



UMS
UNIVERSITI MALAYSIA SABAH

UMS
PUSAT PENYELIDIKAN PERUBATAN DAN
KESIHATAN BORNEO
BORNEO MEDICAL AND HEALTH
RESEARCH CENTRE

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UMS
UNIVERSITI MALAYSIA SABAH

**FAKULTI PERUBATAN DAN SAINS
KESIHATAN**
UNIVERSITI MALAYSIA SABAH

Transformation towards
**UNIVERSITY
INDUSTRY 4.0**

**Eco
Campus**
Transforming Ideas into Reality

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FACULTY OF MEDICINE AND HEALTH SCIENCES

BORNEO MEDICAL AND HEALTH RESEARCH CENTRE BULLETIN VOL 2

hello there!

Editor's note

CONTINUING THE JOURNEY

First and foremost, on behalf of the editorial board, I am happy to announce that the second volume of BMHRC bulletin is now available. This bulletin provides a mean to update the members on BMHRC's activities as well as to serves as a platform to share news and information on the developments and progress related to the BMHRC's niche areas.

The 2019 had been a wonderful and fruitful year for BMHRC. We had the opportunity to host a number of seminars and welcome distingusihed guests from all around the world.

More over, members of BMHRC and seleteted DrPH students were able to attend a mobility program on spatial epidemiology training toward global health research in Nagasaki University, Japan.

We hope we can continue this journey in 2020 bringng greater benefits not only to FPSK members but also to other worldwide. Last but not least, we would like to expressed our tremendous gratitude to our advisor, the dean of Faculty of Medicine and Health Sciences, Prof . Dr. Mohammad Saffree Jeffree for his great support to the centre.



