MSPP NEWSLETTER

MALAYSIAN SOCIETY OF PHARMACOLOGY AND PHYSIOLOGY (MSPP)

Malaysian Society of Pharmacology and Physiology *June 2025*

MSPP Editorial Message

Dear esteemed MSPP members,

I hope this message finds you well and thriving in your respective corners of academia, research, and service. With a heart full of gratitude and a touch of nervous excitement, I write to you as the newly appointed editor of the MSPP Newsletter for the 2024/2026 term.

Stepping into this role after the wonderful tenure of Assoc. Prof. Ts. Dr. Izuddin Fahmy Abu feels like filling some very big shoes. His passion and personal touch made this newsletter more than just pages of updates—it became a reflection of our society's heartbeat. Thank you, Dr. Izuddin, for your dedication and for showing us how impactful consistent, thoughtful communication can be.

This issue marks not only the beginning of a new editorial chapter but also the start of another exciting term for MSPP. We welcome our newly elected committee, led by our President, Assoc. Prof. Dr. Wan Amir Nizam Wan Ahmad, and we look forward to continuing our collective journey to advance pharmacology and physiology in Malaysia.

Inside, you'll find reflections on our recent milestones, fresh perspectives from our members, and glimpses of the vibrant activities taking place across our society. Looking ahead, we hope to feature more collaborative efforts, spotlight student voices, and share knowledge that brings our scientific community closer together.

This space belongs to all of us. So please, don't hesitate to share your work, your events, or even your small wins. Together, we build a community that supports, inspires, and celebrates one another.

Dr. Noor Azlina Abu Bakar
MSPP Exco, Newsletter Editor
noorazlina@unisza.edu.my

Contribute to MSPP Newsletter by sending your articles/write-up to: mspp.secretariat@gmail.com

MSPP NEWSLETTER

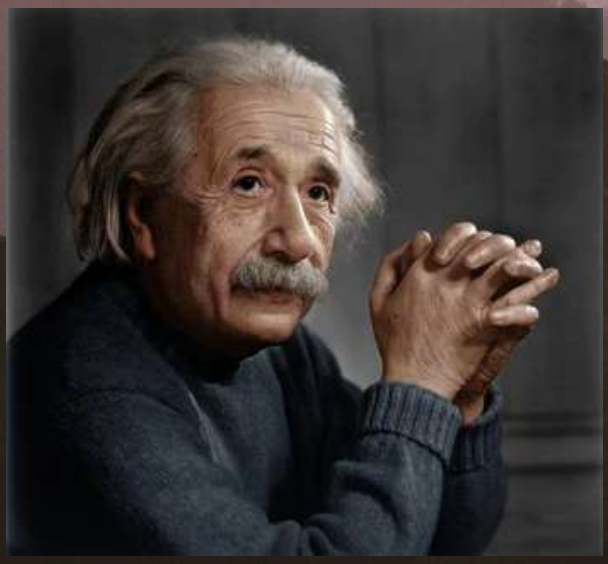
Malaysian Society of Pharmacology and Physiology *June 2025*

IN THIS ISSUE....

- MSPP Editorial Message - Page 1
- 38th MSPP Annual Scientific Meeting – Page 3
- MSPP Young Investigator Award 2025 Announcement – Page 5
- MSPP Travel Grant Award 2025 Announcement - Page 6
- MSPP Refresher Course 2025 Announcement – Page 7
- MSPP Young Teacher Award 2025 Announcement – Page 8
- Member's Research Corner: Bridging Nutrition, Physiology, and Pharmacology: Early Harvest Olive Oil and Metabolic Health in Malaysia - Page 9
- Research Corner: Gut Feelings: How the Brain and Belly Talk in IBS - Page 12
- MSPP Membership – Page 14

VISIT OUR WEBSITE AND FOLLOW OUR SOCIAL MEDIA

http://www.mspp.com.my/
Malaysian Society of Pharmacology & Physiology
https://www.instagram.com/mspp.secretariat/
https://www.linkedin.com/company/malaysian-society-of-pharmacology-and-physiology/

