PRESCRIPTION

Latest news and updates from the Faculty of Pharmacy



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BEYOND DISPENSING:

The Untapped Potential of Pharmacists In Preventing Falls

Falls among older adults are a significant public health concern. According to data from the Centers for Disease Control and Prevention (CDC), one older person falls every second in the United States, and every 20 minutes, one older person dies from a fall. These statistics are alarming, especially since falls are largely preventable.

In Malaysia, falls are also a common issue among the older people. Several studies highlight the prevalence of falls within the community. Rizawati and Mas Ayu (2008) found that 27.3% of 516 community-dwelling older adults in Masjid Tanah, Malacca, had fallen in the past 12 months (1). Abdul Kadir and Hasim (2011) reported a 12.9% fall rate among 131 diabetic men in an outpatient clinic on the East Coast of Malaysia (2). Azidah et al. (2012) observed an 18.8% fall rate among 288 older adults with diabetes in a teaching hospital, also on the East Coast (3). Eshkoor et al. (2013) noted a 17% fall rate among 1,210 older adults with dementia across Peninsular Malaysia (4).

What is particularly concerning is that 25% to 72% of older adults who experience a fall are likely to have recurrent falls (1, 3). Various risk factors contribute to this, including a history of falls, advanced age, muscle weakness, mobility limitations, and medical conditions such as visual impairments, dizziness, depression, dementia, incontinence, arthritis, and pain. Medications are another significant risk factor, which is where pharmacists play a critical role in fall prevention.

Certain medications, known as Fall-Risk Increasing Drugs (FRIDs), can heighten the risk of falls. According to the STOPPFall criteria (5), FRIDs include benzodiazepines, antidepressants, antipsychotics, opioids, antiepileptics, diuretics, centrally acting antihypertensives, vasodilators, alpha-blockers for both hypertension and benign prostatic hyperplasia, sedative antihistamines, and medications for overactive bladder and urge incontinence. As medication experts, pharmacists are ideally positioned to intervene when these drugs contribute to fall risk.

The CDC's STEADI-Rx initiative recommends that pharmacists assess patients' fall risk by asking three key questions: Do they feel unsteady when standing or walking? Are they worried about falling? Have they fallen in the past year? A "yes" to any of these questions indicates a risk of falls. Pharmacists can then conduct a medication review to identify FRIDs and collaborate with doctors to reduce fall risk through deprescribing.

Beyond managing medications, pharmacists can educate patients on fall prevention strategies, even if they are not currently at risk. Advising on regular exercise, referring to community-based exercise programs, and raising awareness about fall prevention are all essential contributions. Pharmacists can also support the implementation and sustainability of evidence-based fall prevention programs.

Falls among older adults are not just a statistic—they represent a significant threat to the well-being and independence of our aging population. The good news is that many falls are preventable, and pharmacists are uniquely positioned to make a difference.

My team and I are actively involved in various projects that focus on fall prevention and the role of pharmacists. Our initiatives include investigating the use of FRIDs among hospitalized patients, assessing fall risk among community-dwelling older adults, developing educational materials for pharmacists, engaging with nursing homes to improve medication use, and evaluating the impact of health campaigns and pharmacist training on fall prevention.

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Dr. Mohd Shahezwan Abd Wahab is an Associate Professor at the Faculty of Pharmacy, Universiti Teknologi MARA (UiTM), where he also serves as the Deputy Dean of Research and Innovation. A registered pharmacist, he is also an Associate Fellow at the Smart Manufacturing Research Institute, UiTM. Dr. Shahezwan earned his PhD in Pharmaceutical Care from Chulalongkorn University, Thailand in 2019, a Master of Clinical Pharmacy from the University of South Australia in 2010, and a Bachelor of Pharmacy from UiTM in 2006. His research focused on the Quality Use of Medicine, particularly in the context of older individuals. He has published numerous articles in reputable scientific journals. His expertise has been recognised with several awards in research and teaching. His commitment to teaching was acknowledged with the prestigious overall winner award in the teaching and learning category by the Pharmacy Dean's Council in 2023.

Questions

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

Unraveling drug transport mechanisms of prednisolone-loaded solid lipid nanoparticles infused with superparamagnetic iron oxide for improved transdermal drug delivery system

The primary goal of any prescribed treatment plan is to achieve specific and desirable patient outcomes, and patient adherence is crucial to this endeavour. Even the most meticulous and scientifically grounded treatment plan will not result in its therapeutic benefits if patients do not adhere to the prescribed medication regimen. Adherence to steroid treatments can be difficult, particularly for patients with chronic illnesses due to factors such as frequent dosages, the prolonged duration of treatment, and potential side effects [1]. Consequently, nonadherence to steroid medication has become increasingly prevalent among these patients, leading to significant consequences, including medication waste, disease progression, mortality, and rising healthcare costs.

Transdermal delivery offers an effective solution to this difficulty. This drug delivery system uses the skin as a medium to transport drug molecules from the surface into the circulatory system, bypassing first-pass metabolism and allowing for prolonged medication release. This facilitates the adjustment of drug formulation and concentration to ensure controlled drug release over an extended period [2]. As a result, the frequency of medication doses can be reduced, mitigating problems associated with dosage frequency.

In this study, we identify prednisolone as a suitable drug candidate for the transdermal delivery of solid lipid nanoparticles (SLN) infused with superparamagnetic iron oxide nanoparticles (SPION). Prednisolone is a commonly prescribed corticosteroid characterised by its low molecular weight, moderate lipophilicity, anti-inflammatory properties, and immunosuppressive effects [3]. While oral corticosteroids are typically administered for one to two weeks to manage severe symptoms, prolonged corticosteroid therapy may last for months or even years for certain chronic health conditions.

Current research on the use of SPION for topical or transdermal drug delivery is limited to applications in skin tumours [4]. Therefore, we aim to expand the potential application of SPION for transdermal drug delivery across skin layers and into the circulatory system. By combining SLN with SPION for transdermal drug delivery, we anticipate a synergistic effect. Understanding the drug transport mechanisms of this novel system will provide insights into how it can be optimised for the improved transdermal delivery prednisolone, thereby enhancing the efficacy of long-term corticosteroid therapy.



Transmission electron microscopy (TEM) micrograph of the obtained nanoparticles with cuboidal shapes.

