PRESCRIPTION

LATEST NEWS AND UPDATES FROM THE FACULTY OF PHARMACY



"A HOLISTIC APPROACH TO HEALTH AND WELLNESS THROUGH NUTRACEUTICALS IN PHARMACY"

The role of food in health, is more than just calories. Food has always been important for human survival, but its values go beyond just keeping us alive. The nutrients we consume have an extensive impact on our body's ability to function optimally. Macronutrients like carbohydrates, proteins, and fats provide the energy needed for daily activities, while micronutrients such as vitamins and minerals play crucial roles in metabolic pathways, immune function, and cellular repair.

In the 21st century, lifestyle diseases like obesity, cardiovascular diseases, diabetes, and cancer have reached epidemic proportions. Many of these conditions have strong dietary correlations. For instance, high intake of processed and sugary foods is linked to diabetes and hypertension, and diets low in fibre to gastrointestinal issues and certain types of cancer. The relationship between diet and disease has made it evident that food should not only nourish but also heal.

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The World Health Organization (WHO) highlights that an unhealthy diet is one of the major risk factors for chronic diseases, which are responsible for approximately 71% of deaths globally (1). This statistic emphasises the importance of shifting focus from treating symptoms to addressing underlying causes, often found in poor dietary habits. This will also contribute to the economic impact, which in Malaysia, for Budget 2024, Ministry of Health has been allocated RM41.2 billion, a significant increase of 13.5 percent from the previous year. Of this total, 13.34 percent were directed towards the procurement of medicine, vaccines, and essential consumables. It is also noteworthy that at least 130 million was allocated to health screenings and disease prevention activities (2-5).

The ancient saying, "Let food be thy medicine and medicine be thy food," attributed to Hippocrates, remains highly relevant today. As more people depend on pharmaceuticals, increasing research supports the idea that nutrition plays a critical role in disease prevention, management, and even treating diseases. This concept forms the foundation of nutraceuticals, a field that bridges the gap between nutrition and pharmaceuticals. For pharmacists, understanding nutraceuticals offers an opportunity to enhance patient care by integrating diet-based recommendations with pharmaceutical interventions. In this article, we explore the role of food in health, the rise of nutraceuticals, and how pharmacists can contribute to a holistic approach to health.

Is nutraceuticals the intersection of nutrition and pharmaceuticals? The term "nutraceutical" combined the words "nutrition" and "pharmaceutical." Nutraceuticals refer to products derived from food sources that provide health benefits beyond basic nutrition. They are found in a variety of forms, including dietary supplements, functional foods, and fortified foods. WHO focuses on functional foods, dietary supplements, and food fortification when discussing similar concepts (6). WHO emphasises that while these products can have health benefits, they should be properly regulated and researched for evidence-based use, and highlights the importance of a balanced diet as the primary means of maintaining good health.

Nutraceuticals can be classified into different categories:

- 1.Dietary supplements: These are products taken orally that contain one or more ingredients, such as vitamins, minerals, amino acids, herbs, or other botanicals, intended to supplement the diet.
- 2. Functional foods: These are foods that have been enhanced with additional ingredients to provide health benefits, such as probiotics in yogurt or omega-3 fatty acids in fortified eggs.
- 3. Medicinal foods: These are foods formulated to be consumed or administered under the supervision of a physician for the dietary management of specific diseases or conditions.
- 4. Herbal products: These include a variety of plant-derived substances that have medicinal properties, such as ginseng or turmeric.

Nutraceuticals are increasingly popular as consumers look for more natural ways to manage their health. The global nutraceutical market is expected to reach S722.5 billion by 2027, reflecting the growing demand for products that can improve health without the side effects often associated with conventional medications (7).

In Malaysia, National Pharmaceutical Regulatory Agency (NPRA) under MOH regulates nutraceuticals under a broader category of health supplements which must comply with specific guidelines to be legally marketed. A health supplement refers to any product used to supplement a diet and to maintain, enhance, and improve the health function of human body. These include small unit dosage forms in solid and liquid forms but not sterile preparations such as injectables and eyedrops (8).

Nutraceuticals play a significant role in both the prevention and management of various diseases. Research has shown that certain nutraceuticals can modulate physiological functions, including immune response, oxidative stress, inflammation, and hormonal balance. This makes them particularly useful in preventing lifestyle-related diseases (9-11).

Pharmacists are often the most accessible healthcare professionals, playing a crucial role in advising patients on the safe and effective use of nutraceuticals. Given their comprehensive understanding of pharmacology, pharmacists can help ensure that patients use nutraceuticals in a manner that complements their conventional medications.

However, the use of nutraceuticals is not without challenges. Nutraceuticals, like pharmaceuticals, can interact with prescription medications, leading to adverse effects. Moreover, the regulation of nutraceuticals is often less stringent than that of pharmaceuticals, leading to concerns about product quality, efficacy, and safety (12, 13). Pharmacists can play a critical role in educating patients about these risks, helping them choose high-quality products from reputable manufacturers. They can also help prevent potential interactions and reduce risks associated with overclaiming the benefits of nutraceuticals in treatment, ensuring the patients have realistic expectations about their use.

Despite the potential benefits, several challenges must be addressed to fully integrate nutraceuticals into modern healthcare. One major challenge is the lack of standardisation in nutraceutical products. Unlike pharmaceuticals, nutraceuticals do not undergo strict testing by regulatory agencies such as the U.S. Food and Drug Administration (FDA) or the European Medicines Agency (EMA). As a result, the potency and purity of these products can vary widely between brands (12).