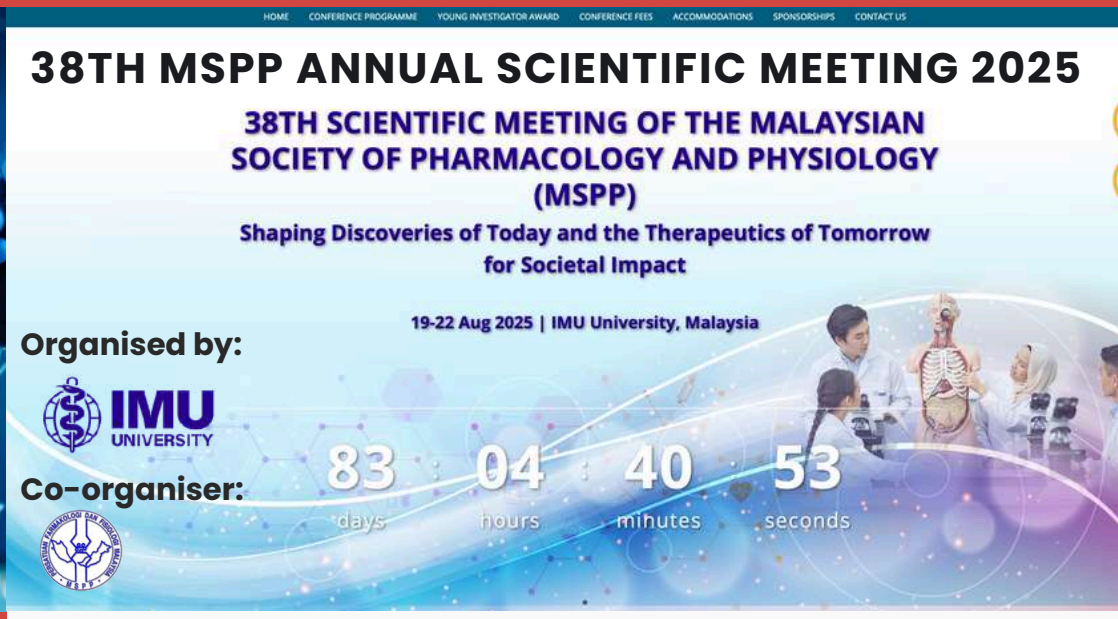


"My scientific work is motivated by an irresistible longing to understand the secrets of nature, not by other feelings."

~Albert Einstein~

MSPP NEWSLETTER

Malaysian Society of Pharmacology and Physiology *June 2025*



MSPP 2025

Pre-Conference Workshops: 19 August 2025

Main Conference: 20–21 August 2025

Post-Conference Workshop: 22 August 2025

International Medical University (IMU), Kuala Lumpur.

It began with a simple question: "***How can today's discoveries shape the therapies of tomorrow?"***

From that spark, the 38th Annual Scientific Meeting of MSPP was born; an event designed not just to present findings, but to bring together people, purpose, and possibility.

This year, the journey leads us to IMU, Kuala Lumpur, where researchers, educators and students will gather under the theme:

"Shaping Discoveries of Today and the Therapeutics of Tomorrow for Societal Impact."

A Space for Growth, A Time for Connection
Imagine walking into a room full of vibrant conversations, where new ideas are welcomed, where your passion for pharmacology or physiology is shared by the person sitting next to you.

Here, you'll listen to speakers who challenge your thinking. You'll attend workshops that sharpen your skills and if you're under 40, maybe you'll step into the spotlight of the Young Investigator Award (YIA)—sharing your research with those who've walked the same path.

Why Join Us?
Because this isn't just a conference—it's a celebration of science with heart:

- Dive into cutting-edge discoveries
- Connect with people who care about what you care about
- Share your voice and your vision
- Be part of something bigger than yourself

Whether you're presenting, learning, mentoring, or just taking it all in, you belong here. We're excited to welcome you to IMU this August. **Bring your curiosity. Bring your questions. Bring your passion.**
Let's meet, learn, and grow together.

MSPP NEWSLETTER

Malaysian Society of Pharmacology and Physiology *June 2025*

More on 38th MSPP

Conference Programme Highlights:

Pre-Conference Workshops (19 August 2025):

- Engage in specialized sessions designed to provide in-depth knowledge on emerging topics in pharmacology and physiology.

