with field experts in the context of Molecular Epidemiology of Mycobacterium tuberculosis and Spatial Epidemiology, respectively.

The attendees continued their learning with brief lectures with an in-depth, hands-on practical session on whole genome and metagenomic analysis using open-source software conducted by Jaeyres Jani," she said.

Praneetha added that these

sessions enabled informal chatter, bringing varied skill sets to the table, enhancing bonds between participants and increasing effective collaboration.

"International collaboration is essential to solve the world's biggest health challenges.

"With such importance placed on international efforts, this meeting enabled delegates and participants from various universities to continue effective cooperation across borders, owing to the breadth of skills and knowledge that can rapidly accelerate effective learning.

"It also sparked curiosity, understanding and perspective from the best talents worldwide," said Praneetha.

Fifteen participants were involved in the workshop.

# TRAINING

## LUMINEX MAGPIX TESTING AND COMMISSIONING

JULY 24, 2023 (MONDAY)



### ADVANCING RESEARCH & CONSERVATION: TRAINING ON LUMINEX MAGPIX

On July 24, 2023, Conservation Medicine organised a training on the operation of the MAGPIX machine by Biomed Global staff at the Tuberculosis Lab, BMHRC, after the upgrade of one of the BMHRC laboratories to facilitate this newly acquired equipment for the purpose of research collaboration between BMHRC and Conservation Medicine.

The objectives of this training were to introduce and integrate the new Luminex technology into the realm of health and conservation, with a particular focus on empowering participants through comprehensive training.



In total, six participants were involved, two participants from Conservation Medicine and four participants from BMHRC.

This training was conducted by Ms. Elizabeth Thanaraju, the esteemed Director of Application-Microbiology from Biomed Global. The training program was comprehensive, encompassing both theoretical and hands-off aspects of the Luminex Magpix.



Participants were introduced to the theoretical processes underlying the technology, gaining a comprehensive understanding of its capabilities and applications.

Participants were also trained on operational processes, allowing participants to familiarize themselves with the functioning of the equipment.

# 16<sup>TH</sup> ICPA

## 2023



# 16<sup>th</sup> INTERNATIONAL CONGRESS OF PHYSIOLOGICAL ANTHROPOLOGY

7<sup>th</sup> - 8<sup>th</sup> September 2023

*Theme:* Environment and Human Health

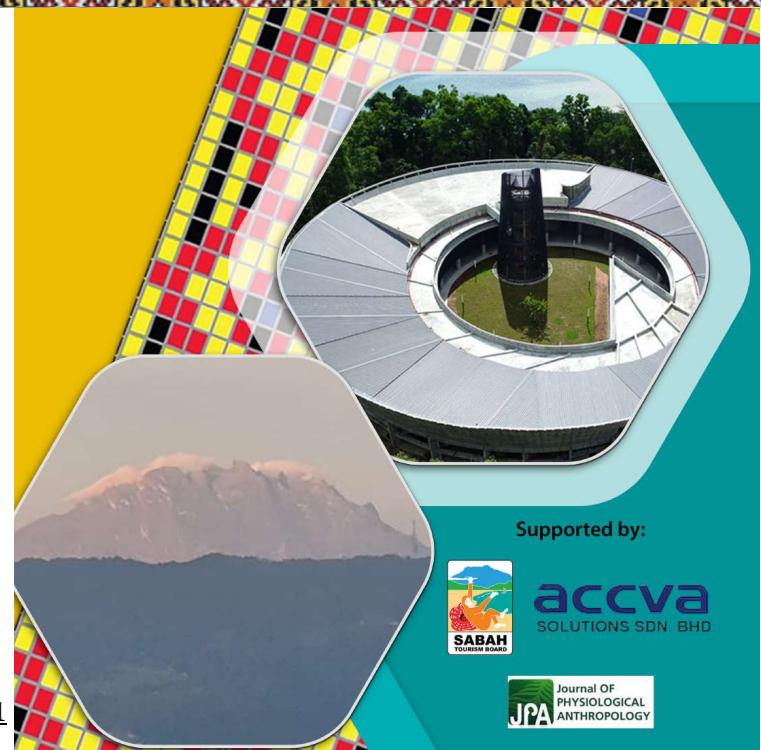
Organized by: Universiti Malaysia Sabah



We made it! What a whirlwind of a day it had been, packed with excitement and brimming with unforgettable memories. It was our first time organizing a physiological anthropology congress at UMS.