Another challenge is the lack of comprehensive clinical data on the long-term safety and efficacy of many nutraceuticals. While some nutraceuticals, such as omega-3 fatty acids and probiotics, have been well-studied, others have limited scientific evidence supporting their use (12).

Despite these challenges, nutraceuticals present a unique opportunity for pharmacists to contribute to a more holistic approach to healthcare. By incorporating nutraceuticals into their practice, pharmacists can offer patients a wider range of treatment options, allowing them to take a more proactive approach to their health. Additionally, educating the public and patients on mindful eating habits and dietary control is essential in addressing health issues at their root. Furthermore, the budget allocated for the MOH in 2024, which includes provisions for health screenings and disease prevention activities, can potentially be used to fund public education programs focused on preventing non-communicable disease (NCDs). These initiatives would help raise awareness about the importance of lifestyle changes and early intervention in curbing the rise of NCDs, making health education a crucial element of disease prevention efforts. The 'War on Sugar' paired with the Strategic Plan to Reduce Sugar among Malaysians 2024-2030 has been developed and launched by the MOH on June 29, 2024, represents a promising beginning in the nationwide effort (14).

In conclusion, as healthcare continues to shift towards a more patient-centred approach, nutraceuticals represent a promising method for improving health outcomes through dietary interventions. While nutraceuticals and food alone cannot fully replace pharmaceuticals, they play a significant role in disease prevention and management. For pharmacists, understanding nutraceuticals is essential in providing holistic and comprehensive care that addresses both the symptoms and root causes of disease. By embracing the philosophy of "Let food be thy medicine," the pharmacy profession can help patients achieve better health through both medicinal and nutritional interventions.

References:

- 1.World Health Organization (WHO). Noncommunicable diseases. Geneva: World Health Organization; 2021. Available from: https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases.
- 2. Ministry of Finance (MOF) Official Website. Budget 2024 documents and sectoral allocations. Available from: https://www.treasury.gov.my
- 3.Prime Minister's Office (PMO) Website. Budget 2024 speech by Prime Minister Anwar Ibrahim. Available from: https://www.pmo.gov.my
- 4.Parliament of Malaysia. Official records of Budget 2024 tabling in the Dewan Rakyat. Available from: https://www.parlimen.gov.my
- 5.CodeBlue. Insights on health allocations in the 2024 budget. Available from: https://codeblue.galencentre.org
- 6.Health Organization (WHO). Food and nutrition guidelines: Nutritional guidelines for health and well-being. WHO, 2021. Available from: https://www.who.int/nutrition/topics/5_dietary-supplements/en/
- 7.World Nutraceutical Insights. Nutraceutical Insights Releases Market Report. GlobeNewswire. 2022

 June 24. Available from: https://www.globenewswire.com/en/news-release/2022/06/24/2469041/0/en/Nutraceutical-Insights-Releases-Market-Report.html.
- 8. National Pharmaceutical Regulatory Agency (NPRA). Guidelines for the Registration of Health Supplements in Malaysia. Ministry of Health Malaysia. 2022. Available from: https://www.npra.gov.my
- 9.Kalra EK. Nutraceutical—definition and introduction. AAPS PharmSci. 2003;5(3):27-28. doi:10.1208/ps050325.
- 10.Targeting metabolic diseases and inflammation through nutraceuticals. Nutrients 2024;16(4):507. doi:10.3390/nu16040507
- 11. The potential role of nutraceuticals in inflammation and oxidative stress management. IntechOpen 2022
- 12.Komala MG, Ong SG, Qadri MU, Elshafie LM, Pollock CA, Saad S. Investigating the Regulatory Process, Safety, Efficacy and Product Transparency for Nutraceuticals in the USA, Europe and Australia. Foods. 2023;12(2):427. doi:10.3390/foods12020427.
- 13. Tatum M. Supplements versus medicines: untold interactions and the dangers they can pose. The Pharmaceutical Journal. 2021 Aug 5. Available from: https://pharmaceutical-journal.com.
- 14. Ministry of Health Malaysia. Strategic Plan to Reduce Sugar Among Malaysians 2024-2030. Launched on June 29, 2024. Available from: https://www.moh.gov.my/

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Assoc. Prof. Dr. Nor Amlizan Ramli teaches various subjects particularly pharmaceutics which include nutraceuticals and cosmetic sciences at the Faculty of Pharmacy, UiTM. Having a special interest in pharmaceutics, her research focuses on wound healing and drug delivery systems of topical and transdermal dosage forms. Being a registered pharmacist, her research interests also extend to pharmacy education and she becomes a Certified Disability Management Professional (CDMP). She graduated with a Bachelor's degree of pharmacy from Universiti Sains Malaysia in 2001, MSc. Pharmaceutical Technology from King's College, London in 2004, and PhD (Pharmaceutics) from UiTM in 2014.

Questions

Let's dive deeper into the article and evaluate your comprehension. We have three questions for you here.

The battle against triple-negative breast cancer

By: Dr. Nur Syamimi Ariffin

Wildlife biologists say that wolf packs in the wild are not led by a domineering alpha male. "He's just the father of the family," says wolf researcher L. David Mech. That same belief lingers in triplenegative breast cancer (TNBC). It is the most aggressive subtype of breast cancer, mainly due to the lack of hormonal receptors for a targeted treatment. However, they are a sensitive subtype of breast cancer, hence it is their weakness that we can use to develop sensitization towards chemotherapy. In this case, low levels of drugs exposed to TNBC cells are likely to change their phenotypes, if not killing them, without triggering unnecessary side effects. Though this is speculative, there is a possibility, and we believe that it is encouraging, as the tricky part in treating TNBC patients is when the disease has spread to secondary organs. So far, there is no specific drugs that can efficiently target the metastatic breast cancer cells. Therefore, our team works on tackling this problem, one of which is to find a molecular protein that can specifically inhibit this particular phenotype from occurring in TNBC.