Main Conference (20–21 August 2025):

- Keynote Lectures: Delivered by renowned figures in pharmacology and physiology.
- Symposia & Workshops: Covering cutting-edge topics in therapeutic development.
- Research Presentations: Opportunities for students and early-career researchers to showcase their work and receive expert feedback.
- Networking Sessions: Facilitating collaborations among professionals in the field.

Post-Conference Workshop (22 August 2025):

- A focused session aimed at consolidating knowledge and fostering discussions on future directions in pharmacological and physiological research.

Important Deadlines:

- Early Bird Registration & Abstract Submission: 15 January – 31 May 2025
- Final Registration Deadline: 31 July 2025

For more details, registration, and abstract submissions, please visit the official conference page:

- https://imu.edu.my/events/mspp
- Questions? Reach us at: mspp2025@imu.edu.my

"We encourage all members to participate in this big event to foster knowledge exchange and advance the frontiers of pharmacology and physiology".

MSPP NEWSLETTER

Malaysian Society of Pharmacology and Physiology *June 2025*

- In conjunction with the upcoming 38th MSPP Annual Scientific Meeting 2025, the Malaysian Society of Pharmacology and Physiology (MSPP) is proud to announce the Young Investigator Award (YIA) 2025. This prestigious award aims to recognize and encourage outstanding research contributions from early-career scientists in the fields of pharmacology and physiology.

Objectives

- The YIA is designed to acknowledge young researchers who have demonstrated excellence in their scientific endeavors, fostering the advancement of pharmacological and physiological sciences in Malaysia.

Eligibility Criteria

Applicants must meet the following requirements:

- Age: 40 years or younger by 31 December 2025
- Membership: Active MSPP member
- Research Focus: Engaged in research within the disciplines of physiology or pharmacology
- Residency: Based and conducting research in Malaysia

Award Recognition

- Recipients of the YIA will be honoured during the 38th MSPP Annual Scientific Meeting 2025, scheduled from 19 to 22 August 2025 at the International Medical University (IMU), Kuala Lumpur. This platform offers awardees the opportunity to present their research findings to a distinguished audience of peers and experts.
- For enquiries, please contact Dr Azlini at dr_azlini@iium.edu.my or the MSPP Secretariat at mssp.secretariat@gmail.com.

Assoc. Prof. Ts. Dr. Azlini Binti Ismail
Chairperson, MSPP YIA 2025

MSPP NEWSLETTER

Malaysian Society of Pharmacology and Physiology *June 2025*

MSPP SCIENTIFIC MEETING 2025 TRAVEL GRANT AWARD: EMPOWERING THE NEXT GENERATION OF RESEARCHERS

In line with its commitment to advancing education and research in pharmacology and physiology, MSPP is pleased to announce the Travel Grant Awards for the 38th Scientific Meeting of MSPP 2025. These awards aim to support participation by early-career researchers, offering RM 1000 in travel support to one postgraduate student and one early-career lecturer from Malaysian institutions.

The Student Category is open to Master's or PhD students, while the Early-career Lecturer Category targets academic staff within five years of their initial appointment. Applicants must be active MSPP members and the presenting author of an accepted oral presentation. Priority will be given to those from institutions outside the host venue of the 2025 conference. The application process includes submitting proof of membership, abstract acceptance, a personal statement, and institutional verification. All documents must be submitted by 31st July 2025.

Recipients are required to attend the full conference and present in person. Reimbursement will be provided after the event upon verification of attendance and presentation. This initiative reflects MSPP's dedication to fostering professional development and promoting scientific excellence among young researchers and educators in Malaysia.

Don't miss this valuable opportunity to apply and be part of MSPP Scientific Meeting 2025!

Assoc. Prof. Dr. Azizah Ugusman
dr.azizah@hctm.ukm.edu.my

MSPP NEWSLETTER

Malaysian Society of Pharmacology and Physiology *June 2025*

MSPP REFRESHER COURSE 2025

EVENT OVERVIEW

The Malaysian Society of Pharmacology and Physiology (MSPP) is dedicated to promoting excellence in pharmacology and physiology education. As part of this commitment, MSPP organises annual refresher courses aimed at revisiting and reinforcing foundational concepts in these disciplines.