The 16<sup>th</sup> International Congress of Physiological Anthropology (ICPA 2023) took center stage at the Gallery Azman Hashim, Universiti Malaysia Sabah (UMS), on September 7-8, 2023.

This prestigious event was jointly hosted by the Faculty of Medicine and Health Sciences (FOMSK) and the Faculty of Social Sciences and Humanities (FSSK) at UMS.



Supported by:



The event was supported by the International Association of Physiological Anthropology (IAPA), the Journal of Physiological Anthropology, University of Tokyo and the Sabah Tourism Board.

We extend our sincere appreciation to the IAPA for entrusting us with the honor of hosting this significant gathering.

The IAPA represents a global union of Anthropology, Human Biology, and Physiological Anthropology societies. The roots of this association trace back to the 3<sup>rd</sup> International Congress of Physiological Anthropology in Nara, Japan, in 1996. Since then, it has evolved into a beacon for scientific inquiry into human existence in the modern technological society of today, aiming to shape living environments and lifestyles based on comprehensive research spanning the past, present, and future.



The event kicked off with a warm welcome from Prof. Dr. Kamruddin Ahmed, the Chairperson of ICPA 2023, and was officiated by the esteemed Prof. Dr. Barry Bogin, President of IAPA.

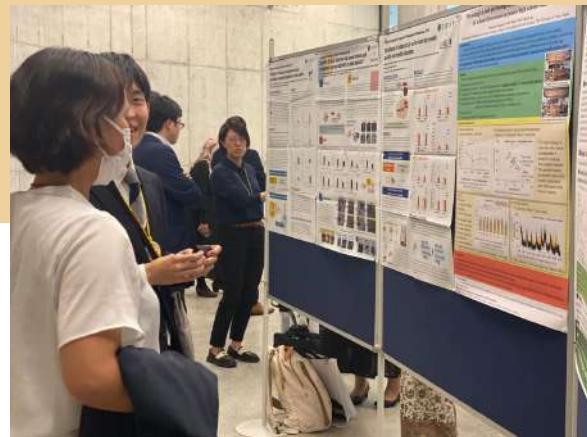
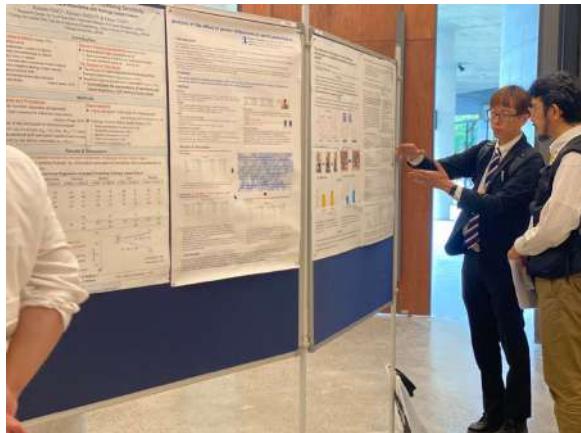


The theme was "Environment and Human Health", emphasizing on infectious diseases. This theme was taken by considering the global impact of infectious diseases on human health, social structures, and economies. This congress highlights the importance of the anthropological activities that influence infectious diseases, particularly emerging infectious diseases.

The two-day conference attracted 79 participants hailing from seven countries, including Malaysia, Japan, the UK, Korea, China, the US, and Singapore.

Divided into five sessions, the congress covered a wide array of topics, including Culture and Health Adaptation, Eco-Epidemiology of Zoonotic Malaria, Socio-Ecological Dynamics of Emerging Zoonotic and Vector-Borne Diseases, Future Perspectives of Physiological Anthropology, and The Impact of Land Use Change on Zoonotic Disease Emergence.

This congress aims to research modern humans from physiological and cultural perspectives, with the ultimate goal of crafting healthier and more comfortable living environments. This event also served as a vibrant platform for knowledge sharing, collaboration, and networking, fostering the exchange of ideas and inspiring new avenues of research.



With 79 participants contributing their expertise, the congress featured oral and poster presentations that showcased cutting-edge research.

Dr. Hiroaki Arima from Nagasaki University clinched the title of Best Poster Presenter with his work on "Seasonal Variations in Atmospheric Oxidant Levels and Their Effects on the Sex Ratio at Birth on Fukue Island, Japan."



