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NATIONAL INSTITUTES OF HEALTH

ABSTRACT BOOK

INTERNATIONAL MEDICAL RESEARCH JOURNAL

1ST INTERNATIONAL BIOMEDICAL CONFERENCE 2025

BRIDGING THE GAPS: TRANSLATING BIOMEDICAL
RESEARCH FROM LAB TO COMMUNITY

3RD - 4TH SEPTEMBER 2025

**AC HOTEL BY MARRIOTT,
KUANTAN PAHANG**



PENYELIDIK
PERSATUAN PENYELIDIK KKM





International Medical Research Journal

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WELCOME MESSAGE FROM **THE ORGANISING CHAIRPERSON**

Assalamualaikum warahmatullahi wabarakatuh, Salam Malaysia Madani to all distinguished guests, esteemed speakers, dedicated researchers, brilliant students, and participants.

It is with immense pleasure and great honour that I extend my warmest welcome to each and every one of you attending the 1st International Biomedical Conference 2025 (IBC 2025), which proudly organised by the National Institutes of Health (NIH), Persatuan Pegawai Penyelidik Kementerian Kesihatan Malaysia (PENYELIDIK KKM), and Malaysia Biomedical Science Association (MyBiomed). On behalf of the Organising Committee, I am pleased to welcome you to what we anticipate will be an engaging and insightful event.

This conference marks a significant milestone in the biomedical landscape, bringing together bright minds from diverse backgrounds to explore the latest advancements, innovations, and challenges in the field. Our theme for IBC 2025, “Bridging the Gaps: Translating Biomedical Research from Lab to Community”, reflects our commitment to fostering collaborative discussions and forging new pathways for discovery that will ultimately benefit humanity.

In an era where biomedical science is rapidly evolving, platforms like IBC 2025 are crucial for knowledge exchange, networking, and the cultivation of future partnerships. We have curated a comprehensive program featuring keynote lectures from world-renowned experts, engaging parallel sessions, and stimulating poster presentations, all designed to inspire new ideas and stimulate robust discussions.

I would like to express my sincere gratitude to the Organising Committee, our generous sponsors, and all volunteers whose tireless efforts have made this conference possible. Your dedication is truly commendable.

To all participants, I encourage you to seize this opportunity to engage actively, share your insights, and connect with peers. May your time at IBC 2025 be both professionally rewarding and personally enriching.

Thank you, and I wish you all a successful and memorable conference.

Yours Sincerely,

YBRS. DR. MOHD FAIRULNIZAL BIN MD NOH

Organising Chairperson (PENYELIDIK KKM)

1st International Biomedical Conference 2025 (IBC 2025)



WELCOME MESSAGE FROM **THE ORGANISING CHAIRPERSON**

On behalf of the Organising Committee, it is my great pleasure to welcome you to the 1st International Biomedical Conference (IBC 2025) with the theme “Bridging the Gaps: Translating Biomedical Research from Lab to Community”.

This inaugural gathering marks an exciting milestone, made possible through the collaborative effort between Persatuan Penyelidik Malaysia (PENYELIDIK) and the Malaysian Biomedical Science Association (MyBiomed), brings together researchers, academics, healthcare professionals, and industry partners to share knowledge, foster collaborations, and highlight innovations in biomedical science. The chosen theme underscores the urgent need to ensure that scientific discoveries do not remain confined within laboratories, but instead are effectively translated into real-world applications that benefit communities and improve quality of life.

Over the course of this conference, we will engage in stimulating keynote sessions, insightful oral and e-poster presentations, Rapid-Fire and Young Investigator Awards sessions, as well as meaningful discussions that reflect the diversity and dynamism of the biomedical sciences. This platform also provides valuable opportunities for networking, capacity-building, and sparking new collaborations that transcend borders and disciplines.

We would like to extend our deepest gratitude to our distinguished speakers, dedicated participants, supporting institutions, sponsors as well as our committee members, who have made this conference possible. Your contributions are vital in making this event not only a success but also a milestone in advancing biomedical science and its translation into practice.

We hope that this conference will inspire innovative thinking, encourage cross-disciplinary dialogue, and pave the way for impactful solutions that bring science closer to society.

