

Institute of Medical Molecular Biotechnology Newsletter



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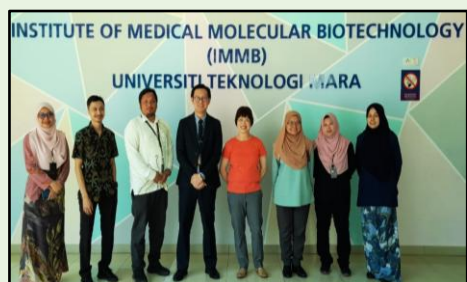
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Heartfelt congratulations to our new Director of the Institute of Medical Molecular Biotechnology (IMMB), Faculty of Medicine, Associate Professor Dr. Wang Seok Mui. She holds a PhD and an MSc in Medical Biotechnology from Universiti Malaysia Sarawak, and a BSc (Hons) in Biotechnology from the Royal Melbourne Institute of Technology (RMIT) University. Dr. Wang's experience, spanning more than 20 years, includes a role as a post-doctoral research fellow at the Department of Medical Microbiology, Faculty of Medicine, University of Malaya. She then advanced to a senior lecturer position in the Department of Biochemistry & Molecular Medicine, Faculty of Medicine, UiTM, and later served as an Associate Professor in the Department of Medical Microbiology and Parasitology, Faculty of Medicine, UiTM. Dr. Wang's extensive involvement in research, innovation, and academic publications has positioned her perfectly to lead IMMB into an exciting new chapter. Her dedication and expertise will undoubtedly drive the department towards new heights of excellence.

A Hands-on Microbiology Basic Techniques Workshop 2024 was successfully conducted on 13th August 2024, attended by 25 participants. The workshop introduced basic microbiology techniques, including sterilization, media preparation, microorganism isolation, staining, and microscopy. Participants also learned methods to culture microorganisms in appropriate media and techniques to identify them based on physical characteristics. The workshop was facilitated by Ben Puah Boon Peng, Nurul Aisyah Mohd Azdman, Nurul Azmiera Zamri, Nurul Fathiyah Zaipul Anuar, and Aisyah Syakirah Shahari, with Assoc. Prof. Dr. Navindra Kumari A/P Palanisamy as the main speaker. By the end of the workshop, participants gained valuable hands-on experience in microbiology practices and skills for future scientific work.



The IMMB International Research Talk 2024 was held on Thursday, 15th August 2024. Dr. Ivy Hurwitz, a Research Professor at the University of New Mexico Health Sciences Center, Department of Internal Medicine, Center for Global Health, delivered a talk titled "Novel Approaches to Control of Insect Vectors." The talk focused on innovative strategies for managing insect vectors and highlighted recent research developments. It offered valuable perspectives on new methods for controlling the spread of diseases.

On August 21, 2024, Dr. Pruk Aggarangsi, Assistant Professor in Mechanical Engineering at Chiang Mai University and Special Representative at the Clean Energy Research and Development Institute-Nakornping, led an inspiring session in the IMMB International Webinar Series 2024. Titled "Chiang Mai University Sustainability Showcases: Fulfilling Pathway to Net Zero Campus" the webinar attracted 74 participants and was chaired by Miss Siti Aisyah Mokhtar. Dr. Pruk discussed Chiang Mai University's ongoing efforts to reduce waste and achieve its ambitious goal of becoming a Carbon Neutral University (CNU). He outlined various sustainability initiatives, including energy conservation strategies, the promotion of renewable energy sources like solar power, and waste management practices aimed at minimizing the campus's environmental footprint.



More information
of webinar can be
watch using the
QR code.

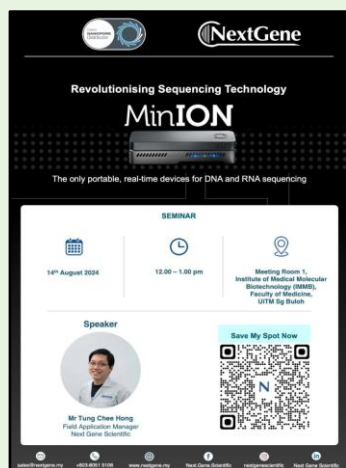
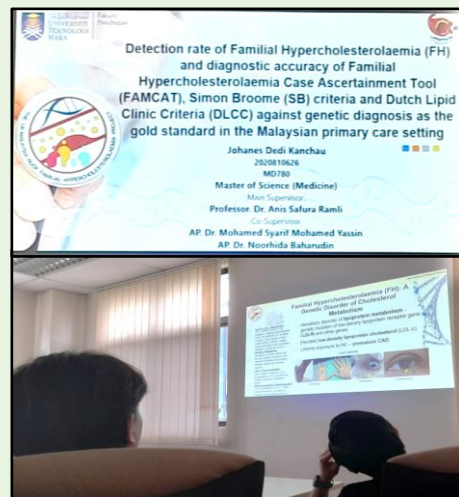


ACTIVITIES, INITIATIVES & INVOLVEMENT



On August 28, 2024, **Prof. Dr. Yeong Chai Hong** from the **School of Medicine at Taylor's University**, delivered an enlightening presentation at the **IMMB Research Talk 2024**. Titled **"Basic Principles of Thera(g)nostics Nuclear Medicine"**. Prof. Yeong introduced the concept of Thera(g)nostics, a cutting-edge approach that combines both therapeutic and diagnostic methods targeting the same molecular structures within the body. This dual approach allows for more precise patient selection, better prediction of treatment outcomes, and improved monitoring of tissue toxicity and therapeutic response, ultimately leading to superior clinical outcomes. This approach is particularly valuable in diagnosing and treating diseases such as cancer. The talk was attended by 22 participants and was chaired by Assoc. Prof. Dr. Heo Chong Chin.