Jun Yan Ng from the National University of Singapore emerged as the Best Oral Presenter, with his topic of "Skin Ageing in Ethnic Chinese Associated with Diet."

# PRE-CONGRESS WORKSHOPS

Beyond the main congress, ICPA 2023 extended its intellectual bounty with two pre-congress workshops. The first, "Workshop on Spatial Epidemiology and Mathematical Modeling," unfolded its insights on September 5-6, 2023 at Makmal Komputer, Faculty of Medicine and Health Sciences, UMS. Ten academicians from UMS that participated in this workshop were sponsored by Division of Leadership and Talent (DLTD).

This workshop provided a comprehensive overview of spatial objects in R, addressing crucial aspects of data manipulation, cropping and masking spatial objects, covariate data extraction, and plotting interactive maps.

The poster is for the "SPATIAL EPIDEMIOLOGY AND GEOSTATISTICAL MODELLING WORKSHOP" held in conjunction with the 16th International Congress of Physiological Anthropology. It features the UMS logo, the FRX 2023 logo, and mathematical formulas related to spatial epidemiology. The workshop is scheduled for 5th - 6th Sept. 2023, 08:00 am to 04:30pm, at Makmal Komputer, Block A, Faculty of Medicine and Health Sciences, UMS. It is limited to 25 persons only. Instructors listed are Dr. Luca Nelli and Ms. Emilia Johnson, both from the University of Glasgow. A QR code is provided for registration, and contact information is icpa2023@ums.edu.my.



# PRE-CONGRESS WORKSHOPS

**"DOCTOR, DOCTOR,  
CAN YOU HEAR ME?"**

**Date: 6th September 2023**  
**Time: 9am - 5pm**  
**Limited to  
25 participants**

**FREE  
OF CHARGE!**

The workshop will focus on the affective sensibilities dealing with clients in the medical setting, particularly the doctor-patient relationship. The workshop instructors are trained in social work, psychology, communication and anthropology.

To register, go to "Pre Congress Workshop (Doctor, doctor)" [www.16thicpa.com](http://www.16thicpa.com)

### Programme Tentative

	<b>REGISTRATION &amp; MORNING TEA (8:00am-10:00am)</b>
	<b>9:00am - 10:30am</b> Talk 1: Emotional Intelligence
	<b>10:30am - 12:00pm</b> Talk 2: Why/How Misunderstandings Can Occur Between the Doctor and Patient
	<b>LUNCH (12:00PM - 1:30PM)</b>
	<b>1:30pm - 3:00pm</b> Talk 3: Message Design for Behaviour Change
	<b>3:00pm - 4:30pm</b> Talk 4: "Why People Don't Want to See Their Doctor"
<b>CERTIFICATE PRESENTATION &amp; AFTERNOON TEA</b>	

The second workshop, "Doctor, Doctor, can you hear me?" held on September 6, 2023 in Clinical Skill Lab 2, Faculty of Medicine and Health Sciences, UMS, focused on the affective sensibilities of dealing with clients in medical settings, with a particular focus on the doctor-patient relationship.

As the congress concluded, we expressed our heartfelt gratitude to all participants, the organizing committee, and sponsors for their invaluable contributions.

Thank you so much...

Together, we have embarked on a journey to cultivate a healthier and more comfortable living environment, drawing inspiration from the rich tapestry of physiological anthropology. The 16<sup>th</sup> ICPA has left an indelible mark, fostered collaboration, and sparked new ideas that will undoubtedly shape the future of research in this dynamic field.

# 16<sup>TH</sup> ICPA 2023

## GALLERY



# 16<sup>TH</sup> ICPA 2023 DINNER



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# 1<sup>ST</sup> PLANETARY HEALTH SYMPOSIUM

## 1<sup>ST</sup> JOINT SYMPOSIUM BETWEEN UMS - NU



In a groundbreaking initiative towards fostering international collaboration, the Faculty of Medicine and Health Sciences at UMS played host to the 1<sup>st</sup> UMS-Nagasaki University Joint Symposium on Planetary Health on the August 30, 2023. This landmark event, held at the Main Auditorium, Level 2, Block B, FPSK UMS, was organized with enthusiasm and dedication by the BMHRC.

A diverse group of participation, consisting of 45 staff and students from both UMS and NU attended the event.