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Pharma Insights #3

GLOBAL MEDICINE USE AND SPENDING FORECAST 2024-2028: A MALAYSIAN PERSPECTIVE ON EMERGING TRENDS AND OPPORTUNITIES

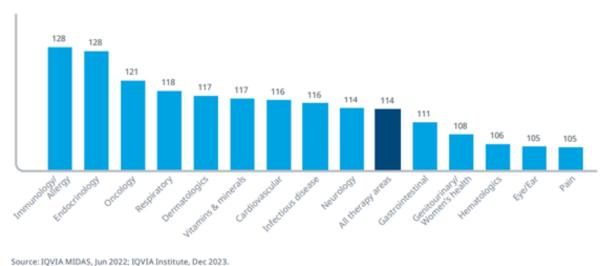
By: Dr. June Choon Wai Yee

With the end of the COVID-19 public health emergency in 2023, global health focus has shifted towards the prevention and treatment of both communicable and non-communicable diseases. This shift has significant implications for countries like Malaysia, where the healthcare system is evolving to meet the increasing demand for innovative therapies. The past decade has seen the introduction of breakthrough therapies across multiple diseases, significantly transforming patient care. As a result, the forecast for global medicine use and spending through 2028 has been revised upward, despite a notable decrease in the projected demand for COVID-19 vaccines and therapeutics.

The primary driver of increased medicine spending over the next five years is expected to be the expanded availability and use of innovative therapeutics, particularly in developed markets. This growth is partially offset by the expiration of patents and the introduction of lower-cost generics and biosimilars. Traditionally, the greatest growth in innovative medicines has occurred shortly after their launch. However, recent trends and forecasts indicate a shift, with growth now being driven by older products. This trend suggests a movement towards more expensive therapies, reflecting improved patient access to high-value medicines with significant clinical benefits.

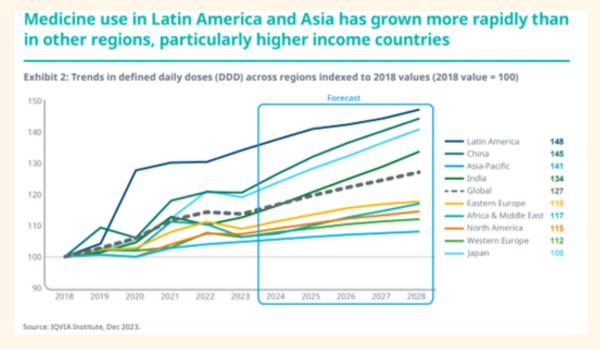
Medicine use has been growing across therapy areas since 2019, with highest growth in immunology, endocrinology, and oncology

Exhibit 6: Defined daily doses (DDD) in 2023 across select therapy areas indexed to 2018 values (2018 value = 100)



The key findings from the IQVIA Institute report indicate a 2% increase in the growth outlook for medicine use, despite reduced expectations COVID-19-related treatments. This rise is primarily due to the significant increase in patient access to new medications has led to increased usage in immunology, endocrinology, and oncology. Immunology has benefited from wider availability of various biologic and small molecule therapies, though these treatments often remain accessible in lower-income countries. In endocrinology, particularly in therapies for hormonal regulation and diabetes, growth in therapy days has been twice the global average. Oncology, the most significant area by spending, has seen a 21% increase in treatment volume over the past five years, averaging a 3.9% annual growth rate, which exceeds population growth and reflects longer and more frequent cancer treatment durations.

Regions like Latin America and Asia are projected to experience faster growth in medicine use compared to other areas over the next five years. The global use of medicines increased by 14% over the past five years, with a further 12% increase anticipated by 2028, bringing the annual use to approximately 3.8 trillion defined daily doses. Furthermore, global spending medicines, calculated using list prices, grew by 35% over the past five years and is expected to increase by another 38% through 2028. In the United States, the outlook for medicine spending, based on estimated net prices, has been adjusted upward by 3 percentage points to a compound annual growth rate (CAGR) of 2-5% through 2028. This adjustment reflects higher recent growth and expected increases in patient use of high-value therapies.



Regionally, the highest volume growth in medicine use over the next five years is expected in China, India, and the Asia-Pacific region, all surpassing a 3% CAGR. In contrast, lower volume growth is anticipated in higher-income regions such as North America, Western Europe, and Japan, which already have established healthcare systems and access to medicines.

The impact of the COVID-19 pandemic on medicine spending was marked by short-term disruptions in 2020, followed by a rebound in 2021 and a correction in 2022. While spending on COVID-19 vaccines and therapeutics is declining in 2023 and is expected to continue to do so, overall growth in medicine spending is being bolstered by non-COVID-19 therapies, raising the five-year outlook by 2%.

Looking ahead, global medicine spending is projected to accelerate, driven mainly by existing branded products. New brands in the top 10 developed markets are expected to contribute \$193 billion in growth, a \$40 billion increase from the past five years. Patent expirations, leading to loss of exclusivity for certain drugs, particularly biologics facing competition from biosimilars, is expected to contribute significantly to this growth, despite the uncertainties associated with these impacts.

Regions worldwide are experiencing varied trends in spending and volume growth, with some regions driven more by volume increases and others by the adoption of innovative products. For instance, countries in North America, Eastern and Western Europe, Latin America, and the Middle East are expected to see more than a 30% increase in spending growth, driven by both population growth and a shift towards more expensive therapies. In China, pharmaceutical spending and volume are expected to grow by 21% and 20%, respectively, reflecting a continued focus on expanding access to novel drugs through the national reimbursement drug list (NRDL).

Among therapy areas, oncology, immunology, diabetes, and obesity drugs are predicted to be the major contributors to growth over the next five years, driven by a steady influx of innovative products. However, growth in many therapy areas is expected to slow compared to the previous five years. Notably, lipid regulators, which have been in decline since leading products lost exclusivity a decade ago, are expected to see renewed growth with the introduction of new therapies.

For Malaysia, the outlook underscores both challenges and opportunities. As the country works to improve patient access to innovative treatments, there will be a growing need for policy and healthcare infrastructure advancements to support this transition. Additionally, the rise in healthcare spending emphasises the importance of wise allocation of limited resources, and the healthcare system to ensure sustainable growth and equitable access to new, potentially life-saving medicines.