With that, we warmly welcome you to the 1st International Biomedical Conference 2025. May your participation be enriching, rewarding, and memorable.

Yours Sincerely,

YBRS. PROF. DR. NOR FADILAH BINTI RAJAB

Organising Chairperson (MyBIOMED)

1st International Biomedical Conference 2025 (IBC 2025)

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PROGRAMME

DAY 1 : 3rd September 2025

Time	Ballroom	
0800 - 0900	Registration	
0915	Arrival of YBhg. Dato' Indera Dr. Nor Azimi binti Yunus , Deputy Director General of Health (Medical), Ministry of Health Malaysia	
0930	National Anthem "Negaraku" Doa Recital	
0935	Joint Welcome Address by YBrs Dr. Mohd Fairulnizal Md Noh and YBrs Prof. Dr. Nor Fadilah Rajab , Organising Chairpersons, 1st International Biomedical Conference 2025	
0945	Officiating Speech by YBhg. Dato' Indera Dr. Nor Azimi binti Yunus , Deputy Director General of Health (Medical), Ministry of Health Malaysia	
1000 - 1030	KEYNOTE: MicroRNAs: Tiny Regulators, Massive Impact - Unlocking Their Potential in Cancer Diagnosis and Therapy <i>Prof. Ts. Dr. Cheah Yoke Kqueen, FASc. (Universiti Putra Malaysia)</i> Chairperson: Prof. Dr. Nor Fadilah Rajab (UKM)	
1030	Tea Break & Networking	
1045 - 1115	PLENARY 1: Uncovering Novel Therapeutic Targets for Head and Neck Cancers <i>Prof. Dr. Cheong Sok Ching (Cancer Research Malaysia)</i> Chairperson: Assoc. Prof. Dr. Lim Chooi Ling (IMU University)	
Time	Ballroom	Meeting Room 5
1115 - 1215	SYMPOSIUM 1: Precision Medicine Chairperson: Dr. Mohd. Khairul Nizam Mohd Khalid (IMR) MyGENOM: Advancing Precision Medicine Through Inclusivity and Equity in Malaysia <i>Dr. Adiratna Mat Ripen (IMR)</i> Precision Medicine in Practice: Bridging Genomic Insights to Public Health Impact <i>Prof. Dr. Chee-Onn Leong (AGTC Genomics)</i>	SYMPOSIUM 2: AI & Machine Learning Chairperson: Dr. Mohd Kamarulariffin Kamarudin (IMR) The Future of Computational Methods in Personalised Medicine <i>Assoc. Prof. Dr. Ooi Ean Hin (Monash University Malaysia)</i> Clinician-Centric Innovation: From Smart Forms to Deep-Learning Suites in Biomedical Imaging <i>Prof. Dr. Mohd Zulfaezal Che Azemin (IIUM)</i>
	RAPID-FIRE PRESENTATION 1	RAPID-FIRE PRESENTATION 2
1215 - 1300	Lunch Break	
1300 - 1400	ORAL PRESENTATION 1	
1400 - 1530	ORAL PRESENTATION 2	
Time	Ballroom	
1530 - 1630	FORUM: R&D to Remedy: The Pathway of Drug Discovery Moderator : Assoc. Prof. Dr. Wan Amir Nizam Wan Ahmad (USM) <i>Prof. Dr. Nor Fadilah Rajab (UKM)</i> <i>Dr. Zail Zakaria (NPRA)</i> <i>Mr. Sheikh Mohamad Nor Hafiz Abdul Aziz (ROCHE (M))</i>	
1630	End of Day 1	

