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## BRIDGING AWARENESS AND ACTION: PROGRAM ROSE'S MISSION FOR WOMEN'S HEALTH

“Cervical cancer, the fourth most common cancer among women worldwide, caused over 342,000 deaths in 2020. Tragically, 90% of these occurred in low-resource settings where women often lack access to regular screening and early treatment.”

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# Foreword from The Dean of Medicine

Dear colleagues,

Welcome to the first issue of Pulse for 2025!

It gives me great pleasure to introduce this vibrant edition that celebrates the spirit of innovation, collaboration, and advocacy embedded in our research community. I would also like to take the opportunity to extend our heartfelt appreciation to our previous Deputy Dean of Research, Professor Dr. Sanjay Rampal, for his unwavering commitment and leadership in nurturing the Faculty's research excellence.

Timed with the collective International Health Days, this issue brings together compelling research narratives that amplify our faculty's contributions to global health conversations.

In conjunction with International Women's Day (March 8), we spotlight two powerful articles that address gendered health disparities. Dr. Nur Afiah Mohd Salleh and her team shed light on the hidden toll of punitive drug policies on women and youth, while Professor Dr. Nirmala Bhoo Pathy outlines systemic inequities in cancer care that Malaysian women face. Their work challenges us to reflect, reform, and reimagine policies and practices for a more just and inclusive healthcare landscape.

We are proud to feature Program ROSE, a transformative initiative led by Professor Dr. Woo Yin Ling that empowers women through self-sampling cervical screening and digital health access. ROSE continues to inspire global health communities, having screened over 32,000 women across Malaysia.

To mark World Kidney Day (March 14), our biomedical science researchers explore an exciting potential treatment for Autosomal Dominant Polycystic Kidney Disease (ADPKD) using Red Sage extract—a promising step forward in tackling this complex inherited condition.

On World Parkinson's Day (April 11), we celebrate the extraordinary accomplishments of our multidisciplinary Parkinson's team, whose research and clinical leadership have garnered international recognition and empowered patients across Asia. Their recent wins at the AOPMC in Tokyo reflect the strength of our commitment to advancing neurodegenerative research.

As we commemorate World Environment Day, the Green@UMHealth initiative leads the charge in embedding sustainability into healthcare education and practice. From waste reduction to water and energy conservation, our faculty is taking bold steps to ensure that "first, do no harm" extends to our planet.

This issue also marks two significant milestones: the golden jubilee of the Master of Public Health (MPH) programme—celebrated in a heartwarming alumni reunion—and the awarding of RM720,000 in research grants under the UMSC-RG and Dato' Mahmood Merican Medical Research Grant. These efforts affirm our dedication to growing the next generation of impactful researchers.

To all our contributors – thank you for your dedication, insight, and passion. To our partners and funders, your support makes these achievements possible. May this issue spark new ideas, deepen reflection, and inspire bold steps toward a healthier, more equitable future.

Happy reading!

PROF. DATO' DR. YANG FARIDAH ABDUL AZIZ  
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# The True Toll of Drug Policies on Women and Youth

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The "War on Drugs" refers to governmental policies and programmes aimed at reducing illegal drug trade and use through strict law enforcement. Initiated in the 1970s, these policies have led to increased incarceration rates, particularly affecting individuals found in possession of drugs for personal use.

Criminalisation of drug use fails to consider drug dependence as a health issue. Instead of recognising it as a condition that requires medical and psychological intervention, legal frameworks worldwide continue to treat drug dependence solely as a criminal matter. The criminal justice system is structured primarily for punishment rather than rehabilitation. As a result, individuals caught with drugs for personal use are often funnelled into a system ill-equipped to address the underlying issues of drug dependence.

As societies continue to grapple with the enduring consequences of the War on Drugs, it becomes increasingly clear that, while these efforts were intended to curb the drug trade, they have instead inflicted harm on marginalized communities. Women, in particular, bear a disproportionate burden, facing distinct challenges that demand targeted and responsive solutions. Globally, the number of women and girls in prison has surged by 33% over the last 20 years, compared to a 25% increase in male prison populations [1].

As we celebrate International Women's Day, it is worth discussing the realities women face under current drug policies. The spotlight should not only be on women who use drugs but also female partners or spouses of people who use drugs (PWUD); whose lives are equally shaped by these policies. This reflection should also extend to younger populations—youths who use drugs, as well as the children of PWUD.