The event was graced by the presence of esteemed delegates from NU, led by their distinguished President, Professor Dr. Shigeru Kohno. A warm welcome was extended to the delegates as both institutions set the stage for a journey of collaborative exploration at the intersection of health and the environment, paving the way for a sustainable future.





This event commenced with opening remarks by Prof. IR. Dr. Rosalam Sarbatly, Deputy Vice-Chancellor of Research and Innovation, UMS, and Prof. Dr. Shigeru Kohno, President of NU. Their words set the tone for a day of insightful discussions and shared visions.

Heading the symposium were Prof. Dr. Kamruddin Ahmed from UMS and Prof. Dr. Kazuhiko Moji from NU, serving as the Chairman of the event. These esteemed figures guided the proceedings with expertise and enthusiasm, ensuring a seamless flow of ideas.

The symposium featured a lineup of distinguished speakers, each contributing their unique perspectives to the overarching theme of planetary health. Prof. Dr. Kiyoshi Kita from NU delved into the crucial intersection of Tropical Medicine and Planetary Health, shedding light on the challenges and opportunities in this field.

Prof. Dr. Fumiko Kasuga, also from NU, took the stage to discuss Sustainability for Future Earth, emphasizing the role of sustainable practices in preserving the health of our planet. Prof. Dr. Chiho Watanabe explored the intricate connections between Human Ecology and Planetary Health, offering valuable insights into the delicate balance between human activities and the environment.

The local expertise from UMS was well-represented by Assoc. Prof. Dr. Shigeharu Sato, who discussed zoonotic malaria, and Assoc. Prof. Dr. Teruaki Yoshida, highlights the threat of harmful algal blooms in Sabah and its implications on seafood security and human health. Dr. Noor Haliza binti Hassan brought attention to the fascinating yet crucial topic of bats and human health, unraveling the intricate relationships between these creatures and human well-being.

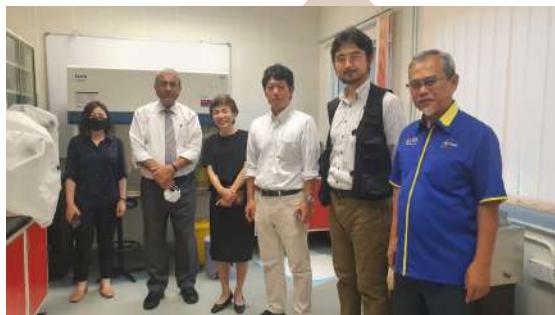
Closing the symposium on a forward-looking note, Dr. Zulkhairul Naim addressed the imperative need for planetary health education, emphasizing the preparation of healthcare professionals for the challenges of the 21<sup>st</sup> century.

This UMS-NU 1<sup>st</sup> Joint Symposium on Planetary Health was not merely an event but a milestone in international collaboration and shared knowledge. As the sun set on this day of insightful discussions and collaborative exploration, it marked the beginning of a sustained journey towards a healthier planet and a brighter future for all.

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# HEART-WARMING VISITS

IN THIS BUSTLING YEAR OF 2023, BMHRC BECAME A GLOBAL HOTSPOT, THROWING OPEN ITS DOORS TO VISITORS FROM EVERY CORNER OF THE WORLD! THE HONOR OF THEIR PRESENCE AT THE CENTRE HAS BEEN A TRULY GRATIFYING EXPERIENCE FOR US ALL. THANK YOU FOR YOUR VISIT. SEE YOU AGAIN!!!



## >>> JAPAN EMBASSY

February 1, 2023

Early this year on February 1, we are honoured to receive a visit from Ms. Kako Shiho, Head of Consular Office of Japan in Kota Kinabalu, Sabah. Prof. Dr. Kamruddin Ahmed briefed our distinguished visitor about BMHRC's role, achievements, collaborations and ongoing research projects. Brief visit to laboratories in the centre and also short tour to Medical Museum.

## WHO-SABAH MISSION WORKING VISIT FOR MALARIA COLLABORATING CENTRE

July 25, 2023

Breaking boundaries in the fight against malaria!