Event Details

- Date: 9 July 2025
- Time: 8:30 AM – 1:00 PM
- Venue: Faculty of Medicine, Universiti Teknologi MARA (UiTM), Malaysia

Course Highlights

- **Cardiac Cycle** – Prof. Dr. Cheng Hwee Ming (Universiti Malaya)
- **Antiarrhythmic Drugs** – Prof. Dr. Nafeeza Mohd Ismail (Universiti Teknologi MARA)

Who Should Attend:

Students, educators, and healthcare professionals seeking to refresh core medical knowledge and connect with peers.

Participation Fee:

- MSPP Members / UiTM Staff & Students: RM15
- Non-Members: RM30

Registration Deadline:

- 30 June 2025

We look forward to welcoming you to an inspiring and enriching event. See you there!

Inquiries:

nurulalimah@uitm.edu.my
mspp.secretariat@gmail.com

MSPP NEWSLETTER

Malaysian Society of Pharmacology and Physiology *June 2025*

MSPP YOUNG TEACHER AWARD 2025

Event Details

- Date: 9 July 2025
- Time: 8:30 AM – 1:00 PM
- Venue: Faculty of Medicine, Universiti Teknologi MARA (UiTM), Malaysia

Application Deadline:

- 30 June 2025
- Inquiries:

Assoc. Prof. Dr. Dharmani Devi Murugan
dharmani79@um.edu.my / *mspp.secretariat@gmail.com*

EVENT OVERVIEW

Recognising the important role of educators in shaping future professionals, the MSPP Young Teacher Award celebrates outstanding teaching contributions in pharmacology and physiology. This award encourages young educators to demonstrate innovative teaching methods and share best practices.

Eligibility Criteria

- Active MSPP member
- Aged 40 years or younger by 31 December 2025
- Engaged in teaching within the disciplines of physiology or pharmacology
- Based and teaching in Malaysia

Presentation Format:

- 10-minute teaching presentation
- Followed by a 10-minute Q&A session

Awards and Recognition:

- Certificates of participation
- Attractive cash prizes for top presenters
- Opportunities for professional recognition within the MSPP community

MSPP NEWSLETTER

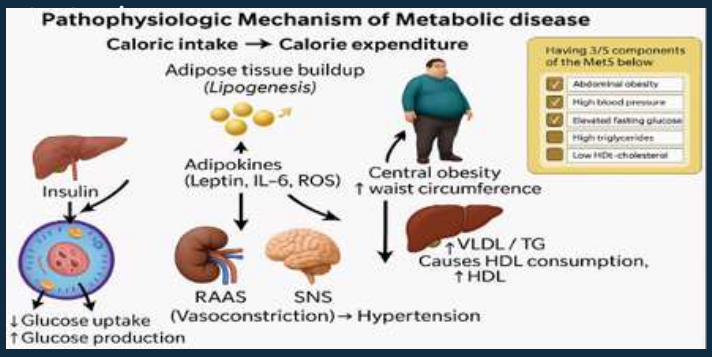
Malaysian Society of Pharmacology and Physiology *June 2025*

MEMBER'S RESEARCH CORNER

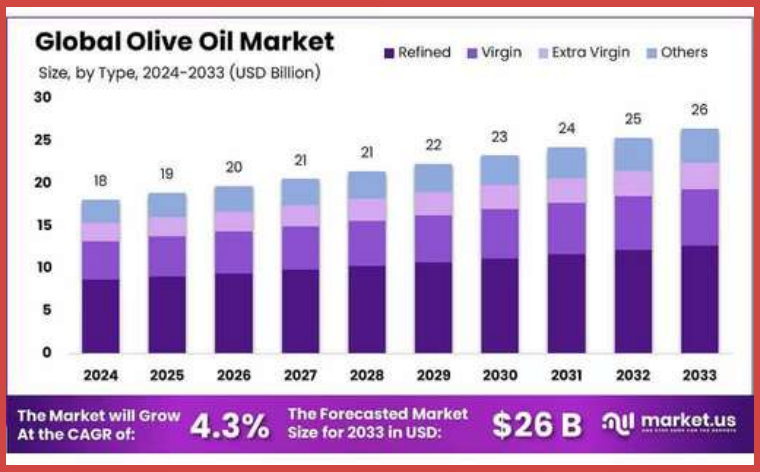
Bridging Nutrition, Physiology, and Pharmacology: Early Harvest Olive Oil and Metabolic Health in Malaysia

