

MSPP NEWSLETTER

Malaysian Society of Pharmacology and Physiology

June 2026



**MALAYSIAN SOCIETY
OF PHARMACOLOGY
AND PHYSIOLOGY
(MSPP)**



MSPP EDITORIAL MESSAGE

Dear MSPP Members,

As we reach the midpoint of the year, it is a wonderful opportunity to reflect on the achievements and activities that continue to strengthen our Society. Over the past few months, MSPP has remained committed to advancing pharmacology and physiology through scientific meetings, educational programmes, webinars, and collaborative initiatives. These activities not only promote scientific excellence but also provide valuable opportunities for professional development, networking, and knowledge exchange among our members.

In this issue, I am delighted to share highlights of several recent and upcoming Society activities, including the MSPP Webinar Series 2026, Young Teacher Award (YTA) 2026, Young Investigator Award (YIA) 2026, and the Refresher Course 2026. You will also find inspiring articles contributed by our members, showcasing innovative teaching practices, research achievements, and perspectives from across our pharmacology and physiology community.

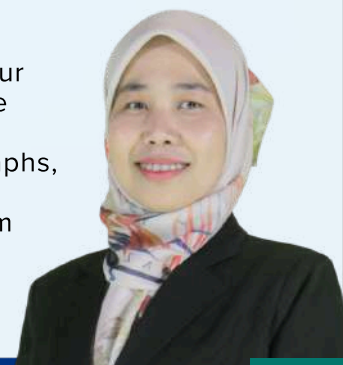
I would like to extend my sincere appreciation to everyone who contributed articles, reports, and updates to this newsletter. Your willingness to share your experiences and accomplishments continues to make this publication a meaningful platform for scientific communication and professional engagement.

Looking ahead, we are excited about the 39th MSPP Annual Scientific Meeting, which promises to bring together researchers, educators, clinicians, and students to exchange ideas, present new discoveries, and strengthen collaborations. At the same time, preparations for FAOPS 2027 are progressing well, offering another significant opportunity to showcase Malaysia's expertise and strengthen our regional and international partnerships.

The continued success of MSPP depends on the enthusiasm, participation, and dedication of its members. I warmly encourage you to continue sharing with us for future editions of the newsletter. Together, we can ensure that this newsletter remains a vibrant reflection of our growing and dynamic community.

On behalf of the Editorial Team, thank you for your continued support. If you would like to contribute to future editions of the MSPP Newsletter, we warmly welcome your articles, reports, photographs, and write-ups. Please send your submissions to: mspp.secretariat@gmail.com

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



INSIDE THIS ISSUE



**SOCIETY
ACTIVITIES**



**WEBINAR
SERIES**



**AWARDS &
RECOGNITION**



**REFRESHER
COURSE**



**ARTICLES &
PERSPECTIVES**



**MEETINGS &
COLLABORATION**

“Advancing knowledge,
inspiring discoveries,
improving lives.”



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IN THIS ISSUE....

- MSPP Editorial Message 1
- MSPP Webinar Series 2026 3
- MSPP Refresher Course 2026 5
- MSPP Young Teacher Award 2026 9
- 39th MSPP Annual Scientific Meeting 12
- MSPP Young Investigator Award 2026 14
- MSPP Upcoming Event: FAOPS Congress 2027 ... 15
- Research Corner: Simple Gamification in Teaching Antibiotics to Year 1 Medical Students 16
- Feature Article: Two Strategies, One Goal: Moving Pharmacology Teaching Beyond the Slide 19
- Feature Article: From Memorisation to Application: Active Learning in Pharmacology Education 22
- Updates on MSPP Membership 24

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Malaysian Society of
Pharmacology & Physiology



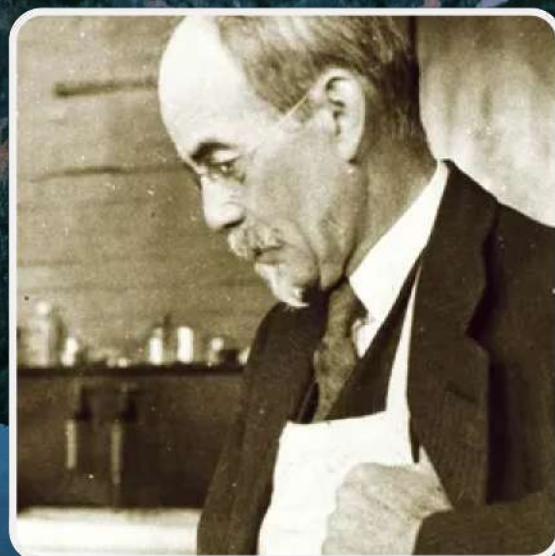
<https://www.instagram.com/mspp.secretariat/>



<https://www.linkedin.com/company/malaysian-society-of-pharmacology-and-physiology/>

“The biomedical scientist must be a person of wide sympathies, who can see the beauty of a physiological law as well as the utility of a drug. ”

~John Jacob Abel~





Malaysian Society of Pharmacology and Physiology (MSPP)

MSPP WEBINAR SERIES NO.1/2026

Sensing Force with Ion Channels

3RD JUNE 2026 6.00 - 7.00 P.M. MYT

Meeting ID: 958 5579 6007
Passcode: 005873

Or scan the QR code to access the Zoom meeting

Speaker:
Prof. Dr Eric Honoré
Director of Research Centre
National de la Recherche Scientifique (CNRS)
Institute of Molecular and Cellular Pharmacology
Université de la Côte d'Azur, Valbonne, France

Moderator:
AP. Dr. Dharmani Devi A/P Murugan
MSPP EXCO

His presentation provided participants with a deeper understanding of this rapidly advancing field and its impact on physiology and biomedical research.

Prof. Honoré is internationally recognised for his contributions to Piezo channel research, a discovery that was honoured through the 2021 Nobel Prize in Physiology or Medicine. The webinar offered attendees a unique opportunity to learn directly from one of the leading scientists in this area.

The session was moderated by AP. Dr. Dharmani Devi A/P Murugan, MSPP EXCO member, who facilitated an engaging discussion and question-and-answer session with participants.

MSPP extends sincere appreciation to Prof. Honoré for sharing his expertise and to all members who participated in making the webinar a successful and enriching event.