We have found that the transcription factor RUNX1 has the potential to prevent breast cancer metastasis and this was documented back in 2017. Moving forward with this finding, the team is eyeing the mechanisms by which this transcription factor is involved in delaying breast cancer progression through metastasis. In order to maximise the chances of success in this pursuit, RUNX1 is targeted through several different approaches, one is to integrate the work with drug intervention and in addition to that, a couple of molecular proteins that are involved in the process have been included.

In addition to deciphering the potential means of preventing breast cancer metastasis, data obtained in vitro has to be translatable in vivo. This is a well-known hurdle that remains challenging to many researchers. When working with TNBC, including many other lines of cancer, not everything we have in mind goes as planned. Giving its aggressiveness in patients, TNBC is expected to metastasise when it is implanted in animal models. However, this is not the case in some studies. Indeed, the less aggressive subtype of breast cancer is seen to be more aggressive in vivo. This is unexpected and raised questions among researchers. What change that compromises the phenotypes of TNBC? Though many things are possible, we believe that it is likely cellular adaptation from in vitro to in vivo is taking more than we anticipate. With the work done in the laboratory and more in line, we wish to find answers and solutions to this question and the expectation with the establishment of our team, though from various field of research, will allow us to understand better the intertwined mechanisms contributing to the phenotypes of TNBC. We will glean more information on this subtype of breast cancer in the anticipation that it will be beneficial for breast cancer patients in the future.

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Aseptic and Dispensing Course (ADC), Faculty of Pharmacy UiTM 2024

By: Mdm. Nur Syazwani Taridi & Dr. Gurmeet Kaur Surindar Singh



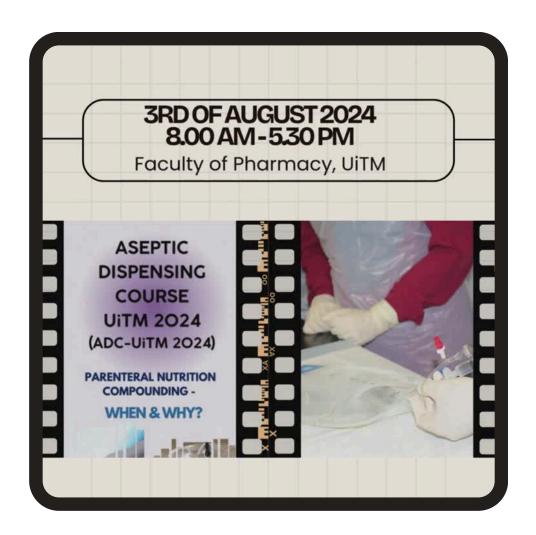


In the ever-evolving world of pharmaceuticals and healthcare, maintaining the highest standards of sterility and precision is paramount. Aseptic technique and dispensing are fundamental skills for professionals in these fields, ensuring that medications are prepared and administered safely. Owing to the criticality and importance of this aspect in shaping modern pharmaceutical care, the Department of Pharmacy Practice and Clinical Pharmacy, Faculty of Pharmacy, Universiti Teknologi MARA (UiTM) enthusiastically organized the Aseptic and Dispensing Course (ADC) UiTM on 3rd August 2024 at the Faculty of Pharmacy, UiTM, Puncak Alam Campus. This one-day event was held with the aim of enhancing knowledge on nutritional support and skills in aseptic dispensing among all healthcare providers, and received a tremendous response from the targeted audience. A total of 56 participants registered to enrol including academicians, pharmacists and students from diverse backgrounds of academic institutions, government and private hospitals, and pharmaceutical industries.

The programme began with a welcoming speech and opening remark by Associate Professor Dr. Mohd Shahezwan Abd. Wahab, the Deputy Dean of Research and Innovation, Faculty of Pharmacy, UiTM followed by an extensive discussion by Dato' Dr. Tikfu Gee, the General and Bariatric Surgery from Prince Court Medical Center on the recent updates of parenteral nutrition (PN) in surgical adults. Ms. Mazuin Kamarul Zaman, a lecturer at the Faculty of Health Sciences at UiTM Puncak Alam, profoundly shared her knowledge of nutritional screening and enteral feedings, along with their associated complications. Meanwhile, Ms. Nur Ain Binti Rosli Ahmad Abdul and Mr. Lee V' Joon, the senior pharmacist from Hospital Tengku Ampuan Rahimah Klang and Hospital Sungai Buloh respectively, comprehensively described the practise of PN in clinical settings from steps of gowning procedures, PN compositions and products, case-study calculations, to PN administrations and aseptic manipulations. Apart from that, it was also the greatest privilege to have Dr. Allan Cosslett, the academician from the Welsh School of Pharmacy and Pharmaceutical Sciences of Cardiff University, United Kingdom, to be one of the notable speakers, offering his valuable insights, knowledge, and experiences on PN stability and compatibility, which were conducted via hybrid mode session.