Source: The IQVIA Institute report: The Global Use of Medicines 2024: Outlook to 2028

ABOUT THE AUTHOR



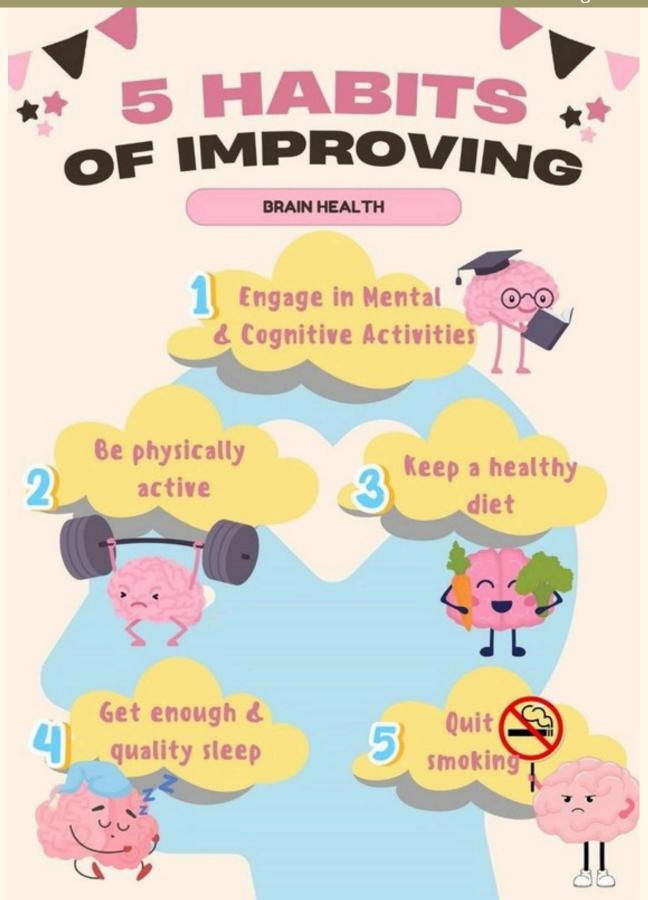
Prior to joining UiTM, Dr. Choon was an academic and health economics researcher at Monash University Malaysia. She sat on national-level steering committees, including the Dasar Ubat Nasional (DUNas), Program Perkhidmatan Farmasi and Jawatankuasa Penyelidikan Klinikal Kebangsaan (JPKK) under the Ministry of Health. She also serves on various advisory boards for multinational pharmaceutical companies. Her passion lies in improving patient access to life-saving innovative medicines in Malaysia.

FOR A HEALTHY BRAIN

By: Madam Nur Sabiha Md Hussin

The human brain is the command center for the nervous system, enabling thoughts, memory, movement, and emotions through a complex function that represents the pinnacle of human biological evolution (Maldonado KA & Alsayouri K, 2023). Brain health is defined as the ability to perform cognitive processes (Centers for Disease Control and Prevention, 2009). According to the American Heart Association, optimal brain health refers to the level of performance considered average for individuals of a certain age without any known brain or organ system disorders. It can be assessed by the degree of cognitive function decline or the ability to carry out desired activities (Gorelick et al., 2017).

Maintaining brain health throughout life is crucial for achieving overall health and longevity. As the population ages, the prevalence of neurological disorders increases, making the preservation of brain health even more challenging(Steinmetz et al., 2024). Therefore, it is essential to recognize the importance of brain health, along with its preservation and the prevention of brain-related conditions. Despite genetic and other non-modifiable factors, some lifestyle changes were proven to delay cognitive derangement in dementia cases for up to 40% (Livingston et al., 2020). Therefore, here are the "Five Healthy Habits for Your Brain" to encourage a healthy lifestyle for brain care.



5 Habits of Improving

BRAIN HEALTH

1 Engage in Mental and Cognitive Activities

Regularly challenging the brain with activities such as puzzles, reading, learning new skills, and playing strategy games can help maintain and improve cognitive functions. These activities stimulate neural connections, enhance memory, and promote problem-solving abilities, contributing to overall brain health (Alzheimer's Association, 2024).

2 Quit smoking

Quitting smoking can improve brain health. Over time it can also decrease the risk of having a stroke and developing brain conditions such as dementia. Mental health issues such as difficulty sleeping, anxiety, stress, and depression may be improved by quitting smoking (Restifo et al., 2022).

3 Be physically active

Physical activity aids in the prevention and control of chronic illnesses, such as cardiovascular disease, diabetes, and obesity. For older persons, other advantages include a decreased likelihood of falling, an extended period of living independently, and enhanced brain function (Centers for Disease Control and Prevention, 2024).

4 Maintain a healthy diet

Keeping a controlled blood pressure level and blood sugar level is crucial. This could be achieved through eating a balanced diet with more vegetables, lean proteins, and less processed foods that can help reduce the risk of cognitive decline (Zhang et al., 2024).

5 Get enough and quality sleep

Sleep disturbances, both in terms of quantity and quality, are strongly linked to neurological conditions such as stroke, cognitive decline, dementia, and Parkinson's disease. They are also associated with a higher risk of developing mental health disorders like depression and anxiety (American Heart Association, 2024). Therefore, improving sleep quality may enhance mental acuity and overall brain function.

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By: Madam Nor Azliana Norli







On 12th July 2024, a Sanggar Sanjung Ceremony (Majlis Sanggar Sanjung) was held to acknowledge the achievements and contributions of the staff of Faculty of Pharmacy, UiTM to the university. This ceremony was conducted at the Pavilion Hall with the staff wearing beautiful outfits that suited the retro theme.

This event was organised by the Administration and Human Resource Management Department with the cooperation of the faculty's management. The commitment given by all these parties ensured that the event was carried out successfully and achieved the set objectives. This ceremony was symbolically held to give appreciation to the staff for their excellence in performing their tasks and achieving key performance indicators (KPI) in the current year.

The ceremony was officiated by YBhg. Professor Dato' Dr. Abu Bakar Abdul Majeed, the Dean of Faculty of Pharmacy, UiTM. In his speech, he emphasised that human resources are not only necessary but also a top priority of any organisation. Expertise and skills are highly sought after to create an outstanding organisation. Organisational management places great emphasis on the quality of work in order to achieve the primary employment goal. From an Islamic perspective, working in accordance with the values and principles outlined is capable of producing effective and high-quality work.

Madam Azlinda Mohamad Nor, Senior Assistant Registrar and the Program Director, hopes that this program can inject enthusiasm and motivation into the members of the Faculty of Pharmacy. The goal is to cultivate excellence in the workplace by fostering togetherness and consensus, in order to achieve the aspirations planned by the University.