KEY HIGHLIGHTS



Piezo1 is a mechanosensitive ion channel involved in nociception and neuroprotection



Gain-of-function mutations in Piezo1 attenuate cerebral malaria



Piezo1 implicated in systemic and pulmonary hypertension



Piezo1 activation in MSCs enhances bone formation

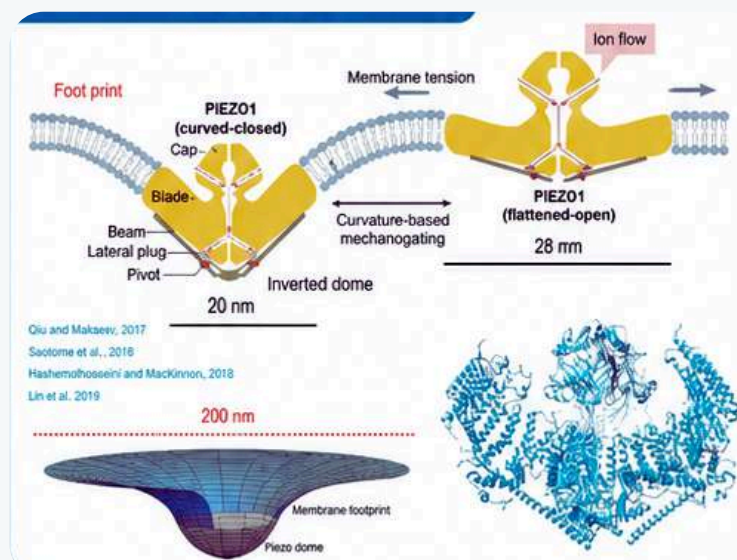
ABOUT THE WEBINAR

The Malaysian Society of Pharmacology and Physiology (MSPP) successfully organised the first webinar of 2026 on 3rd June 2026 via Zoom. The webinar, entitled "Sensing Force with Ion Channels", was attended by MSPP members from various institutions across Malaysia.

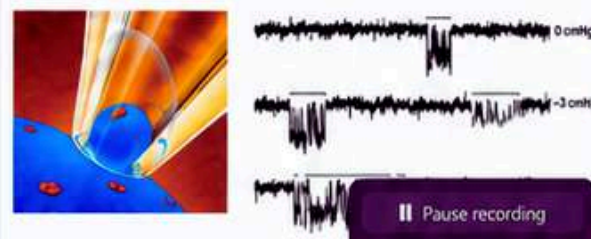
The session featured Prof. Dr Eric Honoré, Director of Research Centre at the CNRS Institute of Molecular and Cellular Pharmacology, Université de la Côte d'Azur, France. Prof. Honoré shared valuable insights into the role of ion channels in mechanosensation and mechanotransduction, highlighting the significance of Piezo channels in sensing mechanical forces.



PIEZO CHANNEL CURVE THE MEMBRANE



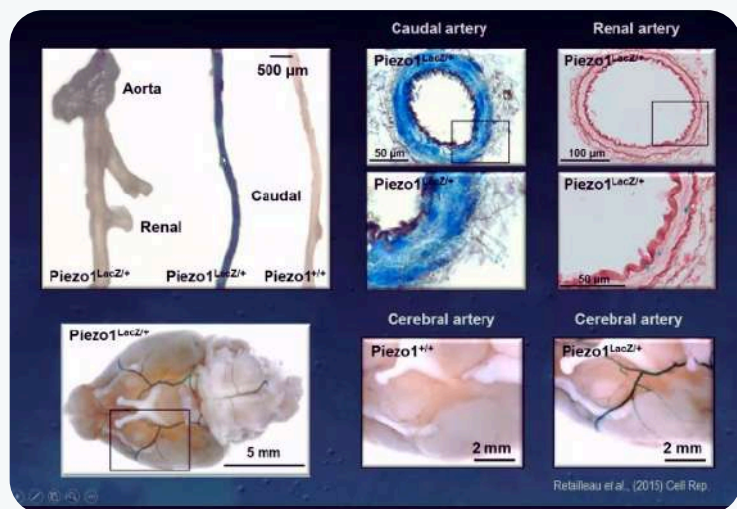
Stretch-activated single ion channel currents in tissue-cultured embryonic chick skeletal muscle



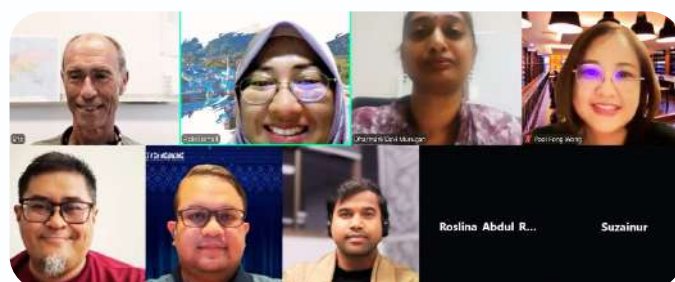
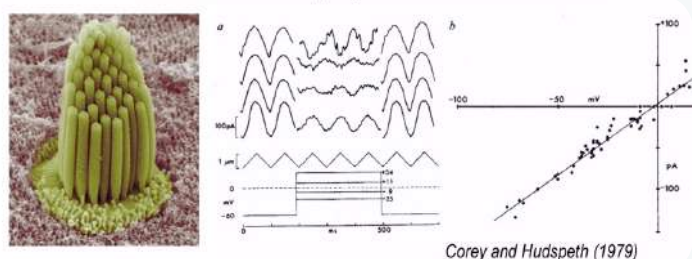
TAKE HOME MESSAGE

- ✓ TREK-1 is a mechano-gated K^+ channel involved in nociception and neuroprotection.
- ✓ Gain-of-function mutations in Piezo1 attenuate cerebral malaria.
- ✓ Piezo1 is implicated in systemic and pulmonary hypertension.
- ✓ Filamin A mediates the mechanoprotection of Piezo1.
- ✓ Macrophage Piezo1 is implicated in atherosclerosis.
- ✓ Piezo1 activation in MSCs enhances bone formation.
- ✓ Piezo1 conformational signalling potentiates TREK-1 mechanical activation.

Piezo1 is expressed in SMCs of small arteries



Ionic basis of the receptor in a vetebrae hair cell



By : Assoc. Prof. Ts. Dr. Azlini Ismail
dr_azlini@iiium.edu.my

By: Assoc. Prof. Dr. Azizah Uguzman
dr.azizah@hctm.ukm.edu.my





MALAYSIAN SOCIETY
OF PHARMACOLOGY AND
PHYSIOLOGY



TAHRIK EPISTEMOLOGI UMMATIC EXCELLENCE
LEADING THE WAY LEADING THE WORLD

MSPP REFRESHER COURSE 2026

VENUE: ZOOM (ONLINE)

DATE: 18 JUNE 2026

TIME: 8.45 AM - 12.45 PM

Refresher Physiology
*Renal handling of Electrolytes and
Urine Concentration*

Refresher Pharmacology
Diuretics

Register Now!!

REGISTRATION FEE:

- MSPP MEMBERS, KOM
ACADEMICIANS & STUDENTS:
FREE OF CHARGE (FOC)

- NON-MSPP MEMBERS: RM20

Limited seats!



Scan me



Prof. Dr. Naguib Salleh
UM



Prof. Datin. Dr. Sharida
Fakurazi
UPM

Kindly email us at
mspp.secretariat@gmail.com
for any enquiries.

By focusing on core concepts that require integration across preclinical and clinical teaching, the programme aimed not merely to review facts, but also to reinforce the reasoning that connects physiological mechanisms with drug actions and patient care.

The programme began with welcoming remarks from the MSPP Vice President, Assoc. Prof. Ts. Dr. Azlini Ismail, who highlighted the Society's commitment to advancing pharmacology and physiology education in Malaysia. The opening also acknowledged the collaboration between MSPP and IIUM, which made it possible to deliver the course in an accessible online format.