As Confucius, the Chinese philosopher, quoted, "Knowledge without practice is useless. Practice without knowledge is dangerous" and aligned with our key objectives stated above, the programme deemed to schedule a hands-on session for participants at Sterile Lab 1 after lunch break. Participants received a PN sheet and worked in small groups. During this session, all the participants had the opportunity to experience by themselves the processes of withdrawing solutions and reconstituting powders, selecting IV filters for specific applications, particle formation and compounding the conventional and commercial triple chamber PN bags. They were assisted by the facilitators led by one of the speakers Ms. Nur Ain Binti Rosli Ahmad Abdul and Ms. Akmal Afifah, the pharmacist from Hospital Al-Sultan Abdullah, Puncak Alam, lecturers from Faculty of Pharmacy and laboratory officers. This session received tremendous responses and positive feedback from the participants; it provided an ancillary and precious knowledge on total parenteral nutrition education and practice, which may benefit and improve their skills.

Before the closing ceremony began, the program director, Dr. Siti Norlina Md. Said, conducted an exciting quiz session to assess the participants' understanding and knowledge, rewarding the top 3 scorers with special prizes. The closing speech was delivered by Dr. Siti Norlina Md. Said, the program director. In the speech, she was expressing her gratitude for the overwhelming participation of the participants and extraordinary support from the programme committees, also acknowledging the contributions from the companies such as Fresenius Kabi Malaysia Sdn. Bhd., B. Braun Medical Supplies Sdn. Bhd., Ain Medicare Sdn. Bhd., Comcorde Medical (M) Sdn. Bhd., and Pharm-D Sdn. Bhd., who generously sponsored the lunch meal, lunch talk, workshop equipment, registration of participants, goodies bag and cash money to make this programme into a success.



Mastering Research Writing: Key Takeaways from Write2Gether Workshop Series

By: Madam Nik Ateerah Rasheeda Mohd Rocky, Dr. Aisyah Hasyila Jahidin & Dr. Gurmeet Kaur Surindar Singh

The Write2Gether workshop is one of the many series organised by the Research Empowerment Unit, Faculty of Pharmacy Universiti Teknologi MARA (UiTM) aimed to promote the writing skills of the academic staff and postgraduate students, taking place on 5-7 August 2024. The event was designed to be resourceful for the participants who sought to develop their writing skills during the three-day event, which was held free of charge. On the first day of the workshop, Dr. Azwandi Ahmad, senior lecturer from the Department of Pharmacology and Life Sciences, Faculty of Pharmacy, UiTM Puncak Alam, explored the fundamental concepts of statistical analysis. He elaborated on the use of different statistical tests over lab-based as well as non-lab-based scenarios by pointing out their methodological and practical importance. He presented the participants with practical tips on which appropriate statistical tools to choose, a crucial skill that is required to ensure accuracy and validity in research data analysis.

On the second day, the participants had the opportunity to learn from Professor Dr. Kalavathy Ramasamy, a world-renowned scientist ranked among the world's top 2% who is a member of the Department of Pharmacology and Life Sciences, Faculty of Pharmacy, UiTM Puncak Alam. Professor Kalavathy provided a comprehensive guide to writing manuscripts of lab-based research which addressed the process of organising research findings, presenting data effectively, and ensuring the clarity of manuscripts. She also emphasised the importance of having scientific rigor in the storytelling of research and offered strategies on how to overcome common challenges researchers face in the preparation of manuscripts.

The final day featured three experts: Associate Professor Dr. Mohd Shahezwan Abd Wahab, Associate Professor Dr. Mahmathi Karuppannan, and Dr. Shubashini Gnanasan, all from the Department of Pharmacy Practice and Clinical Pharmacy, Faculty of Pharmacy, UiTM. Associate Professor Dr. Shahezwan and Associate Professor Dr. Mahmathi provided a comprehensive overview of quantitative studies, covering study design, data collection techniques, and the interpretation of findings. Meanwhile, Dr. Shubashini focused on the practical aspects of conducting qualitative research, sharing techniques to ensure robust and reliable qualitative data.

Throughout the three days, the speakers focused on the technical aspects of research writing but also provided the motivation and strategies for effective writing. They highlighted the need for unambiguous communication, accurate data representation, and manuscript structure. Their willingness to answer questions in real-time created an interactive learning environment and empowered participants. With expert guidance and a supportive atmosphere, the workshops provided a solid foundation for both novice and experienced researchers to elevate the quality of their publications.





Pharmily EcoExplorer: An Engaging Experience with Nature

By: Dr. Maziana Mahamood



On 28 August 2024, a group of 24 staff members from Faculty of Pharmacy, UiTM participated in a vibrant jungle trekking activity, known as **Pharmily EcoExplorer**. The main goal of the program was to conduct a hiking session at Denai Cadamba and complemented by a knowledge-sharing session with five staff from Taman Botani Negara Shah Alam (TBNSA).

The program started at 8.00 am at the designated starting point at Tasik 5, where the trekking would begin. Before starting the trekking, a warm-up session was conducted to prepare participants physically for the hike. This session included light stretching and exercises to prevent injuries and ensure everyone was ready for the activity. The participants then began trekking up the 3.5 km trail which is suitable for all ages. The journey was significantly enhanced by the presence of five knowledgeable staff members from TBNSA. These experts provided insightful commentary about the diverse flora and they expertly identified various plant species found along the trail such as Senduduk Bulu, Tambun, Bertam, Tongkat Ali and others. Additionally, the participants were introduced to several medicinal plants used in traditional remedies, which sparked lively discussions among them about sustainable practices and the importance of preserving natural habitats. A demonstration on the traditional use of Senduduk Bulu leaves as treatment for skin problems was conducted by one of the TBNSA staff, Mr. Muhammad Faiz.

In summary, the **Pharmily EcoExplore**r jungle trekking activity at Denai Cadamba was a wonderful experience to all the participants. This activity enhanced the team spirit among the staff by strengthening social bonds and promoting effective cooperation and communication between participants. It also offered valuable lessons in nature and had a positive impact on mental and physical wellness. It was a perfect mix of learning, teamwork, and enjoyment, leaving everyone excited for future adventures!