Approximately 82 staff members consisting of academic and administrative staff had attended the ceremony to celebrate the award recipients and enjoy the magnificent moments together. Various awards had been given to the staff as appreciation and encouragement to pursue their dedication to work. The awards are listed below:

Academic Affairs Category

- Academic Leadership Award
- Academician of Hope Award
- Teaching Award
- Best Speaker Award
- e-Learning Award
- Best Supervisor Award (Masters)
- Best Supervisor Award (PhD)

Research & Innovation Category

- Journal Paper Publication Award (Grades VK5 - VK7)
- Journal Paper Publication Award (Grade DM/DUF53 - DM/DUF54)
- Journal Paper Publication Award (Grade DM/DUF51 - DM/DUF52)
- Journal Paper Publication Award (Grade DM/DUF45)
- Book Publication Award
- Best Researcher Award
- Most Prolific Writer Award
- Best Consulting Award
- Best Industry Grant Award
- Best National Grant Award
- 2024 FRGS Grant Recipient
- 2024 PRGS Grant Recipient

Student Affairs Category

- HEP Bestari Leadership Inspiration Award
- HEP Inspiration of Excellence Award

Quality Category

- Best Quality Cultivation Award (Academic)
- Best Quality Cultivation Award (Management & Professional)
- Best Quality Cultivation Award (Support Staff)

Industry, Community and Alumni Network Category

- Best Community Service Network Award
- Best Industry Networking Award
- Best Alumni Network Award
- Best International Network Award (1)
- Best International Network Award (2)

Faculty Category

- Outstanding Administrator Award (Community Service)
- Outstanding Administrator Award (Research)
- Outstanding Administrator Award (Creative & Innovative) (1)
- Outstanding Administrator Award (Creative & Innovative) (2)
- Outstanding Administrator Award (Sports & Recreation)
- Active Writer Prescription Newsletter [May 2023 - May 2024]
- Prescription Newsletter Committee
 Members
- Faculty of Pharmacy Outstanding Service Award 2023 (24 recipients)

OATH TAKING CEREMONY DEAN'S AWARD

By: Madam Syahida Fathiah Ahmad Kamal

The Oath Taking Ceremony and Dean's Award, held on July 3, 2024, is a significant occasion in the faculty, marking a pivotal moment in the lives of students and honouring their outstanding achievements. This event not only recognises the hard work and dedication of the students but also instils a sense of responsibility and ethical commitment as they embark on their professional journeys.

Dean's Award: Recognising Academic Excellence

The Dean's Award is a prestigious accolade bestowed upon students who have demonstrated exceptional academic performance and dedication to their studies. This award is a testament to their hard work, perseverance, and intellectual prowess, setting them apart as exemplary members of the academic community. This year, a total of 68 undergraduate students received the Dean's Award and 3 postgraduate students received Faculty Postgraduate Award.



Recipients have achieved outstanding grades, with undergraduate students attaining a GPA of 3.50 and above, and postgraduate students achieving a GPA of 3.75 and above. Their achievements reflect not only their individual efforts but also the support and guidance provided by their mentors and the institution.

The Dean's Award ceremony is a moment of pride and celebration, where students are recognised for their accomplishments and encouraged to continue their pursuit of excellence. The award serves as a motivation for other students to strive for academic success and to make the most of the opportunities available to them.

Student's Excellence Award: Highlighting Exceptional Talent



In addition to the Dean's Award, the Student's Excellence Award under Student Affairs (HEP) was presented to 3 outstanding students. This award recognizes exceptional talent, leadership, and contributions to the student community. These awardees have demonstrated remarkable abilities and dedication, serving as role models for their peers.

Certificate Presentation Ceremony: Qualifying Examination for Registration as Practising Pharmacists

The event also featured a Certificate Presentation Ceremony for the Qualifying Examination for Registration as Practising Pharmacists (Peperiksaan Kelayakan Untuk Mengamal Farmasi). Certificates were awarded to 87 students who successfully passed this rigorous examination, marking a significant milestone in their professional journey.

The presentation of certificates acknowledges the students' hard work and dedication in preparing for and passing the exam, which is crucial for their registration as practising pharmacists. This ceremony is an important step in their transition from students to professionals in the field of pharmacy.

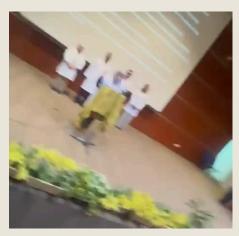
Motivational Talks: Inspiring the Future

To further inspire and motivate the students, the event featured 2 esteemed speakers who delivered motivational talks, Prof. Dr. Zamrin Dimon and Madam Noriah Mohamed Ali. These speakers, recognized for their accomplishments and expertise, shared their personal journeys, insights, and advice, providing students with valuable perspectives and encouragement as they move forward in



their careers. The motivational talks were a highlight of the event, offering students a source of inspiration and practical wisdom. The speakers' stories of perseverance, innovation, and success resonated with the audience, reinforcing the importance of determination, continuous learning, and a positive mindset.

Oath Taking Ceremony: A Commitment to Ethical Practice



The Oath Taking Ceremony is a profound and solemn event where 152 final-year students from the Rx19 and Rx18 cohorts pledge to uphold the ethical standards and values of their chosen profession. During the ceremony, students take an oath to practise their profession with integrity, compassion, and dedication. This commitment ensures that they prioritise the well-being of their patients, adhere to the highest standards of professional conduct, and continuously strive for excellence in their field.

Sending-Off Speech: A Message from the Dean

As part of the event, the Dean delivered a heartfelt sending-off speech for the final-year students. This speech was a moment of reflection and encouragement, where the Dean acknowledged the hard work and achievements of the students, offered words of wisdom, and inspired them as they prepared to embark on their professional careers.



The sending-off speech provided final-year students with a sense of closure and celebration as they transitioned from academic life to the professional world. The Dean's words served as a guiding light, encouraging students to uphold the values and standards they have learned during their time at the institution.

The Importance of Celebrating Achievements

The Oath Taking Ceremony and Dean's Award event underscores the importance of recognising and celebrating the achievements of students. Such recognition not only boosts the morale of the awardees but also sets a standard for other students to aspire to.

These events highlight the values of integrity, excellence, and dedication, which are crucial in shaping the future professionals who will make significant contributions to society. By honouring these values, institutions reinforce their commitment to fostering a culture of excellence and ethical practice.