Our study, which incorporated in-depth interviews, identified key gaps. Women and youth often lack proper legal representation during court proceedings, leaving them vulnerable to unfair treatment. Female partners of PWUD described distressing experiences of witnessing their loved ones being arrested, with long-lasting impacts on their families. These legal proceedings often overlook the broader social and economic impact on individuals and their families, particularly those from low-income backgrounds who often lose their primary breadwinner.

Women seeking treatment for drug use face obstacles in accessing gender-responsive care, and trauma-informed care. Research indicate that approximately 60-70% of incarcerated women or girls report experiencing physical or sexual violence in childhood [2]. Additionally, there are also no dedicated services for transgender individuals. Youth who use drugs reported that methadone treatment improved their quality of life, yet questioned why it remains limited as a standard treatment option.

Reforms are urgently needed to ensure equitable protections and access to gender-responsive care and support for women, youth, and families affected by drug policies. On this International Women's Day, we are reminded to reflect on the words of an activist: "I refuse to be treated as any less than a human being; my rights and my fight are just as valid as the person's next to me, no matter what my gender and personal choices are" [3]■

#### References:

1. Data Development and Dissemination Section and the Crime Research Section of the Research and Trend Analysis Branch, United Nations Office on Drugs and Crime (UNODC). 2021. Data Matters.
2. Dichter, M. and Osthoff, S., 2015. Women's experiences of abuse as a risk factor for incarceration: A research update. National Online Resource Center on Violence Against Women.
3. Birgin R, Fernández AC, Nougier M, Youngers C. Women Mobilizing for Change: Resisting State Violence from Repressive Drug Policies. *Violence against women*. 2022;28(8):1773–87.

# Women and Cancer: Challenges and Solutions in Malaysia

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Progress in cancer control globally has often overlooked the unique barriers women face in prevention, care, and survivorship. In Malaysia, these challenges are deeply rooted in cultural norms, societal expectations, and systemic inequalities that hinder women's ability to prioritise their health.

Here, it is important to note that achieving gender equity in cancer care is not about creating divisions between women and men but about dismantling the systemic barriers, whether cultural, social, or economic, that disproportionately affect women. It is about ensuring that everyone, regardless of gender, has the opportunity to access care, make informed decisions, and be empowered with the health literacy needed to navigate their journey effectively.

## Challenges Faced by Malaysian Women

Malaysian women often navigate a complex interplay of societal expectations and cultural pressures that prioritize family well-being over personal health. These barriers lead to delays in preventive behaviours, such as attending screenings, getting vaccinated, or seeking timely medical care. Many women in Malaysia still require spousal or familial permission to access healthcare, further compounding delays. Misconceptions surrounding cancer, including stigma and fatalism, continue to deter women from seeking life-saving treatments. Financial barriers exacerbate

these challenges, particularly for women in informal jobs or those without insurance. Additionally, the predominant focus on breast and cervical cancer overlooks the rising incidence of colorectal and lung cancers among women, leaving many unaware of their risks or symptoms.

## Solutions and the Way Forward

Achieving gender equity in cancer care requires a multifaceted approach that addresses barriers while fostering inclusivity for all. Healthcare providers play a critical role in leading this change.

### • Building Empathy and Trust



Healthcare providers must foster trust and create environments where women feel supported and not blamed. Culturally sensitive communication is vital in empowering women to make informed health decisions. Engaging male family members and community leaders in supporting women's health can further strengthen these efforts. Healthcare professionals can help bridge gaps by ensuring that women feel valued, heard, and equipped with the knowledge to navigate their cancer journey.

### • Patient Navigation Services



Patient navigation services are essential to guide women through the healthcare system from initial diagnosis to survivorship. These services ensure timely access to care and connect women with resources like peer support groups, childcare, and financial assistance. Navigators can help women overcome cultural and logistical challenges, ensuring they adhere to treatment and access holistic support.

### • Comprehensive Financial and Social Support

Tailored financial support programs are critical to reducing the economic burden of cancer care. These programs, coupled with community-based initiatives, can empower women to access care without fear of financial instability. Addressing social needs such as childcare and household responsibilities further alleviates barriers to care.



### • Data-Driven Interventions

Collecting and analysing gender-disaggregated data is essential to understanding the unique challenges faced by women. This data can inform health policies, resource allocation, and strategies tailored to meet women's specific needs.