Malaysia continues to grapple with the increasing burden of metabolic disorders, including obesity, type 2 diabetes mellitus, hypertension, and dyslipidaemia. According to the National Health and Morbidity Survey (NHMS), nearly 50% of adults are either overweight or obese, with metabolic syndrome emerging as a significant predictor of future cardiovascular and endocrine morbidity (Koo et al., 2023).

This article seeks to highlight the intersection of nutrition, physiology, and pharmacology in addressing metabolic dysfunction, with particular emphasis on the therapeutic potential of Early Harvest Extra Virgin Olive Oil (EHEVOO). By advancing awareness among academic and scientific communities, we advocate for a more evidence-based dietary intervention model that supports physiological function and complements pharmacological



Pathophysiology of Metabolic Dysfunction: Metabolic syndrome arises from a chronic imbalance between energy intake and expenditure, leading to progressive insulin resistance, visceral adiposity, endothelial dysfunction, and oxidative stress. These pathophysiological alterations are further compounded by pro-inflammatory signalling and hormonal dysregulation—namely, reduced adiponectin and increased leptin resistance (Masenga et al., 2023).



These maladaptive changes ultimately disturb glucose and lipid metabolism, predisposing individuals to atherosclerosis, vascular rigidity, and impaired pancreatic function. Understanding these cellular and systemic pathways is vital for developing preventive and restorative interventions that go beyond pharmacotherapy.

Digital Tools for Behavioural and Nutritional Regulation: In the context of health behaviour modification, emerging AI-powered food recognition platforms provide a novel tool for increasing dietary self-awareness. Such applications enable users to photograph meals and receive automated caloric and nutritional breakdowns, facilitating better portion control and informed food choices. This technology holds promise for community-level metabolic health empowerment, especially when integrated with public health campaigns (Prabaharan, 2024).

Nutritional Pharmacology: The Role of EHEVOO: Not all dietary fats exert equal physiological effects. Among them, Extra Virgin Olive Oil (EVOO), especially when derived from early-harvest olive

MSPP NEWSLETTER

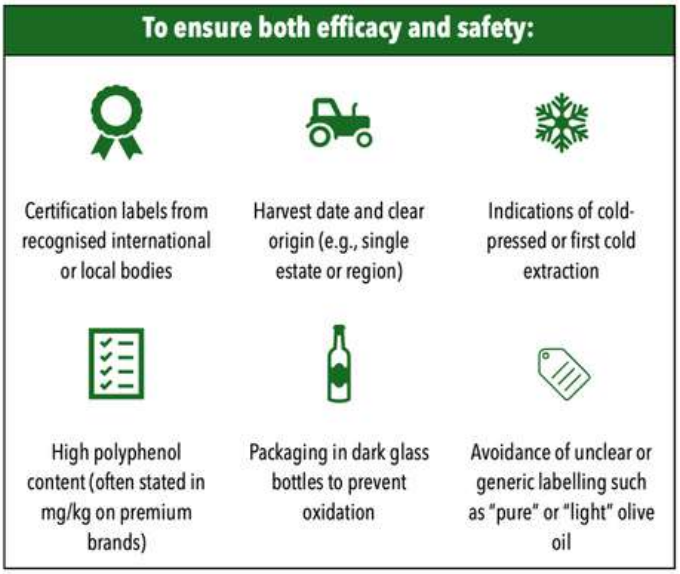
Malaysian Society of Pharmacology and Physiology *June 2025*

has gained scientific interest due to its high polyphenolic content and therapeutically relevant bioactivities (Chatzikostopoulos et al., 2022) (Tzekaki et al., 2021).