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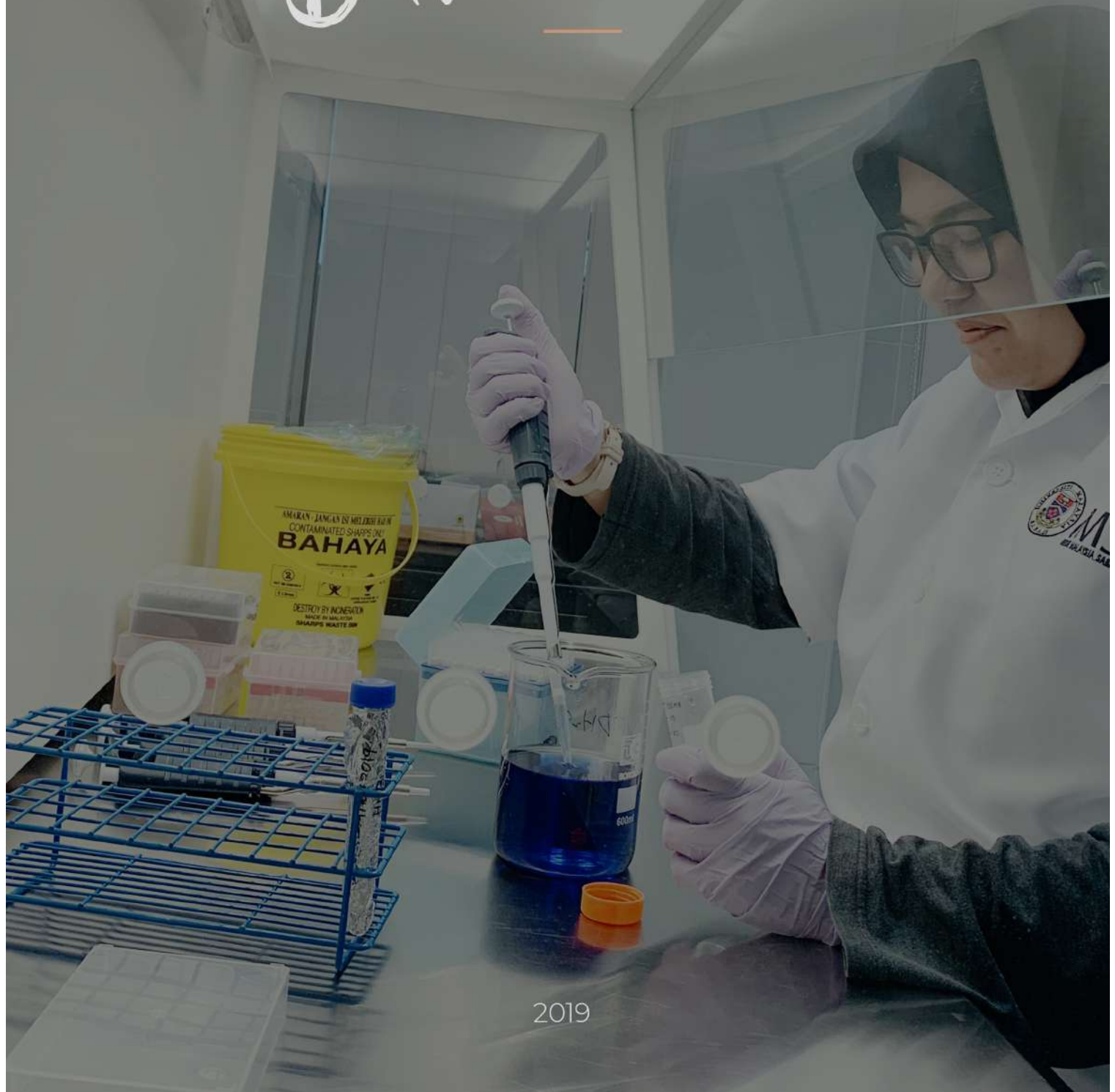
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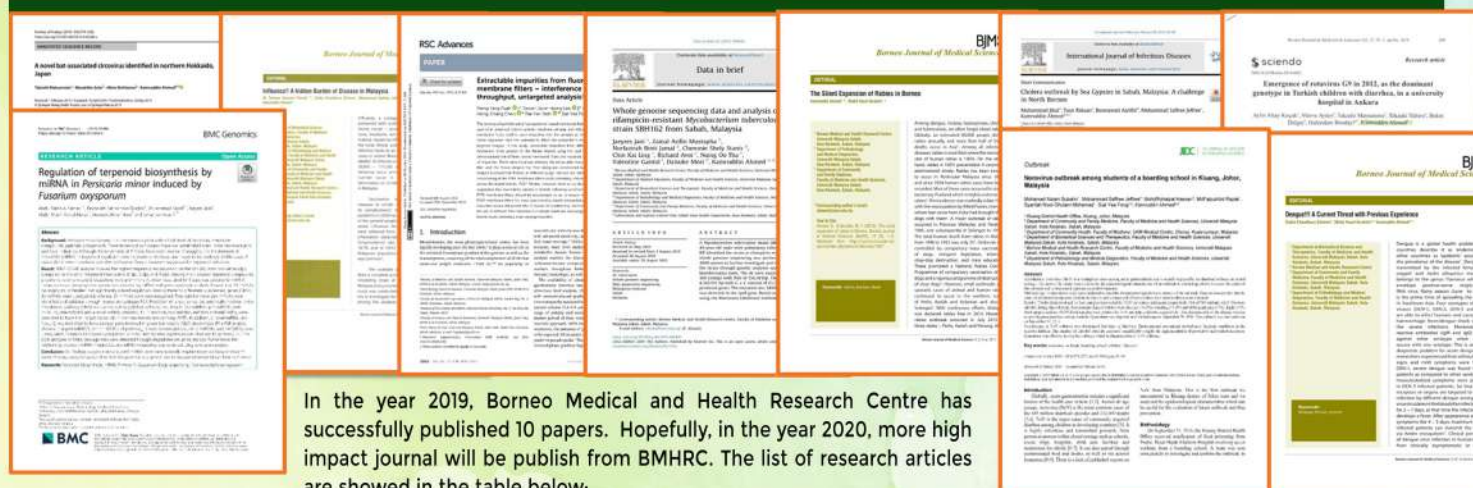
FACULTY MEDICINE AND HEALTH SCIENCES

BMHRC



2019

JOURNAL PUBLISHED IN YEAR 2019



In the year 2019, Borneo Medical and Health Research Centre has successfully published 10 papers. Hopefully, in the year 2020, more high impact journal will be publish from BMHRC. The list of research articles are showed in the table below:

