

# Institute of Medical Molecular Biotechnology Newsletter



UNIVERSITI  
TEKNOLOGI  
MARA

Institut  
Bioteknologi  
Perubatan  
Molekul

Issue 54 | April 2025 | <https://immb.uitm.edu.my/>

**Webinar Invitation**

**TSX Series Ultra-low Freezers**  
To Meet The Highest Sustainability, Temperature Management And Reliability Standards

**Event Details**

**Date**  
19th March 2025 (Wednesday)

**Time**  
9am - 10am

**Speaker**  
Mr. Ian Tan  
Product Manager, Fisher Scientific

**Event Agenda**

Time	Content	Duration	Speaker
9:00am - 9:05am	Introduction	5 Mins	Mr. Chong Yong Tan, Channel Manager
9:05am - 9:55am	TSX Series Ultra-low Freezers: To Meet The Highest Sustainability, Temperature Management And Reliability Standards	50 Mins	Mr. Ian Tan, Product Manager
9:55am - 10:00am	Q&A and Quiz Session	5 Mins	Mr. Ian Tan, Product Manager

Find out more at [myfisherstore.com/](https://myfisherstore.com/)

Delivered by Fisher Scientific, Connected to Fisher

© Copyright © 2025 Fisher Scientific Corporation  
All rights reserved. 401-232-2389  
Fisher Scientific is a registered trademark of Fisher Scientific Corporation.

**Register Now**

**fisher scientific**  
Laboratory Equipment Specialist

**IMMB Technical Talk: Enhancing Research Awareness Through Sustainable Cold Storage Solutions.** On 19<sup>th</sup> March 2025, the Institute of Medical Molecular Biotechnology (IMMB) successfully held a Technical Talk in collaboration with Thermo Fisher Scientific Malaysia. The online session, titled **“TSX Series Ultra-Low Freezers: To Meet the Highest Sustainability, Temperature Management, and Reliability Standards,”** was conducted via Webex and featured **Mr. Chong Yong Tan**, Channel Manager at Thermo Fisher Scientific, as the invited speaker. The session was attended by **22 participants**, including IMMB staff and users. Mr. Chong shared valuable insights into the innovative TSX Series Ultra-Low Freezers, focusing on their energy efficiency, precise temperature control, and robust reliability—features essential to maintaining high standards in laboratory research environments. The talk aimed to **increase awareness of sustainable cold storage solutions** while supporting research teams in making informed decisions about laboratory equipment. Participants had the opportunity to engage directly with the speaker during a lively Q&A and interactive quiz segment, which further enriched the learning experience.

IMMB extends its heartfelt thanks to all who participated and contributed to the session’s success. The institute remains committed to hosting more impactful technical talks that support knowledge-sharing and continuous professional development in the research community.

**IMMB Journal Club (IJC 04/2025). Unveiling Molecular Gateways: How OtOmpA Drives Cellular Invasion in Scrub Typhus.** The IMMB Journal Club held on 9<sup>th</sup> April 2025, featuring an engaging presentation by **Ms. Noor Hanisa Harun**, a PhD Student, Faculty of Medicine UiTM under the supervision of **Assoc. Prof. Dr. Wang Seok Mui**. She presented her research titled **Elucidating Protein-Protein Interactions Between Host Cell Receptors and Outer Membrane Protein A (OmpA) of Orientia tsutsugamushi in the Pathogenesis of Cellular Invasion**. Her study focuses on understanding the role of OmpA in mediating host-pathogen interactions during scrub typhus infection. Specifically, she explored how OmpA facilitates the adhesion and invasion of human endothelial cells. Using a combination of *in vitro* pull-down assays and silico protein docking analyses, she identified several potential human protein partners of OmpA. These discoveries offer fresh insights into the molecular mechanisms of OmpA. *tsutsugamushi* invasion and highlight new possibilities for diagnostic and therapeutic strategies against scrub typhus. The session attracted **18 attendees**, including students, staff, and researchers. A dynamic discussion followed the presentation, reflecting the interest and relevance of the research. The journal club continues to provide a platform for early-career researchers to share innovative biomedical findings and engage with the scientific community.

**IMMB JOURNAL CLUB 2025**  
IJC 04/2025

**Elucidating Protein-Protein Interactions Between Host Cell Receptors and Outer Membrane Protein A (OmpA) of *Orientia tsutsugamushi* in the Pathogenesis of Cellular Invasion**