The organisers emphasised that refresher activities remain valuable even for experienced educators, as they provide opportunities to revisit difficult concepts, align teaching approaches and reflect on how foundational science can be presented more clearly to contemporary learners.

Refresher Physiology: Renal Handling of Electrolytes and Urine Concentration

The first academic session, "Renal Handling of Electrolytes and Urine Concentration," was delivered by Professor Dr. Naguib Salleh of Universiti Malaya. Professor Naguib is the Head of the Department of Physiology, Faculty of Medicine, Universiti Malaya, and has more than two decades of experience teaching medical physiology to undergraduate and postgraduate learners. His academic background and leadership in physiology education made him especially well placed to guide participants through a

STRENGTHENS FOUNDATIONAL KNOWLEDGE IN RENAL PHYSIOLOGY AND DIURETIC PHARMACOLOGY

The Malaysian Society of Pharmacology and Physiology (MSPP), in collaboration with the Kulliyah of Medicine, International Islamic University Malaysia (IIUM), successfully organised the MSPP Refresher Course 2026 on 18th June 2026. Conducted online via Zoom from 8.45 a.m. to 12.45 p.m., the half-day academic programme brought renewed attention to two closely connected areas of biomedical science: renal handling of electrolytes and urine concentration, and the pharmacology of diuretics.

The refresher course was developed to strengthen participants' understanding of foundational physiology and pharmacology while supporting the effective teaching and learning of these disciplines. It was particularly suited to academicians, including lecturers in the early stages of their careers, as well as undergraduate and postgraduate students in medicine, physiology, pharmacology and related health sciences.



topic that is central to homeostasis, yet frequently challenging for students.

During the session, participants revisited the functional organisation of the nephron and the principles governing the movement of water and electrolytes along its different segments. The lecture reinforced the importance of understanding how filtration, reabsorption and secretion work together to maintain the composition and volume of body fluids. Particular attention was given to the relationship between tubular transport and the regulation of sodium, potassium and water balance, together with the mechanisms that allow the kidneys to produce either dilute or concentrated urine according to the body's needs.

The session also helped participants reconnect several concepts that are sometimes taught separately. These included the role of the loop of Henle in establishing the medullary osmotic gradient, the contribution of countercurrent mechanisms, the influence of antidiuretic hormone on collecting-duct water permeability and the physiological significance of renal blood flow and glomerular filtration. By integrating these mechanisms, the lecture offered a clearer framework for explaining how the kidneys respond to changes in hydration, blood volume and electrolyte status.

For educators, the value of the session extended beyond content revision. Renal physiology is often perceived as difficult because students must simultaneously understand anatomy, membrane transport, hormonal regulation and quantitative relationships. Professor Naguib's session encouraged participants to approach the topic as a connected physiological story rather than as a collection of isolated transporters and nephron segments. This approach can help learners develop a stronger conceptual understanding and apply renal physiology more confidently in clinical situations such as dehydration, fluid overload, and electrolyte disturbances.

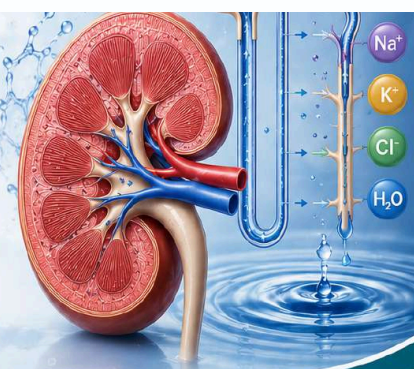
Professor Naguib's extensive experience in medical physiology education was particularly relevant to the aims of the refresher programme.

In addition to his academic leadership at Universiti Malaya, he has been involved in curriculum development and review, postgraduate programme coordination, external examination and the supervision of postgraduate researchers.

His contributions to physiology education have also been recognised through the Best Lecturer in Physiology Award from Universiti Malaya.

RENAL HANDLING OF ELECTROLYTES AND URINE CONCENTRATION

A comprehensive review of how the kidneys maintain balance. From filtrate to final urine.



In this academic session, participants revisited the functional organisation of the nephron and the principles that govern the movement of water and electrolytes along its different segments.

THE SESSION HIGHLIGHTED:



How filtration, reabsorption and secretion work together to maintain the composition and volume of body fluids.



The regulation of sodium, potassium and water balance, and how the kidneys produce dilute or concentrated urine according to the body's needs.



The role of the loop of Henle, countercurrent mechanisms, the influence of ADH on collecting-duct water permeability, and the significance of renal blood flow and glomerular filtration.



An integrated physiological framework that helps learners apply renal physiology to clinical situations such as dehydration, fluid overload and electrolyte disturbances.

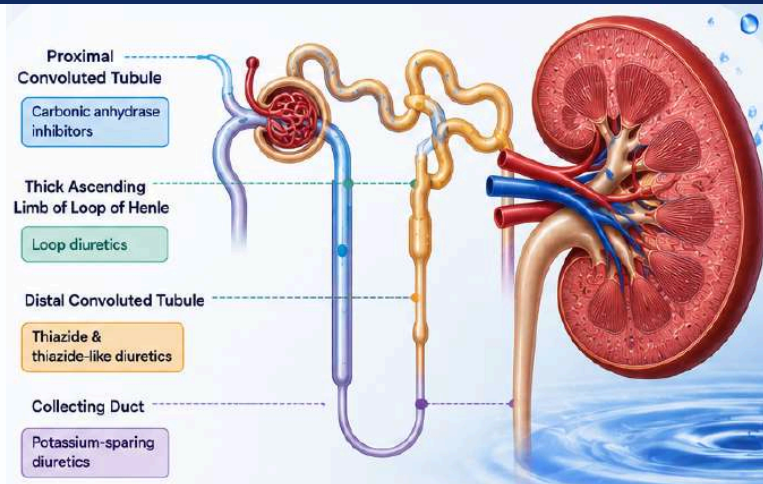


A connected understanding of renal physiology strengthens our ability to think, teach and care better.

Refresher Pharmacology: Diuretics

After the morning break, the programme continued with the second academic session, “Diuretics,” presented by Prof. Datin Dr Sharida Fakurazi of Universiti Putra Malaysia. Prof. Sharida is an experienced pharmacologist and toxicologist whose academic work includes natural product drug discovery, hepatoprotection, wound healing, toxicology, and nanotoxicology. She has also held major academic leadership roles and has extensive experience in postgraduate supervision, research and the teaching of pharmacology.

The pharmacology session complemented the earlier physiology lecture by connecting nephron function with the mechanisms of drugs that alter renal sodium and water handling. The discussion revisited the major classes of diuretics according to their principal sites and mechanisms of action. This structure helped participants understand why a sound knowledge of renal physiology is essential for predicting the effects of diuretic drugs on urine output, electrolyte balance, blood volume, and blood pressure.