No	Author	Title	Journal
1	Ahmed K and Ibrahim, M.Y	The silent expansion of Rabies in Borneo	Borneo Journal of Medical Sciences
2.	Jani, J., Mustapha, Z.A., Jamal, N., Stanis, C.S., Ling, C.K., Avoi, R., Tha, N.O., Gantul, V., Mori, D. and Ahmed, K.	Whole genome sequencing data and analysis of a rifampicin-resistant Mycobacterium tuberculosis strain SBH162 from Sabah, Malaysia.	Elsevier
3.	Jikal, M., Ridan, T., Aarifin, Jeffree, M.S. and Ahmed, K	Cholera outbreak by sea gypsies in Sabah, Malaysia: A challenge in North Borneo	International Journal of Infectious Diseases
4	Kocak A.A., Aydin M., Matsumoto T., Yahiro T., Dalgic B., Bozdayi G., and Ahmed K	Emergence of rotavirus G9 in 2012, as the dominant genotype in Turkish children with diarrhea in a university hospital in Ankara.	Revista Romana de Medicina de Laborator.
5.	Matsumoto, T., Sato, M., Nishizono, A. and Ahmed, K.	A novel bat-associated circovirus identified in northern Hokkaido Japan	Springer
6.	Parash M. T. H., Shimmi S. C., Jeffree M. S., Ibrahim M. Y., and Ahmed K	Influenza! A hidden burden of disease in Malaysia	Borneo Journal of Medical Sciences
7.	Puah, P.Y., Lee, D.J.H., Mak., K.H., Ang, H.J., Chen, H-C., Moh, P.Y., Fong, S.Y. and Ling, Y.S.	Extractable impurities from fluoropolymer-based membrane filters – interference in high-throughput, untargeted analysis	Royal society of chemistry
8.	Samad, A.F.A., Rahnamaie-Tajadod, R., Sajad, M., Jani, J., Murad, A.M.A., Noor, N.M. and Ismail, I.	Regulation of terpenoid biosynthesis by miRNA in Persicaria minor induced by Fusarium oxysporum	BMC Genomic
9.	Shimmi, S.C., Ibrahim, M.Y. and Ahmed, K.	Dengue!!! A current threat with previous experience	BJMS
10.	Subahir, M. H., Jeffree, M. S., Hassan M.R., Razak, M. F. A., Mohamad, S. N. G., Fong, S. Y., and Ahmed, K	Norovirus outbreak among students of a boarding school in Kluang, Johor Malaysia	The journal of infection in developing countries
11.	Fong, S. Y., Wimalasiri.D., Piva, T., Dekiwadia, C., Urban, S., Huynh, T.,	Evaluation of cytotoxic and apoptotic of Clinacanthus nutans (Burm. F.) Lindau Leaves against D24 human melanoma cells.	Journal of Herbal Medicine

Thank you, interns!

Year 2019

BMHRC welcomes interns from around the world to centre office from around the world where they can make a huge impact when they go back to their respective places and continue their learning journey. In 2019, We had the privilege to have five interns: Ms Marcella Vaselli and Mr Ibrahim Mian from St.George University of London. Dr Medart Ernest from Nagasaki University.

Ms Ofelia Yahcob from Universiti Teknologi MARA (UiTM) and Ms Siti Fatimah binti Abu Bakar from Universiti Teknologi Malaysia (UTM). We would like to take this opportunity to thank these talented interns and we are expecting more interns in 2020 to do their internships with BMHRC. This intern will lead to more possible collaborations.



Name :Mr.Ibrahim Mian
University: St. George's University
Area of research : Virology
Date of intership: 13 May 2019



Name: Ms. Marcella Vaselli
University :St . George's University
Area of research: Virology
Date of intership: 13 May 2019



Name :Ms. Ofelia Yahcob
University: Universiti Teknologi Mara
Area of research: Bacteriology
Date of intership: 15 July 2019



Name :Dr. Medart Ernest
University: Nagasaki University
Area of research: Parasitology
Date of intership: 14 July 2019



Ms. Siti Fatimah binti Abu Bakar
University: Universiti Teknologi Malaysia
Area of research: Bioinformatic
Date of intership: 3 September 2019

BMHRC SEMINARS

SEMINAR SERIES IN YEAR 2019

BMHRC successfully organised seven seminars in 2019 with the objective to advance knowledge in the research field related to tropical medicine in Asian Countries. Through these seminars, participants from UMS and outside of UMS were able to gain knowledge from talk given by prominent speakers whom are experts in the field of tropical medicine. The list of seminars is show in the following table:-