The Internal Audit and Integrated Quality Management System (iQMS) Online Course 2024: a continuous professional development initiative for better implementation of QMS at the Faculty of Pharmacy, UiTM

By: Assoc. Prof. Dr. Lim Siong Meng

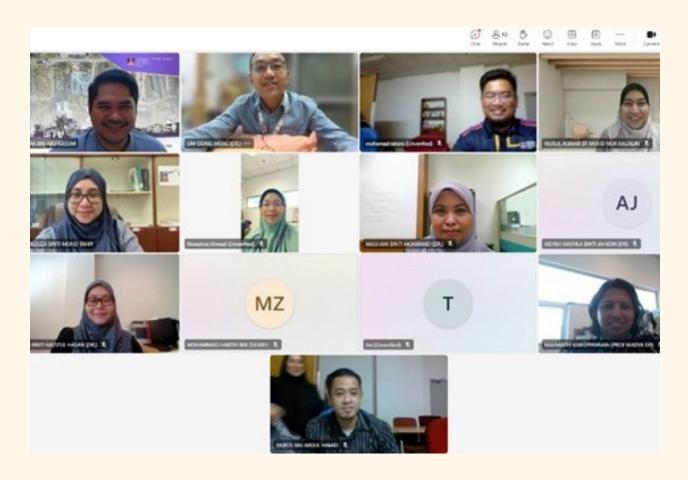
The Faculty of Pharmacy, UiTM had recently organised the Internal Audit and Integrated Quality Management System (iQMS) Online Course 2024. A total of 13 participants, including the Head of Quality Unit, internal auditors and academic staff, had successfully completed the intensive online course, which was held from the 16th July 2024 to the 18th July 2024. This was a continuous professional development initiative to enhance the competency of internal auditors with the latest information on the iQMS, which is an amalgamation of ISO 9001:2015 and 4 areas of self-review report.

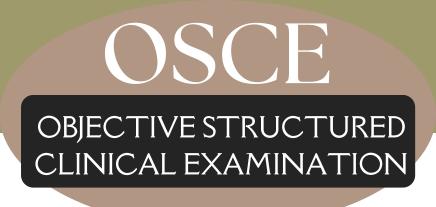
In addition, this was also an effort to expose the faculty staff to the requirements of the iQMS to strengthen the implementation of the QMS at the Faculty of Pharmacy UiTM. The 3-day online course, which was conducted by both Mr. Abd Razak Abu Kassim and Ms. Henny Hazliza Mohd Tahir from the Institute of Quality and Knowledge Advancement (InQKA), covered a total of 6 modules, ranging from ISO 9001:2015, clauses of the 4 areas of self-review report, internal audit, audit plan, mock audit to audit report.





Apart from listening to lectures, the participants also had the opportunity of experiential learning through role playing a mock audit. The participants were required to work in groups of 3 or 4 and record their respective mock audit sessions. The speakers would then comment on their strengths and areas of improvement. The participants were also required to sit for an exam on the last day of the online course. It is mandatory for all internal auditors to pass the exam to fulfil the requirements of the InQKA. Altogether, this online course, which was well received by the participants, had essentially trained the internal auditors to perform internal audits more effectively. More importantly, it had also created a greater understanding towards the iQMS amongst the faculty staff for better implementation of the QMS at the Faculty of Pharmacy, UiTM.





By: Madam Nurul Ashikin Jamludin

Recently on June 26, 28 and July 2-3 July 2024, the Department of Pharmacy Practice and Clinical Pharmacy (PPCP) conducted a clinical competency assessment called the Objective Structured Clinical Examination (OSCE) for the Bachelor of Pharmacy students Semester 6 and Semester 8. This semester, five courses offered the OSCE: PHC635 Introduction to Clinical Pharmacy, and 4 applied therapeutics courses: PHC671, PHC690, PHC691, and PHC692.



The OSCE involved all 25 PPCP academicians, 19 academicians from other departments, and 41 support staff. The implementation of OSCEs as part of the course learning objectives is to assess students' knowledge, skills, and behaviour within simulated clinical settings. The OSCE tasks were aimed at assessing the cognitive, psychomotor, and affective domains of learning in outcome-based education. For each OSCE, a set of questions was developed, which comprised case scenarios designed to test students' ability to solve clinical problems, communicate effectively and demonstrate professionalism. At the end of the OSCE, feedback was gathered from examiners and most agreed that the OSCE was able to test a wide range of students' knowledge.

A survey was conducted among the students who participated in the OSCE, and the overall feedback given by the students was that the conduct of the OSCE was well organised and the OSCE itself was designed fairly. The majority of the students agreed that the OSCE provided practical and useful experience for them, and that the OSCE scores served as a good measure of their clinical skills. The OSCE outcomes provided students with a benchmark of their clinical competence, informing subsequent skill development.

Overall, the OSCE sessions ran smoothly, thanks to the amazing teamwork of the department members, especially the PPCP OSCE team, all the involved academics, and most importantly the support staff.







PharmPathFinder

Curate Your Path, Navigate Wisely!!:

PharmPathFinder

By: Dr. Nur Wahida Zulkifli



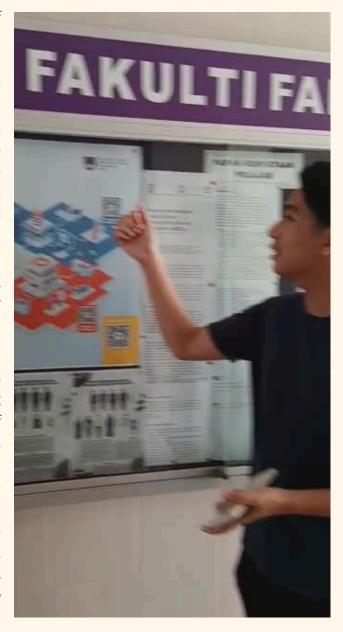




ELEVATE is an innovative group at the Faculty of Pharmacy, established on March 13th, 2024, with eight members focused on enhancing pharmacy education. The group initiated a project after receiving complaints from third-year students about insufficient exposure to the pharmacy profession. This issue is significant because pharmacy graduates must choose between four fields—hospital, community, pharmaceutical industry, and academia—to complete a mandatory one-year training required for licensure as practicing pharmacists. Thus, students must be well-informed and prepared to make this critical decision.

Stakeholders of the Faculty of Pharmacy, including alumni, employers, and current students, have participated in discussions to student employability. Feedback from these discussions is used to improve the curriculum to meet industry demands. A study also gathered alumni opinions on the current program, highlighting the need for more interactive hands-on teaching methods. You can to the https://shorturl.at/2aWjN for further details.

A survey conducted from March 23rd to April 6th, 2024, with 256 pharmacy students revealed that 30% had a below-moderate level of knowledge about the pharmacist's career, and 47% lacked confidence in their career preparation. In response to these issues, ELEVATE designed PharmPathFinder—a comprehensive online learning platform that helps students from Year 1 to Year 4 explore all aspects of the pharmacy profession.