The session also highlighted the importance of comparing diuretic classes rather than memorising individual drugs in isolation. Understanding where a drug acts in the nephron helps explain its relative potency, clinical indications, possible adverse effects and interactions with physiological compensatory mechanisms. The lecture therefore provided a useful bridge between basic pharmacology and rational therapeutic use, particularly in conditions such as hypertension, oedema and disorders associated with altered fluid balance.

Prof. Sharida brought considerable academic and research experience to the session. She obtained her PhD in Biochemical and Molecular Toxicology from Imperial College of Science, Technology and Medicine and has served in several leadership positions at Universiti Putra Malaysia. Her profile reflects the integration of teaching, research and professional service that the MSPP Refresher Course seeks to promote.

Session Highlights

- Different diuretics act at different nephron segments.
- Site of action determines efficacy and adverse effects.
- Renal physiology underpins rational diuretic therapy.
- Compare drug classes—not just individual drugs.
- Link basic pharmacology with clinical decision-making.



LINKING PHYSIOLOGY TO PHARMACOLOGY

Explored how diuretics act at different nephron sites to alter sodium and water handling, and how this influences urine output, electrolytes, blood volume and blood pressure.



CLASSIFICATION BY SITE AND MECHANISM

Reviewed the major classes of diuretics based on their principal sites and mechanisms of action, providing a clear framework for understanding their effects.



COMPARING CLASSES, NOT JUST DRUGS

Emphasised understanding where a diuretic acts in the nephron to explain its potency, clinical indications, adverse effects and interactions with physiological compensatory mechanisms.



CLINICAL RELEVANCE

Strengthened the link between basic pharmacology and rational therapeutic use, particularly in hypertension, oedema and other disorders of fluid balance.

Integrating Physiology and Pharmacology

A key strength of the Refresher Course was the integration of physiology and pharmacology. The first session established the physiological principles underlying renal handling of water and electrolytes, while the second demonstrated how these mechanisms are modified therapeutically through diuretic drugs. This sequential approach reinforced the concept that a sound understanding of normal physiology is essential for interpreting drug actions and making informed clinical decisions.

By linking nephron function with the mechanisms of different diuretic classes, participants gained a clearer appreciation of how renal physiology underpins rational pharmacological therapy. The integrated format also encouraged educators to present renal physiology and pharmacology as interconnected disciplines, helping learners bridge basic science with clinical practice.



Participation and Feedback

The course attracted 28 participants from universities and healthcare institutions across Malaysia, reflecting continued interest in structured professional development programmes. Feedback collected through a post-course evaluation indicated that participants highly valued the relevance of the topics, the expertise of the speakers, and the clear integration between physiology and pharmacology. Many also suggested future refresher courses focusing on areas such as respiratory physiology, endocrine physiology, and antimicrobial pharmacology.



Collaboration and Looking Ahead

The programme was successfully coordinated by committee members from the International Islamic University Malaysia (IIUM), Universiti Sains Malaysia (USM), and Universiti Teknologi MARA (UiTM), with expert speakers from Universiti Malaya (UM) and Universiti Putra Malaysia (UPM). This inter-university collaboration highlighted the importance of sharing expertise to strengthen physiology and pharmacology education nationwide.

The success of the MSPP Refresher Course 2026 reaffirms the Society's commitment to continuing professional education. Future refresher courses will continue to adopt an integrated approach, pairing physiological concepts with their pharmacological applications while incorporating more interactive learning strategies to enhance participant engagement.

MSPP extends its sincere appreciation to the invited speakers, organising committee, supporting institutions, and all participants whose contributions made the programme a success. Through initiatives such as this, MSPP continues to promote academic excellence, lifelong learning, and collaboration within the pharmacology and physiology community.

By: Assoc. Prof. Dr. Roslina Abdul Rahim
roslinaar@iium.edu.my





MALAYSIAN SOCIETY OF PHARMACOLOGY AND PHYSIOLOGY
YOUNG TEACHER AWARD
09 June 2026
10am - 2.00 pm

Lecture Topics:

- Physiology**
Renal Clearance
- Pharmacology**
Pharmacokinetic: Drug Excretion

Format >>> Live online teaching (20 mins + 10 mins Q&A)

Aim >>> To promote excellence in Pharmacology & Physiology teaching amongst young MSPP members

What awaits you:

- Cash prizes for the Best Teacher in both Physiology and Pharmacology categories
- All participants will be awarded a "YTA 2026 Enthusiastic Teacher" certificate in recognition of your passion and commitment to teaching

REGISTER NOW: MYR 20
REGISTRATION DEADLINE: 22nd MAY 2026

The competition called upon vibrant MSPP members teaching in Malaysia who have under 5 years of teaching experience. The challenge was to present a rigorous live online teaching format consisting of a sharp 20-minute lecture followed by a gripping 10-minute Q&A session.

A Battle of Bright Minds across Malaysia

The response was phenomenal, bringing together a total of 11 courageous young, vibrant participants representing an impressive lineup of universities across the nation, including UKM, UiTM, USIM, UniSZA, UniKL, Manipal, and Perdana University. What made this edition truly spectacular was seeing a truly Malaysian spirit come alive on screen! Representatives came from all major races in Malaysia, proving beautifully that the passion for healthcare education transcends race. It was an inspiring showcase of unity, where our nation's diverse talents united under one shared mission: nurturing the medical professionals of tomorrow.

The field was split into two hotly contested arenas:

1. Pharmacology Category (8 participants):
Pharmacokinetics: Drug Excretion.
2. Physiology Category (3 participants): Renal Clearance.

The energy radiating through the screens was absolutely fantastic! Far from being intimidated by the virtual format, these young lecturers brought a wave of unmatched enthusiasm, creative digital tools, and infectious excitement that completely transformed the online lecture setup into a thriving, interactive hub of learning.



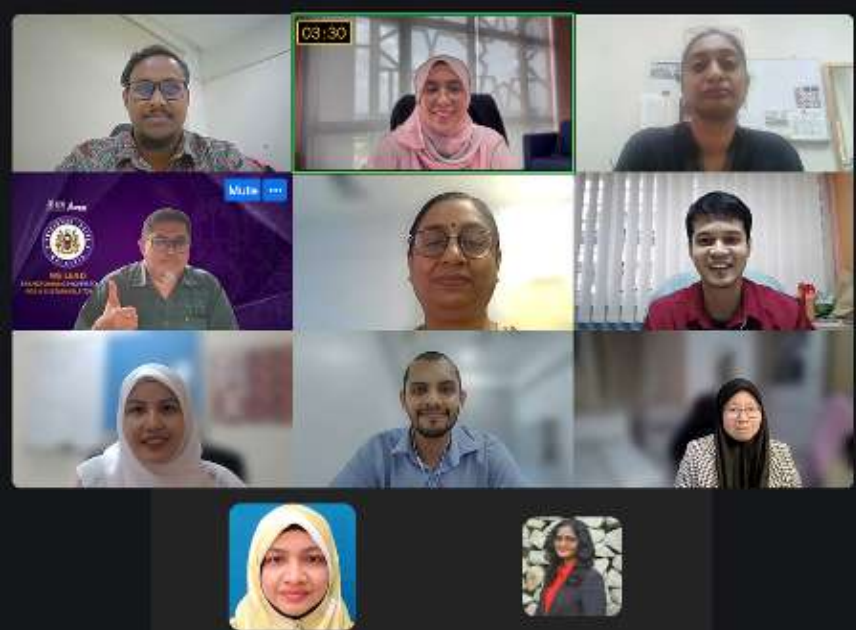
BREAKING BARRIERS: MSPP YOUNG TEACHER AWARD 2026 GOES DIGITAL

The future of medical and health sciences education is officially here. On the 9th of June 2026, the Malaysian Society of Pharmacology and Physiology (MSPP) hosted its highly anticipated Young Teacher Award (YTA) 2026. Running from 10:00 am to 2:00 pm, this year's event wasn't just another competition, it made history. For the very first time in YTA history, the entire event was organized fully online.

