

Institute of Medical Molecular Biotechnology Newsletter



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Junior Scientist Day (JSD) 2025: A Forensic Adventure for Young Minds. The Junior Scientist Day (JSD) program 2025 took place on the **21st & 22nd of January** at the Institute of Medical Molecular Biotechnology (IMMB), Faculty of Medicine, UiTM Sg. Buloh, Selangor. The event brought together 170 enthusiastic young minds aged 7 to 12 for an exciting exploration of forensic science. This year's theme, Crime Scene Investigation (CSI), invited participants to immerse themselves in the thrilling world of crime-solving, where they worked collaboratively to unravel the mystery of **The Mysterious Death of Mukesh James**. The program featured



eight engaging and interactive forensic stations designed to provide hands-on experiences in a variety of scientific disciplines. The stations covered topics such as **CSI, Entomology, Fingerprint and DNA Analysis, Forensic Pathology, Microbiology, Cyber Crime, Hematology, and Forensic Chemistry**, allowing participants to dive deep into the science behind real-life investigations. One of the most captivating moments of the event was the **fire safety demonstration conducted by the Sungai Buloh Fire and Rescue Department, which showcased essential life-saving skills**. This program aimed to **spark curiosity in STEM subjects while nurturing critical thinking, problem-solving, and teamwork among the young participants**. Additionally, as part of the event's commitment to social responsibility, 20 anak-anak asnaf from the nearby community were invited to take part in the program. The event's success was made possible thanks to the collaboration with distinguished organizations, including PDRM, USM, UiTM, and MCMC, as well as the dedication of IMMB staff and the invaluable support of postgraduate student volunteers.

Visit of delegation from Universitas Wijaya Kusuma Surabaya, Indonesia. On **6th February 2025**, IMMB welcomed a delegation of 15 individuals from Universitas Wijaya Kusuma Surabaya, Indonesia, led by **Dr. Inawati, M.Kes., Vice Dean of Cooperation and Finance**, and **Dr. dr. Sukma Sahadewa, Vice Dean of Student Mobility**, along with the head of the department and several medical students. The visit commenced with a welcoming speech by **Assoc. Prof. Dr. Leny Suzana Suddin, Deputy Dean, Industry, Community, and Alumni Network, Faculty of Medicine UiTM**, followed by an introduction to IMMB by the Director, **Assoc. Prof. Dr. Wang Seok Mui**. A research-sharing session was then presented by **Dr. Eva Diah Setijowati**, a visiting lecturer from Universitas Wijaya Kusuma, and **Dr. Mimi Sophia Sarbandi**, a Maternal-Fetal Embryo Research Group (MaTE) representative. The purpose of the visit was **to establish collaboration in teaching and medical research and explore potential partnerships that could strengthen the academic and research ties between the two institutions**.



The **IMMB Research Talk IRT 02/2025** took place on **12th February 2025**, featuring **Assoc. Prof. Dr. Kenny Voon Gah Leong** from the **Department of Biomedical Science, School of Pharmacy, University of Nottingham Malaysia (UNM)**. In his talk titled "**Pteropine Orthoreovirus: Surveillance in Humans, Bats, and Swine**," Dr. Kenny shared his research on Pteropine Orthoreovirus (PRV). This emerging bat-borne virus has been linked to cases of **acute respiratory infections (ARI)** in humans. He discussed his work monitoring the prevalence of PRV in various locations across Malaysia. Dr. Kenny explained that PRV patients generally exhibit moderate to severe symptoms, including cough, sore throat, and muscle aches, with fever being a rare occurrence. The session, which was attended by **32 participants**, provided valuable insights to IMMB students and staff on the surveillance and impact of this emerging virus.

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ACTIVITIES, INITIATIVES & INVOLVEMENT

IMMB Seminar Series ISS 01/2025. On 18th February 2025, Maya Sari Ahmat Arbi, the Technical Support Manager from **Matrix Optics (M) Sdn. Bhd.**, presented on **Olympus Imaging System**. This seminar was specifically organized as part of the training program for **IMMB Cell Culture Laboratory users**. The seminar's main focus was the **Olympus Imaging System (cellSens Dimension)**, a platform that integrates fully automated image acquisition with powerful analysis tools. The system supports various applications, such as image processing, brightness analysis, colocalization analysis, and 6D image acquisition, combining multiple imaging parameters like XY, Z, Ch, T, and stitching. The seminar, which lasted for three hours, began in Meeting Room 1 and included a hands-on demonstration in the Transfection Cell Culture Room. The session was well-attended, gathering **25 participants**, including **IMMB students and staff**. The event proved to be a valuable experience, contributing to the continuous development and expertise of those involved in cell culture research and imaging.