PharmPathFinder was presented at the Management Meeting on July 19, 2024, and received approval on July 25, 2024, to establish a Standard Operating Procedure (SOP) for lecturers. A notification email was also sent by the Corporate Pharmacy to all members of the Faculty of Pharmacy, informing them that PharmPathFinder can be used as a learning reference for students. Additionally, PharmPathFinder has been promoted on the Faculty of Pharmacy's website at UiTM.

After being approved by the Dean of the Faculty of Pharmacy, PharmPathFinder was promoted through various media channels, particularly on TikTok. As a result, the video gained over 6,000 views after being published, expanding the use of PharmPathFinder among pharmacy students across Malaysia.



A GATEWAY TO ENTREPRENEURIAL SUCCESS

By: Madam Farhana Fakhira Ismail



The business pitching event for our final-year students is the ultimate manifestation of their hard work and creativity, serving as a platform to showcase their entrepreneurial skills and innovative ideas. As an integral component of the curriculum, this event provides the students with an opportunity to showcase their business ideas to a panel of community pharmacy experts and faculty members. The event is designed to simulate a real-world business environment, where students must not only demonstrate their understanding of business fundamentals but also their ability to effectively communicate and sell their ideas.

Throughout the semester, students have been developing their business plans and refining their strategies. This event represents the final stage of this process, where they will put their skills to the test. Each team will have a set amount of time to present their business idea, followed by a Q&A session where they will address questions and feedback from the judges. The pitches will be evaluated based on several criteria, including the revenue model, competitive advantage, organisation of information, creativity, pitching aid tools, and their abilities to answer during the questions and answer session.

The business pitching event is not just about competition; it is also an invaluable learning experience. It allows students to receive constructive feedback, learn from the experiences of their peers, and gain insights into the realities of starting and running a business. During this business pitching, several industries involved from the community pharmacy experts, which include Alpro Pharmacy, Big Pharmacy, Farmasi IDEAL, HEAL Pharmacy, Farmasi Ukhwah, GT Health Pharmacy, UNI Farmasi and Adas Apothecary. This provides networking opportunities, as students interact with industry professionals who may offer advice, mentorship, or even investment opportunities.

Ultimately, this event successfully achieved its aims which was to empower our students, equipping them with the necessary confidence and skills to thrive in the business realm, whether they choose to start their own enterprises or contribute to any established organisations.

Perspective of a provisionally registered pharmacist (PRP) during Inpatient Pharmacy (IPD) rotation





By: Miss Nur Ainin Sofiya binti Mohamad Irwan and Dr. Janattul Ain Jamal

An 8-week period has elapsed with multiple work episodes in between. On the first day I had no idea whether I would get any sense of enjoyment from my rotation at the inpatient pharmacy (IPD). Now, I experienced ambivalent emotions but was profoundly grateful for the invaluable experiences. Upon reflection, the early days began with a two-week orientation, or they called it 'tagging-week'. As a provisionally registered pharmacist (PRP), I had to undergo counselling validation and basically gained a comprehensive understanding of the workflow and systems of the IPD, and the roles and responsibilities of an IPD pharmacist. Initially, the overwhelming feeling hit due to the requirement to adapt with the 'fast' working pace, with a steep learning curve. Nevertheless, with time, I successfully adapted to the working pace, and managed to execute multiple tasks simultaneously. The first four weeks back in April did not afford me the opportunity to fully appreciate this rotation, but now, I consider it as the most priceless moment in life. I was in a situation where various information was thrown into my mind at once, all of which was crucial for me to promptly comprehend and assimilate, and I'm thankful I managed to handle the situation and it has positively shaped me becoming who I am right now.

My typical days at IPD would start with an inventory check of the dangerous drugs (DD), mainly to ensure the records and physical items are tally. Every Wednesday, is the day of indenting DD, whereby we supply the DD to the wards and units as per request. Then, screening of new prescriptions, proceed with filling of the medication and counter-checking the medication trolley when required. In addition, my role is to respond and handle phone calls from the doctors and nurses, addressing the urgent medication or known as 'STAT' medications, drug queries and sometimes resolving technical issues related to the medication supply. Apart from that, my routine was also to conduct the bedside dispensing and counselling, and making the extemporaneous preparations for certain oral medications, such as the antituberculosis medications (e.g. rifampicin, ethambutol, isoniazid), where the liquid preparation is not commercially available. In the IPD, a pharmacist is scheduled for the bedside dispensing activity every hour during the office-hour.

Preparing Extemporaneous Medication



Every "first" is always exciting. For instance, upon seeing your name mentioned by the doctors in their notes. This happened to me when I made my first intervention after going to the ward and meeting patients for the first time. In IPD, the interaction between the pharmacist and patient mostly was indirect, in contrast to our colleagues who are working as clinical pharmacists. Due to that, moments such as seeing your name being appreciated and recognised by the doctors really made your day and makes you feel rewarding. My so-called 'favourite' slot for bedside dispensing was doing the discharge of O&G and Paediatric patients. This was because I was able to meet the newborn babies and sometimes, if I was fortunate enough, I had the opportunity to hold them dearly in my hand. Another moment that always stayed with me was when my first time screening the antibiotic regimen for a patient, which was initially intimidating but I learned that it is normal to have the fear, but essentially to go with the task anyway. The paramount importance lies in the confidence and the knowledge that we acquire throughout time. Medication intervention activities at the IPD were usually conducted via phone call consultations with the doctors, and I appreciate the way it triggered my mind to think outside of my comfort zone. In instances when I am not occupied with tasks, I would freely move around to offer assistance if anyone would need an extra hand. Above all, the old picture of myself who donned the white coat never fails to crack me up. It mesmerised me with those chaotic moments everytime receiving phone calls of which I did not know the answer, where I would quickly scroll through the references to discover answers and often, I would seek out for the seniors to discuss the matter for clarification or when I'm unable to solve the issues.

The aspect that I thoroughly enjoy about this rotation is the rapport I have built throughout the duration. Some of which included both short and long-term relationships with the patients, relatives, and the individuals I have worked with. The support I received by the IPD team has encouraged me to exert my best of myself in many ways. Engaging with the team has also provided me the room to refine my interpersonal skills. In my opinion, the role of an IPD pharmacist extends beyond the provision of technical services to the ward. Although with limited experience of direct contact with patients in ward during my IPD rotation, I am eagerly anticipating the opportunity to become a clinical pharmacist within the near future!

