# Institute of Medical Molecular Biotechnology Newsletter



UNIVERSITI TEKNOLOGI MARA Institut Bioteknologi Perubatan Molekul

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**IMMB INTERNATIONAL TALK WITH FULBRIGHT SPECIALIST.** IMMB is delighted to have welcomed **Prof. Dr. Vyacheslav Dushenkov**, a Fulbright specialist from **Hostos Community Vollege**, **The City University New York (CUNY)**, on 8<sup>th</sup> August 2023. Dr. Dushenkov had visited IMMB's research facilities, laboratory equipment, and ongoing research projects. Moreover, he delivered an international lecture entitled **"Botanical Therapeutics: Insights from the US."** In this talk, he shared approaches to maintaining health and well-being through multi-component botanical therapeutics. The discussion included valuable insights and new findings that can indirectly contribute to enhancing the practice of self-care. This talk was moderated by Assoc. Prof. Dr. Heo Chong Chin and attended by 20 participants.





**IMMB RESEARCH TALK 2023**. The talk took place on 2<sup>nd</sup> August 2023. The guest speaker was **Assoc. Prof. Dr. Mariatulqabtiah Abdul Razak**, from the **Institute of Bioscience**, **University Putra Malaysia (UPM).** She presented on the topic "Poxviruses as Vaccine Vectors for Human and **Poultry Diseases**". During the talk, she shared her extensive experience and knowledge regarding poxviruses, which can lead to diseases in both humans and various animals. This subject holds significant importance, as these viruses are easily transmissible and typically spread through contact with contaminated animals, individuals, or materials. This talk was chaired by Ms. Siti Aisyah Mokhtar and attended by 24 participants from different departments.

**IMMB RESEARCH TALK 2023** was conducted on 23<sup>rd</sup> August 2023, featured Assoc. Prof. Dr. Mohd Zulkhairi Mohd Yusoff from the Institute of Tropical Forestry and Forest Products (INTROP), UPM as the invited speaker. Prof. Dr. Mohd Zulkhairi presented an enlightening talk entitled "Utilizing Biomass for Value-Added Products through Innovative Biotechnology Approaches." This talk not only shed light on the efficient utilization of biomass resources but also emphasized the potential of converting waste materials into valuable assets. He also shared information about the biorefinery complex facility at UPM, including its achievements and future planning. Mr. Azhar Ahmad chaired the talk, with 20 participants in attendance.

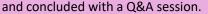




**Congratulations** to Amir Muhaimin Akmal Shukri, Dr. Siti Farah Alwani Mohd Nawi, AP. Dr. Wang Seok Mui, and AP. Dr. Chia Suet Lin, for their outstanding achievements in two prestigious events. They won a gold medal and achieved 1st runner-up at the International Innovation and Invention Competition Through Exhibition (ICOMPEX) 2023 with their project titled "MyCoVLPs: A Safe Alternative for SARS-CoV-2 Studies," held from 4<sup>th</sup> to 6<sup>th</sup> July 2023, at Politeknik Sultan Abdul Halim Muadzam Shah, Kedah. Additionally, they received a silver medal at the 34th International Invention, Innovation & Technology Exhibition (ITEX) 2023 for the same project. This event, organized by the Malaysian Invention and Design Society (MINDS), took place on 11<sup>th</sup> and 12<sup>th</sup> May 2023, at KL Convention Centre, providing inventors the opportunity to gain recognition for their inventions and compete for local and international awards and medals. May this recognition inspire everyone to pursue further innovation in the future.

## **ACTIVITIES, INITIATIVES & INVOLVEMENT**

The IMMB TECHNICAL TALK 2023 took place on 9<sup>th</sup> August 2023, featuring Dr. Petr Gorelkin as the invited speaker. Dr. Gorelkin is the co-founder of the UK-based company ICAPPIC Limited, known for producing and developing nanoscale SICM (Scanning Ion Conductance Microscopy) for non-destructive topographic imaging. His presentation, titled "Scanning Ion Conductance Microscopy (SICM) in Biological Applications", is particularly valuable for postgraduate students conducting cell research. During this talk, we learned that SICM can assist in studying cell microstructure in detail and reveal the nature of molecular movement in life activities. The talk had 14 participants







**SPRING CLEANING DAY FREEZER BAY, LEVEL 1 IMMB.** This bi-annual event took place on 17<sup>th</sup> August 2023. All users, including postgraduate students, research assistants, and researchers, were required to participate in this event. The cleaning process involved removing unnecessary ice buildup and disposing of unclaimed or unnamed items to optimize freezer space. This enables the storage of more samples to be organized and easily accessible. The proper freezing procedure also potentially extends the shelf life of both the freezers and the samples. This event was conducted and supervised by Mr. Mohd Ameer Azeezy Abdul Wahab. IMMB was very grateful to the researchers who attended and cooperated to achieve the objectives of this event.