'1957 Hati Malaya' Film Screening Brings Patriotism to Life at Faculty of Pharmacy, UiTM

By: Ms. Zakiah Mohd Noordin







In conjunction with the National Month Celebration 2024, the Faculty of Pharmacy, UiTM, hosted a special screening of the film '1957 Hati Malaya' on August 28, 2024. Held at Lecture Hall 4 (DK4), the event was a resounding success, with the UiTM Selangor community coming together in a spirited celebration of patriotism and national pride.

The program began with an opening speech by Dr. Fazleen Haslinda Mohd Hatta, Deputy Dean (Industry, Community & Alumni Network), who stressed the importance of understanding the nation's struggle for independence. She reminded the audience that the freedoms Malaysians enjoy today are the result of tremendous sacrifices made by past generations and urged attendees to reflect on their role in preserving these hard-earned liberties.

'1957 Hati Malaya,' directed by Datuk Paduka Shuhaimi Baba, is a historically significant film that portrays Malaysia's journey to independence from British rule. The film tells the story of Dato' Onn Jaafar, Tunku Abdul Rahman, and other key figures who led the country's fight for freedom. Through powerful storytelling, the film captures the emotions, struggles, and unity of the nation's diverse ethnic groups during one of the most important periods in Malaysian history. It serves as a poignant reminder of the sacrifices made to achieve independence and reignites a sense of patriotism and gratitude in those who watch it.

Following the screening, a 'Jiwa Merdeka' reflection session was led by Ustaz Muhammad Najih Irsyad Bin Ahmad Puhad, Assistant Registrar (Islamic Affairs Unit, UiTM Selangor Branch). Ustaz Najih shared reflections on the themes of struggle and sacrifice portrayed in the film, highlighting the importance of not only valuing our freedom but also striving for excellence within ourselves and our institutions. His reflections encouraged attendees to contribute positively to Malaysia's development and embody the values of unity and resilience.

As we continue to celebrate National Month, this event serves as a poignant reminder of Malaysia's historical journey and the ongoing need to uphold the spirit of independence. We extend our gratitude to Pesona Pictures Sdn. Bhd. and Datuk Paduka Shuhaimi Baba for their meaningful contribution to Malaysian cinema. Appreciation also goes to the organising committee for their dedication to making this event successful. May the spirit of Merdeka inspire us all to commit to personal and institutional excellence, fostering progress and prosperity for our nation.

Strengthening International Ties: A Visit from Universitas Pembangunan Nasional "Veteran" Jakarta

By: Dr. Fazleen Haslinda Mohd Hatta

On the 3rd of July 2024, the Faculty of Pharmacy at Universiti Teknologi MARA (UiTM) had the honor of hosting a delegation from Universitas Pembangunan Nasional "Veteran" Jakarta, Indonesia. The delegation, led by Dr. Taufiq Fredrik Pasiak, Dean of Medicine, comprised five esteemed members.

The visit began with a formal meeting at the Gallery, FFI, where both institutions engaged in fruitful discussions about future academic collaborations. The dialogue centered on potential student and faculty exchange programs, joint seminars, and workshops, aiming to enhance the educational experiences and opportunities for both universities. Additionally, the meeting explored avenues for research collaborations, identifying key areas of mutual interest and opportunities for joint research projects.

Following the productive discussions, the delegates were given an extensive tour of the Faculty of Pharmacy's facilities. This tour included visits to classrooms, lecture halls, and laboratories, providing the visitors with a comprehensive overview of the faculty's infrastructure and resources.

The visit concluded on a positive note, with both institutions expressing a strong commitment to fostering a collaborative relationship. The discussions and tour laid a solid foundation for future partnerships, promising exciting opportunities for academic and research advancements.

This visit marks a significant step towards strengthening international ties and enhancing the global presence of both Universitas Pembangunan Nasional "Veteran" Jakarta and the Faculty of Pharmacy, UiTM. We look forward to the promising collaborations that will emerge from this engagement.



Strengthening Collaboration: UiTM Delegates Attend the International Collaboration on Pharmacology and Natural Products (ICPNP) 2024 in Bali, Indonesia

By: Nurul Alyaa Ibrahim & Dr. Mohd Nadzri Mohd Najib

To strengthen the international collaboration between the countries, the Faculty of Pharmacy, Universiti Teknologi MARA (UiTM) Pulau Pinang, Bertam Campus, accepted the invitation to physically attend and participate in the International Collaboration on Pharmacology and Natural Products (ICPNP) 2024, held on August 19-20, 2024, in Bali, Indonesia. ICPNP 2024, hosted by Universitas Mahasaraswati Denpasar (UNMAS), Bali aimed to provide a platform to share knowledge on advanced pharmacology and the study of natural products and herbal medicine, with a focus on integration into clinical practice. This 2-day event was attended by two lecturers from the Faculty of Pharmacy UiTM Pulau Pinang, Bertam Campus: Dr. Mohd Nadzri Mohd Najib, who represented the faculty's Dean Professor Dato' Dr. Abu Bakar Abdul Majeed, and Ms Nurul Alyaa Ibrahim as an invited speaker. This event provided a comprehensive schedule that began with an international seminar titled "Advancement in Pharmacology and Clinical Application of Natural Products" on the first day. Ms. Nurul Alyaa presented at the seminar with the topic "Innovative Research in Herbal Medicine: Bridging Traditional and Clinical Practice," which focused on research approaches to integrate herbal medicine into clinical practice. In addition, there were two other speakers, one from Indonesia presenting physicians' perspectives on the use of herbal medicine in primary care and one from the Philippines with a focus on advanced research in natural product development.

