

# Institute of Medical Molecular Biotechnology Newsletter



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**IMMB International Webinar Series 12/2024** was held on 21<sup>st</sup> November 2024 in a hybrid format, featuring **Associate Professor Dr. Kiyotaka Usui**, a forensic toxicologist from the **Division of Forensic Medicine, Tohoku University, Japan**. This highly anticipated session, attended by 49 participants, marked Dr. Usui's return to IMMB following his successful visit last year. Dr. Usui delivered a captivating talk titled **"Deaths by Plant Poisoning"**, where he explored the historical use of plants as tools for homicide and suicide. His presentation shed light on the toxic active ingredients in poisonous plants and the advanced detection methods used in forensic investigations. He pointed out the importance of liver tissue samples and demonstrated how mass spectrometry and liquid chromatography are critical in ensuring accurate cause-of-death identification. The webinar, chaired by Amir Muhaimin Akmal Shukri, a PhD student and MediPA President, provided valuable insights into forensic toxicology and captivated both in-person and virtual audiences.



The **IMMB Research Talk 2024** continued on 20<sup>th</sup> November 2024 with an inspiring session featuring IMMB alumni **Dr. Danial Efendy Goon**. Dr. Danial shared his remarkable journey after completing his doctoral studies at the Faculty of Medicine, UiTM, in a talk titled **"Beyond Academia: My Journey to Medical Affairs"**. He provided valuable insights into his career progression, detailing his steps to become a Medical Scientific Liaison (MSL) in Medical Affairs at Novo Nordisk, one of the world's leading pharmacology companies. This captivating session highlighted alternative career opportunities beyond academia and research for medical postgraduates, broadening the horizons for postgraduate students. The talk, chaired by Amir Muhaimin Akmal Shukri, was attended by 25 participants, mainly postgraduate students. The talk emphasized that a fulfilling career beyond academia is achievable for medical postgraduates. Dr. Danial encouraged students to explore opportunities in industries like medical affairs, where they can apply their research expertise to real-world challenges. His journey illustrated how adaptability, continuous learning, and leveraging transferable skills are key to transitioning into roles that bridge science and industry. This session inspired participants to consider diverse career paths aligning with their professional goals and interests.



**IMMB Technical Talk: Maximizing Pipetting Accuracy and Liquid Handling.** On 5<sup>th</sup> December 2024, IMMB hosted a technical talk titled **"Get the Best Out of Your Pipetting & Liquid Handling Session"** to equip students and staff with essential skills in precision liquid handling. **Dr. Zahra Isnaini, PhD, Field Application Specialist from FC-BIOS Sdn Bhd**, presented the session and shared expert insights on effective pipetting techniques tailored to different liquids. Dr. Zahra highlighted the importance of selecting the correct pipette tips and volumes to ensure measurement accuracy. She also provided practical guidance on pipette maintenance and cleaning to extend the lifespan and reliability of these essential tools. The session included a hands-on demonstration, allowing participants to practice and refine their techniques. The talk successfully equipped participants with practical knowledge and skills to improve their laboratory practices and enhance accuracy in liquid handling tasks.



On 6<sup>th</sup> November 2024, the **IMMB Journal Club** featured a presentation from **Amy Suzana binti Abu Bakar**, a PhD student under the supervision of **Dr. Norhafiza Razali** and co-supervision of **Prof. Dr. Renu Agarwal, Prof. Dr. Igor Iezhitsa & Dr. Mohamad Aizuddin Mohamad Lazaldin**. Her study, titled **"Anti-remodelling Effects of Trans-Resveratrol and RU-615 on Extracellular Matrix in Steroid-induced Glaucoma Models via TGF- $\beta$ -SMAD Signalling Pathway"**, was well-received among postgraduate students, industrial trainees, and staff. In this session, she conducted a mock presentation for her viva voce, leveraging the platform to share knowledge, gather valuable feedback, and refine her presentation skills through interesting discussion.