Levelling Up the Virtual Classroom

With the digital landscape changing how we teach, the primary hope of YTA 2026 was to equip and prepare our young lecturers for the ultimate modern challenge: delivering truly engaging, dynamic, and impactful lectures through an online platform.





Key Take-Home Messages:



MEET THE WINNERS

Congratulations to the Winners

Following a comprehensive evaluation, MSPP is pleased to announce the recipients of the Young Teacher Award 2026.

Physiology Category

🏆 Dr Siti Hanisah Mohd Fuad
Universiti Sains Islam Malaysia (USIM)

Evaluated by the Best in the Field

To match the high calibre of our participants, the sessions were evaluated by a distinguished panel of renowned Professors and Associate Professors. Our esteemed evaluators included:

1. Pharmacology Panel: Prof. Dr. Renu Agarwal (IMU), Assoc. Prof. Dr. Dharmani Devi Murugan (UM), and Assoc. Prof. Dr. Wan Amir Nizam Bin Wan Ahmad (USM).
2. Physiology Panel: Prof. Dr. Cheng Hwee Ming, Assoc. Prof. Dr. Priya Pusparajah (Monash), and Assoc. Prof. Dr. Roslina Abdul Rahim (UIAM).

The judges faced the incredibly challenging task of evaluating these outstanding teaching sessions, recognising the remarkable level of passion and pedagogical excellence demonstrated by the new generation of educators. Following the live teaching sessions, all participants received the well-deserved "YTA 2026 Enthusiastic Teacher" certificate in recognition of their dedication and commitment. The competition concluded with much anticipation as participants awaited the announcement of the winners.

Massive congratulations to all the participants, judges, and the organising committee who made this historic virtual milestone a roaring success.



MEET THE WINNERS

Pharmacology Category

🏆 Dr Syed Alhafiz Syed Hashim
Universiti Kebangsaan Malaysia (UKM)

🏆 Dr Aisyah Jaafar
Universiti Teknologi MARA (UiTM)



The Society extends heartfelt congratulations to all award recipients for their outstanding teaching performance and dedication to educational excellence. Their achievements exemplify the passion, innovation, and commitment required to inspire the next generation of healthcare professionals.



MSPP also expresses its sincere appreciation to all participants, judges, and the organising committee for making the inaugural fully virtual Young Teacher Award a resounding success. The enthusiastic participation and high-quality presentations reaffirm MSPP's commitment to recognising and nurturing excellence in teaching and encourage young academicians to continue innovating in medical and health sciences education.

By: Prof. Dr. Norsham Juliana binti Nordin
njuliana@usim.edu.my



MSPP-ARMY2026

[Home](#)

[About](#)

[Programmes](#)

[Registrations](#)

[Abstract](#)

[Sponsorship](#)

[YIA](#)



39th Annual Scientific Meeting
**Malaysian Society of
Physiology & Pharmacology
(MSPP)**

In Conjunction With
**1st Advances in Research &
Clinical Medicine of Today (ARMY)**

2-3 September 2026
Bangi Hotel Resort, Selangor

[Register Now](#)

#005B78

39TH MSPP ANNUAL SCIENTIFIC MEETING 2026

The Malaysian Society of Pharmacology and Physiology (MSPP) is pleased to announce the upcoming 39th MSPP Scientific Meeting, which will bring together researchers, educators, clinicians, healthcare professionals, and students from across the country to share the latest developments in pharmacology, physiology, and related biomedical sciences.

As the Society's flagship annual event, the Scientific Meeting provides an important platform for the presentation of original research, exchange of scientific ideas, and establishment of new interdisciplinary collaborations. Participants will have the opportunity to engage with distinguished speakers, explore current advances in biomedical

research, and participate in discussions that address emerging challenges and future directions in the field.

In addition to the scientific programme, the meeting will continue MSPP's tradition of recognising excellence through various awards, including the Young Investigator Award and the Young Teacher Award, highlighting the Society's commitment to nurturing the next generation of scientists and educators.

The 39th MSPP Scientific Meeting also represents an important milestone as MSPP continues its preparations towards FAOPS 2027. The meeting will serve as an opportunity to strengthen scientific networks, enhance research visibility, and foster collaborations that will contribute to Malaysia's active participation in the regional physiology community.



ABOUT THE CONFERENCE

The 39th Annual Scientific Meeting of the Malaysian Society of Pharmacology and Physiology (MSPP 2026) is a two-day scientific meeting dedicated to advancing research in pharmacology and physiology with translational relevance. Hosted by Universiti Pertahanan Nasional Malaysia (UPNM), the meeting continues MSPP's role as a national forum for academic exchange in these disciplines.

IMPORTANT DATES

Registration Opens: 15 February 2026
Closing of Abstract Submission: 31.7. 2026
Abstract Acceptance Notification: 1.8. 2026
Closing of Registration: 15 .8.2026

CPD Points

Malaysian Pharmacist Society (MPS)

Pre-Conference: 6 points
Conference: 14 points

Malaysian Medical Association (MMA)

Pre-Conference: 8 points
Conference: 8 points

This year's meeting will be held in conjunction with the 1st Advances in Research and Clinical Medicine of Today (ARMY) Symposium. The joint meeting reflects a shared commitment to strengthening connections between basic science, clinical practice, and current healthcare challenges.

RESEARCH THEME

Human Health in Diverse Environment

Key Topics:

- Anatomy & Physiology
- Adaptation in Extreme Environments
- Molecular Medicine
- Clinical Medicine
- Psychology
- Emergency Medicine
- Sports Medicine
- Rehabilitation

Natural Products to Precision Therapeutics

Key Topics:

- Pharmacology & Therapeutics
- Drug Discovery
- Natural Products
- Omics
- Precision Medicine
- Toxicology

Biosecurity for Health Resilience

Key Topics:

- Surveillance
- Rapid Response
- One Health
- Infrastructure Readiness
- Crisis Governance
- Policy Ethic
- Military Medicine
- Vaccinology

AI-driven Healthcare Innovation

Key Topics:

- Bioinformatics
- Digital Health & Therapeutics
- AI in Healthcare
- Data Science
- Healthcare Innovation
- Innovation in Medical Education

“MSPP warmly invites all members and interested participants to join this prestigious scientific gathering and contribute to another successful chapter in the Society's continuing pursuit of excellence in research, education, and professional development.”