## A Call to Action for All

Gender equity in cancer care is an all-of-society effort. Men and women must collaborate to dismantle systemic barriers and create equitable health outcomes. This is not about women versus men but about ensuring everyone can live healthier, fuller lives. By fostering trust, respect, and inclusivity, healthcare providers, policymakers, and communities can transform cancer care into a system where no one is left behind. Together, we can empower Malaysian women to access care, make informed decisions, and thrive beyond their cancer diagnosis. ■

# Bridging Awareness and Action: Program ROSE's *Mission for Women's Health*



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90% of these occurred in low-resource settings where women often lack access to regular screening and early treatment. Traditional methods like Pap smears often fail to reach many women due to cultural, financial, and logistical barriers. These obstacles leave marginalized communities particularly vulnerable, creating an urgent need for a solution that bridges this gap.



Figure 1. Public education on cervical cancer prevention in a busy outpatient clinic in Hospital Beaufort, Sabah.

International Women's Day on March 8 is a time to celebrate women's strength, resilience, and potential. It is also a moment to reflect on challenges that still demand urgent attention, such as cervical cancer. Despite being largely preventable, this disease continues to be a burden, especially in low- and middle-income countries, where access to healthcare remains limited. Among the global efforts to combat cervical cancer, Program ROSE (Removing Obstacles to Cervical ScReneing) has emerged as an innovative, community-driven initiative that empowers women and saves lives.

Cervical cancer, the fourth most common cancer among women worldwide, caused over 342,000 deaths in 2020. Tragically,

In response, Program ROSE, led by Professor Dr. Woo Yin Ling, redefines cervical cancer prevention in Malaysia. It allows women to use a simple, painless, and effective self-swab approach while enabling HPV PCR testing through the ROSE Laboratory. Results are promptly delivered via a digital health platform using SMS or WhatsApp within three weeks, with follow-up on linkage to care for treatment, where necessary. This innovative approach empowers Malaysian women, especially those from remote and underserved communities, to take control of their health. By making preventive care simple, accurate, and accessible, ROSE empowers women to embrace early detection screenings with assurance.



Figure 2. ROSE team offering screening to women working in a hawker stall in Saratok, Sarawak.



Figure 3. Program ROSE reached underserved communities living in squatters in Kuching, Sarawak.



Figure 4. Program ROSE local champion explaining about self-sampling HPV testing to women in a long house in Sebauh, Bintulu, Sarawak.

Its ability to build genuine trust within communities is at the heart of the program's success. By partnering with local NGOs, healthcare providers, and community leaders, ROSE has made the screening process less intimidating and more accessible. Collaborating with over 90 organisations and having trained over 500 volunteers, also known as the “local champions”, Program ROSE has screened more than 32,000 women in 400 community locations across Malaysia. Its outreach efforts with these local champions have been particularly significant in the rural areas of Sabah and Sarawak. These local champions, primarily women, courageously challenge taboos and encourage open conversations about cervical cancer. By sharing their experiences and advocating for the program, they inspire others in their communities to prioritise health. This ripple effect of empowerment transforms entire communities, fostering a culture of proactive health care and mutual support.

As ROSE grows, it serves as a model for addressing health inequities worldwide. By combining innovative technology, deep community engagement, and a focus on women's needs, the program demonstrates how accessible healthcare can save lives and strengthen communities. Its alignment with the World Health Organization's global strategy to eliminate cervical cancer amplifies its potential to inspire similar initiatives around the world, showing that with commitment and ingenuity, cervical cancer can be eliminated as a public health threat.

As we mark International Women's Day in 2025, the ROSE initiative shines a light on the incredible impact of empowering women. By providing the education and support they need to take control of their health, it helps overcome barriers while honouring every woman. It's a powerful reminder that together, through efforts like ROSE, we can build a future where cervical cancer is preventable ■

# DANSHEN EXTRACT AS A POTENTIAL TREATMENT FOR AUTOSOMAL DOMINANT POLYCYSTIC KIDNEY DISEASE (ADPKD)



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## What is ADPKD?

Autosomal Dominant Polycystic Kidney Disease (ADPKD) is the most common inherited kidney disease found across all ethnic groups, affecting approximately 1 in every 400 to 1,000 births. It is the fourth leading cause of kidney failure [1]. Each child of a parent with ADPKD has a 50% likelihood of inheriting the fully penetrant mutated gene. Around 5% of ADPKD cases occur due to spontaneous mutations, not inherited from the parents. Interestingly, about 25% of new diagnoses arise in individuals who have no known family history of the disease, suggesting that many family cases remain undetected.