# ACTIVITIES, INITIATIVES & INVOLVEMENT



**Congratulations to Sharifah Aliah Diyanah Syed, Amir Muhaimin Akmal Shukri, and Nur Aida Laili Mislan** for their remarkable achievements at the **INNOZILLA 2024 Innovation Competition and Exhibition**, held on **6<sup>th</sup>–7<sup>th</sup> November 2024** at **Universiti Sains Malaysia**, Penang and organized by **Universiti Sains Malaysia (USM)** in collaboration with **NCER Malaysia**. **Sharifah Aliah** received the **Gold Award**, **Amir Muhaimin** won the **Silver Award**, and **Nur Aida Laili** secured the **Bronze Award** for their outstanding innovative projects. Supervised by **Associate Professor Dr. Wang Seok Mui**, **Dr. Siti Farah Alwani Mohd Naw**, **Associate Professor Dr. Chua Ang Lim**, and **Associate Professor Dr. Hassanain Al-Talib**, the students showcased their creativity and dedication, gaining invaluable experience in pitching and networking. Their success is a proud moment for **IMMB** and inspires their peers to pursue similar opportunities.



**Congratulations to Associate Professor Dr. Heo Chong Chin!** We extend our heartfelt congratulations to **Associate Professor Dr. Heo Chong Chin**, former **Director of IMMB (August 2021 – August 2024)**, for receiving an award in the **Patent Granted 2023** category at the **Sanjung Sarjana Ceremony 2024** organized by **UiTM's Department of Research and Innovation**. The ceremony, held on **11<sup>th</sup> November 2024** at **Mardhiyyah Hotel, Shah Alam**, aimed to recognize outstanding researchers who have significantly contributed to the university's achievements, particularly in research and innovation. Associate Professor Dr. Heo was honoured for his invention titled **"An Apparatus for Collecting and Isolating a Particulate"**. He received a cash prize and a certificate of appreciation for his achievement. Congratulations, Associate Professor Dr. Heo, for this remarkable accomplishment that has brought pride to **IMMB** and **UiTM!**



**IIDEX 2024: Congratulations to Shazlina and the Team!** Heartiest congratulations to **Ms. Nor Shazlina binti Mohamed Mizan**, a Master's student under the supervision of **Assoc. Prof. Dr. Hassanain Al-Talib**, and her dedicated team members, **Assoc. Prof. Dr. Wang Seok Mui**, **Dr. Noraziah binti Sahlan**, **Assoc. Prof. Dr. Alyaa Rajih Mahmood**, and **Ms. Khairiyah binti Murad**, for their outstanding achievement at the **Invention, Innovation & Design Exposition (IIDEX) 2024**, held from **4<sup>th</sup> to 8<sup>th</sup> November** at **Dewan Berlian, UiTM Puncak Alam**. Their project, **"A Multiplex Cold Chain Free qPCR Rapid Detection Kit of Intestinal Protozoa From Stool Samples"**, impressed judges with its innovative approach to improving diagnostic accessibility, particularly in resource-limited areas. The success of this project earned the team a **Silver Medal** in the **Inventor (Academic/Researcher)** category. Well done to **Shazlina** and the team for this remarkable accomplishment in advancing health research!



**IMMB** proudly congratulates two postgraduate students, **Amy Suzana binti Abu Bakar** and **Nor Azmiera binti Ahmad**, who passed their viva voce sessions for PhD studies. **Amy Suzana** successfully defended her studies on **7<sup>th</sup> November 2024**, with the title **"Anti-remodelling Effects of Trans-Resveratrol and RU-615 on Extracellular Matrix in Steroid-induced Glaucoma Models via TGF- $\beta$ -SMAD Signalling Pathway"**, under the supervision of **Dr. Norhafiza Razali** and co-supervision of **Prof. Dr. Renu Agarwal**, **Prof. Dr. Igor Iezhitsa**, and **Dr. Mohamad Aizuddin Mohamad Lazaldin**. Meanwhile, **Nor Azmiera** passed her viva voce on **26<sup>th</sup> November 2024** entitled **Identification and Characterization of Antimicrobial Peptides from the Larvae of Black Soldier Fly, Hermetia illucens (Diptera: Stratiomyidae) and Blowfly, Chrysomya megacephala (Diptera: Calliphoridae) as Potential Solution to Antimicrobial Resistance**, under the main supervision of **Assoc. Prof. Dr. Heo Chong Chin**, as well as **Assoc. Prof. Dr. Hassanain Al-Talib**, **Assoc. Prof. Dr. Sharaniza AB Rahim**, and **Assoc. Prof. Dr. Anna Krasilnikova** as co-supervisors. This achievement is proof of their dedication, hard work, and commitment to the field of research, as well as being an inspiration to other students to continue to excel in academics and research. Congratulations, and good luck in the future.