On August 7, 2024, **Johanes Kanchau** presented at the IMMB Journal Club on a critical topic in cardiovascular genetics: **"Detection Rate of Familial Hypercholesterolaemia (FH) and Diagnostic Accuracy of Familial Hypercholesterolaemia Case Ascertainment Tool (FAMCAT), Simon Broome (SB) Criteria, and Dutch Lipid Clinic Criteria (DLCC) Against Genetic Diagnosis as the Gold Standard in the Malaysian Primary Care Setting."** Johanes explored the effectiveness of various diagnostic tools used to detect Familial Hypercholesterolaemia (FH), a genetic disorder that significantly increases the risk of early-onset cardiovascular disease due to high cholesterol levels. In his presentation, Johanes compared the detection rates and diagnostic accuracy of the FAMCAT, SB criteria, and DLCC against genetic testing, considered the gold standard for diagnosing FH. The talk is chaired by Mr. Muhammad Daniel Hakim Bin Zulkepli with an audience of 14 participants.



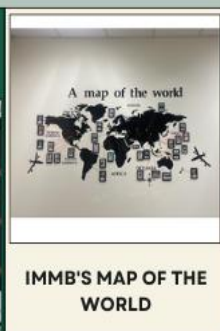
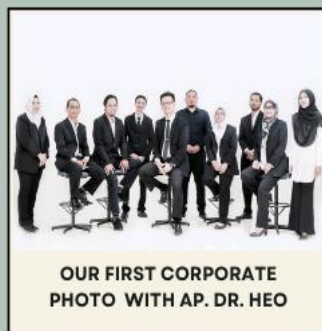
IMMB Technical Talk continues on 14th August 2024 with **Mr. Tung Chee Hong**, Field Application Manager at **Next Gene Scientific**, delivering a highly technical presentation titled **"Revolutionising Sequencing Technology: MinION"**. In his talk, Mr. Tung provided an in-depth explanation of the versatility and performance of the MinION DNA sequencing system, a portable device developed by Oxford Nanopore Technologies. He highlighted its capacity for real-time sequencing, enabling researchers to generate immediate results in the lab or in the field. Mr. Tung also discussed how the MinION is adaptable to different research needs, explaining the importance of selecting the appropriate model based on the required sequencing output. For small-scale projects or rapid analysis, the MinION provides a flexible and low-cost option, while larger-scale projects may benefit from higher throughput models like the PromethION. The talk was attended by 16 participants and the talk is chaired by Mr. Muhammad Daniel Hakim Bin Zulkepli.

The **Biosafety and Biosecurity Management Workshop**, organized by the **Institutional Biosafety Committee (IBC) UiTM**, was held on 21st and 22nd August 2024 at Universiti Teknologi MARA, Puncak Alam. This workshop was attended by IMMB staff, including Siti Nur Nabilah Hussin, Hazrul Nizam Hisham Hasmi, Muhammad Daniel Hakim Zulkepli, and Dayana Syahirah Adam Hong. The main objective of the workshop was to improve participants' knowledge and skills in managing biosafety and biosecurity in a research environment. Among the topics emphasized were good laboratory practices, personal protective equipment, risk assessment and mitigation strategies, emergency procedures, and waste management. Overall, in addition to successfully achieving its objective, the workshop also succeeded in forming a network among the participants, which helped in benchmarking and strengthening the level of biosafety and biosecurity in their respective labs.

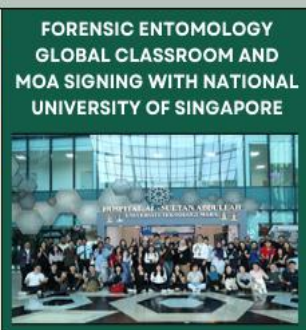


"Knowledge is not what is memorised. Knowledge is what benefits." - Imam Shafie

KEY MOMENTS | ASSOCIATE PROFESSOR DR. HEO CHONG CHIN!



THANK YOU FOR BEING AN IMPORTANT PART OF IMMB



UNDER THE LEADERSHIP OF ASSOC. PROF. DR. HEO CHONG CHIN (AUGUST 2020 – AUGUST 2024), IMMB UNDERWENT SIGNIFICANT TRANSFORMATION. HIS FOCUS ON RESEARCH, FACILITY EMPOWERMENT, AND INTERNATIONAL LINKAGES, ALONG WITH HIS VISION FOR DIGITALIZATION, ELEVATED THE DEPARTMENT. DR. HEO'S EFFORTS ENHANCED IMMB'S REPUTATION AND EQUIPPED STAFF WITH VALUABLE SKILLS. WE SINCERELY THANK HIM AND WISH HIM WELL IN HIS FUTURE ENDEAVORS.