**WEDNESDAY**  
09 APRIL 2025

**12 PM - 1 PM**

**VENUE**  
IMMB Level 1 Meeting Room 1  
Faculty of Medicine  
UiTM Sungai Buloh

**PRESENTER**  
**NOOR HANISA HARUN**

For any inquiries, contact Aisyah +6013-5214525



**Familiarization and Hands-On Workshop: Strengthening Skills, Building Connections.** IMMB successfully organized a **Familiarization and Hands-On Workshop on PCR and Gel Electrophoresis** with the University College MAIWP International (UCMI) on 17<sup>th</sup> March 2025 at the DNA Laboratory, IMMB. The workshop, which was the second collaboration between UCMI and IMMB, aimed to enhance UCMI students’ knowledge and technical skills in PCR and gel electrophoresis, which are essential techniques in molecular biology. A total of 12 students and three officers from UCMI participated, joined by IMMB staff members **Mr. Muhammad Daniel Hakim Zulkepeli** and **Ms. Siti Aisyah Mokhtar**. Facilitated by **Mr. Hazrul Nizam Hisham Hasmi**, Senior Assistant Science Officer, along with two IMMB PhD students, this initiative not only provided hands-on training but also strengthened the academic and research partnership between the two institutions, paving the way for future collaboration. The overwhelming success of the workshop is a testament to the potential of such collaborations and the dedication of the participants.



Scan Me

**FOLLOW, LIKE & SHARE**

**FOLLOW, LIKE & SHARE**

**FOLLOW, LIKE & RETWEET**

**BROWSE & EXPLORE**

**LIKE, SUBSCRIBE & SHARE**

# ACTIVITIES, INITIATIVES & INVOLVEMENT



**Cheers to Mr. Radzi Ikhwan Ahmad: A New Milestone in Dengue Research.** We extend our warmest congratulations to **Mr. Radzi Ikhwan Ahmad** on successfully defending his PhD thesis on **19<sup>th</sup> March 2025** — a significant milestone in his academic journey. His thesis, "*In-vitro analysis on the effects of human apolipoprotein A1, B and E in modulating four dengue virus serotypes severity via its internalization and replication in U937 and HuH-7 cell lines,*" offers valuable insights into the role of apolipoproteins in dengue virus replication and severity, contributing meaningfully to virology and molecular medicine. Mr. Radzi completed his PhD under the supervision of **Assoc. Prof. Dr. Thuhairah Hasrah Abd Rahman**, with **Assoc. Prof. Dr. Wang Seok Mui** and **Assoc. Prof. Dr. Fadzilah Mohd Nor** as co-supervisors. Congratulations on this well-earned title and impactful research!

**Celebrating Excellence: Ms. Farhana Khamarudin Earns Her PhD.** A heartfelt congratulations to **Ms. Farhana Khamarudin** for successfully defending her PhD thesis on **27<sup>th</sup> March 2025**. Her research, "*Investigation on the enhancement of adoptive immunotherapy using Spironolactone and Rosiglitazone in Osteosarcoma Mouse Model,*" explores innovative methods to enhance adoptive immunotherapy in osteosarcoma, contributing fresh perspectives to cancer treatment strategies. Ms. Farhana conducted her PhD work under the supervision of **Assoc. Prof. Dr. Sharaniza Ab Rahim**, with co-supervisors **Assoc. Prof. Dr. Mudiana Muhamad**, **Dr. Wan Nor Izzah Wan Mohd Zain**, and **Assoc. Prof. Dr. Mohd Johari Ibrahim**. Her perseverance, curiosity, and commitment to translational research are truly commendable. Congratulations on your inspiring achievement!

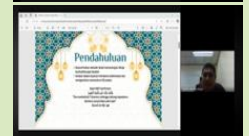


**Congratulations to the IMMB Best Student Award 2024 Recipients!** On **18<sup>th</sup> April 2025**, we proudly congratulated **Ms. Nurul Azmiera Zamri** and **Ms. Nor Shazlina Mohamed Mizan** on being named recipients of the **IMMB Best Student Award 2024**, in recognition of their outstanding academic performance, research excellence, and active involvement in the Postgraduate Society (MediPA) and IMMB activities. **Ms. Nurul Azmiera**, a PhD candidate, is supervised by **Assoc. Prof. Dr. Heo Chong Chin** and co-supervised by **Assoc. Prof. Dr. Hassanain Al-Talib**. **Ms. Nor Shazlina**, a Master's student, is supervised by **Assoc. Prof. Dr. Hassanain Al-Talib** with **Assoc. Prof. Dr. Wang Seok Mui** as co-supervisor. Both students have demonstrated exceptional dedication to research and consistent engagement in academic and student-led initiatives throughout their postgraduate journey. The award plaques and certificates were presented by **Assoc. Prof. Dr. Hazlyna Baharuddin**, Deputy Dean (Academic). IMMB extends its heartfelt congratulations to both recipients and wishes them continued success in their academic and professional pursuits.