By: Dr. Siti Hajar binti Adam
siti.hajar@upnm.edu.my





MSPP YOUNG INVESTIGATOR AWARD 2026

The Malaysian Society of Pharmacology and Physiology (MSPP) successfully concluded the application period for the MSPP Young Investigator Award (YIA) 2026, a prestigious award established to recognise and celebrate outstanding young researchers in the fields of pharmacology and physiology.

The award continues to provide an excellent platform for early-career researchers to showcase their scientific contributions, gain national recognition, and engage with leading experts within the research community. Eligible applicants were active researchers aged 40 years and below and affiliated with institutions in Malaysia.



Several applications were received from young researchers across the country, reflecting continued enthusiasm and commitment towards excellence in pharmacology and physiology research.

The submitted applications are currently undergoing evaluation. Shortlisted candidates will be invited to present their research findings during a virtual evaluation session tentatively scheduled for July 2026.

The successful candidate will subsequently deliver a special presentation and receive the award during the 39th MSPP Annual Scientific Meeting and the 1st Advances in Research & Clinical Medicine of Today Symposium (ARMY2026), to be held at Bangi Resort Hotel on 3rd September 2026.

Beyond national recognition, recipients will have the opportunity to showcase their research achievements before a distinguished audience of academics, researchers, and healthcare professionals.

The Young Investigator Award continues to promote research excellence by providing opportunities to:

- Showcase research at a national platform
- Gain recognition from leading experts
- Compete for prestigious awards and cash prizes

IMPORTANT DATES

Applications officially closed on 31 May 2026, and MSPP sincerely thanks all applicants for their interest and participation. The Society looks forward to announcing the shortlisted finalists and wishes all candidates the very best in the upcoming evaluation process.



Assoc. Prof. Ts. Dr. Izuddin Fahmy Abu
izuddin@unikl.edu.my





FAOPS 2027

THE 11th FEDERATION OF THE ASIAN & OCEANIAN PHYSIOLOGICAL SOCIETIES CONGRESS
in conjunction with the 40th Annual Scientific Meeting of the Malaysian Society of Pharmacology and Physiology

DISTINGUISHED SPEAKERS

OPENING KEYNOTE LECTURE



PROF. SIMON GANDEVIA
University of Sydney,
Australia

PLENARY LECTURES



PROF. YU HUANG
City University of Hong Kong,
Hong Kong



PROF. KIM E. BARRETT
UC Davis School of Medicine,
USA



PROF. KAZUHIRO NAKAMURA
Nagoya University Graduate
School of Medicine, Japan

SPECIAL LECTURES



PROF. YOSHIHIRO KUBO
National Institute for
Physiological Sciences, Japan



PROF. YIN HUA ZHANG
Seoul National University
College of Medicine, Korea



PROF. SHUEI-LIONG LIN
National Taiwan University
College of Medicine, Taiwan



PROF. JOYCE HARPER
University College London,
UK



PROF. CHENG HWEI MING
University of Malaya,
Malaysia



PROF. YUN WANG
Peking University,
China



PROF. SIMON KENNEDY
University of Glasgow,
UK



PROF. RUSZYMAH IDRUS
National University of Malaysia,
Malaysia



www.faops2027.com

FAOPS 2027 SYMPOSIUM CALL OPEN AND DISTINGUISHED SPEAKERS ANNOUNCED

The Organising Committee of the 11th Federation of Asian and Oceanian Physiological Societies Congress (FAOPS 2027) invites physiologists, pharmacologists, biomedical scientists, clinicians, educators, and trainees to contribute to the scientific programme of this landmark congress, which will be held in Kuala Lumpur, Malaysia. FAOPS 2027 will be held in conjunction with the 40th Annual Scientific Meeting of the Malaysian Society of Pharmacology and Physiology.

Symposium proposal submission is currently open and will close on 31st July 2026. The Scientific Committee welcomes high-quality thematic sessions that reflect the diversity of physiological sciences while fostering interdisciplinary collaboration with pharmacology and related biomedical fields. Each symposium will consist of three speakers and should align with the congress theme, "The Marvels of Life and Beyond."

We are also delighted to announce an exciting lineup of internationally renowned speakers, including Professors Simon Gandevia, Yu Huang, Kim E. Barrett, Kazuhiro Nakamura, and Yoshihiro Kubo, among others. Their participation underscores the international stature and scientific excellence of FAOPS 2027.

In addition, abstract submission for oral and poster presentations will open on 1st July 2026, providing an excellent opportunity for researchers and trainees to showcase their work to an international audience.

MSPP members are strongly encouraged to submit symposium proposals, participate in the congress, and help shape a diverse, impactful, and internationally representative scientific programme. Further information, symposium guidelines, and speaker profiles are available at the congress website: www.faops2027.com.



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



RESEARCH CORNER



Antibiotics Crossword Puzzle

One of the activities introduced was an antibiotic-themed crossword puzzle created using a free online platform. Students worked in small groups to solve clues related to antibiotic names, classes, mechanisms of action, adverse effects, and clinical uses.

SIMPLE GAMIFICATION IN TEACHING ANTIBIOTICS TO YEAR 1 MEDICAL STUDENTS

Pharmacology is often regarded as one of the more challenging subjects for preclinical medical students. Among the topics introduced in Year 1, antibiotics can be particularly overwhelming due to the large number of drug names, classifications, mechanisms of action, and adverse effects that students are expected to learn within a relatively short period. Simply becoming familiar with antibiotic terminology and spelling can be intimidating for many learners.

To make the learning process more engaging and less daunting, simple gamification activities were incorporated into Year 1 antibiotic lectures using freely available online educational tools. The objective was not to replace conventional lectures but to supplement them with interactive activities that encourage participation, repetition, and active recall.



What is Gamification?

Gamification refers to the integration of game elements into educational settings to enhance motivation, engagement, and learning outcomes. In medical education, gamification can take many forms, including quizzes, puzzles, simulations, and interactive online games.

Importantly, effective gamification does not necessarily require sophisticated technology or expensive software. Even simple activities can significantly improve student engagement when thoughtfully incorporated into teaching sessions.



Antimalarial combination containing sulfadoxine and pyrimethamine



Source: https://www.educaplay.com/learning-resources/28992478-antibiotics_crossword.html

The crossword served several educational purposes. Firstly, it reinforced familiarity with antibiotic terminology and spelling, which are often challenging for novice learners. Secondly, it encouraged active recall, requiring students to retrieve information from memory rather than simply recognising answers. Finally, the group-based format promoted discussion and peer learning, with students exchanging ideas and clarifying misconceptions during the activity.

The crossword also helped create a more relaxed and enjoyable learning environment, encouraging participation from students who might otherwise remain passive during traditional lectures.