The pathogenesis of ADPKD is mainly driven by mutations in the PKD1 and PKD2 genes, located on chromosomes 16 and 4 respectively, encoding polycystin-1 (PC1) and polycystin-2 (PC2). PKD1 mutations, responsible for 85% of cases, lead to rapid cyst growth, while PKD2 mutations result in a less aggressive form [2]. PC1 and PC2 form complexes regulating calcium-dependent signalling [3]. Disruptions from PKD mutations lead to cell proliferation and fluid secretion which drives the cystogenesis in ADPKD. Moreover, the mutations also cause other extrarenal complications such as hypertension and cystic development in liver and pancreas.

### Limitations of current treatments?

Current ADPKD treatments focus on managing hypertension with angiotensin-converting enzyme (ACE) inhibitors and angiotensin receptor blockers (ARB) to reduce blood pressure by targeting the renin-angiotensin-aldosterone system (RAAS) [4]. While these can reduce kidney size, they do not improve kidney function. Tolvaptan, a vasopressin-2 receptor (V2R) antagonist approved by the FDA, slows disease progression by lowering cAMP and reducing fluid secretion. However, it can cause elevated uric acid and hepatotoxicity. Metformin, still in trials, may counter tolvaptan's side effects and directly impact cell cycle progression, but it risks serious side effects like lactic acidosis [5]. Other drugs, including mTOR inhibitors and somatostatin analogues, failed to show benefit.

- Therefore, existing treatments are merely symptomatic, highlighting the need for safer curative options for ADPKD.



Figure 1. Kidney affected by autosomal dominant polycystic kidney disease (ADPKD). Adapted from <https://pkdcure.org/what-is-pkd/>

### Danshen extract to the rescue?

Salvia miltiorrhiza Bunge, also known as red sage or Danshen, is a plant from the mint family with roots that are acclaimed as safe and non-toxic. Traditionally used in China and other Asian countries for heart-related ailments, its compound, 15,16-dihydrotanshinone I (DHTS), has recently shown promise in cancer treatment by halting the cell cycle and regulating certain pathways involved in cancer cell growth, which are also relevant to conditions like ADPKD, where abnormal cell proliferation occurs [6,7].

Hence, we investigated the effects of DHTS on ADPKD cell line, and promising findings have been observed. DHTS showed its ability to inhibit the proliferation of ADPKD cells by inducing cell cycle arrest and cell death with minimal cytotoxic effects on the normal renal tubule cells. Treatment with DHTS in ADPKD cells downregulated proteins linked to inflammation and cell proliferation, thereby potentially reducing cyst growth and oxidative stress, while simultaneously enhancing cellular stability through improved membrane trafficking and autophagy. This suggests that DHTS may help slow ADPKD progression by conserving energy, reducing immune activity, and improving cellular environments ■

### References:

1. Willey, C. J., Blais, J. D., Hall, A. K. et al. (2017). Prevalence of autosomal dominant polycystic kidney disease in the European Union. *Nephrology Dialysis Transplantation*, 32(8), 1356-1363.
2. Grantham, J. J. (2008). Autosomal dominant polycystic kidney disease. *New England Journal of Medicine*, 359(14), 1477-1485.
3. Bergmann, C., Guay-Woodford, L. M., Harris, P. C., Horie, S., Peters, D. J., & Torres, V. E. (2018). Polycystic kidney disease. *Nature Reviews Disease Primers*, 4(1), 50.
4. Torres, V. E., Chapman, A. B., Devuyst, O. et al. (2012). Tolvaptan in patients with autosomal dominant polycystic kidney disease. *New England Journal of Medicine*, 367(25), 2407-2418.
5. Brosnahan, G. M., Wang, W., Gitomer, B. et al. (2022). Metformin therapy in autosomal dominant polycystic kidney disease: a feasibility study. *American Journal of Kidney Diseases*, 79(4), 518-526.
6. Wang, X., Yang, Y., Liu, X., & Gao, X. (2020b). Pharmacological properties of tanshinones, the natural products from *Salvia miltiorrhiza*. *Advances in Pharmacology*, 87, 43-70.
7. Fang, Z. Y., Zhang, M., Liu, J. N., Zhao, X., Zhang, Y. Q., & Fang, L. (2021). Tanshinone IIA: a review of its anticancer effects. *Frontiers in Pharmacology*, 11, 611087.

# Accelerating Parkinson Care and Research at Universiti Malaya

The Parkinson's disease team, as part of the Division of Neurology, provides clinical care for a large number of patients at UMMC and UMSC—approximately 2,000 patients are under active follow-up. The most frequent condition is Parkinson's disease (PD), followed by other PD-like conditions such as progressive supranuclear palsy (PSP) and multiple system atrophy (MSA). Patients with a variety of “hyperkinetic” movement disorders (involving excessive or uncoordinated movements, such as ataxia, tremor, dystonia, chorea, myoclonus, and tics) are also seen.