PROGRAMME

DAY 2 : 4th September 2025

Time	Ballroom	
0800 - 0830	Registration	
0830 - 0900	PLENARY 2: Effects of Environmental Changes on the Transmission Dynamics of Aedes-borne Diseases <i>Assoc. Prof. Dr. Pratap Singhasivanon (SEAMEO TROPED Network)</i> Chairperson: Dr. Nor Aziyah Mat Rahim (IMR)	
Time	Ballroom	Meeting Room 5
0900 - 1000	SYMPOSIUM 3: Non Communicable Diseases Chairperson: Assoc. Prof. Dr. Adeline Chia Yoke Yin (Taylor's University) Decoding the Lung Immune Ecosystem: From Fundamental Insights to Biomedical Impact. <i>Dr. Megat Hafizzuddin Abd Hamid (UM)</i> Lipoprotein (a): The new target in CV risk reduction? <i>Assoc. Prof. Dr. Ahmad Syadi Mahmood Zuhdi (UM)</i>	SYMPOSIUM 4: Molecular Biology & Immunology Chairperson: Dr. Ibrahim Adham Taib (IIUM) Exploration Of Protoemic Biomarker Discovery For Precision Medicine. <i>Asst. Prof. Dr. Norbaiyah Mohamed Bakrim (IIUM)</i> Human-induced pluripotent stem cell-derived neural models to understand neuropathogenesis in Down syndrome. <i>Prof. Dr. Ling King Hwa (UPM)</i>
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1030 - 1130	SYMPOSIUM 5: Drug discovery & regulatory Chairperson: Assoc. Prof. Dr. Suvik Assaw (UMT) From Bench to Bedside: Incorporating Herbal Therapies in Treatment of Diabetic Nephropathy <i>Assoc. Prof. Dr. Wan Amir Nizam Bin Wan Ahmad (USM)</i> Cancer Chemopreventive Activity of Terpenoid Rich Canarium odontophyllum MIQ. Leaf Extract (TRCO) in UVB-Induced Skin Cancer Models In Vitro and In Vivo <i>Prof. Dr. Ahmad Rohi Ghazali (UKM)</i>	SYMPOSIUM 6: Planetary Health Chairperson: Assoc. Prof. Dr. Suzita Mohd Noor (UM) Planetary Health in Focus: Redefining Human Well-being in a Changing World <i>Prof. Ts. Dr. Muhammad Lokman Md Isa (IIUM)</i> Planetary Boundaries and Child Health <i>Prof. Dr. Amir Hamzah Abdul Latiff (Sunway University)</i>
1130 - 1300	YOUNG INVESTIGATOR AWARD	ORAL PRESENTATION 3
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1400 - 1445	RAPID-FIRE PRESENTATION 3	RAPID-FIRE PRESENTATION 4