EHEVOO is particularly rich in oleuropein, hydroxytyrosol, and tyrosol, phenolic compounds with demonstrated effects on key molecular targets:

- Inhibition of NF-κB-mediated inflammatory pathways (Vijakumaran et al., 2023).
- Enhancement of endothelial nitric oxide (e-NOS) activity, improving vasodilation (Al-Zamely et al., 2018).
- Reduction of LDL oxidation, thereby attenuating atherosclerotic progression (Zhang et al., 2020).
- Modulation of insulin signalling and glucose transport mechanisms (Gamal et al., 2025).

These pleiotropic effects position EHEVOO as a potential nutraceutical, aligning with contemporary pharmacological approaches aimed at restoring homeostasis via diet-derived bioactive compounds (Seidita et al., [illegible])



Olive Oil Awareness in the Malaysian Context: Despite not being a producing nation, Malaysia imports over 6,000 tonnes of olive oil annually.

Chemical Standard of Olive Oil			
Chemical Standard	Extra Virgin	Virgin	Lampante
Free Acidity (%)	≤ 0.8	≤ 0.2	> 2.0
Peroxide Index ($mEqO_2/Kg$)	≤ 20	≤ 20	--
K_{270}	≤ 2.50	≤ 2.60	--
K_{232}	≤ 0.22	≤ 0.25	--
ΔK	≤ 0.01	≤ 0.01	--

However, public and professional awareness of EVOO quality parameters remains limited. Many commercially available products are adulterated, oxidised, or improperly stored, leading to diminished polyphenol content and questionable bio-efficacy (Jimenez-Lopez et al., 2020).

To promote evidence-based dietary application, scientific communities should be equipped to discern authentic EVOO, particularly products labelled:Early harvest, high polyphenol, or cold-extracted

- Certified extra virgin status with a clear harvest date
- Proper packaging in dark glass bottles to minimise light-induced oxidation

- By educating professionals, clinicians, and researchers, we contribute to broader community awareness on olive oil quality and its implications for health outcomes.

MSPP NEWSLETTER

Malaysian Society of Pharmacology and Physiology *June 2025*

Conclusion: Scientific Advocacy for Dietary Intervention: As metabolic disorders continue to challenge public health systems, the scientific community has a critical role in validating and promoting dietary strategies with mechanistic backing. EHEVOO exemplifies a functional food whose molecular attributes align with the goals of preventive pharmacology and integrative physiology.

By deepening understanding and promoting quality-conscious consumption, we not only support healthier dietary patterns but also reinforce the translation of nutrition science into public and clinical health practice.

Disclaimer: The content herein is grounded in scientific analysis and is intended solely for academic and public health education.

Written By : Dr. Noor Azlina Abu Bakar
Department of Anatomy and Physiology, Faculty of Medicine, UniSZA,
noorazlina@unisza.edu.my

References:

- Al-Zamely, H. A., & Al-Tamemi, Z. S. M. (2018). Role of hydroxytyrosol in ameliorating effects of high fat diet on male rats CNS. Journal of Pharmaceutical Sciences and Research, 10(10), 2448-2453.
- Chatzikostopoulos, T., Tsolaki, M., Wozniak, G., Basgiouraki, E., Saoulidis, I., Michmizos, D., & Koutsouraki, E. (2022). The Effects of Early-Harvest Extra Virgin Olive Oil on Cognition and Mental Health of Primary (PPMS) or Secondary (SPMS) Progressive Multiple Sclerosis Patients. Glob. J. Med. Res, 22.
- Jimenez-Lopez, C., Carpena, M., Lourenço-Lopes, C., Gallardo-Gomez, M., Lorenzo, J. M., Barba, F. J., ... & Simal-Gandara, J. (2020). Bioactive compounds and quality of extra virgin olive oil. Foods, 9(8), 1014.
- Koo, H. C., Tan, L. K., Lim, G. P., Kee, C. C., & Omar, M. A. (2023). Obesity and its association with undiagnosed diabetes mellitus, high blood pressure and hypercholesterolemia in the Malaysian adult population: a national cross-sectional study using NHMS data. International Journal of Environmental Research and Public Health, 20(4), 3058.
- Masenga, S. K., Kabwe, L. S., Chakulya, M., & Kirabo, A. (2023). Mechanisms of oxidative stress in metabolic syndrome. International journal of molecular sciences, 24(9), 7898.
- Prabaharan, A. M. (2024). The Future of Calorie Estimation: AI and Machine Learning-Driven Nutritional Analysis.
- Seidita, A., Cusimano, A., Giuliano, A., Meli, M., Carroccio, A., Soresi, M., & Giannitrapani, L. (2024). Oxidative Stress as a Target for Non-Pharmacological Intervention in MAFLD: Could There Be a Role for EVOO?. Antioxidants, 13(6), 731.
- Tzekaki, E. E., Papaspyropoulos, A., Tsolaki, M., Lazarou, E., Kozori, M., & Pantazaki, A. A. (2021). Restoration of BMI1 levels after the administration of early harvest extra virgin olive oil as a therapeutic strategy against Alzheimer's disease. Experimental Gerontology, 144, 111178.
- Vijakumaran, U., Shanmugam, J., Heng, J. W., Azman, S. S., Yazid, M. D., Haizum Abdullah, N. A., & Sulaiman, N. (2023). Effects of hydroxytyrosol in endothelial functioning: a comprehensive review. Molecules, 28(4), 1861.
- Zhang, X., Qin, Y., Wan, X., Liu, H., Iv, C., Ruan, W., ... & Guo, X. (2020). Hydroxytyrosol plays antiatherosclerotic effects through regulating lipid metabolism via inhibiting the p38 signal pathway. BioMed research international, 2020(1), 5036572.