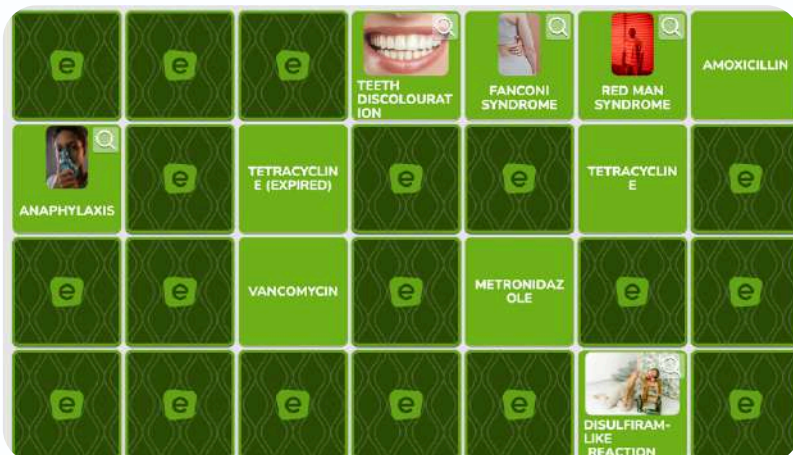
MATCHING MEMORY GAME FOR ANTIBIOTICS AND ADVERSE EFFECTS

A second activity involved a simple online matching memory game. In this activity, students matched antibiotics or antibiotic classes with their characteristic or clinically important adverse effects.

Examples included:

- 💧 Aminoglycosides → Ototoxicity
- 💧 Vancomycin → Red man syndrome
- 💧 Chloramphenicol → Aplastic anaemia
- 💧 Fluoroquinolones → Tendinopathy
- 💧 Sulfonamides → Stevens-Johnson syndrome
- 💧 Tetracyclines → Tooth discolouration

The memory game was designed to emphasise adverse effects that are frequently tested in examinations or considered clinically significant.



Source: https://www.educaplay.com/learning-resources/28818486-side_effects_of_antibiotics.html

EDUCATIONAL BENEFITS OF THE MATCHING ACTIVITY



Encouraging Pattern Recognition



Repetition Through Gameplay



Immediate Feedback



Increased Engagement



Student Feedback and Reflections



Although no formal evaluation was conducted, informal feedback from students was highly encouraging. Many reported that the activities made pharmacology feel less intimidating and helped them remember antibiotic names and adverse effects more easily.



Students also appreciated the opportunity to take part in interactive activities during content-heavy lectures.



Interestingly, students who were usually quieter during conventional teaching sessions appeared more willing to participate in the gamified activities. This suggests that low-stakes educational games may help create a more inclusive and psychologically safe learning environment.





WHY SIMPLE GAMIFICATION MATTERS

Medical education increasingly emphasises active learning, student engagement, and learner-centred teaching approaches. However, educators may hesitate to implement gamification because they assume it requires advanced software, extensive preparation time, or significant financial resources.



EVIDENCE FORM OUR CLASSROOM EXPERIENCE

This experience demonstrated that meaningful gamification can be achieved using free online tools, minimal preparation, simple educational objectives and readily available classroom technology.



FEASIBLE AND PRACTICAL APPROACH

The activities were easy to prepare, adaptable to different topics, and feasible even within limited teaching time. Importantly, simple gamification may be particularly useful in pharmacology because the subject requires repeated exposure, memorisation, and association-building.

KEY STRENGTHS OF SIMPLE GAMIFICATION



CONCLUSION

- Antibiotic pharmacology can be challenging for Year 1 medical students due to the large volume of unfamiliar terminology and clinically important information.
- Incorporating simple gamification activities such as crossword puzzles and matching memory games may help make learning more interactive, enjoyable, and less intimidating.
- Importantly, educational innovation does not always require sophisticated technology or expensive platforms. Even simple, low-cost activities created using freely available online tools can meaningfully enhance student engagement and encourage active learning in medical education.
- As educators continue exploring student-centred teaching approaches, simple gamification may serve as a practical and accessible strategy to support pharmacology learning in the preclinical years.



By: Asst. Prof. Dr Hidayatul Radziah Ismawi
Pharmacology Unit,
Department of Basic Medical Sciences,
Kulliyah of Medicine, IIUM
hidayatulradziah@iium.edu.my



FEATURE ARTICLE

TWO STRATEGIES, ONE GOAL: MOVING PHARMACOLOGY TEACHING BEYOND THE SLIDE

Teaching pharmacology effectively is not only about delivering content. It is also about creating moments in which students respond, decide, think, and apply what they are learning. Moving beyond the slide means designing lectures in which students engage with pharmacological concepts during class, rather than simply listening to and reviewing them later. This approach was the basis for two classroom strategies implemented in Year 1 and Year 2 pharmacology at the Kulliyyah of Medicine, IIUM: Technology-Enhanced Active Learning and the Clinical Case Race. Although different in format, both share the same goal: to help students engage with pharmacology actively within existing lecture slots and flipped classroom sessions.

Technology-Enhanced Active Learning (TEAL) Instructional Ecosystem



Figure 1. The TEAL instructional ecosystem supports active participation, visual learning, and recall in pharmacology lectures.

TEAL integrates digital tools into live lectures so that students respond, interact, and receive feedback in real time. These approaches were applied in selected Year 1 and Year 2 pharmacology lectures conducted by the author at KOM, IIUM. Platforms such as Mentimeter, Padlet, Quizizz, and iTA'LeEM, IIUM's learning management system, were used to support polls, collaborative tasks, and quiz-based activities. Student responses appeared on screen during the lecture, making participation visible and allowing the lecturer to identify areas where understanding was still developing.

Visual mnemonics were incorporated through in-class visual learning, AI-enhanced mnemonic materials, and student-drawn character-based mnemonics. In the AI-enhanced activity, students worked in groups to develop pharmacology mnemonics using AI tools, and their outputs were compiled into a class e-book. Students also redrew selected character-based mnemonics from memory on the whiteboard or through the drawing board feature in Padlet or iTA'LeEM, shifting the activity from passive viewing to active recall.

A third component of TEAL was the Diuretics Field Trip, a visual resource developed for Year 2 renal pharmacology. Each class of diuretic drugs was mapped to familiar locations in Pahang, including places students may have passed, visited, or recognised on their way to campus. Loop diuretics, thiazides, and potassium-sparing agents were each anchored to a specific point along a visual route.

Students often find it challenging to remember the parts of the nephron and the site of action of different diuretic classes. While conventional diagrams remain useful, linking drug mechanisms to familiar landmarks can make the sequence easier to

recall. In this approach, students mentally travel from one landmark to another, naming the relevant drug class and mechanism at each stop. The nephron is therefore reframed from an abstract structure to a journey easier to visualise. During later revision sessions, some students referred back to the landmarks without prompting, suggesting that the mnemonic had supported recall beyond the initial lecture.