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35	RF_14 HISTOLOGICAL EFFECTS OF DNA METHYLTRANSFERASE INHIBITION ON LUNG EPITHELIUM AND COLLAGEN IN AN NTCU-INDUCED DUAL-STAGE LUNG CARCINOGENESIS MOUSE MODEL <u>Khairunnisa Mohd Kamal</u> , Ahmad Rohi Ghazali, Gayathri Thevi Selvarajah, Nurul Syakima Ab Mutalib, Nadiah Abu, Eng Wee Chua, Siti Fathiah Masre
36	RF_16 MOLECULAR DOCKING ANALYSIS OF <i>Bacopa monnieri</i>-DERIVED SAPONINS TARGETING ALZHEIMER'S DISEASE-ASSOCIATED PROTEINS <u>Ramesh Ramachandran</u> , Julaina Abd Jalil
37	RF_17 TOPICAL APPLICATION OF ZERUMBONE ATTENUATES SCRATCHING BEHAVIOUR IN A MURINE MODEL OF DRY SKIN ITCH Ammar Adnan, Mohd. Roslan Sulaiman, <u>Ahmad Akira</u>
38	RF_18 EVALUATION OF INSULIN RESISTANCE AND BETA-CELL FUNCTION IN SGLT-2I-TREATED TYPE 2 DIABETIC MALAYSIAN PATIENTS <u>Nur Adriana Athirah Muhammad Rhadi</u> , Wan Ahmad Syazani Mohamed, Nur Syahzanani Aqilah Jami'an
39	RF_19 INTEGRATING CAPILLARY ELECTROPHORESIS AND MOLECULAR GENETICS FOR DIAGNOSING GLYCOSYLATION ABNORMALITIES <u>Nurul Izzati Hamzan</u> , Noorhafizah Hassan, Muhammad Nursyazwan Zamre, Cefefe Stefenny Jolin, Anasufiza Habib, Siti Nurwani Ahmad Ridzuan
40	RF_20 COMPARING VIRAL CONCENTRATION METHODS FOR WASTEWATER-BASED SURVEILLANCE OF SARS-COV-2 IN PRISON <u>Siti Aishah Rashid</u> , Nabilla Athieqa Mahdzar, Nurul Amalina Khairul Hasni, Khayri Azizi Kamel, Raheel Nazakat, Mohd Ishtiaq Anasir, Sakshaleni Rajendiran, Mohamad Iqbal Mazeli, Yuvaneswary Veloo, Syahidiah Syed Abu Thahir, Wan Rozita Wan Mahiyuddin, Reethiya Letchumanan, Redzuan Zainudin, Rafiza Shahrudin
41	RF_21 TOWARDS RAPID AND RELIABLE DETECTION OF SCRUB TYPHUS: A READY-TO-USE DUAL-TARGET REAL-TIME PCR ASSAY FOR <i>Orientia tsutsugamushi</i> <u>Foo Phiaw Chong</u> , Fadillah Ahmad, Muhammad Ikram Ramly, Mariana Ahamad
42	RF_22 CEFIDEROCOL: A NOVEL SIDEROPHORE CEPHALOSPORIN FOR MULTIDRUG-RESISTANT GRAM-NEGATIVE BACTERIAL INFECTIONS – A TWO-YEAR SUSCEPTIBILITY STUDY IN BRUNEI DARUSSALAM (2023– 2024) <u>Jauharatud Dini Suhaimi</u> , Nur Amanie Shafiee, Jazli Sufri, Haziq Momin
43	RF_23 SILENT SPREADERS: ANTIBIOTIC-RESISTANT <i>Enterococcus faecium</i> IN MALAYSIAN CITY HOSPITAL WASTEWATER <u>Sophia Karen Bakon</u> , Nur Fatimah Sholehah Zakaria, and Zuraifah Asrah Mohamad
44	RF_24 UNCOVERING HEALTH VULNERABILITIES TO CLIMATE CHANGE: AN INDEX-BASED HOUSEHOLD ASSESSMENT IN REDANG ISLAND, MALAYSIA Raheel Nazakat, Nik Muhammad Nizam Nik Hassan, Noraishah Mohammad Sham, Mohd Faiz Ibrahim, Siti Aishah Rashid, Nadia Mohamad, Fadly Syah Arsad, Thahirahtul Asma' Zakaria, Wan Rozita Wan Mahiyuddin, Rohaida Ismail