An underlying philosophy of the team is that good clinical care is the bedrock of all research efforts. All the patients we see are considered potential research participants - with the patient's agreement and consent, of course. In fact, we have found that patients and families often appreciate the opportunity to contribute towards the

research enterprise, in so doing advancing science and clinical practice, and ultimately improving patient care—if not for themselves, then for future generations affected by the same condition).

Over the years, the PD team has expanded and currently comprises Prof. Lim Shen-Yang, Assoc. Prof. Tan Ai Huey (both neurologists), Prof. Kalai Muthusamy (neurosurgeon), Assoc. Prof. Azlina Ahmad Annuar (neuroscientist with interest/expertise in genetics and molecular biology), and Dr. Lit Lei Cheng (scientist with interest/expertise in physiology). We have also collaborated with Faculty of Medicine staff from other specialties such as gastroenterology (Prof. Sanjiv Mahadeva, Assoc. Prof. Chuah Kee Huat), neuroradiology (Prof. Norlisah Mohd. Ramli, Assoc. Prof. Mohammad Nazri Md. Shah), medical microbiology (Associate Prof. Cindy Teh Shuan Ju), and immunology (Assoc. Prof. Reena Rajasuriar). Many



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Figure 1. PD team at a lunch celebration, February 2024.

students and trainees, including medical students and postgraduates at Master of Medical Science or PhD level are supervised (the current batch of “senior” PhD candidates are: Lim Jia Lun, Tay Yi Wen, Toh Tzi Shin and Hor Jia Wei). We have also trained Movement Disorder Fellows from various underserved countries, including Bangladesh, Kyrgyzstan, Uzbekistan, Pakistan, India, and the Philippines—sometimes under the auspices of the International Parkinson & Movement Disorder Society (MDS).

The team has been highly productive in research and publications, with first-author papers in top journals such as *Lancet Neurology*, *Nature Reviews Neurology*, *Annals of Neurology*, *Movement Disorders*, and co-authorships in high-impact journals like *Nature Genetics* and *JAMA Neurology*. Notable contributions to the field include clinical and genetic characterization of PD and other movement disorders such as progressive supranuclear palsy (PSP)—including features unique to Asian patients; microbiome and multiomics studies of the gut in PD and related diseases; clinical trials; as well as various neglected aspects of these disorders (e.g., frailty, accelerated weight loss, osteosarcopenia). These publications have garnered many hundreds of citations, and helped to secure multiple national and international grants.

What lies ahead? UM is currently the largest contributor in the Asia-Pacific region contributing towards the Global

Genetics Program (GP2), an ambitious project that aims to perform genetic analyses in hundreds of thousands of patients with PD and related disorders, and to make this knowledge accessible (adopting an “open science” framework) and actionable (e.g., facilitating clinical trials of new therapies). In July 2024, we hosted a major regional GP2 meeting in Kuala Lumpur, followed by the MDS-Asian Oceanian Section Basic Science School on Genetics, which was well received by many clinicians and scientists from our region. Another exciting avenue is our ongoing biomarker discovery work in Asian LRRK2 variants, a common genetic risk factors for PD in our population. This effort was recently been awarded the highly coveted Junior Award (to our PhD student, Toh Tzi Shin, top 2 out of almost 500 abstract submissions) at the Asian Oceanian Parkinson’s and Movement Disorders Congress (AOPMC) in Tokyo, Japan in March 2025.

We would like to conclude by recording our deepest gratitude to patients and families, who give generously, often in the face of challenging difficulties. They are at the heart of what we do. As we commemorate the World Parkinson Day on April 11th annually, let's remember and support those living with Parkinson's, raising awareness and advocating for better treatments and support. Together, we can make a difference and improve the lives of those affected by this condition. Help us spread the word! <https://worldparkinsonsday.com>

# What is Sustainability in Healthcare?



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## Introduction

As part of the Green@UMHealth initiative, we are dedicated in making healthcare greener. The first step in this journey is understanding what sustainability in healthcare truly means and why it is crucial for the future of both the environment and public health.

## What is Sustainability in Healthcare?

The World Health Organization (WHO) defines a Sustainable Healthcare System as “a system that improves, maintains or restores health, while minimizing negative impacts on the environment and leveraging opportunities to restore and improve it, to the benefit of the health and well-being of current and future generations”.

