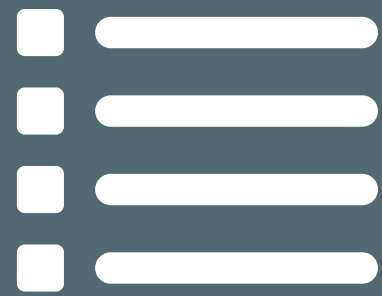


THE BALANCED LIFE: WHERE HEALTH MEETS HAPPINESS



- Elevating Wellness through Physical Activity, Exercise, and Sport
- Transformative Measures in University Cafeterias for Sustainable and Healthy Dietary Behaviours
- The Tamarind Plant: Discovering Its Antioxidant Properties and Health Effects
- The Gut Microbiota as a Promising Treatment Target for Physical and Mental Illness
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Foreword from The Deputy Dean of Research

Welcome to the latest issue of the PULSE@UM magazine!

This edition of our research bulletin offers a deep dive into various health and wellness aspects, from the vital role of physical activity and dietary choices to the sophisticated relationship between our gut microbiota and overall well-being. These discussions underscore the critical need for proactive measures to enhance wellness and reduce the risks of modern lifestyle factors, including sedentary habits, dietary choices, and common health concerns like sleep disorders and hypertension.

I am also grateful to our academics and others who have contributed to the successful organization of the 2023 FERCAP International Conference held at Universiti Malaya Medical Centre (UMMC). This conference had a meaningful impact by bringing together 470 delegates from 19 countries. This gathering was a testament to the global community's dedication to ethical research practices. The conference theme, "Ethical Research Practices Related to Innovative Research Challenges and Opportunities", couldn't be timelier, as it tackled the dynamic ethical landscape shaped by rapid scientific progress, reinforcing our commitment to inclusive and accessible ethical discourse.

My deepest appreciation goes to our passionate researchers and collaborators whose invaluable work enriches this bulletin. Their relentless pursuit of understanding, coupled with a steadfast dedication to ethical innovation, is crafting the future of healthcare that promises a more holistic sense of well-being for all.

As the Deputy Dean of Research, I am honoured to share this collection of articles with you. I hope they broaden our collective understanding and spark new ideas and actions towards enhancing health outcomes worldwide. As we explore the complex tapestry of modern healthcare and wellness, a broad and thoughtful approach may help us face the myriad challenges ahead.

Let's take this opportunity to reflect on our practices, engage in meaningful conversations, and commit to the continuous evolution of our approaches to health and wellness. Together, we can navigate the complexities of this landscape with integrity, innovation, and an unwavering commitment to improving lives.

PROF. DR. SANJAY RAMPAL A/L LEKHRAJ RAMPAL

*Deputy Dean of Research,
Faculty of Medicine*



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Editorial note:

**Thanks for your many years of service for
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All the best in your future endeavor!

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Elevating Wellness through Physical Activity, Exercise, and Sport



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The rise in sedentary lifestyles, driven by technological advancements and shifts in work environments, has profound implications for both our physical and mental well-being. Many modern jobs demand prolonged computer use and limited physical movement, which directly contribute to a decline in overall fitness levels. This decline sets the stage for a cycle of inactivity, as individuals may feel too fatigued or demotivated to engage in any physical activity outside of working hours. Over time, this lack of physical activity becomes a significant risk factor for chronic diseases that pose substantial public health concerns. One of the most noticeable consequences of sedentarism is the increased risk of various health issues, including weight gain, type 2 diabetes, hyperlipidaemia, and cardiovascular diseases.

Also, prolonged sitting leads to poor posture, muscle imbalances, and increased pressure on the spine, contributing to musculoskeletal

problems. Beyond its physical effect, sedentary behaviour significantly affects mental health, with studies indicating a strong association between sedentary lifestyles and an elevated risk of anxiety and depression. In addition, sedentarism contributes to reduced energy levels, increased feelings of fatigue, and surprisingly, decreased alertness and productivity, affecting overall work performance.



Figure 1. Walking is a form of physical activity that can improve our heart's health.

Physical activity, exercise, and sports play pivotal roles in promoting overall wellness, encompassing physical, mental, and emotional well-being. Physical activity involves any bodily movement that expends energy, ranging from walking to gardening. The American College of Sports Medicine recommends at least 150 minutes of moderate-intensity aerobic activity or 75 minutes of vigorous-intensity aerobic activity per week, combined with muscle-strengthening activities on two or more days. Exercise, on the other hand, is a planned, structured subset of physical activity that is goal-oriented and linked to health benefits such as reduced risks of chronic diseases, maintenance of a healthy weight, mood improvement, and enhanced cognitive function. Meanwhile, sports add a social and competitive dimension to physical activity and exercise, fostering teamwork, discipline, and sportsmanship. Team-based sports, in particular, contribute to social interaction, communication, and cooperation, building a sense of belonging and community.



Figure 2. Group exercise not only helps you stay healthy but also ensures adherence to the planned session.

It is important to highlight that one effective approach to address sedentarism is through workplace initiatives, including standing desks, regular breaks for movement, and physical activity programs. Individuals can combat sedentarism by incorporating small changes into their daily routines, such as taking short walks, using stairs, and stretching during breaks. These simple measures can counteract the negative consequences of

prolonged sitting. Hence, by prioritizing physical activity, exercise, or sports in daily life, individuals can experience numerous benefits extending beyond the physical, leading to a healthier, happier, and more fulfilling life.



Figure 3. Walking football is an example of a sport that adds both a social and competitive dimension to its players.

In conclusion, raising awareness about the importance of incorporating exercise into daily routines and adopting an active lifestyle is crucial. Whether through simple lifestyle changes or engaging in regular exercise activities, individuals can significantly contribute to their overall well-being. Engaging in regular physical activity, exercise or sporting activities aids in maintaining a healthy body weight and reducing the risk of obesity-related conditions. It also positively impacts well-being by reducing symptoms of depression and anxiety, enhancing mood, and improving sleep quality, thanks to the release of endorphins, often referred to as "feel-good" hormones.