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45	EP_001 TRANSLATING GENOMICS TO THE COMMUNITY PLATE: AI-DRIVEN PRECISION NUTRITION WITH RED PIGMENTED RICE FOR GLYCEMIC CONTROL IN TYPE 2 DIABETES <u>Jun-Hao Lim</u>, Cordelia Kheng-May Lim, Catriona Kar-Yuen Ong, Yu-Qiong Chin, Imliya Ibrahim, Mohd Khairul Nizam Mohd Khalid, Mohd Naeem Mohd Naw, Fazliana Mansor, Chee-Onn Leong, Yuh-Fen Pung, Nurul Husna Shafie, Faiz Daud, Wickneswari Ratnam, Tilakavati Karupaiah & Zulfitri Azuan Mat Daud
45	EP_002 TRANSCRIPTOMIC PROFILING OF YOUNG-ONSET COLORECTAL CANCER REVEALS IMMUNE-RELATED MOLECULAR SIGNATURES <u>Nurul Hakimah Mohd Salim</u>, Siti Norasikin Mat Nafi, Wan Faiziah Wan Abdul Rahman, Andee Dzulkarnaen Zakaria, Rohimah Mohamud, Sarina Sulong, Nur Asyilla Che Jalil
46	EP_005 AN EXPLORATORY INVESTIGATION INTO THE IMPACT OF ULTRASONICATION ON THE ANTIOXIDANT AND ANTICANCER PROPERTIES OF <i>Coccomyxa dispar</i> FATTY ACID-RICH EXTRACT <u>Nur Shasha Iwani Mohd Isa</u>, Siti Nurfatimah Mohd Shahpudin, Iqbal Iman Ruzi, Sharlina Mohamad, Mohd Asyraf Kassim
46	EP_007 HIGH-CONTENT IMAGING OF MITOCHONDRIAL MEMBRANE POTENTIAL AS A FUNCTIONAL MARKER IN PATIENT-DERIVED <u>Izyan Mohd Idris</u>, Rosnani Mohamed, Nur Jannaim Muhamad, Fatimah Diana Amin Nordin, Fazlina Nordin, Adiratna Mat Ripen, Julaina Abd Jalil
47	EP_009 INTEGRATIVE MAPPING OF EXTRACELLULAR VESICLE (EV) MIRNAS AND MEMBRANE PROTEINS IN CIRRHOSIS-DERIVED EV REVEALS VIMENTIN AS PUTATIVE BIOMARKER FOR EARLY HEPATOCELLULAR CARCINOMA DETECTION <u>Ahmad Zuhairi Abd Rahman</u>, Ezalia Esa, Yuslina Mat Yusoff, Sharifah Sarah Syed Mohamad Alwi, Fatin Syaza Arman Shah, Haniza Omar, Syahrilnizam Abdullah, Armania Nurdin
47	EP_010 MICRORNA LEVELS AMONG PREDIABETIC PATIENTS AFTER SLEEVE GASTRECTOMY <u>Fazliana Mansor</u>, Nur Azlin Zainal Abidin, Liyana Ahmad Zamri, Tan You Zhuan Tan, Farah Huda Mohkiar, Zubaidah Nor Hanipah, Poh Yue Tsen, Syu Yu Lim, Tikfu Gee
48	EP_011 DETERMINATION OF 25-HYDROXYVITAMIN D_s IN PLASMA USING AN IMPROVED METHOD OF HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY WITH DIODE ARRAY DETECTOR <u>Mohd Azerulazree Jamilan</u>, Nur Adriana Athirah Muhammad Rhadi, Affandi Omar, Aswir Abd Rashed, Mohd Fairulnizal Md Noh and Wan Ahmad Syazani Mohamed
49	EP_013 ANTIVIRAL POTENTIAL OF <i>KELULUT</i> HONEY AGAINST SARS-COV-2 <u>Che Muhammad Khairul Hisyam Ismail</u>, Azlini Ismail, Azzmer Azzar Abdul Hamid, Mohd Ridzuan Mohd Abd Razak, Khairani Idah Moktar, Widya Lestari, Basma Ezzat Mustafa Alahmad
49	EP_014 BIOACCUMULATION OF HEAVY METALS IN SEAWEED FROM EAST MALAYSIA <u>Wan Nurul Farah Wan Azmi</u>, Nurul Izzah Ahmad, Zurahanim Fasha Anual, Sarmiza Sarperi, Ainun Jariah Jeropakal
50	EP_016 EVALUATION OF ZINC, MAGNESIUM, SODIUM, AND POTASSIUM IN FRIED LOCAL <i>KUIH</i> IN MALAYSIA <u>Masturah Che Abdullah</u>, Norfashihah Faridus, Farah Azreen Mohammad, Norhayati Mustafa Khalid, Nurul Aznyda Norizan, Aswir Abd Rashed, Mohd Fairulnizal Md Noh