MSPP NEWSLETTER

Malaysian Society of Pharmacology and Physiology *June 2025*

RESEARCH CORNER

Gut Feelings: How the Brain and Belly Talk in IBS

A closer look at the gut–brain axis and how it shapes Irritable Bowel Syndrome.

What Is IBS – And Why Is It So Mysterious?

Irritable Bowel Syndrome (IBS) is one of the most common yet least understood digestive disorders. It doesn't leave visible signs like ulcers or tumors, but it causes real distress—abdominal cramps, bloating, diarrhea, constipation, and more. Until recently, the roots of IBS were elusive. Today, researchers are uncovering how IBS may not be just a 'gut problem'—but also a 'brain-gut' problem.

The Gut–Brain Axis: A Two-Way Communication Superhighway

Your digestive system and brain are constantly talking. This communication network is known as the gut–brain axis (GBA).

It includes the central nervous system, enteric nervous system, stress-response systems, and gut microbes. When this communication breaks down, IBS symptoms can emerge, suggesting the root cause is more complex than food alone.

How Gut Bacteria Influence Mood, Pain, and Digestion

More than 95% of the body's serotonin, a chemical tied to mood and gut movement, is produced in the gut. Gut bacteria help regulate how much is made. In IBS, there's often a microbial imbalance (dysbiosis), with fewer 'good' bacteria like Bifidobacteria and more of the inflammatory kind. This imbalance can affect gut sensitivity, motility, and even mental health.

Stress, Hormones, and the Gut: A Complex Relationship

Chronic stress triggers the release of cortisol, a hormone that can disrupt gut barrier function, increase inflammation, and intensify pain perception. Women are more likely to have IBS, and hormones like estrogen and progesterone may explain why symptoms often fluctuate with menstrual cycles. This makes IBS a neurohormonal as well as a gastrointestinal condition.

Can Childhood Stress Leave a Mark on Your Gut?

Emerging studies in epigenetics show that early-life trauma or stress may lead to long-lasting changes in gene expression. These changes can increase the gut's sensitivity to stress, contributing to the risk of developing IBS later in life. It's one reason why IBS is now considered a stress-sensitive condition with a biological basis—not a purely psychosomatic one.

MSPP NEWSLETTER

Malaysian Society of Pharmacology and Physiology *June 2025*

Not All IBS Is the Same: Subtypes and Symptoms

- Each type involves different underlying imbalances in neurotransmitters, motility patterns, and microbial profiles.