On the second day of the event, UiTM delegates participated in a community service initiative with the theme "Tackling Health Challenges Through Family Medicinal Plants (TOGA)" at Taman Village, Abiansemal District, Bali, Indonesia. The event began with a sharing session on community services in UNMAS and UiTM, shared by the Apt. I Made Agus Sunadi Putra, the Dean of Fakultas Farmasi, UNMAS, and Dr. Mohd Nadzri Mohd Najib, Head of Programme for Diploma in Pharmacy, UiTM. Both emphasize the roles of academic institutions like UNMAS and UiTM in promoting public health by engaging with the local communities. The event was then continued with the hands-on TOGA activity that involved planting medicinal plants in the village, hoping it could benefit others. The event's schedule was well-structured, featuring knowledgeable presentations from speakers of different institutions, interactive discussions, and practical community-based activities. This event provided a thorough view of herbal medicine's theoretical and practical applications. In conclusion, attending this event opens an excellent opportunity for UiTM, especially the Faculty of Pharmacy, to strengthen international academic partnerships with UNMAS and Far Eastern University, Philippines, and thus can contribute to collaborative and innovative research in herbal medicine and natural products.









Pharmacists in Primary Healthcare: Integration of Pharmacy Services into Aboriginal Communities

By: Mr. Mohd Shah Rezan bin Hamzah Klinik Kesihatan Jenjarom, PKD Kuala Langat Graduate of Master in Pharmacy Practice 2022/2023, Faculty of Pharmacy UiTM

Integrating pharmacy services into Aboriginal communities has been transformative in the Kuala Langat District, particularly through implementing **mobile clinic services**. These clinics serve 11 aboriginal villages, including;



*KOA – Kampung Orang Asli

Aboriginal people frequently face obstacles that prevent them from receiving primary health care, such as the high-cost expense of medical care, personal accounts of racism and discrimination, and inadequate communication with healthcare professionals [1]. Tailoring services to meet the specific needs of Aboriginal communities or managing and owning them themselves improves the accessibility of primary health care [2]. The Kuala Langat District Health Office's mobile clinic service, staffed by medical officers, pharmacists, medical assistants, and healthcare assistants, navigates the challenging terrain of socioeconomic, cultural, and geographical barriers to deliver essential healthcare directly to remote areas. Therefore, this initiative addresses significant health inequalities prevalent among Aboriginal communities, where poverty, cultural beliefs, and geographic isolation hinder access to healthcare.

Socioeconomic disparities play a profound role in the health outcomes of Aboriginal communities. Generally, many of them struggle below the poverty line, unable to afford essential healthcare services and medications. This financial strain not only exacerbates existing health conditions but also prevents timely access to necessary treatments. Additionally, limited education and literacy levels within these communities hinder understanding healthcare information and navigating complex healthcare systems effectively.

Cultural beliefs and practices deeply rooted in Aboriginal communities further influence healthcare behaviours. Traditional healing methods and natural remedies are often favoured over conventional medicine, resulting in delays in seeking professional medical advice [3]. Moreover, historical injustices and negative experiences with healthcare providers have led to a pervasive mistrust of mainstream healthcare systems. This mistrust contributes to a reluctance to engage with healthcare services, perpetuating health disparities among Aboriginal populations.

Geographical isolation compounds these challenges, with many communities situated in remote areas far from urban centres where healthcare facilities are concentrated. The lack of reliable transportation infrastructure further complicates access to healthcare, making routine medical care and emergency services difficult to reach. This isolation not only impacts the management of chronic conditions but also increases the risk of serious health emergencies going untreated.

Mobile clinic services have emerged as a pivotal solution to these multifaceted barriers. By bringing healthcare directly to Aboriginal communities, these mobile units bridge the gap created by socioeconomic, cultural, and geographical challenges [4]. Pharmacists within these mobile clinics play a crucial role in ensuring the quality use of medicines. They not only dispense medications but also educate community members about proper medication use, potential side effects, and the importance of adherence to treatment plans. Additionally, pharmacists are essential in medication management, ensuring that all prescribed medications are appropriate for the patient's condition and are taken with the correct timing, dose, and instructions, thus enhancing treatment safety and effectiveness.

A key aspect of the pharmacist's role is to counter-check prescriptions made by medical officers, ensuring that each medication is appropriate and safe for the patient's condition. This practice enhances treatment safety and effectiveness, addressing concerns about overprescribing and misuse of medications. Furthermore, pharmacists engage in health education initiatives tailored to community needs, promoting health literacy and empowering individuals to make informed decisions about their health.

The integration of pharmacy services into mobile clinics not only addresses immediate healthcare needs but also fosters a deeper understanding and trust in medical treatments within Aboriginal communities. By delivering comprehensive healthcare directly to those in need, mobile clinic services improve health outcomes, reduce disparities, and promote overall community well-being [5]. This holistic approach not only enhances access to healthcare but also strengthens community resilience by ensuring equitable access to essential services.

In conclusion, the integration of pharmacy services into mobile clinics represents a significant step towards addressing health inequalities among Aboriginal communities in Kuala Langat. By overcoming barriers of poverty, cultural beliefs, and geographic isolation, these mobile units ensure that healthcare is accessible and tailored to community needs. Through collaborative efforts of pharmacists, medical officers, and medical assistants, these initiatives not only provide essential medical care but also empower communities to take charge of their health. As these services continue to expand and evolve, they hold promise for creating lasting improvements in health outcomes and quality of life for Aboriginal populations in remote areas.