The **IMMB Journal Club IJC 02/2025** continued on 20th February 2025, featuring a presentation by **Ms. Nurul Fathiyah Zaiful Anuar**, a postgraduate student under the supervision of **Assoc. Prof. Dr. Navindra Kumari Palanisamy** and co-supervised by **Assoc. Prof. Dr. Jamal Houssaini** and **Prof. Ts. Dr. Mohd Nasir Mohd Desa (UPM)**. In her talk, Nurul Fathiyah shared her research titled "**Molecular Characterization and Immunostimulatory Properties of Extracellular Membrane Vesicles (EMVs) of Streptococcus pneumoniae.**" Her study aimed to analyze the extracted EMVs to explore their potential in developing a highly effective vaccine. The online session was well-attended, with **30 participants** joining the discussion. The talk was chaired by **Mr. Amir Muhaimin Akmal Shukri**. This session provided valuable insights into the potential applications of EMVs in vaccine development and significantly contributed to the ongoing research discussions at IMMB.

Congratulations to Dr. Sarabjit Singh for successfully passing his Viva Voce! We congratulate **Dr. Sarabjit Singh** for successfully passing his viva voce on 15th January 2025. His research, titled "**The Impact of Carrion Decomposition on Soil Arthropoda, Soil Nematodes, and Physiochemical Parameters of Soil Beneath and Around Rabbit Carcasses,**" provides valuable insights into the ecological processes of decomposition and its influence on soil ecosystems. This achievement is a testament to his dedication, perseverance, and commitment to academic excellence. Dr. Sarabjit's journey was guided by the invaluable mentorship of his supervisor, **Assoc. Prof. Dr. Heo Chong Chin**, along with his co-supervisors, **Assoc. Prof. Dr. Mansharan Kaur**, **Assoc. Prof. Dr. Razuin Rahimi**, and **Assoc. Prof. Dr. Yong Soon Kong**, whose guidance played a crucial role in shaping his research. We celebrate this milestone on behalf of the Institute of Molecular and Medical Biotechnology (IMMB) and wish Dr. Sarabjit Singh continued success in his future endeavors. **Congratulations!**



Memorandum of Understanding Document Exchange Ceremony Between UiTM and MACEE. On 27th January 2025, a significant Memorandum of Understanding (MoU) document exchange ceremony took place between **Universiti Teknologi MARA (UiTM)** and the **Malaysian-American Commission on Education Exchange (MACEE)**. This momentous event aimed to enhance collaboration in education and student mobility and foster the exchange of knowledge, experiences, and opportunities between both institutions. The ceremony was held at **Bangunan Canseleri Tuanku Syed Sirajuddin, UiTM Shah Alam,**



Selangor. The ceremony commenced with a welcoming speech by **Assoc. Prof. Datin Dr. Norazida Mohamed**, Assistant Vice Chancellor (Internationalization) UiTM Global, followed by remarks from **Mr. Curtis Johnson**, Executive Director of MACEE. The highlight of the event was the formal exchange of MoU documents, with **Assoc. Prof. Datin Dr. Norazida** representing UiTM and **Mr. Curtis Johnson** representing MACEE. The ceremony was graced by the presence of Top Management from the Faculty of Medicine, UiTM, including **Prof. Dr. Fazah Akhtar Hanapiah**, Dean, **Prof. Anis Safura Ramli**, Deputy Dean of Research and Innovation, **Assoc. Prof. Dr. Yuhaniza Shafinie Kamsani**, Deputy Dean of Student Affairs, alongside various department heads.

The event was also attended by MACEE staff, namely **Datin Sharifah Ikhlas AlJaffree**, External Relations Specialist of MACEE. The ceremony concluded with a group photo, marking the beginning of a strengthened collaboration between UiTM and MACEE, which is expected to lead to more opportunities for international student and research exchanges.

"The important thing is to never stop questioning. Curiosity has its own reason for existing."

– Albert Einstein (Nobel Prize in Physics, 1921)