Transformative Measures in University Cafeterias for Sustainable and Healthy Dietary Behaviours



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The struggle against obesity in Malaysia has reached a critical stage, as evidenced by the 2019 national survey [1], which revealed that a significant proportion of Malaysian adults are either overweight or obese. The economic consequences of this epidemic are equally staggering, with projections indicating a 2.8% impact on Gross Domestic Product (GDP) by 2023 [2]. These alarming figures underscore the urgency of proactive strategies to tackle the obesity crisis.

Often, people aspire to embrace sustainable and healthy eating behaviours, yet they often face disheartening circumstances such as unsupportive and obesogenic environments. The lack of accessible healthy food options, financial burdens and other barriers frequently impede progress. Therefore, it is crucial to come up with a plan of action that encourages individuals to adopt and promote good practices. As healthcare practitioners, how can we ensure we 'walk the talk'? Are extensive public awareness campaigns necessary to educate the public about the importance of these practices? Or should alternative measures be considered?

Rather than relying solely on individual behavioural change, there is a growing recognition of the need to create environments that support sustainable and healthy dietary behaviours [3,4]. We have reason to believe that university campuses, acting as influential ecosystems for university communities, particularly young adults, present a unique opportunity to instil positive lifestyle choices. Young adults can emerge as **CHANGE AGENTS** for societal well-being through sustainable and healthy lifestyle initiatives.

Recognising the urgency of the issue of obesity, a groundbreaking three-phase study is currently in progress. This study is

a collaborative effort led by Dr Ng Ai Kah, involving a team of researchers from both the Department of Social and Preventive Medicine at Universiti Malaya (UM) and the Department of Nutrition and Dietetics at International Medical University (IMU). Additionally, two local industrial partners in the food service sector are integral to this study. The team is currently applying for a grant to support their study.

To further enforce this study, a plant-based food kiosk is being developed. This initiative, a collaboration between the Dean's Office, Faculty of Medicine, Universiti Malaya and an industrial partner specializing in plant-based meat and sugar/fat replacements, aims to create a sustainable and healthy eating environment. This kiosk will not only offer healthier food options but also include research and development activities.

This study's implications extend far beyond the boundaries of university cafeterias, to influencing both internal and external policy changes. The findings have the potential to initiate a paradigm shift in the way institutions approach sustainability and health in their food services. By fostering a healthier and more sustainable dining environment, universities not only contribute to the well-being of their students and staff but also cultivate change agents, who address broader societal and planetary concerns.

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The Tamarind Plant: Discovering Its Antioxidant Properties and Health Effects



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For centuries, natural products have been used for their medicinal properties, to treat many diseases and ailments. Plants contain numerous phytochemicals that may contribute towards their biological and health properties. Among phytochemicals, those with antioxidant activities are the most researched. Phytochemicals such as polyphenols are known for their strong antioxidant activities and many studies have proven their ability to prevent oxidative damage to cells.

For the past decade, our research group has been investigating the effects of antioxidants in natural products against oxidative damage as well as oxidative damage-related diseases such as cancer, diabetes mellitus, and atherosclerosis. We initially screened more than 20 local medicinal plants and revealed that several of them, particularly *Tamarindus indica* (tamarind), *Anacardium occidentale* (cashew), and *Barringtonia racemosa* (freshwater mangrove) have strong antioxidant activities.

The majority of our work centres on the tamarind plant, a medicinal herb traditionally used for treating ailments such as gastrointestinal disorders, rheumatism, wounds, and inflammation. Interestingly, different aerial parts of the tamarind plant confer different potency of antioxidant and biological activities. We hypothesise that this could be due to the presence of varying types of antioxidant compounds in different parts of the plant. We showed that the leaves of *T. indica* have the highest polyphenolic content and antioxidant activities. Other aerial parts of *T. indica* including the fruits, seeds, and veins also contained considerable levels of antioxidant activities, implying its potential as a source of natural antioxidants.

Our work with the tamarind fruit pulp showed its ability to act as a lipid-lowering agent. Microarray analyses revealed that the fruit pulp significantly regulated various genes in liver HepG2 cells, including genes related to the antioxidant defence system and lipid metabolism. Changes in gene expression were



Figure 1. A photo of members of our research group

also reflected in the abundance of proteins expressed in HepG2 cells. Further, *in vivo* treatment of the tamarind fruit pulp using the hamster model supported the ability of this extract to protect against oxidative damage and lower lipid levels, via regulating genes and proteins that are involved in lipid metabolism. This highlights the potential of the fruit pulp to protect against lipid-related diseases.