On a global average basis, healthcare systems account for over 4% of global CO2 emissions. For most industrialised nations, that figure is closer to 10% of national emissions—higher than the aviation or shipping sectors.

It is time to extend the principle of “first, do no harm” – the very foundation of healthcare – to the planet.

## Why Does It Matter?

Healthcare systems are among the largest consumers of energy and producers of substantial waste. From electricity used in hospitals to the disposal of medical waste, healthcare can contribute significantly to environmental degradation. By adopting sustainable practices, we can reduce the environmental impact of healthcare operations and set a powerful example for other sectors to follow.

### What can you do?

#### 1. Waste Management:

Did you know that in just one week, our hospital University Malaya Medical Centre (UMMC) generates over 12,000 kg of clinical waste? As clinical waste disposal charges are based on weight, that's over RM55,000 per week spent on getting rid of it.



In another study in UMMC, we found that more than 40% of items thrown into the clinical waste were not actually clinical waste, unnecessarily increasing disposal cost.

We can minimise waste by encouraging reusability, reducing single-use items, and taking greater care with throwing items correctly.

#### 2. Water Conservation:

Clean water is a crucial component of good quality healthcare, allowing us to maintain sterility and ensure hygienic practices. Yet in the operating theatre, up to 21 litres of water can be wasted during a single scrub cycle as the tap is left running.



Let's be water-wise and use this precious resource more carefully.

#### 3. Food Waste Reduction:

UMMC produces over 300 kg of food waste daily. All of this waste ends up in landfill which generates methane --a potent greenhouse gas. We can make a difference by ordering 'just the right' amounts and consider composting food waste to extend the life cycle of food products.



#### 4. Energy Efficiency:

Energy consumption is a major component of a hospital's carbon footprint - not to mention a large financial burden on bills! Simple measures such as changing to LED light sources and using energy efficient air-conditioning systems can reduce electricity use. Remember, switch off that light when you leave the room.



## Green@UMHealth: Our Commitment

At Green@UMHealth, we are committed to making a positive impact by embracing sustainability within the healthcare sector. Located within our academic health complex, we are uniquely positioned to integrate sustainability into our curricula for all healthcare students and professionals, creating generations of healthcare workers who care for our planet. From better waste management to energy-efficient technologies, we are working towards a healthier, more sustainable future for all.

### Stay Tuned

Look out for upcoming bulletins where we will explore how healthcare impacts the environment, how we are reducing our carbon footprint, tackling hospital waste, saving energy, and more. Join us on our journey to a greener healthcare system!

#### References:

1. Sustainability in healthcare: Investing today for a healthier tomorrow. URL: <https://healthcaretransformers.com/healthcare-business/strategy-and-operations/sustainability-healthcare-investing-today-healthier-tomorrow/>
2. Environmentally sustainable health systems: a strategic document (who.int). WHO Regional Office for Europe (2017)

# 50 YEARS

## OF PUBLIC HEALTH EXCELLENCE



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On 30 November 2024, a landmark celebration was held to commemorate half-a-century of public health training in Malaysia. The milestone was marked by the “50 Years of Public Health Excellence Celebration Dinner 2024”, an alumni dinner hosted by the Department of Social and Preventive Medicine (SPM), Faculty of Medicine, Universiti Malaya (UM).

In 1973, a decision by the Malaysian Cabinet to strengthen postgraduate medical training in Malaysia led to the inauguration of the Master of Public Health (MPH) postgraduate programme at UM. Alongside the Master of Pathology and the Master of Psychological Medicine, the MPH was one of the first medical graduate programmes offered in the country. The inaugural class of the MPH (1973/74) started with only seven doctors. Over the past five decades, UM has pioneered formal postgraduate public health education in Malaysia. Today, more than a thousand public health graduates from 36 countries have gone on to serve in roles ranging from public health practitioners and policy developers to grassroots health advocates.

UM’s commitment to advancing public health education is reflected in its continual curriculum updates to align with emerging trends and global best practices. This forward-thinking approach is exemplified by the development of advanced programmes such as the Doctor of Public Health (DrPH), designed to address contemporary challenges and cultivate future leaders in the field.

The alumni dinner held at the prestigious Connexion@Nexus, Bangsar was attended by hundreds of alumni, faculty members, and distinguished guests– including an alumnus from the first MPH cohort who graduated in 1974. Banners displaying archival photographs created a nostalgic atmosphere, offering a visual timeline of the department’s evolution. A dedicated photo booth with witty captions allowed guests to capture memories with former batchmates, lecturers, and colleagues.