IBS is categorised into subtypes:

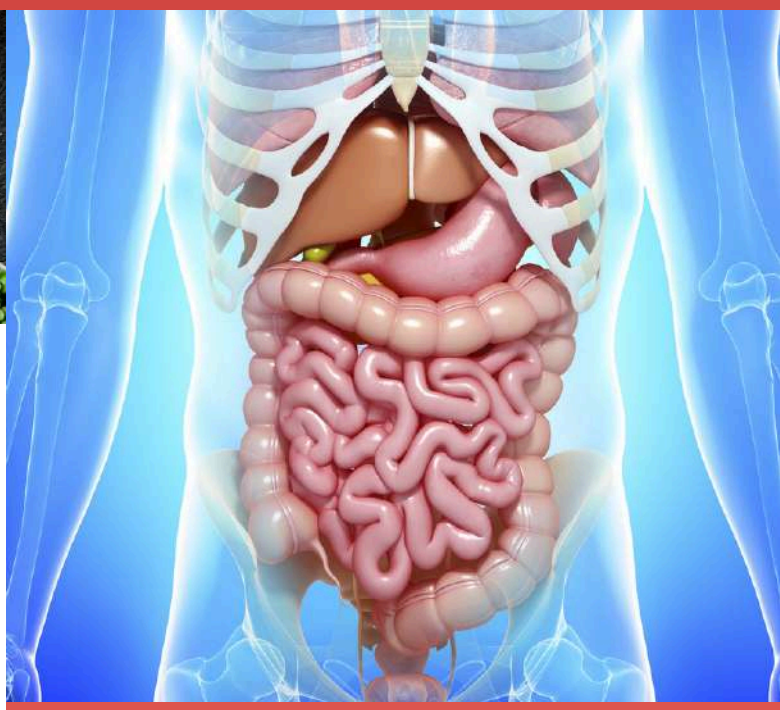
- IBS-D: Diarrhoea-predominant
- IBS-C: Constipation-predominant
- IBS-M: Mixed
- IBS-U: Unclassified

Managing IBS: It's Not One-Size-Fits-All

There is no single cure for IBS, but a growing number of treatments target both the gut and the brain. These include:

- Low-FODMAP diets
- Probiotics and prebiotics
- Cognitive Behavioural Therapy (CBT)
- Mindfulness and stress management
- Neuromodulation therapies such as vagus nerve stimulation

Personalised care, based on each person's stress levels, microbiome, and symptom pattern, offers the most promise for relief.

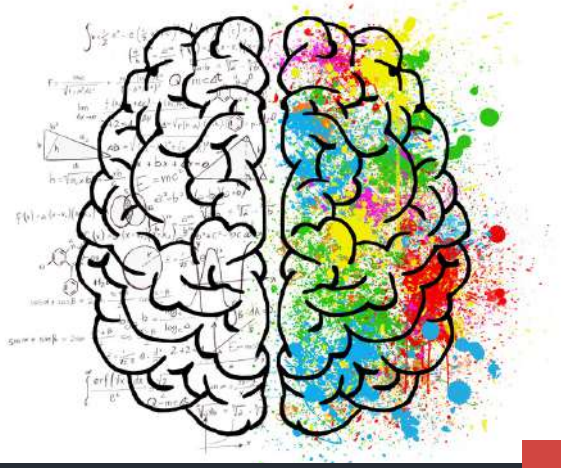


Final Thought: A Disorder of Connections

IBS is more than just a digestive issue. It's a disorder rooted in how the brain, gut, and immune system interact. Understanding IBS through the lens of the gut–brain axis provides a more compassionate, science-based approach to treatment and hope for those living with it every day.

Journal Reference:

Koumbi, L., Giannelou, M.-A., & Castelli, L. (2025). The gut–brain axis in irritable bowel syndrome: neuroendocrine and epigenetic pathways. Academia Biology, 3(2). https://doi.org/10.20935/AcadBiol7748



MSPP NEWSLETTER

Malaysian Society of Pharmacology and Physiology *June 2025*

MSPP MEMBERSHIP

MSPP is now 256 members strong, with 179 annual members and 77 Life Members.

We wish to congratulate our newest Life Members of MSPP as follows:

Dr. Ooi Cheong Hwa
AMDI, Universiti Sains Malaysia

Assoc. Prof. Dr. Kanakeswary Karisnan,
QUEST International University

Prof. Dr. Igor Iezhitsa
International Medical University

Dr. Sanda Aung
International Islamic University Malaysia

Assoc. Prof. Dr. Amy Saik Yi Hsan
Universiti Tunku Abdul Rahman