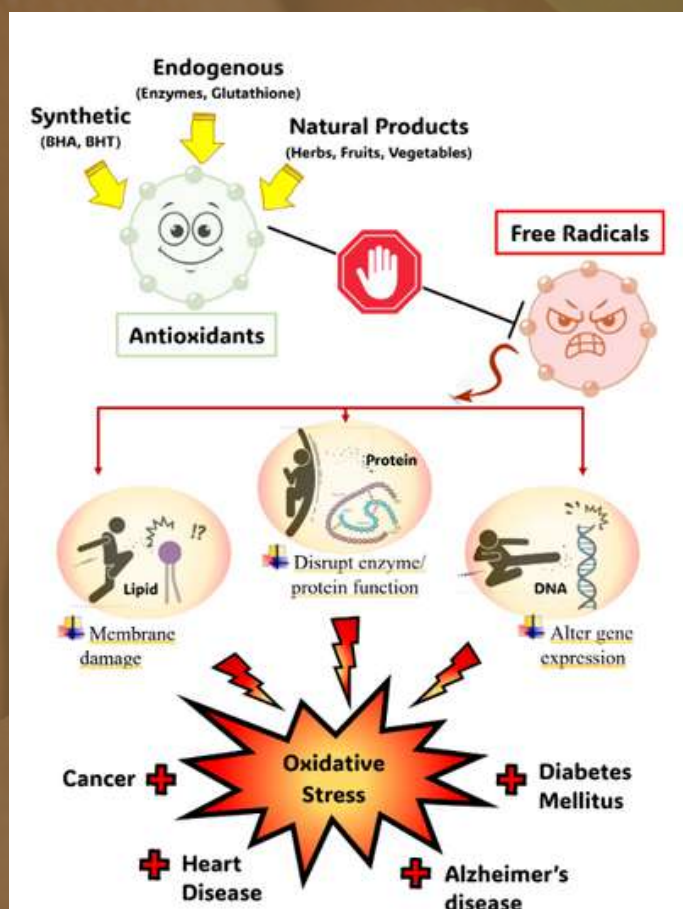


Figure 2. A diagram showing the effects of antioxidants on free radicals and oxidative stress

Our study with the tamarind leaves indicated its potential role in the coagulation system. Cell culture analyses using HepG2 cells demonstrated the ability of the leaf extract to increase the antioxidant defence systems and protect against oxidative damage. The extract was also able to significantly alter the regulation of several genes, particularly those involved in the coagulation system, cholesterol biosynthesis and xenobiotic metabolism. However, further studies beyond cell culture are needed to confirm these observations.

Currently, our group is investigating the anti-diabetic activities of the tamarind seeds. Initial studies with the tamarind seeds showed potent antioxidative protection in HepG2 cells through increased antioxidant activities and inhibition of lipid peroxidation and reactive oxygen species generation. The seeds also regulated the expression of many genes in HepG2 cells, particularly those related to antioxidants and glucose metabolism, implying potential anti-diabetic effects. Indeed, our current work with the animal model of diabetes mellitus demonstrated a potential link between the antioxidant activities and anti-diabetic effects of the seeds. Using genomics, proteomics, and metabolomics approaches, we are trying to understand the mechanism and signalling pathways that could explain this observation.

Certainly, there are immense benefits and potential in natural product discovery particularly from the perspective of antioxidants. Their low toxicity and easy availability make them desirable and sustainable sources of natural antioxidants for health benefits.

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The **GUT MICROBIOTA** as a Promising Treatment Target for Physical and Mental Illness



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More than 2000 years ago, Hippocrates, the father of modern medicine, stated 'all diseases begin in the gut'. But it took us such a long time with the assistance of sophisticated technologies to realize the same. It all starts from the gut, and the gut is the most influential organ in the human system and the most underplayed in the medical arena. It holds the capability to influence almost every other organ including the brain.

So how did the gut gain such superpower? The gut houses trillions of microorganisms that are diverse with over 1000 different species. This myriad of microorganisms inclusive of bacteria, fungi, and eukaryotes have evolved alongside humans and have now outnumbered to be at least 10 times more than the total human cells. We are only becoming more human when we shed some of these microorganisms during bowel movement.

This legion of gut microbes is collectively known as the gut microbiota, and they play an integral role in digestion and metabolism to

modulation of the immune system. They also produce compounds that are not produced by the human body and are essential for general health. The microbiota contributes up to 2 million genes, 100 times the figure of approximately 20,000 human genes. This diverse array of genes gives a versatile gene function and is pivotal in energy and nutrient acquisition from food, providing independent unique enzyme and biochemical pathways.

Since the origin of microbiota in the early 1900s, a tremendous amount of research and developments have been undertaken to understand gut microbiota. All of these have culminated in the current knowledge of specific bacterial consortia that vary between populations, certain bacterial groups being elevated in a specific disease cohort and certain bacterial products acting as key players in immune modulation, molecular signalling, and cellular health. This has divulged the implications of bacterial diversity and its significant impact on diseases like cancer, diabetes, and neurological disorders. Moreover, mounting evidence has surfaced indicating modulation of neurological function

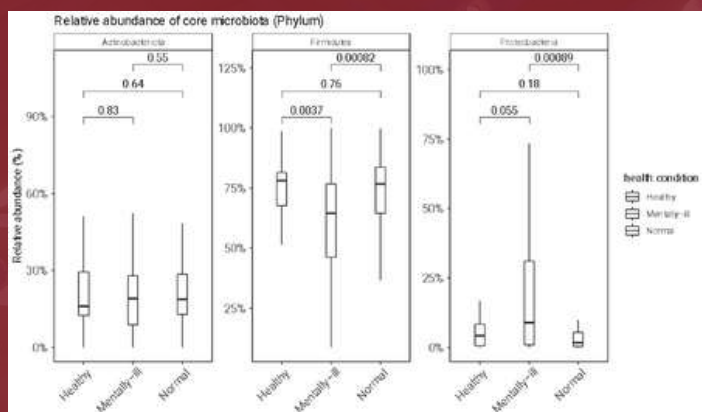


Figure 1. Relative abundance of bacterial phyla. Reduced abundance of Firmicutes and elevated Proteobacteria is seen in mentally ill patients.

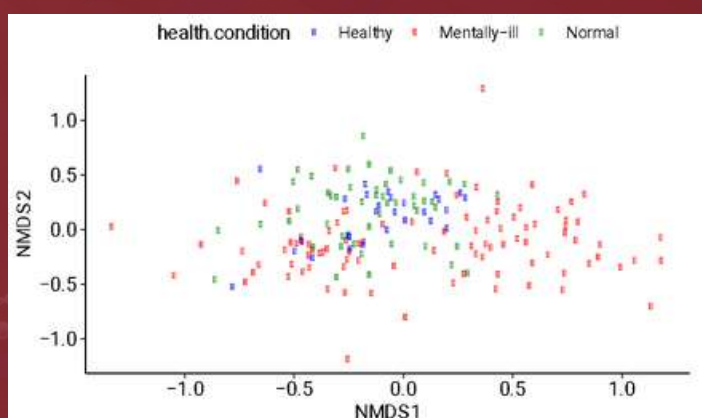


Figure 2. Gut microbiota diversity between samples (Beta diversity). The mentally-ill group (red dots) we seen to form separate cluster compared to healthy and normal individuals. This implicates the altered gut microbiota composition in mentally ill individuals which can be targeted for treatment.