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51	EP_018 JUVENESCENCE LOSS REGULATES NEUROEPITHELIAL CELL COMPETITION TO MAINTAIN BRAIN HOMEOSTASIS <u>Faidruz Azura Jam</u> , Takao Murimune, Atsushi Tsukamura, Ayami Tano, Yuya Tanaka, Yasuhiro Mori, Takefumi Yamamoto, Masaki Nishimura, Ikuo Tooyama & Masaki Mori
51	EP_019 DEMOGRAPHIC AND CLINICAL OUTCOMES OF BRAIN TUMOUR PATIENTS AT SASMEC IIUM FROM 2020 TO 2025: A PRELIMINARY STUDY <u>Dhaifina Qashrina Najmy</u> , Siti Nur Aisyah Mohamad Asri, Mohamed Saufi Awang, Mohd Ghaddafi Wahab, Khairani Idah Mokhtar, Mohamad Shafiq Mohd Ibrahim, Mohd Arifin Kaderi
52	EP_020 PM_{2.5}-BOUND DIOXINS/FURANS AND POLYCYCLIC AROMATIC HYDROCARBONS IN URBAN AIR: CONCENTRATIONS, SOURCES AND HEALTH RISK ASSESSMENT <u>Sharifah Mazrah Sayed Mohamed Zain</u> , Norfazrin Mohd Hanif, Jivantiran a/l Myilravanan, Md Firoz Khan, Mohd Talib Latif
52	EP_021 COMPARATIVE MOLECULAR DOCKING ANALYSIS OF STATIN BINDING TO HUMAN OATP1B1 AND RAT Oatp1b2 TRANSPORTERS <u>Ranjetha Balneswaary Balakrishnan</u> , Li Jingru1, Shuhaila Mat Sharani, Nik Yusnoraini Yusof, Nur Salwani Bakar
53	EP_024 TEMPORAL PROGRESSION OF COGNITIVE DECLINE AND PYROPTOTIC ACTIVATION IN AN ALZHEIMER'S MODEL <u>Amirul Hafiz Ahmad Abdullah</u> , Hilal Haiqal Faizal, Nurul Farhana Jufri, Siti Fathiah Masre, Nor Fadilah Rajab, Hanafi Ahmad Damanhuri, Farah Wahida Ibrahim
53	EP_026 BLOOD MEAL ANALYSIS: UNVEILING THE <i>Anopheles</i> FEEDING PREFERENCES AND THEIR ROLE IN ZOONOTIC MALARIA TRANSMISSION <u>Nantha Kumar Jeyaprakasam</u> , Indra Vythilingam, Van Lun Low, Jonathan Wee Kent Liew, Sandhya Pramasivan, Wan-Yusoff Wan-Sulaiman, Atiporn Saeung
54	EP_027 <i>Chromolaena odorata</i>-SYNTHESISED SILVER NANOPARTICLES BOOST CISPLATIN EFFICACY <u>Zainab Muhammad</u> , Mahboob Alam, Nurul Huda Abd Kadir
54	EP_029 KNOWLEDGE, ATTITUDE AND PRACTICES TOWARDS ANTIBIOTIC USAGE AND RESISTANCE AMONG UNDERGRADUATE STUDENTS IN MALAYSIAN PUBLIC UNIVERSITIES: A CROSS-SECTIONAL STUDY Jasneeta Kumaravel, Ismarulyusda Ishak, <u>Vanitha Mariappan</u>
55	EP_030 THE EFFECT OF HYPERGLYCEMIA ON SCHWANN CELL PLASTICITY FOR DIABETIC PERIPHERAL NEUROPATHY STUDIES <u>Nurul Husna Abd Razak</u> , <u>Muhammad Fauzi Daud</u> , Izyan Mohd Idris
55	EP_031 PRELIMINARY FINDING: EFFECT OF CHRONO-AEROBIC EXERCISE ON MUSCLE-FAT BALANCE IN NEURODEGENERATIVE RAT MODEL <u>Nur Aisyah Anuar</u> , Arimi Fitri Mat Ludin, Muhammad Hafiz Zuhdi Fairof, Amirul Hafiz Ahmad Abdullah, Theng Choon, Nor Farah Wahida Ibrahim, Nor Fadilah Rajab