On July 25, BMHRC warmly welcomed the distinguished delegates from the World Health Organization (WHO) team, Ministry of Health (MOH) Putrajaya, and Sabah State Health Department. Following a productive meeting with FSPK UMS, these international malaria consultants and technical officers embarked on a groundbreaking working visit, envisioning BMHRC as the future Malaria WHO Collaborating Centre. This dynamic hub aims to become a beacon of knowledge, innovation, and expertise, fostering collaboration among scientists, researchers, healthcare professionals, and community leaders. Working tirelessly towards the noble goal of malaria elimination. Stay tuned for the exciting developments and great news on the horizon!





## >>> LIVERPOOL SCHOOL OF TROPICAL MEDICINE

July 27, 2023



On this date, marked an extraordinary occasion as we welcomed distinguished guests to our centre. Emeritus Professor Nicholas Beeching, a Senior Consultant in Infectious Diseases and Tropical Medicine at the Liverpool School of Tropical Medicine, and Dr. Stephen Woolley, a Specialist Registrar in Tropical Medicine and Medical Microbiology, graced us with their presence. Currently involved in a Clinical Fellowship at Queen Elizabeth II Hospital, they collaborate with Dr. Giri Rajahram, an Honorary Clinical Research Fellow at the Department of Clinical Sciences, Liverpool School of Tropical Medicine. Our encounter was nothing short of enlightening as we exchanged experiences and knowledge in the realm of Tropical Medicine and Infectious Diseases. This visit has not only fostered insight but also paved the way for exciting collaborations and research prospects. We extend our heartfelt gratitude to Professor Beeching and Dr. Woolley for investing their time in interacting with our centre.

## SEGI UNIVERSITY <<

August 8, 2023

On August 8, we received a short visit from Prof. Dr. Mohd Raili Suhaili, the Dean of the Faculty of Medicine, Nursing and Health Sciences, SEGI University with his fantastic group and also Dr. Teh Jo Hun, the Sibu Divisional Health Officer. Yet, it won't stop our Deputy Director, Dr Alison from giving a brief introduction and tour in the centre. Hope to hear from them in the future for collaboration opportunities.



## >>> INSTITUTE OF CLINICAL RESEARCH, NIH & SABAH STATE HEALTH DEPARTMENT

September 25, 2023

On the evening of September 25, it was an honour to welcome our distinguished guest Datin Dr. Sheamini Sivasampu from Institute of Clinical Research, NIH and all colleagues from Sabah State Health Department to our centre. It was never too late to have a brief tour in our centre and spent more time for a fruitful discussions. Hopefully, potential signing of an MOU can be accomplished next year.



## >>> IMPERIAL COLLEGE LONDON

November 9, 2023

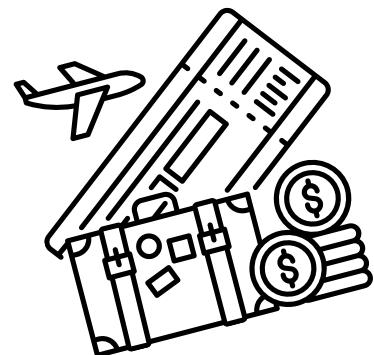
It was truly a great pleasure for us when Prof. Dr. Robert Ewer from Imperial College London paid a visit to our centre on the beautiful afternoon of 9th November. His presence are warmly greeted by our Director, Prof. Dr. Kamruddin Ahmed. We extend sincere thanks to Prof. Dr. Ewer for taking the time to visit our center. The prospect of future collaboration is exciting, and we eagerly anticipate the possibility of working together. Thank you for the visit, and we look forward to the potential collaborations that may blossom from this encounter.

## HUMS, SABAH STATE HEALTH DEPARTMENT <<<

AND CRC

November 16, 2023

On this auspicious day, we are honor to received visitations from the esteemed Prof. Dr. Helen Lasimbang, Director of Hospital University Malaysia Sabah (HUMS), and her distinguished team. During the visit, Prof. Kamruddin Ahmed graciously took the time to share insights into the past and ongoing research activities undertaken by our center and also gave short tour to all the laboratories in the centre. Once again, we extend our sincere thanks for their visitation. In the spirit of shared commitment to advancing healthcare, we look forward to exploring and creating more avenues for collaborative research endeavors.



# CONGRATULATIONS!



## ANUGERAH PENYELIDIK CEMERLANG KATEGORI PENYELIDIK EKSPATRIAT

Congratulations Prof.!!!!  
for receiving this award during the  
**Anugerah Penyelidikan UMS (APUMS) 2023**  
on November 21, 2023 at SICC, Kota Kinabalu.