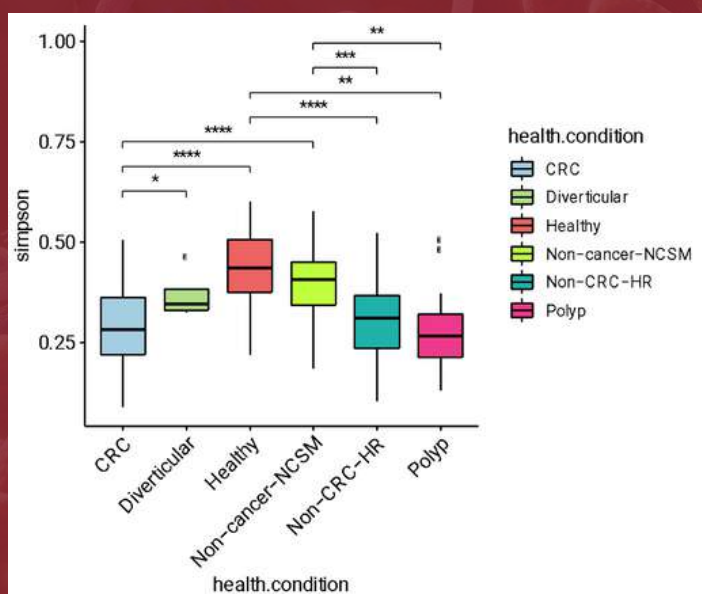


Figure 3. Gut microbial diversity within individuals with colorectal cancer (CRC) compared to other groups. CRC patients show significantly low gut microbiota diversity.

in the brain by gut microbiota via microbial metabolites, neurotransmitters and hormones that affect cognition. It is hard to believe that 95% of a feel-good hormone, serotonin which is responsible for a healthy sleep cycle is produced in the gut. But that is how indispensable is gut microbiota.

It is unequivocal that with the current evidence on microbiota, disease treatment is achievable by the manipulation of gut microbiota. Prevention of disease by detecting the unhealthy gut microbiota, which often presents with lower diversity or overgrowth of a specific bacteria, can be detected in predisposed individuals. This does not only act as a potential treatment target for physical illness but also can be crucial in developing a healthy mental state.

Gut microbiota is the Rosetta stone that convinces alternative treatment options and opens possibilities to reinstate health in humans. Although current understanding is persuasive enough to consider gut microbiota as a treatment target, current research in Malaysia has not completely scrutinized its potential in this direction. Most of the microbiota data is based on the western population. Gut microbiota-targeted treatment modalities demand baseline data of the local population. The lack of standardization, complexity and hypervariability of microbiota data presents a huge challenge as well.

The gut microbiota as a treatment target is realized in the future only if lifestyle factors are top-notch. Gut bacteria need to be fed well for the expected manipulation to take effect. But the reality is otherwise. Our nutrition is collapsing. Even in hospitals and medical universities where nutrition should be glorified, obliviousness about gut health is prevalent. Gut microbiota will be a promising treatment target but that requires education, awareness, and holistic investigation.

Mindful Sips:

Navigating the Demands of Healthcare for a Balanced Life



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Ever wonder why 24 hours seems insufficient to complete the plethora of tasks that comprise our daily lives, despite our best efforts? For individuals engaged in the demanding healthcare profession, this situation becomes ever more apparent. While the profession is undeniably rewarding, the strain it places on individuals cannot be ignored.

Suppose that those who work in healthcare are like teapots. Due to the demands of their profession and personal obligations, the teapot's contents, which represent one's health, run the risk of depleting. High stress, emotional exhaustion, and burnout are common among healthcare workers, and they can harm one's physical and mental health as well as increase the risk of medical errors. Long and unpredictable work hours, being around suffering and death, having high expectations for oneself at work, and not having enough support are some of the factors that contribute to this. Maintaining a fine balance between professional and personal obligations turns into a tightrope walk that has significant consequences.

To keep the metaphorical teapot from running dry, it is critical to refill it regularly and prevent it from drying out. Taking time away from work to engage in self-care activities, such as exercise, hobbies, or spending time with loved ones, can help healthcare workers recharge and replenish their emotional and physical reserves. When the luxury of time off is not feasible, incorporating brief mindfulness pauses into one's daily routine is an easy but powerful step towards adopting a lifestyle that encourages mindful living.

Throughout the day, take brief moments to pause, breathe, and be present in the current moment. This does not necessarily require a lengthy formal meditation session. It can be as brief as a few mindful breaths while sipping your morning coffee or taking a short mindful walk during a break. This easy mindfulness

practice fills up your teapot of well-being over time. Evidence shows the positive impact of mindfulness [1]. Mindfulness helps you fill up on energy, avoid burnout, and be stronger when life throws challenges at you by making you more aware of the present moment without judging it. Even short mindfulness interventions have been shown to help healthcare professionals feel less stressed, have better mental health, and be more resilient overall.

It is important to keep in mind that getting help from colleagues or licensed counsellors is also a great way to process the difficulties and pressures that come with working in the healthcare sector. Healthcare professionals can better safeguard their well-being and carry on offering their patients high-quality care by prioritising self-care and getting help when necessary.

The bottom line is that the pursuit of a balanced life in the healthcare profession is equivalent to making sure your teapot is never empty. Adding water to the teapot represents mindfulness practice and other measures for navigating the healthcare system. As the ancient proverb goes, "You cannot pour from an empty teapot." By taking mindful sips throughout the day, healthcare professionals can keep their teapots full and foster a sustainable and harmonious balance of health and happiness.