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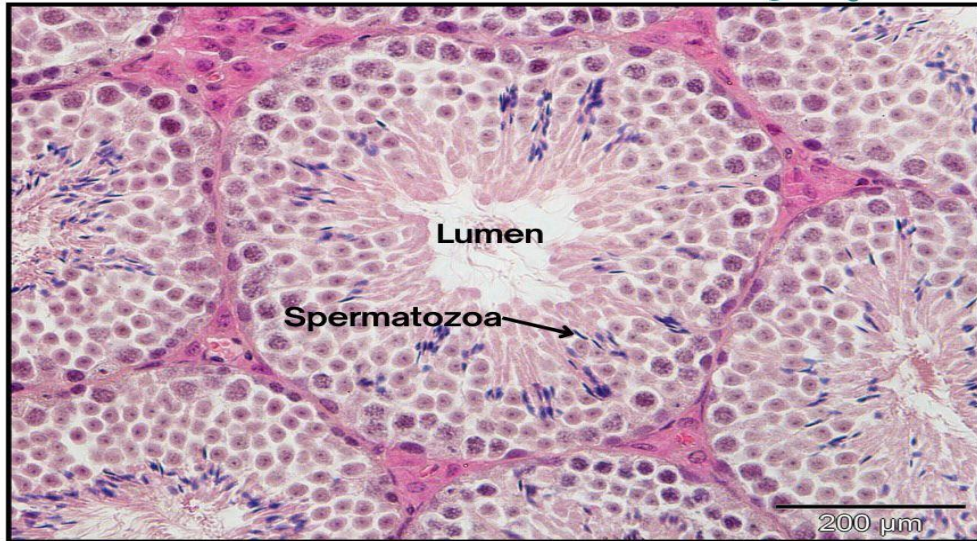


"Don't let yesterday take up too much of today" - Will Rogers





# Image OF THE Month



**Image of the month.** Hematoxylin and eosin staining of paraffin-embedded mouse testis sections demonstrated intact seminiferous tubules with properly arranged Sertoli cells. The tubular lumens were filled with spermatozoa, indicating normal spermatogenesis. This image was viewed using an upright microscope, Olympus BX53 at 40x magnification. (Image courtesy of Dr. Fathiah binti Abdullah, PhD student, Faculty of Medicine, UiTM (2017-2022)).

**JUNIOR  
SCIENTIST DAY  
2025**

Explore . Fun . Learn

**21<sup>st</sup> or 22<sup>nd</sup> January 2025**  
(Tuesday or Wednesday)  
8:00 am – 4:30 pm

Institute of Medical Molecular Biotechnology (IMMB)  
Faculty of Medicine, Universiti Teknologi MARA,  
Sungai Buloh Campus, Jalan Hospital, 47000 Sungai Buloh,  
Selangor, MALAYSIA

**Exciting News for  
Young Scientists!**

**RM100** for a day  
of CSI adventure

Limited to only **130**  
future scientists,  
aged **7-12 years old!**

Registration Deadline:  
**6<sup>th</sup> January 2025**

Scan here  
to register

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Have questions?  
Reach out to:

Cik Aina: 03-6126 5080  
Encik Nizam: 03-6126 5097  
Or drop us an email at:  
juniorscientistday@gmail.com

### Upcoming Event: Junior Scientist Day - Crime Scene Investigation Program 2025.

The Junior Scientist Day: Crime Scene Investigation Program will be held on the **21<sup>st</sup> and 22<sup>nd</sup> January 2025** at the **Institute of Molecular Medical Biotechnology, Faculty of Medicine, UiTM, Sungai Buloh Campus**. This program aims to spark the interest of children aged 7 to 12 in medical science, particularly forensic science. One hundred sixty participants will be hosted, and there will be ten people per group who will move from one station to another to collect the clues for solving the crime cases. The program will feature exciting hands-on activities led by scientists and professionals from esteemed organizations, including **Universiti Sains Malaysia, Penang, the Royal Malaysia Police, the Fire and Rescue Department, the Forensic Department of Al-Sultan Abdullah Hospital, and internal departments of UiTM's Faculty of Medicine**. This fascinating experience is crafted to ignite curiosity, enhance problem-solving skills, and provide insights into the fascinating world of forensic science. Don't miss this opportunity to inspire the scientists of tomorrow.