The black-and-gold themed dinner commenced with a traditional Malay dance performance, setting an elegant tone. Welcome addresses by Professor Dato’ Dr. Yang Faridah Abdul Aziz, the Dean of the Faculty of Medicine,

and Professor Dr. Victor Hoe, the Head of Department further underscored the significance of the event. A particularly memorable moment was the unveiling of a time capsule - inviting alumni to inscribe wishes for themselves, the department, and the future of public health. These messages, carefully signed and sealed, are intended to be revisited a decade later in 2034.

Additional highlights of the evening included interactive giveaways, a lucky draw, and a recognition of the best-dressed guests. The event concluded with a closing address by Datuk Dr. Awang Bulgiba Awang Mahmud, advisor to the organising committee, who reflected on the department's enduring

legacy and promising future. A final toast celebrated the continued success and impact of public health education in Malaysia.

The alumni dinner was more than a celebration; it was a reaffirmation of the enduring importance of public health education in Malaysia and a tribute to the generations of public health professionals whose work has profoundly impacted the nation's well-being. For many, it was a time to reconnect with old friends, share experiences, and reflect on their careers. The success of the event was indeed a collective effort of members of the organising committee, who worked tirelessly months ahead of the event to ensure it turns out to be a memorable one ■

“A few in military,  
Some back in university,  
Many attached to the health ministry,  
Handful developing programmes and policies,  
But, none detached from public health advocacy!

Dreams fuelled with passion,  
Impacting lives, serving the nation,  
The list is long to pick on their contribution,  
A time to reminisce the ceaseless dedication,  
For everything they gave – our heartfelt appreciation!

With decades of absence,  
UM walls have missed their presence,  
An alumni dinner welcoming everyone's attendance,  
Personal invitations securing hundreds of acceptances,  
After all - it was a day to celebrate half a century of excellence!”



Figure 1-3: “50 Years of Public Health Excellence Celebration Dinner 2024” event

# Celebrating Research Excellence: UMSC-RG & MMRG Grant Award Ceremony



**Lim Hooi Min**

*Department of Primary Care Medicine*  
[umexpert.um.edu.my/hmlim](http://umexpert.um.edu.my/hmlim)



**Farid Nazer Faruqu**

*Department of Pharmacology*  
[umexpert.um.edu.my/faridnazer](http://umexpert.um.edu.my/faridnazer)



**Tan Ai Huey**

*Department of Medicine*  
[umexpert.um.edu.my/aihuey-tan](http://umexpert.um.edu.my/aihuey-tan)

On 26 November 2024, the TJ Danaraj Library at the Faculty of Medicine (FOM) buzzed with excitement as researchers, academicians, faculty leadership, and funders gathered to celebrate a significant milestone—the success of FOM researchers in securing the prestigious UMSC C.A.R.E Fund Research Grant (UMSC-RG) and the Dato' Mahmood Merican Medical Research Grant (MMRG). The air was filled with a sense of achievement and camaraderie as recipients, funders, and panel reviewers came together to mark this special occasion.

FOM has long championed research that makes a difference, supporting impactful studies that enhance patient care and benefit the broader community. To further this mission, the UMSC-RG and MMRG Vetting Committees were established to ensure that deserving projects receive the support they need to thrive. The numbers this year tell a compelling story – an incredible 63

applications were received for the 2024 grant cycle, a testament to the vibrant research culture within the faculty.

Behind the scenes, an enormous amount of effort went into the grant selection process. Five dedicated vetting committees, supported by 89 panel reviewers, meticulously evaluated each proposal, ensuring a fair and rigorous scientific review. Sixteen outstanding proposals made the cut, reflecting a competitive success rate of 25.4% , with a total funding allocation of RM 720,000 for this cycle. This achievement would not have been possible without the unwavering commitment of our reviewers and committee members.

None of this would be achievable without the generosity of our esteemed funders. A heartfelt thank you goes to the UMSC C.A.R.E Fund, Dato' Mahmood Merican, and Datin Ragayah Dato' Dr. Haji Mohamad Eusoff, whose continued support fuels

groundbreaking research within our faculty. Their contributions empower researchers to push boundaries and transform ideas into real-world impact.

But securing a grant is just the beginning. The faculty remains deeply committed to nurturing researchers—especially early-career researchers (ECR)—through a range of initiatives, including ECR workshops and grant consultation clinics. By providing these resources, we aim to equip our researchers with the skills, knowledge, and support they need to succeed in an increasingly competitive research landscape.