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Deconstructing the Conundrum of Sleep Apnea: Braving the Belly of the Beast



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Sleep disorders, particularly obstructive sleep apnea (OSA), have become a pervasive issue globally, inflicting substantial social and economic burdens on populations worldwide. This article delves into the challenges faced by the Universiti Malaya Medical Center (UMMC) Otorhinolaryngology (ORL) Sleep Clinic, shedding light on the prevalence, treatment modalities, and multidisciplinary approach required for effective OSA management. Up to 45% of individuals between ages 30 and 69 suffer from at least moderate to severe OSA, making it a prevalent concern in the adult population. Our local data from the UMMC ORL Sleep Clinic reveals an alarming 90.9% of patients experience at least moderate to severe OSA.

A distinctive trend among our patients is the correlation between OSA and obesity in our local clinic. Approximately 61% of them are obese, with 67% being male, while no racial preponderance is observed. This underscores the complex interplay between weight management and OSA [1]. Positive airway pressure (PAP) therapy remains the gold standard for OSA treatment. In 58% of our patients, PAP is tolerated, while the remaining 42% sought alternatives. Surgical interventions, including tonsillectomy, uvulopalatopharyngoplasty (UPPP), dentofacial surgeries, and oral appliances, are viable alternatives to PAP therapy [2].

The cornerstone of an efficient Sleep Clinic lies in its interdisciplinary team, encompassing respiratory physicians, ORL surgeons, psychiatrists, dentists, neurologists, and weight management experts². This collaborative effort ensures a comprehensive approach to diagnosis and treatment. In addition to mainstream treatments, adjunct therapies such as weight loss [3] and sleep hygiene [4] have proven beneficial in mitigating the intensity of OSA. Managing obesity contributes to 67% of cases and significantly improves PAP compliance. Strategies ranging from counselling and pharmaceuticals to bariatric surgery are employed for weight loss and are paramount in improving apnea.

Good sleep hygiene practices play a pivotal role in reducing OSA intensity. Timely sleep, reduced coffee intake, cessation of smoking, and limited exposure to electronic devices have demonstrated efficacy in improving overall sleep quality.



Figure 1. Annual UMMC World Sleep Day Event. The event has garnered interest across multiple clinical disciplines.



Figure 2. Our team. Our service recognizes the need for multidisciplinary collaboration for the management of sleep apnea. This includes frequent collaboration with dentists, respiratory physicians, neurologists and other associated clinical disciplines.



Figure 3. Academia-Industry collaboration. Collaboration between our department and industry experts from Phillips, Resmed and Belun Technology Ltd. ensure high quality research and clinical application.

As we progress into the future, new technologies are emerging to aid in diagnosing and treating OSA. Artificial intelligence (AI) and telemedicine [5] are now integral components of PAP therapy management and sleep studies, showcasing the evolution of sleep technology in medicine. The ORL department is proud to be part of collaborative efforts to advance research on PAP telemedicine by industry collaboration, including Phillips and ResMed Inc. We are also fortunate to work on a nationwide first FDA-approved AI ring diagnostics for sleep apnea with Belun Technology Ltd. Aimed at research and potentially reducing the burden of sleep studies in UMMC.

Our proactive stance in education is evident in organizing two World Sleep Day events in 2023 and 2024, dedicated to the enlightenment of the public and healthcare professionals. This concerted effort underscores the importance of raising awareness to effectively manage the complexities of sleep apnea, truly braving the belly of the beast. In conclusion, the complex nature of OSA necessitates a comprehensive and collaborative approach to effective management. The UMMC ORL Sleep Clinic, through its dedicated team and innovative strategies, continues to make significant strides in tackling this global health concern.

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High-Salt Diet and Neurogenic Hypertension:



Advocating for Balance in Health



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In the pursuit of happiness, healthy and balanced lifestyles play a pivotal role. Health, both physical and mental, serves as a fundamental pillar of this equilibrium. It can be influenced by various factors, including diet and emotional well-being.

Among various dietary factors, salt intake has received significant attention due to its association with hypertension, a leading risk factor for cardiovascular diseases. Neurogenic hypertension, characterised by dysregulation of the sympathetic nervous system (SNS), is particularly influenced by dietary sodium levels. A healthy diet should limit the salt intake to less than 5 g per day to reduce the risks [1].

In an attempt to elucidate the aetiology of salt-sensitive hypertension, we investigated, using well-established rat models, the interaction between the salt intake and transcriptome changes in the brainstem and hypothalamic structures that exert integrative control over autonomic motor outflows and neurohumoral cardiovascular reflexes [2]. We found that a 6-week high-salt (HS) diet significantly increased the mean arterial

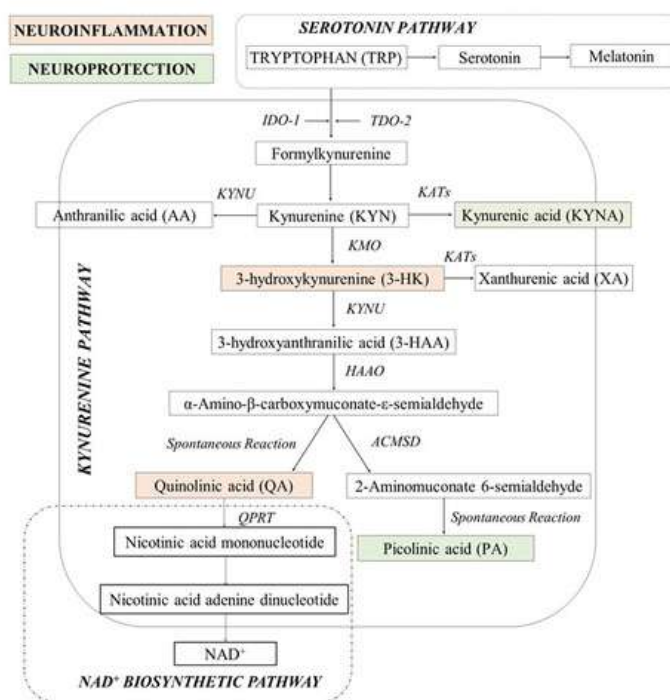
pressure of spontaneously-hypertensive rats but not normotensive Wistar Kyoto rats. By using RNA-sequencing and validation by quantitative reverse transcription polymerase chain reaction, we identified several differentially expressed (up- or down-regulated) genes in the subfornical organ, supraoptic nuclei, paraventricular nucleus, nucleus tractus solitarius and rostral ventrolateral medulla of both strains of rats as a consequence of high salt intake. These findings indicated the adverse effects of the HS diet on the blood pressure of genetically susceptible individuals, which may be mediated via modulating the integrative neuronal network in the hypothalamic forebrain and brainstem that regulate cardiovascular functions.