THE DIURETICS FIELD TRIP

Linking drug classes to familiar Pahang Landmarks

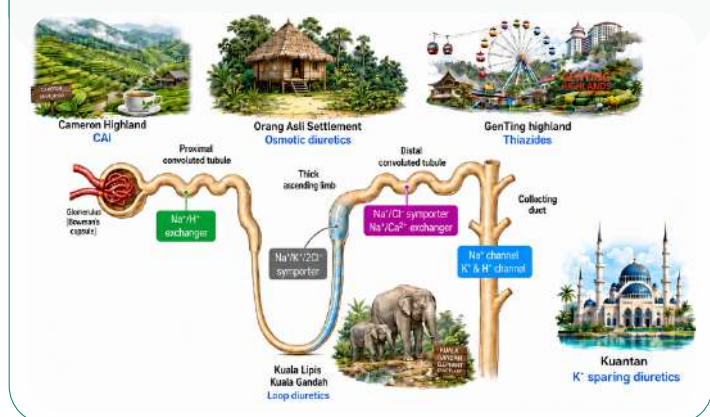


Figure 2. The Diuretics Field Trip maps diuretic drug classes to familiar Pahang landmarks (Copyright No. CRLY2022W01825)

WHY THIS APPROACH WORKS



Connects concepts to familiar places



Enhances visualisation and recall



Turns abstract content into a meaningful journey



Supports long-term retention beyond initial learning

CASE-BASED ACTIVE LEARNING:

The Clinical Case Race

Active learning does not always need a screen. The Clinical Case Race was a structured in-class activity conducted during a Year 2 gastrointestinal pharmacology lecture on antiemetic, emetic, laxative, and antidiarrhoeal drugs, involving 135 students. They were divided into four colour-coded expert zones. One rule guided the activity: expert zones validate; they do not answer. For each projected clinical case, students first discussed the scenario within their zones.

A student from a non-expert zone then presented an answer, while the designated expert zone assessed, corrected, or confirmed the response before points were awarded. The scoring matrix rotated answering and validating roles across all zones, ensuring that every group remained actively involved throughout the session.

The clinical scenarios were written in an examination-style format, allowing the activity to serve as revision without feeling like a conventional revision exercise. Students who rarely contributed during standard large-cohort lectures were more likely to speak within the zone structure. The group format reduced the pressure of individual exposure in a large audience, making participation more accessible than open-floor questioning.

Clinical Case Race



Figure 3. Zone setup and activity flow for the Clinical Case Race in Year 2 gastrointestinal pharmacology learning.

REFLECTIONS FOR EDUCATORS



These strategies were different in format, but both were grounded in the same intention: to make pharmacology learning more visible, active, and memorable within existing teaching sessions. TEAL allowed real-time response, visual learning, mnemonic creation, and recall. The Clinical Case Race supported discussion, peer validation, and application of drug knowledge to clinical scenarios. Together, they showed that active learning can be built into existing teaching sessions without major changes to the curriculum. What mattered most was not the technology or the activity format itself, but the design of moments where students had to think, retrieve, explain, and participate. These strategies continue to be refined through student response, feedback, and classroom experience.



By: Asst. Prof. Dr Nour El Huda Abd Rahim
Pharmacology Unit, Department of Basic
Medical Sciences, KOM, IIUM
elhuda@iium.edu.my

FROM MEMORISATION TO APPLICATION: ACTIVE LEARNING IN PHARMACOLOGY EDUCATION

Background

Students often perceive pharmacology as a content-heavy subject that requires memorisation of drug names, mechanisms of action, indications, adverse effects, contraindications, and clinical relevance. While factual knowledge remains important, students also need opportunities to connect pharmacological concepts with clinical application. This can be challenging within limited teaching time, especially when the topic involves multiple drug classes and complex mechanisms. In one of my teaching sessions with Year 2 dental students, I explored the use of active learning strategies to support the learning of bone pharmacology. This topic was selected because it requires students to understand various therapeutic agents, such as bisphosphonates, teriparatide, calcitonin, selective oestrogen receptor modulators, calcium, and vitamin D supplementation, and to appreciate their relevance to dental practice, including medication-related osteonecrosis of the jaw.

Active Learning Strategies

To support student engagement, I incorporated several active learning strategies into a one-hour pharmacology session. The session adopted a flipped learning approach, where students were provided with pre-class materials before attending the face-to-face session. This allowed class time to be used for recall, discussion, application, and clarification through active learning activities. During the face-to-face session, a short interactive quiz was used as a recall activity to activate prior knowledge and identify areas that required clarification. This was followed by a group-based drug-matching activity, where students matched drug-related statements with the appropriate drug classes, adverse effects, and clinical indications. Students then worked on a mini clinical case discussion related to osteoporosis treatment and dental considerations, including medication-related osteonecrosis of the jaw. The session ended with brief peer sharing and lecturer debriefing to consolidate the key learning points.



Design and Implementation

The session was intentionally designed to be simple and feasible within a short contact hour. The pre-class materials allowed basic information transfer to occur before class, while the in-class activities focused on recall, discussion, application, and clarification. Students worked in small groups to encourage peer learning and collaborative problem-solving. The drug-matching activity served as a low-stakes, interactive way to revise drug classes, while the mini clinical case helped students connect pharmacological knowledge with dental practice. The lecturer's role was mainly to facilitate discussion, clarify misconceptions, and highlight clinically relevant take-home messages.

STUDENT FEEDBACK

From both my own observation and students' feedback, the session created a more lively and student-centred learning environment. However, several practical challenges were also noted. The success of a flipped or active learning session depends partly on students' preparation before class. Some students stated that they had only partially reviewed, or had not reviewed, the pre-class materials before the session, and this was also reflected in my observation that some students required more support during the in-class activities. In addition, although the session included an individual recall activity, group-based tasks may not always ensure equal participation. Some students commented that not all group members were actively involved, which was consistent with my observation that certain students were more active in discussion and decision-making while others remained relatively passive. These challenges highlight the need for clearer instructions, structured group roles, and brief individual reflection tasks in future implementation.



CONCLUSION

Overall, this experience reminded me that no single teaching approach is perfect or universally effective. Active learning can promote engagement, discussion, and application of knowledge, but it should not completely replace clear explanation, guided content delivery, and lecturer feedback. In pharmacology education, especially for conceptually dense topics, balance is important. A meaningful learning experience may be achieved by combining pre-class preparation, interactive in-class activities, peer learning, clinical application, and structured lecturer debriefing. Ultimately, active learning should be used purposefully, not simply for the sake of making a class more "active".



Dr. Leong Xin Fang
leongxinfang@ukm.edu.my



MSPP MEMBERSHIP

MSPP is now 268 members strong, with 134 annual members and 89 Life Members.

We wish to congratulate our newest Life Members of MSPP



Assoc. Prof. Dr. Noor Azlina Abu Bakar
noorazlina@unisza.edu.my



Assoc. Prof. Dr. Izuddin Fahmy Abu
izuddin@unikl.edu.my



Assoc. Prof. Dr. Norah Htet Htet
HtetHtet@imu.edu.my



Assoc. Prof. Dr. Shamsul Mohd Zain
shamsul@um.edu.my



Assoc. Prof. Hasnah Bahari
haba@upm.edu.my



Dr. Leong Xin Fang
leongxinfang@ukm.edu.my



Dr. Nurul Hayati Mohamad Zainal
mz_nurul@upm.edu.my