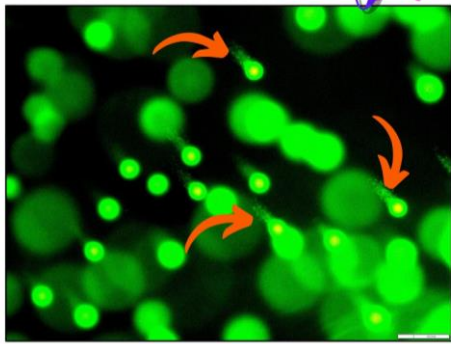
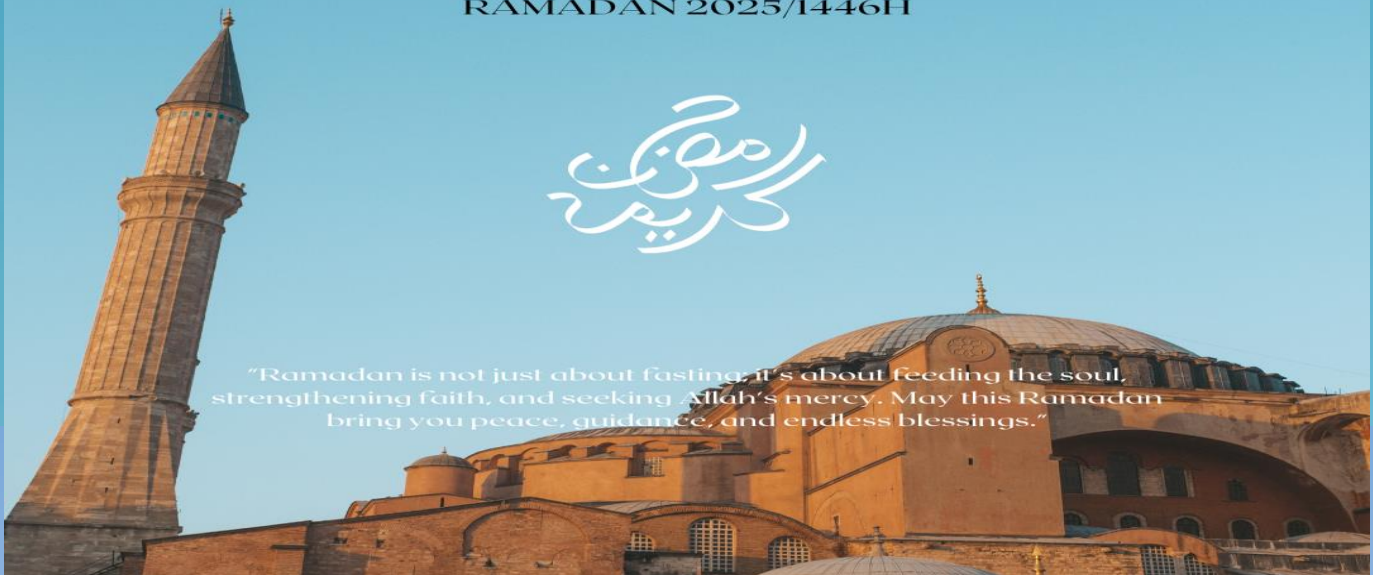


Image courtesy of Siti Rohaliza Alitar, PhD student under supervision of Associate Professor Dr. Muidiana Muhamad.

Assessing DNA Damage in Knee Osteoarthritis Patients. This image results from a comet assay employing TBS single-cell gel electrophoresis to determine DNA damage in knee osteoarthritis patients as examined under an epifluorescence microscope. The comet-like structures (red arrows) result from the migration of DNA fragments toward the anode under an applied electric field. Each comet is characterized by a circular head representing intact DNA and a following tail indicating DNA damage, with longer tails suggesting increased fragmentation.



RAMADAN 2025/1446H



"Ramadan is not just about fasting; it's about feeding the soul, strengthening faith, and seeking Allah's mercy. May this Ramadan bring you peace, guidance, and endless blessings."



PROGRAM IHYA RAMADAN 1446H



TAZKIRAH RAMADHAN

6 MAC 2025 (KHAMIS) | 1200 - 1300
PUASA BUKAN SEKADAR MENAHAN LAPAR...
USTAZ PUAAD BIN OSMAN,
PENOLONG PENDAFTAR KANAN HAL
EHWAL ISLAM, UITM SEREMBAN



TAZKIRAH RAMADHAN

13 MAC 2025 (KHAMIS) | 1200 - 1300
NUZUL AL-QURAN: KEMBALI
KEPADA PETUNJUK
ILAH
USTAZ ADAM BIN ZAKARIA,
PENOLONG
PENDAFTAR KANAN (HAL EHWAL ISLAM)
UITM PUNCAK ALAM

"Bersama-sama kita memeriahkan Program Tazkirah Ramadhan dan menghidupkan majlis ilmu di bulan yang penuh keberkatan ini. Raih pahala, tingkatkan ketakwaan, dan perkuhuk ukhwah. Jangan lepaskan peluang untuk menyuburkan hati dengan ilmu dan peringatan!"

PROGRAM bersama MedIPA BUBUR MANIS

12 MAC 2025 (RABU)
'tertakluk kepada perubahan'



TAZKIRAH RAMADHAN

20 MAC 2025 (KHAMIS) | 1200 - 1300
LAILATUL QADAR: MALAM SERIBU
KEAJAIBAN
USTAZ AFIF IZWAN BIN HAJI NORDIN
UITM PUNCAK ALAM



TAZKIRAH RAMADHAN

27 MAC 2025 (KHAMIS) | 1200 - 1300
TERAKHIRKU? AMALAN SYAWAL
MEMBAWA BERKAT
DR. HASHIM BIN AHMAD SHIYUTI
UNIVERSITI SAINS ISLAM MALAYSIA