Persistent low-grade neuro-inflammatory responses also contribute to neurogenic hypertension [3]. Excessive dietary salt intake has been shown to increase neuroinflammation and oxidative stress in the paraventricular nucleus, which augment SNS activity, and the development of hypertension [4].

Figure 1: Simplified diagram of the kynurenine pathway.

In the kynurenine pathway, tryptophan is metabolised to kynurenines.

Abbreviations: ACMSD, amino-carboxymuconate semialdehyde decarboxylase; HAAO, hydroxyanthranilic acid dioxygenase; IDO, indoleamine 2, 3-dioxygenase; KATs, kynurenine aminotransferases; KMO, kynurenine 3-monooxygenase; KYNU, kynureninase; NAD⁺, nicotinamide adenine dinucleotide; TDO, tryptophan 2, 3-dioxygenase; QPRT, Quinolinic acid phosphoribosyltransferase. Adapted and modified from (5).



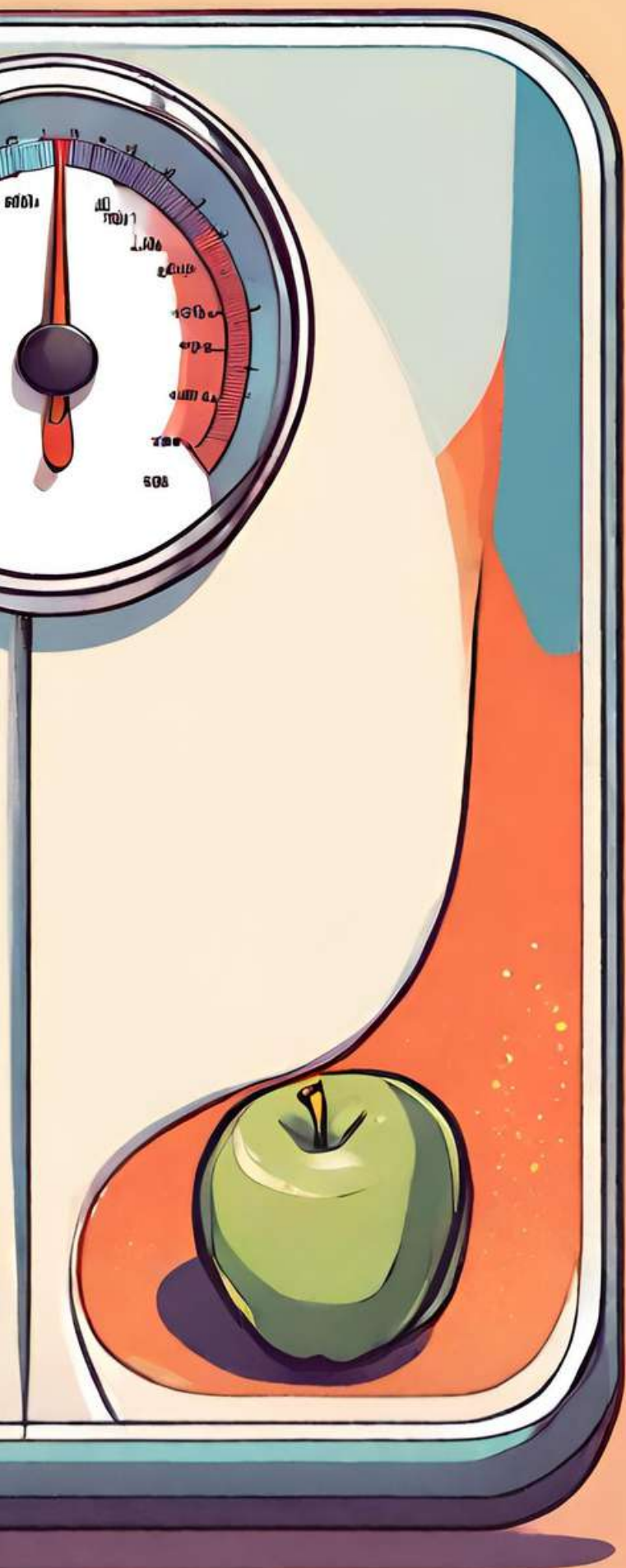
In addition, emerging research suggests that the kynurenine pathway (KP), a metabolic cascade of tryptophan metabolism, is involved in the occurrence and progression of hypertension. Under physiological conditions, the KP is important for the de novo synthesis of nicotinamide adenine dinucleotide (NAD⁺), an essential cofactor of a wide range of signalling and regulatory cellular reactions [5]. However, enhanced activation of KP by either cortisol or immune mediators especially pro-inflammatory cytokines causes the generation of neuroactive kynurenines such as kynurenic acid, 3-hydroxykynurenine, 3-hydroxyanthranilic acid and quinolinic acid, leading to the development of neuroinflammation and hypertension in animal studies. Furthermore, KP dysregulation is found to closely link cardiovascular dysfunction with major depressive disorder that negatively impacts mental health and

well-being [6]. Since both high salt intake and KP dysregulation independently induce neuroinflammation, there may be a possibility that salt-induced hypertension is linked to the alteration in the KP, which warrants further investigations.