**IMMB JOURNAL CLUB 2023** was held on 16<sup>th</sup> August 2023. The invited presenter was **Noor Azleen binti Mohamad**, an MSc student under the supervision of **Dr. Amirah Abdul Rahman**. During her talk, she shared her expertise on the topic titled **"Elucidating the Effect of Hydroxychavicol in Combination With 5-Fluorouracil in Modulating the Purine Metabolism of Colorectal Cancer Cells."** She discussed the causes and symptoms of colorectal cancer and shared preventive and treatment methods, which greatly benefited the audience. Mr. Hazrul Nizam Hisham Hasmi moderated this talk, which was attended by 20 participants.





The IMMB JOURNAL CLUB continued on 25<sup>th</sup> August 2023, with John Gregorian, a research intern from Loyola University Maryland, USA, as the invited speaker. He presented his research titled "Tropical Ants and Their Behavior in Carrion Ecology: Species Diversity and Burial Behavior." In addition to sharing his methodology, findings, and experiences of conducting research here within a limited timeframe, he also shared his compelling reasons for choosing Malaysia as his destination, the rationale behind his internship here, and his insightful experiences as a newcomer to Malaysia. This talk was moderated by Ms. Siti Aisyah and attended by 15 participants.

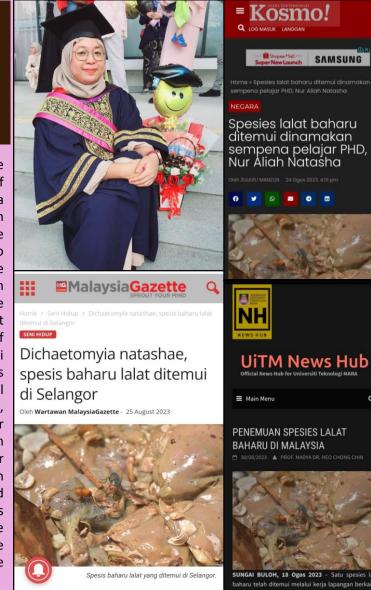
On August 24, 2023, IMMB had the opportunity to visit DeRimba Agro Farm. The visit was led by the Director of IMMB and included eight staff members. DeRimba Agro Farm is located in Hulu Langat and is a fruit farm that also produces bokashi fertiliser and liquid organic fertiliser. The farm also offered agricultural consulting services through its founder, Tuan Tajuddin Ismail, FASc. During the visit, we were shown how to produce fertilisers using wasted organic matter. The production of this type of fertiliser method requires skill and scientific understanding, involving the use of enzymes as boosters. To produce excellent fertilisers, factors such as the timing and composition of wasted organics, as well as monitoring, are highly emphasized. Tuan Tajudin also shared planting tips when we visited the durian and rambutan fruit plantation areas, as well as herbal plantations such as lemon myrtle. We were very lucky to be invited to eat the durian that had just fallen in his farm. This memorable visit ended with the exchange of souvenirs between both sides.



"Leadership is intangible, and therefore no weapon ever designed can replace it" - Omar N. Bradley

### HIGHLIGHT OF THE MONTH: A new species of fly named after a PhD Student

Ms. Nur Aliah Natasha Azmi, a PhD student at the Faculty of Medicine, UiTM, under the supervision of Assoc. Prof. Dr. Heo Chong Chin, has discovered a new fly species named **Dichaetomyia natashae** in Selangor. This fly was identified based on its unique morphological and genetic traits and is likely to serve as a decomposer in the natural mangrove swamp ecosystem. The discovery resulted from an entomological survey in a tropical coastal mangrove swamp in Selangor and was a collaborative effort among researchers from the National Institute of Infectious Diseases, Japan, Universiti Teknologi MARA (UITM), and Universiti Malaya (UM). Samples collected have been deposited at Japan's National Museum of Nature and Science, Tsukuba (NSMT), and IMMB. This discovery not only enhances our understanding of fly diversity and carrion ecology in Malaysia but also lays the groundwork for further research into its significance and role, especially in the field of forensics. When she was interviewed about this discovery, she felt very grateful for this achievement and hoped continue new to contributing to the world of research throughout the duration of her PhD studies. May her perseverance and achievements serve as an inspiration to all.



#### UITM ROYAL CHANCELLOR'S EXCELLENCE DOCTORAL AWARD 2022: Ts. Dr. MUHAMMAD ZULFIQAH SADIKAN



Congratulations to Ts. Dr. Muhammad Zulfiqah Sadikan, a recent PhD graduate from the Faculty of Medicine, who was under the supervision of Assoc. Prof. Dr. Nurul Alimah Abdul Nasir for receiving the ROYAL CHANCELLOR'S EXCELLENCE DOCTORAL AWARD 2022. His study journey began as an MSc student (MD 780) in September 2018. He was then awarded a PhD conversion (MD 990) in February 2020 and finally received a senate letter in March 2022. He has successfully published 6 manuscripts and 11 abstracts, in addition to producing 30 conference abstracts and 7 innovation presentations. Throughout this journey, he has won 13 research awards from various organizations. In addition to this prestigious award, he is also a recipient of the ANUGERAH PENYELIDIKAN CEMERLANG UITM for the PhD program. He is now an Assistant Professor at the Faculty of Medicine, Manipal University College Malaysia. His deep interest in pharmacology has led him to expand his research, particularly in the area of antioxidants against ocular diseases.



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