ABOUT THE AUTHOR

Ms. Nur Ainin Sofiya Mohamad Irwan is an alumni of UiTM, from RX18 batch. She is currently in her pharmacy training year as a provisionally registered pharmacist (PRP) at Hospital Putraya.



Postgraduate DEGREE COMPLETION

By: Mr. Ihsan Safwan bin Kamarazaman

My name is Ihsan Safwan bin Kamarazaman, and I recently completed my Doctor of Philosophy (PhD) at Universiti Teknologi MARA (UiTM) Puncak Alam. I conducted a study on the wound-healing properties of Baeckea frutescens L., also known locally as Cucur atap. The research focused on the ability of Cucur atap to treat wounds using different models, including in vitro and in vivo models. It explored the various processes of wound



healing such as proliferation, migration, re-epithelialisation, angiogenesis, and collagen formation. This study investigated the mechanisms underlying wound healing, by examining the expression of genes and proteins involved in the process, such as transforming growth factor (TGF)- β , vascular endothelial growth factor (VEGF), interleukin (IL)- 1β , matrix metalloproteinase (MMP)-2 and MMP-9.

Beginning my PhD journey in November 2019, I had the privilege of working under the supervision of Associate Professor Dr. Hasseri Halim, along with Dr. Aida Azlina Ali and Professor Dr. Teh Lay Kek. This journey has been an extraordinary experience, made possible by the support of many dedicated individuals. I extend my heartfelt thanks to the staff of the Pharmaco-Toxicology Research Lab, the Laboratory Animal Facility and Management (LAFAM), the Integrative Pharmacogenomics Institute (iPROMISE), and the Pharmaceutics Lab for their technical support throughout my research. I am also deeply grateful to the

Office of the Faculty of Pharmacy for their invaluable assistance in monitoring my research progress and requirements for the completion of my study.

Throughout this journey, I have faced numerous challenges, including lockdown periods, breakdowns of lab equipment, and other obstacles. Despite these difficulties, the support from my friends, staff, and lecturers at the Faculty of Pharmacy has been a constant source of encouragement, motivating me to persevere and complete what I started. I would also like to extend a special thanks to my family for their unwavering support throughout this journey. Words cannot fully express my appreciation for having all of you by my side.

Once again, thank you all for your invaluable contributions and support. The Faculty of Pharmacy, UiTM Puncak Alam will always hold a special place in my heart.

SUPERVISOR'S COLUMN: ASSOC. PROF. DR. HASSERI HALIM



It has been a true privilege to supervise Ihsan during his PhD journey at UiTM Puncak Alam. His research on the wound healing properties of Baeckea frutescens extract was conducted with remarkable dedication and rigor. The Faculty of Pharmacy provided an ideal environment for Ihsan's work, but it was unwavering commitment and intellectual curiosity that truly drove his success. Ihsan's perseverance and academic excellence are a testament to his passion for discovery, supported by the love and encouragement of his family and friends. I look forward to seeing his future contributions to the scientific community.

Congratulations



PROFESSOR DATO' DR. ABU BAKAR ABDUL MAJEED

Appointment as

DEAN, FACULTY OF PHARMACY, UITM EFFECTIVE ON 1 AUGUST 2024

MR. AHMAD AZANI OTHMAN

Appointment as

GRADUATE EMPLOYABILITY
COORDINATOR
EFFECTIVE ON 15 AUGUST 2024



Congratulations



ASSOC. PROF. DR. HASSERI HALIM

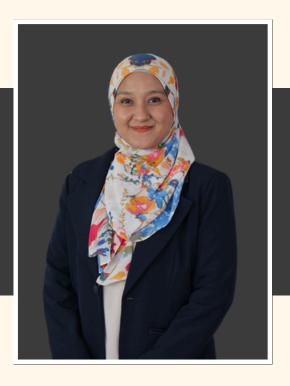
Appointment as

UNIVERSITY STRATEGIC PLANNING & TRANSFORMATION COORDINATOR EFFECTIVE ON 1 SEPTEMBER 2024

DR. NORKASIHAN IBRAHIM

1ST PRIZE IN THE BEST PAPER AWARD

at 38th Annual Congress of Malaysian Society of Nephrology



Congratulations

The International Student Invention, Innovation, Development Exhibition & Competition (i-SIIDEC) 2024

1 Special Award 2 Gold, 2 Silver, 1 Bronze



MUHAMMAD FARIQ
ASYRAF HAMIZAN
Gold & Special Award (best innovation idea)
PROJECT TITLE: GOLDCLEAR
ANTI-ACNE PATCH





LISRANIA MOHD AMIN Silver Award TERRACLAY®





SYAHIRA EZANI ALI
Silver Award
BEFRUTENCENS FLAIR: NATURE'S
SOLUTION FOR ITCHY AND FLAKY
SCALP



MUNIR IRFAN
MUHAMMAD ISA
Bronze Award
EFFERVEX

Congratulations

The International Conference on Student Development (ISDev 2024)

Best Presenter Award



NUR ELIYAH HUSAINI
Sub-theme: Leadership
Project title: Leadership
Involvement and Leadership SelfEfficacy on Academic Performance
Among Undergraduate Pharmacy

NUR EDLYNN SHAHIRAH Sub-theme: Economy Project title: Entrepreneurial Knowledge, Attitudes and Perceptions Among Undergraduates Pharmacy Students in Selangor, Malaysia



Best Paper Award

Project title: Leadership Involvement and Leadership Self-Efficacy on Academic Performance Among Undergraduate Pharmacy Students

Sub-theme: Leadership

NUR ELIYAH HUSAINI, NUR EDLYNN SHAHIRAH MOHD EDDY RATYAL, DR. SANDRA MANIAM, DR. AIDA AZLINA ALI

Project title: Entrepreneurial Knowledge, Attitudes and Perceptions Among Undergraduates Pharmacy Students in Selangor, Malaysia

Sub-theme: Economy

NUR EDLYNN SHAHIRAH MOHD EDDY RATYAL, NUR ELIYAH HUSAINI, DR. SANDRA MANIAM, DR. AIDA AZLINA ALI

Congratulations

Corresponding Authors of the Month



Dr. Syed Haroon Khalid

WoS Q1

Curcumin-Loaded Soluplus® Based Ternary Solid Dispersions with Enhanced Solubility, Dissolution and Antibacterial, Antioxidant, Anti-Inflammatory Activities https://doi.org/10.1016/j.heliyon.2024.e34636