In conclusion, the detrimental impact of high salt intake on blood pressure highlights the importance of dietary interventions for cardiovascular health. Moreover, understanding the role of the kynurenine pathway offers insights into the pathophysiology of neurogenic hypertension and potential therapeutic targets. Advocating for a balanced diet with mindful sodium consumption and a holistic lifestyle can mitigate the risk of neurogenic hypertension and its complications, as well as promote longevity.

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Humble Opinions on Losing Weight (Part I)



Tan Guo Jeng
Department of Medicine

Had you asked Guo Jeng in January 2023 whether he needed to lose weight, he would have said no. So, what happened? How did I go from 98.8kg to 68kg?

But before we go into the how, we have to understand why. The five stages of the 'Transtheoretical Model of Health Behaviour Change' are (1) Precontemplation, (2) Contemplation, (3) Preparation, (4) Action, and (5) Maintenance. When I was in the precontemplation stage, I knew I needed to lose weight but I did not think I needed to change. I made excuses for myself and sometimes it is hard to differentiate between contentment and complacency. The difference lies in whether it is within our control. I realized that except for an unfortunate few, weight loss is within our control, even if it is still challenging to achieve.

For many years I was in the pre-contemplation stage, even if friends were advising me to control my diet and get more exercise, I ignored them and made excuses for myself. For many years I rationalized that eating whatever and whenever I wanted was the highest form of self-love. But the reason for change is always multifactorial with multiple small reasons coalescing into a mover of change. Everyone comes into this journey with their reasons but whatever it is they moved from precontemplation to now the stage of contemplation. Until and unless a person reaches this stage sometimes all the advice in the world will only become water on a duck's back.

When a person is diagnosed with diabetes mellitus, hypertension, dyslipidaemia, obstructive sleep apnoea, and whatnot, the first step of management is always asking the patient to control their diet and lose weight. Doctors are exceptionally good at telling people what to do but the missing component is the how. For Malaysians, this is especially challenging. One plate of 'nasi kandar kuah campur banjir' is easily more than one thousand kilocalories. One cannot imagine any Malaysian being successful in maintaining that kind of diet overall.

Thus, we move to the next stage of change, which is preparation. For preparation, I read up as much as I could and along with the mistakes I made along the way, I would say that I can offer some helpful and practical advice. I then moved on to the action stage. Frankly, the longest was the pre-contemplation and contemplation stages. To be honest, there is no secret. Everything that we know about weight loss has been discovered. The key is consistency, enjoying the journey, and being able to say to yourself "I love this so much, I can live this new life for the rest of my life from now on." Weight loss on a three-legged stool. You cannot have only two of the three legs. The truth is weight loss consists of the three legs, namely diet, physical activity, and rest. You need all three to be successful.

To be continued...

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Figure 1. Guo Jeng before losing weight



Figure 2. Guo Jeng after losing weight

2023 Forum For Ethical Review Committee In The Asian And Western Pacific Region (FERCAP) International Conference



Alex Phang Kean Chang
(Scientific Chairperson)
Medical Research Ethics
Committee, University
Malaya Medical Centre



Nik Sherina Hanafi
(Organizing Chairperson)
Department of Primary
Care Medicine



Grazele Jenarun
(Secretariat)



Siti Najihah Saidin
(Secretariat)



**Sharifah Fatimah Az-Zahra
Syed Suleiman**
(Secretariat)

The 2023 FERCAP International Conference was held at the Universiti Malaya Medical Centre (UMMC) from 26 to 29 November 2023, hosted by the UMMC Medical Research Ethics Committee (UMMC-MREC). This conference is an annual activity of the Strategic Initiative for Developing Capacity in Ethical Review (SIDCER)-FERCAP.

The conference successfully brought together a diverse array of experts, researchers, and practitioners, fostering discussions on ethical research practices. This conference drew 470 delegates from 19 countries, showcasing the global importance of ethical considerations in research.

The conference theme was "Ethical Research Practices Related to Innovative Research Challenges and Opportunities." This theme highlighted the evolving nature of research ethics in the face of rapid scientific advancements and new research methodologies. The focus on innovation was relevant given the increasing reliance on technologies like big data and the growing importance of patient-centric research approaches.

This hybrid conference was co-hosted with other research-related entities within Universiti Malaya, i.e. Faculty of Medicine's Medical Humanities & Ethics Unit (MedHEU), UMMC-Clinical Investigation Centre (UMMC CIC), Universiti Malaya Research Ethics Committee (UMREC), and Faculty of Dentistry Medical Ethics Committee (FDMEC). The online participation reflected a commitment to inclusivity and accessibility in the dissemination of knowledge on research ethics.

Pre-conference workshops, facilitated by experts in their areas, were attended by 216 participants. The workshops provided a platform for sharing practical insights and skills, which were particularly beneficial for attendees seeking to deepen their understanding of specific areas within ethical research practices.

The keynote address set the tone for the conference, emphasizing the importance of maintaining ethical standards in the face of scientific and technological advancements. Following this, a series of plenary sessions delved into various aspects of research ethics, with speakers from diverse backgrounds sharing their expertise and perspectives.

A significant portion of the conference was dedicated to oral and poster presentations. These sessions allowed participants to showcase their research, engage in

discussions, and receive feedback from their peers. The range of topics covered was extensive, from Open Science principles to the ethical implications of big data in research. The inclusion of patient-centric research as a topic highlighted a shift in the research paradigm, acknowledging the crucial role of patients in the research process.