No	Speaker	Title	Series / Date
1.	Prof. Dr. Yukiko Wagatsuma Faculty of Medicine, University of Tsukuba, Japan.	Programming of chronic diseases through fetal and early childhood exposure to under nutrition and infections	SEMINAR SERIES 1/2019 22 nd January 2019
2.	Dr. Mya Myat Ngwe Tun Institute of Tropical Medicine, Nagasaki University, Japan.	Serology and molecular epidemiology of Denv, Zikv, Jev, Chikv infections in South Asian and Southeast Asian Countries	SEMINAR SERIES 2/2019 06 th March 2019
3.	Dr. Takashi Matsumoto Faculty of Medicine, Oita University, Japan.	Techniques in 16S Metagenomics and Stomach Microbiome	SEMINAR SERIES 3/2019 06 th March 2019
4.	Assoc. Prof. Dr. Richard Culleton Institute of Tropical Medicine, Nagasaki University, Japan.	Zoonotic Malaria	SEMINAR SERIES 4/2019 19 th June 2019
5.	Assoc. Prof. Dr. Michael A. Huffman Primate Research Institute, Kyoto University, Japan.	Field Techniques for health monitoring and the Study of Disease Transmission in Primates	SEMINAR SERIES 5/2019 19 th June 2019
6.	Assoc. Prof. Dr. Yoshimasa Maeno School of Health Sciences, Fujita Health University, Japan.	Molecular Epidemiology of mosquitoes for the transmission of Forest Malaria in Southern Vietnam	SEMINAR SERIES 6/2019 19 th June 2019
7.	Prof. Dr. Kiyoshi Kita School of Tropical Medicine and Global Health, Nagasaki University.	Mitochondrial Respiratory Chain as Drug Target – From Parasites to Cancer Cells.	SEMINAR SERIES 7/2019 23 rd October 2019

Congratulations !

Congratulation to Prof.Dr.Zainal Arifin, Prof.Dr. Kamruddin Ahmed and Mr.Jaeyras Jani for winning the bronze and gold medals at the International Conference and Exposition on Inventions by Institutions of Higher Learning (PECIPTA) 2019, Johor on 23rd September 2019 . They presented their innovative invention entitled Bionformatic in Box .



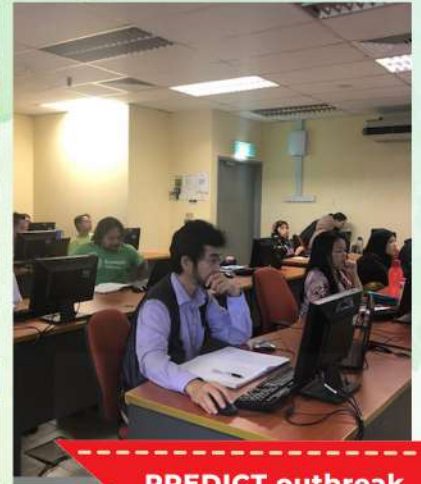
PECIPTA 2019 organized by the Department of Higher Education in collaboration with the Tun Hussein Onn University Malaysia (UTHM) is a biennial program organised by the Ministry of Education, Malaysia which aimed at promoting the innovative products of higher education institutions and creating collaborative opportunities with the industry.

Pertandingan Penyelidikan dan Rekapipta (PEREKA) 2019, Sabah, They have won gold medal. The research title " Whole genome sequencing data and analysis of a rifampicin resistant mycobacterium tuberculosis starin SBH from Sabah, Malaysia".

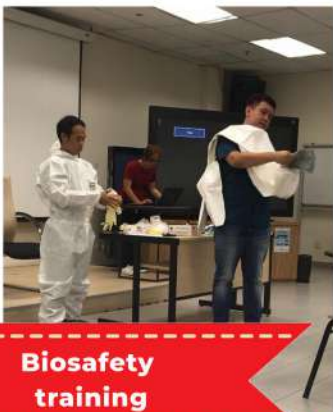


BMHRC ACTIVITIES IN YEAR 2019

GIS training



PREDICT outbreak training



Biosafety training



Visitations

Throughout 2019, BMHRC welcomed a number of visitors from around the world. They showed great interest in the Centre's past and current research. During the visits, several future collaboration opportunities were discussed. Moreover, they have given valuable suggestions and ideas on how to advance research in the field of BMHRC niche areas.