As we celebrate this year's grant recipients, we also look ahead with excitement. The passion and dedication of our researchers continue to drive innovation and excellence. Here's to another year of impactful research, collaboration, and discovery—may we continue to push the boundaries of medical science together!



Figure 1-4: UMSC-RG & MMRG Grant Award Ceremony

# TOTAL INTERNATIONAL GRANTS APPROVED 2024 RM14,747,215

## Top 10 International Grant Recipients:



A/P Dr. Lee Yew Kong  
(Primary Care Medicine)  
RM 3,583,817



Prof. Dr. Yvonne Lim Ai Lian  
(Parasitology)  
RM 2,934,701



Prof. Dr. Lau Yee Ling  
(Parasitology)  
RM 2,009,087



A/P Dr. Mohd Shahnaz Hasan  
(Anaesthesiology)  
RM 1,274,568



Prof. Dr. Lim Shen Yang  
(Medicine)  
RM 1,208,989



Prof. Dr. Khoo Ee Ming  
(Primary Care Medicine)  
RM 1,179,572



Dr. Nur Afiah Mohd Salleh (SPM)  
RM 663,730



Dr. Arutchelvan Rajamanikam  
(Parasitology)  
RM 554,575



Prof. Dr. Nor'azim Mohd Yunus  
(Anaesthesiology)  
RM 330,975



Prof. Dr. Rafdzah Ahmad Zaki (SPM)  
RM 238,952

*Congratulations!*

# TOTAL NATIONAL GRANTS APPROVED 2024 RM13,849,956

## Top 10 National Grant Recipients:



Prof. Dr. Ivy Chung  
(Pharmacology)  
RM 4,250,000



Dr. Jaime Jacqueline  
(Molecular Medicine)  
RM 1,661,600



A/P Dr. Nurshamimi Nor  
Rashid (Molecular Medicine)  
RM 448,490



Prof. Dr. Nazirah Hasnan  
(Rehabilitation Medicine)  
RM 390,000



Prof. Dr. Tengku Ain Fathlun  
(Ophthalmology)  
RM 239,119



Prof. Dr. Lau Yee Ling  
(Parasitology)  
RM 219,100



A/P Dr. Muhammad Fadzril  
(Molecular Medicine)  
RM 196,800



Dr. Chong Pan Pan  
(Orthopaedic Surgery)  
RM 181,000



Dr. Tan Kim Kee  
(Biomedical Science)  
RM 171,000



A/P Dr. Fariz Yahya  
(Medicine)  
RM 169,900

*Congratulations!*

# TOTAL PRIVATE GRANTS APPROVED 2024 RM52,062,713

## Top 10 Private Grant Recipients:



Dr. Lee Dai Wee  
(Clinical Oncology)  
RM 10,157,662



A/P Dr. Pang Yong Kek  
(Medicine)  
RM 9,174,235



A/P Dr. Marniza Saad  
(Clinical Oncology)  
RM 9,174,208



Prof. Dr. Ida Normiha Hilmi  
(Medicine)  
RM 4,365,364



A/P Dr. Rozita Abdul Malik  
(Clinical Oncology)  
RM 4,268,104



Prof. Dr. Bee Ping Chong  
(Medicine)  
RM 3,971,933



Dr. Tan Jiunn Liang  
(Medicine)  
RM 3,940,748



A/P Dr. Wan Zamaniah Wan  
Ishak (Clinical Oncology)  
RM 3,129,838



Prof. Dr. Raja Jasmin Begum  
Raja Mohamed (Medicine)  
RM 2,228,785



Prof. Dr. Ho Gwo Fuang  
(Clinical Oncology)  
RM 1,651,838

*Congratulations!*



# *Congratulations* **UNIVERSITI MALAYA**



**QS WORLD UNIVERSITY RANKINGS**

# Research Publication Incentive 2024

## CLINICAL DEPARTMENTS

## PRE-/PARA- CLINICAL DEPARTMENTS

Pathology



RM15,000

Social & Preventive  
Medicine

Obstetrics  
& Gynaecology



RM10,000

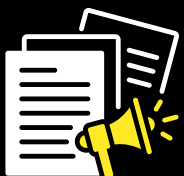
Parasitology

Clinical Oncology



RM5,000

Pharmacology



Total Faculty of Medicine  
ISI Publications in 2024:

**854**



## A Tribute to Prof. Dr. Sanjay Rampal Lekhraj Rampal

Former Deputy Dean of Research, FoM  
(24 September 2021 - 16 March 2025)



WISH YOU  
ALL THE BEST



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