The conference's success was not only in its content but also in its organization and support from the Faculty of Medicine and UMMC, which facilitated a seamless experience for both in-person and online participants. The diverse focus areas and the blend of theoretical and practical sessions catered to a wide range of interests and expertise levels among the attendees. The conference ebook can be downloaded at https://www.ummc-mrec.org/files/ugd/b247e8_04ecc880cf0748af9c55152286f51989.pdf

In conclusion, the 2023 FERCAP International Conference was a testament to the growing importance of ethical considerations in research. It provided a platform for knowledge exchange, skill development, and networking among researchers and practitioners. The conference's emphasis on innovation, patient-centric research, and the ethical challenges posed by new technologies sets the stage for future discussions and developments in the field of research ethics.



Figure 1. Opening Ceremony, 23rd FERCAP International Conference

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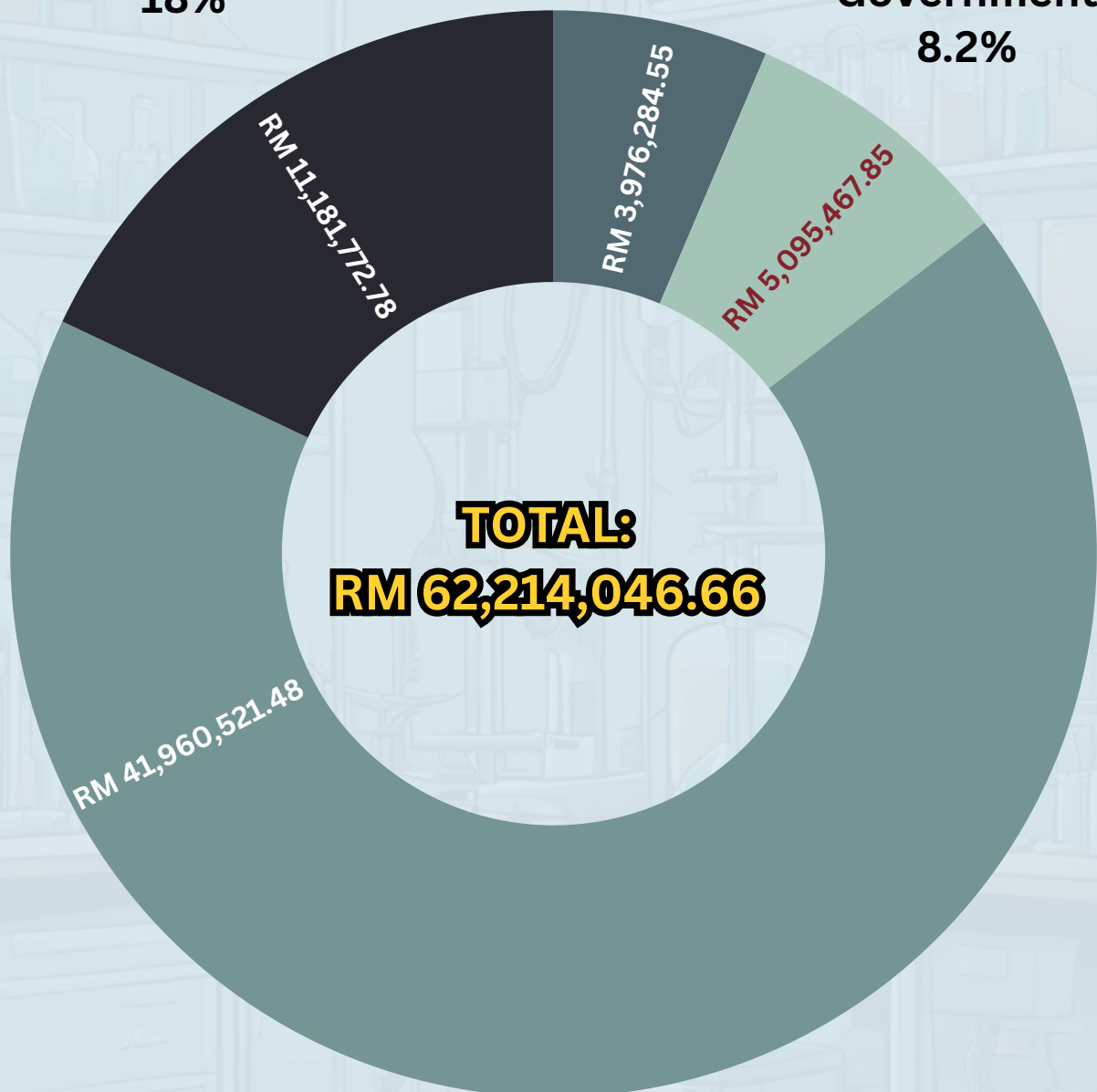
Total FOM Private Grants Received In 2023:
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Government
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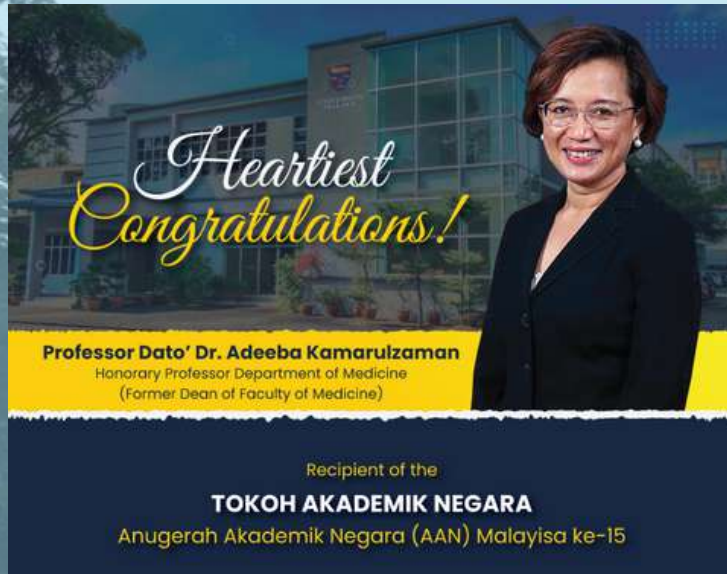
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