References:

- 1.Aspin, C., Brown, N., Jowsey, T., Yen, L., & Leeder, S. (2012). Strategic approaches to enhanced health service delivery for aboriginal and Torres Strait Islander people with chronic illness: A qualitative study. BMC Health Services Research, 12(1). https://doi.org/10.1186/1472-6963-12-143
- 2.Hayman, N. (2010). Strategies to improve indigenous access for urban and regional populations to health services. Heart Lung and Circulation, 19(5–6), 367–371. https://doi.org/10.1016/j.hlc.2010.02.014
- 3.Marques, B., Freeman, C., & Carter, L. (2022). Adapting traditional healing values and beliefs into therapeutic cultural environments for health and well-being. International Journal of Environmental Research and Public Health, 19(1). https://doi.org/10.3390/ijerph19010426
- 4.Malone, N. C., Williams, M. M., Smith Fawzi, M. C., Bennet, J., Hill, C., Katz, J. N., & Oriol, N. E. (2020). Mobile health clinics in the United States. International Journal for Equity in Health, 19(1). https://doi.org/10.1186/s12939-020-1135-7
- 5. Singh, S., Baig, F., & Singh, S. (2022). Mobile Health Clinics as a healthcare delivery model to address community disparities. Kansas Journal of Medicine, 15(2), 259–261. https://doi.org/10.17161/kjm.vol15.16543

In memory of

Professor Dr. Aishah Adam

(Dean, Faculty of Pharmacy UiTM, 2009 - 2019)



By: Prof. Dr. Mizaton Hazizul Hasan, Assoc. Prof. Dr. Nor Amlizan Ramli and Dr. Nur Suraya Adina Suratman

It is with deep sadness and a heavy heart that we express our condolences on the passing of Professor Dr. Aishah Adam, an eminent scholar and leader in pharmaceutical education and research.

Prof. Aishah's untimely departure on 22 September 2024 leaves a profound void in the Faculty of Pharmacy, Universiti Teknologi MARA (UiTM), and the wider pharmacy community of Malaysia.

Professor Dr. Aishah's life exemplified excellence and dedication. Her academic journey began in 1977 when she completed her Malaysian Certificate of Education at Tunku Kurshiah College, demonstrating early academic promise. She went on to earn her Bachelor of Pharmacy (Hons) from Zagazig University, Egypt, in 1983, followed by a prestigious PhD in Biochemical Toxicology from the School of Pharmacy at London University in 1989.

Professor Dr. Aishah's contributions to pharmacy education were significant. She played a pivotal role in establishing the B.Pharm program at the University Kebangsaan Malaysia (UKM) as its founding head. Later, she served as Dean of the Faculty of Pharmacy at UiTM from 2009 to 2019. She was always keen on advancing pharmacy education and played a key role in developing and improving the curriculum throughout the years.

Prof. Aishah was passionate about pharmaceutical research. This dedication was evident in her extensive academic contributions. She secured substantial funding for various research projects, supervised many postgraduate students, and mentored numerous scientists and academics. Prof Aishah's research in oxidative stress, antioxidants, efficacy, and safety studies were highly regarded. She authored numerous peer-reviewed journal articles and presented her findings at conferences and seminars. Prof. Aishah's influence extended beyond UiTM. She played a vital role in fostering academic rigor, serving as an external examiner and reviewer across several institutions and publications.

More importantly, beyond these successes and recognitions, Prof. Aishah believed in the importance of her research and how it could help people. She had always strived to apply what she learned from her research in actual life. She had wanted to contribute more, but sadly, it was time for her to meet her Creator.

More than an academic, Professor Aishah was a respected and admired leader. Her approach, described as both strict and motherly, fostered respect and admiration among students and colleagues alike. Her kindness and compassion were evident in her willingness to help others in any way she could, whether it was financially, emotionally, or simply by listening. Most people who knew Prof. Aishah personally would attest to her high expectations. She pushed her students and colleagues to their full potential, her ultimate goal being their success. She was beautiful inside out; more than she gave herself credit, she was selfless and always a giver.

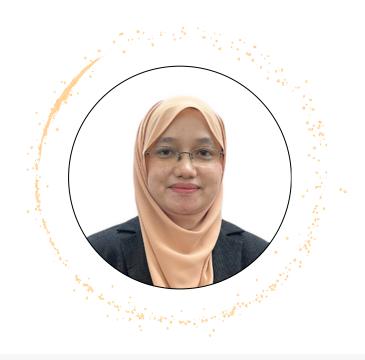
In her final months, she showed great bravery and dignity and was surrounded by love. She never showed pain even in her most excruciating moments. Her passing is an immeasurable loss to all who knew her, but her legacy will live on through all the lives that she touched.

We extend our heartfelt sympathy to Prof Dr Aishah Adam's family, friends, and colleagues during this difficult time. May her soul rest in peace, and may her contributions continue to inspire future generations.

Al Fatihah.