# HIGH IMPACT ORIGINAL ARTICLE AWARDS 2023



# AJK TEKNIKAL MALARIA ZOONOTIK KEBANGSAAN 2023





JULY 7, 2023

# WARM WELCOME TO OUR RESEARCH CENTRE

We would like to extend a warm welcome to Dr. Azman Atil, Dr. Chin Kai Ling, and Dr. Rhayne Mac Guad who have recently joined BMHRC under the malaria and leptospirosis, tuberculosis, and arboviruses research portfolios, respectively. We hope this valuable addition to our community will enhance our research capabilities, improve scientific efficiency, increase interdisciplinary collaboration, and expand our research skills.

We are excited to begin this journey together with you!

# Welcome Interns



**MARCH 27 - APRIL 9, 2023  
(2 WEEKS)**

MS. LAXME  
CHANDRASEHKARAN  
&  
MS. SEOIN

Jesselton International School,  
Kota Kinabalu

**APRIL 24 - MAY 12, 2023  
(3 WEEKS)**

HANNAH KLIM

University of Oxford



**DECEMBER 4-8, 2023  
(1 WEEK)**

COSMO LE BRETON  
University of Oxford

**MARCH 8 - JUNE 10, 2023  
(14 WEEKS)**

**NICOLE FONG CHUI-JIET**

**RCSI + UCD Malaysia Campus**



“During my internship at BMHRC, I had the opportunity to explore beyond clinical medicine, this allowed me to explore different aspects of scientific work. I engaged in practical work and learned how to construct and analyze phylogenetic trees. By working on these projects, I learned not only about the techniques and methodologies involved but also gained a deeper understanding of the evolutionary relationships among organisms. Asides from these hands-on experience, the internship enabled me to enhance my academic writing skill. This skill will undoubtedly benefit me for my future pursuits. Moreover, the guidance from mentors create a friendly atmosphere to at BMHRC. Overall, the entire internship was an insightful experience that further strengthened my passion for research.”

**JULY 31 - OCTOBER 6, 2023  
(14 WEEKS)**



**NORHAPIZAH BINTI  
HASSAN**

**Universiti Malaysia Sarawak  
(UNIMAS)**

“My time at BMHRC has been truly valuable. I learned important lab techniques, including bioinformatics, attended insightful conferences, and experienced exceptional kindness and welcoming hospitality. These experiences have improved my teamwork skills and prepared me for a successful future in science and research.”

# SOCIAL TIMES

## HAPPY BIRTHDAY

MARCH 1,  
2023

Happy birthday to our beloved Director, Prof. Kamruddin Ahmed. We are incredibly grateful for all that you did and look forward to many more years of working together to make BMHRC the best it can be.



Happy birthday to our most important sister in the centre, Jecelyn. Your presence fills the centre with joy and laughter. May this centre be always surrounded by your positive vibes.

MARCH 8,  
2023

# HAPPY BIRTHDAY



**DECEMBER 8,  
2023**

Happy birthday & sweet 16 to our  
sweetest Deputy Director, Dr Alison  
@ DD.  
Your smile brightens our days,  
making this centre the most  
enjoyable place to work together  
and together we achieve our  
dreams..



# Good bye & Good luck

To our sister, Azalina Farina Abd.

Aziz..

Thank you for being part of this centre, we gonna miss you.

Congratulations and good luck for your new job as a Research Officer in Uitm, Shah Alam.

Wishing you success on your new adventure!

Always keep in touch!!!



JUNE 28,  
2023

PARTY TIME

# ICPA LUNCHEON

El  
Teamwork!!!



NOVEMBER 29,  
2023

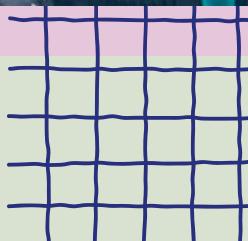


It is makan-makan time!!!

inspire

Luncheon with 16<sup>th</sup> ICPA 2023 Committee member at  
"Our Land Eco Farm Restaurant".

Thank you all for the hardwork. Hope we can work  
together again as a team in the future.



Grateful

Together we strong



# BORNEO MEDICAL AND HEALTH RESEARCH CENTRE (BMHRC)

FACULTY OF MEDICINE AND HEALTH SCIENCES

GROUND FLOOR, BLOCK E,

UNIVERSITI MALAYSIA SABAH

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