Dr. Nur Syamimi Ariffin

WoS Q1

Discovery of novel 1,8-naphthalimide piperazinamide based benzenesulfonamides derivatives as potent carbonic anhydrase IX inhibitors and ferroptosis inducers for the treatment of triple-negative breast cancer http://dx.doi.org/10.1016/j.bioorg.2024.107596



Professor Dr. Khaled Mohamed Anwar Aboshanab

WoS Q2

Effectiveness of Pre-Transplant Screening for High-Priority
Multidrug-Resistant Pathogens on Pre-Engraftment Infections
After Hematopoietic Stem Cell Transplantation
https://doi.org/10.2147/IDR.S463868



Assoc. Prof. Dr. Sadia Sultan

WoS Q2

Recent Synthetic Approaches Towards Thienothiophenes A Potential Template for Biologically Active Compounds. https://doi.org/10.1007/s11030-023-10647-1



Dr. Nur Wahida Zulkifli

WoS Q2

Giving Meaning to Quality of Healthcare in Malaysia. https://doi.org/10.1093/intqhc/mzae063

Congratulations

Corresponding Authors of the Month



Assoc. Prof. Dr. Syed Adnan Ali Shah

WoS Q3

Synthesis of modified Schiff base appended 1,2,4-triazole hybrids scaffolds: elucidating the in vitro and in silico αamylase and α-glucosidase inhibitors potential https://doi.org/10.1515/znc-2024-0073



Dr. Nor Khaizan Anuar

WoS 03

Discovery of novel 1,8-naphthalimide piperazinamide based benzenesulfonamides derivatives as potent carbonic anhydrase IX inhibitors and ferroptosis inducers for the treatment of triple-negative breast cancer http://dx.doi.org/10.1016/j.bioorg.2024.107596



Professor Dr. Teh Lay Kek

Scopus

Differential metabolomic pathway analysis in Malaysian childhood acute lymphoblastic leukemia patients treated with high-dose methotrexate https://doi.org/10.2147/IDR.S463868



Assoc. Prof. Dr. Hanish Singh **Jayasingh Chellammal**



Development and Evaluation of Polyherbal Phytophospholipid Complexes (Phytosomes) for PCOD **Treatment**

https://doi.org/10.2147/IDR.S463868



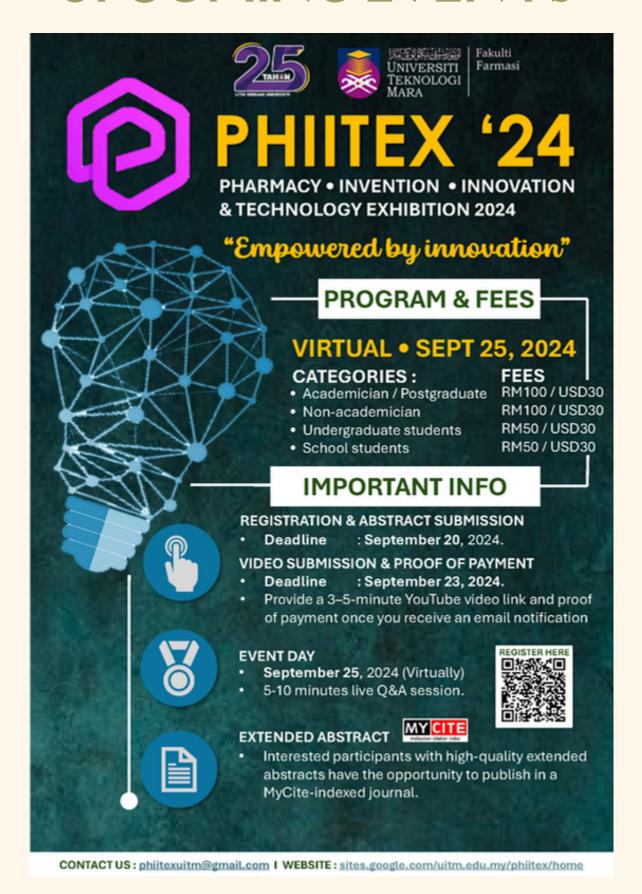
Assoc. Prof. Dr. Rozaini Mohd Zohdi

Scopus

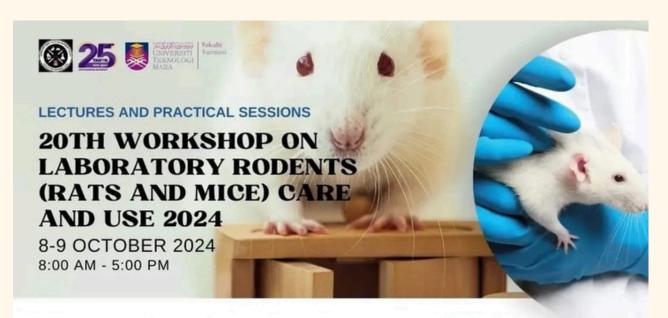
Comparative study of different Malaysian Stingless bee propolis: Physicochemical characterization, Phytochemical contents and Antibacterial activity https://doi.org/10.2147/IDR.S463868

Issue 8/2024 _____ Aug 2024

UPCOMING EVENTS



UPCOMING EVENTS



Registration Fee

RM400 (UiTM); RM600 (Others); USD180 (International)

*Group discount - RM500/participant for more than FIVE (5) from the same Institution

REGISTRATION

PROGRAM DETAILS







LABORATORY ANIMAL FACILITY AND MANAGEMENT (LAFAM), FACULTY OF PHARMACY, UNIVERSITI TEKNOLOGI MARA, PUNCAK ALAM.

FOR MORE INFORMATION 3-3258 4664)
Mrs. Nurul Aini Baharom (03-3258 4722)

in nurhalina@uitm.edu.my; aini6964@uitm.edu.my

Speakers

Dr. John Shia Kwong Siew Dr. Gurmeet Kaur Surindar Singh AP. Dr. Hanish Singh Jayasingh Chellammal Prof. Dr. Mizaton Hazizul Hasan

Course Content

- Animal Models for Research and Genetics of Animal Models – Considerations in Animal Experiments
- · Sample Size in Animal Research
- Management and Care of Laboratory Rats & Mice
- Enrichment Effective Behavior Management
- · Health Monitoring of Rats and Mice
- Bleeding Techniques, Anaesthesia & Euthanasia
- The Animal Welfare Act 2015 & MyCode 2019
- · Animal Ethics Application: Do's and Don'ts

UPCOMING EVENTS



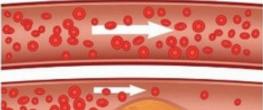
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By: Madam Nur Sabiha Md Hussin

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Latest news and updates from the Faculty of Pharmacy



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