NEW APPOINTMENT



ASSOCIATE PROFESSOR DR. KHURIAH
ABDUL HAMID

DEPUTY DEAN, STUDENT AFFAIRS STARTING ON 1ST SEPTEMBER, 2024

WORLD TOP 2% SCIENTIST (SINGLE YEAR ACHIEVEMENT)



Professor Dr. Wong Tin Wui



Professor Dr. Kalavathy Ramasamy

WORLD TOP 2% SCIENTIST (CAREER-LONG ACHIEVEMENT)



Professor Dr. Wong
Tin Wui



Professor Dr. Ahmed Mahmoud Ahmed Alafify

Corresponding authors of the month



Prof. Dr. Wong Tin Wui

 Healing with herbs: an alliance with 'nano' for wound management https://doi.org/10.1080/17425247.2024.2388214



• Translational hurdles in anti-asthmatic nanomedicine development https://doi.org/10.1080/17425247.2024.2385092





Assoc. Prof. Dr. Syed Ali Adnan Shah

 Synthesis, spectroscopic characterization, DFT, molecular docking, catechol oxidase activity, and anti-SARS-CoV-2 of acylhydrazone derivatives https://doi.org/10.1080/10406638.2024.2391486



• New cholinesterase inhibitors based on 1,2,4-triazole bearing benzenesulfonohydrazide skeleton: synthesis, in vitro and in silico studies https://doi.org/10.1016/j.rechem. 2024.101717



 Novel hydrazone schiff's base derivatives of polyhydroquinoline: synthesis, in vitro prolyl oligopeptidase inhibitory activity and their Molecular docking study https://doi.org/10.1080/07391102.2024.2319677



 Synthesis, in vitro enzymatic inhibition, and molecular modeling of novel piperazine-based bis-schiff base derivatives as promising anti-urease agents https://doi.org/10.1002/slct.2024 01106





Assoc. Prof. Dr. Fazlin Mohd Fauzi

Analysis of geothermal impact on metabolite compounds of heat-tolerant plant species using clustering and similarity cliff

https://doi.org/10.22034/gjesm.2024.04.20



Corresponding authors of the month



Mr. Mohd Rahimi Muda

NA time-to-event modelling of sputum conversion within two months after antituberculosis initiation among drugsusceptible smear positive pulmonary tuberculosis patients: Implementation of internal and external validation

https://doi.org/10.1016/j.tube.202 4.102553





Assoc. Prof. Dr. Sadia Sultan

Pyridylpiperazine-based carbodithioates as urease inhibitors: synthesis and biological evaluation https://doi.org/10.3389/fchem.20 24.1423385





Dr. Fazleen Haslinda Mohd Hatta

Applications of CRISPR in parasitology https://doi.org/10.2174/0113892010316710240626042205





Dr. Hanis Hanum Zulkifly

Assessing thromboembolic complications and in- hospital mortality and clinical factors affecting thromboembolic complications in COVID-19 stage 3-5 ICU cases https://doi.org/10.29228/jrp.805





Dr. Muhamad Faiz Othman

The potential of radiolabeled bisphosphonates in SPECT and PET for bone imaging https://doi.org/10.2174/01157340 56270935231113035620





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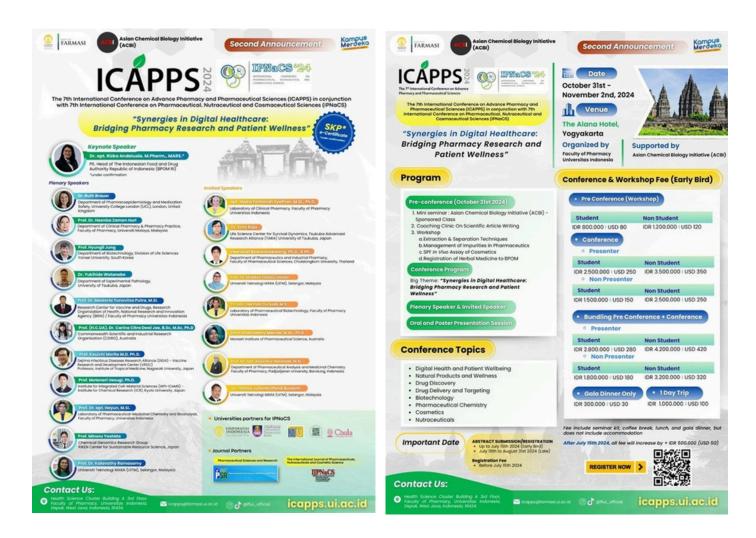


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UPCOMING EVENTS



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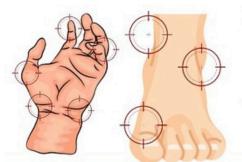
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gout adalah sejenis penyakit yang disebabkan oleh urik asid berlebihan di dalam badan asid urik adalah bahan kumuhan yang berasal dari sejenis protein iaitu purin

Ianya sering dihadapi oleh kaum lelaki dalam lingkungan usia antara 30 hingga 60 tahun



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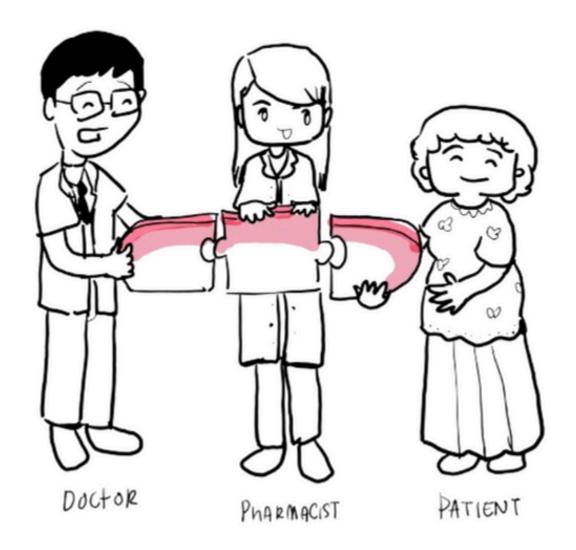
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World Pharmacist Day 2024

By: Mdm. Nur Sabiha Md Hussin

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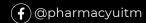
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