Visitors: Clinical Research Centre (CRC), Kedah

A total of 14 delegates from CRC Hospital Sultan Abdul Halim, Kedah visited BMHRC on 14th March 2019. During the visit, Deputy director of BMHRC, Dr Alison Fong introduced the Centre and briefed the delegates about the centre's current research projects. Ideas were exchanged and discussed a potential research collaboration between two centres. It was a great honor having them in the centre and we hope to meet again sometime in the future. Thank you for visiting us.

Visitors: Deputy Vice Chancellor

On 30th April of 2019 the Deputy Vice-Chancellor for Research & Innovation, UMS, Associate Professor Ts. Dr. Ramzah Dambul accompanied by a few of his staffs visited BMHRC. The aim of his visit was to see the progress of BMHRC to become one of the research centres in the nation. During the visit, he showed interest in BMHRC's achievements and suggested ways for improvement.



Visitors: Vice Chancellor's visit

The Vice Chancellor of UMS, Prof. Datuk. Dr. Taufiq Yap Yun Hin, paid a visit to BMHRC together with the WHO Representative in Malaysia, Brunei Darussalam and Singapore, Dr. Lo Ying Ru, Dean of FMHS, Prof. Dr. Mohammad Saffree Jeffree on 4th July 2019. The visit was to observe and monitor the achievements and activities of BMHRC. During the visit Prof. Datuk. Dr. Taufiq showed his support and encouraged the centre to continue striving for success.





Visitors: Jesselton Medical Centre

One of the Jesselton Medical Centre (JMC)'s missions is to participate in scientific clinical research for the betterment of health services in Sabah particularly and Malaysia generally. In order to achieve their mission a few of JMC members visited BMHRC to discuss on research collaboration. Their intention to collaborate was welcomed by the director of BMHRC, Prof. Dr. Kamruddin Ahmed.

Visitors: MENZIES

MENZIES visited BMHRC on 5th July 2019. With the aim to share knowledge and suggestions to enhance from both parties, MENZIES and BMHRC in research conducted in meeting room. After the session, the director of BMHRC, Prof. Dr. Kamruddin Ahmed bring them to look around BMHRC and showed them posters and journals published BMHRC



Visitors: IBPHC 2019 participants

At 3rd - 5th September 2019, 1st International Borneo Healthcare & Public Health Conference AND 4th Borneo Tropical Medicine and Infectious Disease Congress (IBPHC 2019) held in UMS. The conference held for 3 days. During the break of the conference, the participants who mostly have a background in the pharmaceutical field managed to spend a little time to visit BMHRC. The five participants entertained by the director of BMHRC, Prof. Dr. Kamruddin Ahmed. They showed great interest in the research of tuberculosis and malaria by BMHRC students and researchers. Any future collaboration plan from them is welcomed by the BMHRC.

Visitors: Institute Medical Research (IMR)

On 4th September 2019, BMHRC received official visit from Institute Medical Research (IMR). IMR is a research centre that carry out scientific and sustained research into the causes, treatment and prevention of such scourges as beriberi and all forms of malaria fevers. Hopefully the visit from IMR will add to the new addition of BMHRC research partner. Since, both IMR and BMHRC is motivated in doing a research to improve communities health.



Visitors from Kyushu University, Japan!

On 25th October 2019, BMHRC received another official visit from Kyushu University representative, Dr. Hokazono and Dr. Aihara. During their visit, BMHRC members bring them to tour around faculty and UMS. They enjoyed the tour as the BMHRC members bring them to Medical Museum, Aquarium and Marine Museum, Outdoor Development Centre (ODEC) UMS and many more. Dr. Hokazono and Dr. Aihara visit is not empty handed as they bring kit for BMHRC. At the end of the visit, Dr. Aihara said he is interest to do research in BMHRC in the future.



Visitors : Universiti Malaysia Sarawak

On 8th November 2019, Universiti Malaysia Sarawak (UNIMAS) came as an official visit to BMHRC. There are 3 members from UNIMAS during the visit. The dean of FHMS, Prof. Dr. Mohammad Saffree Bin Jeffree, Dr. Kamruddin Ahmed and few other staffs in FMHS entertained the representatives from UNIMAS. The visit is in hope for BMHRC to spread wings and join hand with UNIMAS to create a future collaboration.