**IMMB Ramadan Tazkirah 2025 Enlivens Ramadan Online.** Throughout Ramadan 1446H, the Institute of Medical Molecular Biotechnology (IMMB) successfully hosted a virtual tazkirah series that received encouraging participation and engagement. The program began on **6<sup>th</sup> March 2025** with "*Puasa: Bukan Sekadar Menahan Lapar*" by **Ustaz Puaad bin Osman** (Senior Assistant Registrar, Islamic Affairs, UiTM Negeri Sembilan), drawing nearly 400 participants. On **13 March**, **Ustaz Adam bin Zakaria** (Hospital Al-Sultan Abdullah, UiTM Puncak Alam) delivered "*Nuzul Al-Quran: Kembali kepada Petunjuk Ilahi*", attended by 100 participants. The third session on **20 March**

featured **Ustaz Afif Izwan bin Haji Nordin** (Managing Director, Ihya Addin Resources) with "*Lailatul Qadar: Malam Seribu Keajaiban*", followed by the final session on **27 March** by **Dr. Hashim bin Ahmad Shiyuti** (Universiti Sains Islam Malaysia), titled "*Ramadan Terakhirku? Amalan Syawal Membawa Berkat*", each attracting around 50 participants. Each tazkirah delivered impactful messages — from deepening the understanding of fasting, appreciating the Quran's guidance, and embracing the blessings of Lailatul Qadar, to encouraging the continuation of good deeds beyond Ramadan. This initiative not only strengthened IMMB's role as a research and outreach hub but also fostered spiritual growth and collaboration with external institutions. Despite being held online, the series successfully nurtured a meaningful Ramadan experience for all involved.



**Congratulations to Mr. Azhar Ahmad, Certified Professional in Biorisk Management.** We proudly congratulate **Mr. Azhar Ahmad** on successfully completing the **6<sup>th</sup> Malaysian Advanced Biorisk Officers Training (MABOT 6)** and earning the prestigious **Certified Professional in Biorisk Management** designation after passing the IFBA certification examination. Held from **October 2024 to February 2025**, MABOT 6 is Malaysia's premier advanced biosafety and biosecurity training program. The intensive course covered **17 comprehensive modules**, site visits, and hands-on sessions, aligned with international standards such as **CWA 15793**, **ISO 35001**, and Malaysia's national biosafety guidelines. This achievement reflects Mr. Azhar's dedication to biosafety excellence and reinforces our institution's commitment to fostering safe, responsible research environments. **Congratulations, Mr. Azhar — a well-deserved recognition of your professionalism and hard work!**

*"We need an opposition to remind us if we are making mistakes. When you are not opposed you think everything you do is right."*

- Dr. Mahathir bin Mohamad



**IMMB Shines in the 2025 Hari Raya Corner Decoration Competition.** IMMB proudly secured **Second Place** in the **2025 Hari Raya Corner Decoration Competition**, held on **11 April 2025** as part of the Faculty of Medicine's Hari Raya celebration at UiTM. The team also received a **Certificate of Appreciation** for their outstanding effort. Embracing the theme **"Modern Classic,"**

the IMMB team skillfully blended traditional and contemporary elements to create a festive and elegant display. The initiative was led by **En. Azhar Ahmad**, whose leadership and attention to detail were instrumental in the planning and execution of the setup. This achievement reflects the creativity, teamwork, and dedication of IMMB staff, highlighting the spirit of unity and excellence that drives the institute. It also serves as an inspiration to continue supporting initiatives that celebrate culture, collaboration, and innovation. We look forward to more opportunities to showcase IMMB's talent and team spirit in future events.

**Spreading Joy and Unity: IMMB Raya Celebration 2025.** On **18<sup>th</sup> April 2025**, IMMB, in collaboration with the Medical Postgraduate Association (MediPA), hosted the **IMMB Aidilfitri Feast and Raya Celebration 2025** at the IMMB lobby from 10.30 am to 3.00 pm. The event brought together IMMB staff, postgraduate students, researchers, facility users, and colleagues from the Faculty of Medicine and the Sungai Buloh campus. The celebration was graced by **Assoc. Prof. Dr. Hazlyna Baharuddin** (Deputy Dean, Academic) and **Assoc. Prof. Dr. Yuhaniza Shafinie Kamsani** (Deputy Dean, Student Affairs). It began with a welcoming speech by **Assoc. Prof. Dr. Wang Seok Mui**, Director of IMMB, who emphasized the importance of unity and connection within the IMMB community. The festive atmosphere was filled with laughter, meaningful conversations, and a delicious buffet featuring traditional Hari Raya dishes such as satay, rendang, nasi impit, and assorted kuih. A highlight of the event was the lucky draw, where duit raya prizes added a cheerful and playful touch to the celebration. More than just a festive gathering, the event served as a meaningful platform to strengthen bonds, celebrate cultural values, and foster a spirit of togetherness across the IMMB family.



**IMMB Image of Month: Cobblestone Patterns Under The Lens: HaCat Cells Cell Morphology.** HaCat cells, an immortalized human keratinocyte line, at 80%-90% confluency. Captured using a 10x objective lens under an inverted microscope, the cells exhibit a cobblestone-like morphology. HaCat cells are commonly used in dermatological research, including studies on skin regeneration, wound healing, and cellular response to treatments.

*Image courtesy of Khairiyah Murad, Master student under the supervision of Dr. Hassanain At-Talib*