Visitors :Universitas Nahdlatul Ulama Surabaya, Indonesia (UNUSA)



On the 22nd November 2019, BMHRC received the last official visit from neighboring country, Indonesia, Universitas Nahdlatul Ulama Surabaya, Indonesia (UNUSA). One of the representatives visit from UNUSA is an experiences Medical Lab Technologist which interest in tuberculosis research done by BMHRC. The visit also discusses the potential future collaboration with UNUSA especially in tuberculosis research.



Activities at BMHRC

***MOBILITY PROGRAM ON SPATIAL
EPIDEMIOLOGY TRAINING TOWARD
GLOBAL HEALTH RESEARCH,
NAGASAKI UNIVERSITY***

By Ms. Jecelyn Ieaslie John



During the period of October 26th - November 4th, 2019, a total of 13 postgraduate students from the Faculty of Medicine and Health Sciences, Universiti Malaysia Sabah were invited to attend a Mobility Program on Spatial Epidemiology Training Toward Global Health Research at the School of Tropical Medicine Global Health (TMGH), Nagasaki University Japan through the Sakura Science Exchange Program. This trip was fully sponsored by Sakura Science Plan, Japan Science and Technology Agency.

At the welcoming ceremony, students were greeted by Prof. Dr. Kazuhiko Moji at TMGH by giving a brief introduction to TMGH, Assistant Professor Dr. Bumpei Tojo presented Sakura Science Exchange Program and Assistant Professor Dr. Tomonori Hoshi presented current research conducted at TMGH.

Assistant Professor Dr. Bumpei Tojo gave lectures and demonstrated during hands-on activities in regard to data analysis essential to epidemiology data including installation of R

RStudio, ggplots2 (by command) for constructing suitable graph/chart for data presentation and esquisser function for easy chart presentation and QGIS basic for choropleth mapping via geographical data visualization.

Special lectures on current global health status were also presented. The first topic was delivered by Associate Professor Dr. Richard Culleton on Zoonotic Malaria, the second topic was delivered by Dr. Maria Suleiman on Provision of Primary & Tertiary Healthcare Services for Displaced Populations: Malaysia's Experiences in Bangladesh and the third topic was delivered by Dr. Jenarun Jelip on Malaria Elimination Initiatives in Malaysia. After the special talks ended, there was a welcoming party with souvenirs presentation to all speaker and lecturers.

Training continued with lectures by Assistant Professor Dr. Tomonori Hoshi on Open Data Kit (ODK) convenient software for offline data collection and 3D printer technology to create physical object scratch in computer with





For leisures, the students visited the (1) Atomic Bomb Museum to learn about history about the story atomic bomb (2) the peace park where one can offer the prayers to the atomic bomb victims; (3) Nagasaki Museum of History and Culture to learn about the history of Nagasaki as the sentinel international trading port since the Edo period resulting the influx of cultures of Chinese, Dutch, as well as the Christian religion; (4) Confucius Shrine by learn about the Chinese community that lived in Nagasaki during the Qing Dynasty period and Confucian worship (5) Oura Church, the oldest Catholic church built to remember the 26 martyrs that executed for missionary activities and (6) Glover Garden and old Western style housing.

Students were also given opportunity to participate in the Japanese Society of Health and Human Ecology (JSHE) post-conference workshop. This workshop, was led by Dr. Aurelio Tobías, Dr. Lina Madaniyazi and Dr. Chris Fook Sheng Ng where they shared the advance command for data analysis using RStudio.

On behalf of the Sakura Science Plan UMS representative, we would like to thank the Vice Chancellor of Universiti Malaysia Sabah, Dean of Faculty of Medicine and Health Sciences for giving us this precious opportunity to join and gain wonderful experience. We would like to express endless appreciation to Sakura Science Plan, Japan Science and Technology Agency for sponsoring this trip. Thank you, School of Tropical Medicine and Global Health, for hosting this program and last but not least thanks to Borneo Medical and Health Research Centre and Department of Community and Family Medicine as co-organizing committees for suggesting and arranging participants for this trips.

computer aided design (CAD) software. Students were given demonstration on how to make pick using 3D printer. On the last day of program, all students presented their own postgraduate research projects. Certificates of achievement were also presented to all students for successfully attended the Sakura Science Exchange Program. Moreover, as a gesture of appreciation, all certificate receivers automatically become member of the Sakura Science Club.