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57	EP_034 660 NM LIGHT-EMITTING DIODE ENHANCES FIBROBLAST-CELL LINE ACTIVITY FOR <i>IN VITRO</i> WOUND HEALING MODEL <u>Syaima' Farhani Sukeri</u> , Ahmad Azlina, Haslina Taib, Fatanah Mohamad Suhaimi, Sha Shiong Ng, Sai Cheong Lee, Wui Chai Chew, Naser M Ahmed, Siti Aishah Zainal
57	EP_036 FT-IR SPECTROSCOPY FOR CHEMICAL FINGERPRINTING AND DETECTION OF ACRYLAMIDE EXPOSURE IN <i>Lactobacillus sp.</i> <u>Yaman Ahmed Mohammed Naji</u> , Maulidiani Maulidiani, Mahboob Alam and Nurul Huda Abd Kadir
58	EP_037 GENOMIC INSIGHT OF <i>Staphylococcus aureus</i> IN DAIRY FARMS SELANGOR <u>Syahidiah Syed Abu Thahir</u> , Sakshaleni Rajendiran, Rohaida Ismail, Yuvaneswary Veloo
58	EP_042 CHOLESTEROL AND OCULAR DISORDERS: UNVEILING THE LINK FOR TARGETED THERAPIES Haryati Ahmad Hairi, <u>Muhammad Zulfigah Sadikan</u> , Lidawani Lambuk, Rohimah Mohamud
59	EP_043 NEONATAL OUTBREAK OF ECHOVIRUS 11 IN MALAYSIA: WHAT CAN WE LEARN? <u>Wan Nabilatul Huda Wan Ghazali</u> , Jeyanthi Suppiah, Nor Aziyah Mat Rahim, Nur Ain Zahidah Zainudin, Alia Nabila Abdul Halim, Intan Surianne Mat Sahat, Siti Mukhaiyarah Mahtar, Rozainanee Mohd Zain
59	EP_044 THE DETERMINATION OF 5-HYDROXYMETHYLFURFURAL IN AGED MALAYSIAN TUALANG HONEY AND ITS EFFECTS ON THE FEMALE REPRODUCTIVE SYSTEM OF NULLIPAROUS RATS Harishini Rajaratinam, Nur Anissa Vidka Anjani, <u>Wan Ezumi Mohd Fuad</u>
60	EP_045 <i>Orthosiphon stamineus</i>-MEDIATED REGULATION OF BLOOD GLUCOSE THROUGH ENDOCRINE AND EXOCRINE PANCREATIC PATHWAYS IN A TYPE 3C DIABETES WBN/KOB RAT MODEL (STUDY PROTOCOL) <u>Ezarul Faradianna Lokman</u> , Puteri Sofia Nadira Megat Kamaruddin, Hussin Muhammad, Azlina Zulkapli, Siti Zubaidah Che Lem
60	EP_046 FROM MYSTERY TO MOLECULAR CLARITY: METAGENOMICS SEQUENCING IDENTIFIES UNSEROTYPEABLE DENGUE VIRUS <u>Jeyanthi Suppiah</u> , Nur Ain Zahidah Zainudin, Murni Maya Sari Zulkifli, Amir Hussin Adiee, Mazrul Effendy Dukut Soeharto, Nuraisyah Ramli, Rozainanee Mohd Zain
61	EP_047 <i>IN VITRO</i> STUDY OF HEPARIN OCTADECASACCHARIDES' EFFECT ON IDURONATE-2-SULPHATASE ACTIVITY IN MUCOPOLYSACCHARIDOSIS TYPE II PATIENTS <u>Affandi Omar</u> , Salina Abdul Rahman, Fatimah Diana Amin Nordin, Nur Azian Aziz, Balqis Kamarudin, Lock Hock Ngu, Huey Yin Leong, Mohd Shihabuddin Ahmad Noorden, Julaina Abdul Jalil
61	EP_048 <i>IN VITRO</i> EVALUATION OF MALAYSIAN HERBAL PLANT-DERIVED COMPOUNDS ANTIVIRAL ACTIVITY AGAINST DENV-2 USING HIGH-CONTENT CELL BASED ASSAY <u>Mohd Ridzuan Mohd Abd Razak</u> , Mohammad Afiq Aizuddin Rosdi, Nur Hana Md Jelas, Bazilah Jusoh, Noorsofiana Padlan, Norazlan Mohmad Misnan, Nur Hannani Ahmad Rozani, Maizatul Hasyima Omar

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62	EP_050 A METABOLOMIC SIGNATURE OF OBESITY-DRIVEN TYPE 2 DIABETES IN MALAYSIAN ADULTS: UNRAVELLING METABOLIC DYSREGULATION Mohd Naeem Mohd Nawj, Tikfu Gee, Lim Syu Yu, Elina Tsen Poh Yue, Zubaidah Nor Hanipah, Nur Azlin Zainal Abidin, Tan You Zhuan, Farah Huda Mohkiar, Liyana Ahmad Zamri, Haron Ahmad, Mohd Shazli Draman, Noorizatul Syahira Yusaini, Fazliana Mansor
63	EP_051 IODINE CONTENT IN GRAVY (KUAH) OF COMMONLY CONSUMED MALAYSIAN DISHES:AN INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY (ICP-MS) BASED ANALYSIS Suriana Adanan, Norhayati Mustafa Khalid, Nurul Aznyda Norizan, Aswir Abd Rashed, Ahmad Ali Zainuddin, Sulhariza Husni Zain, Kimberly Wong Yui Y'ng, Mohd Fairulnizal Md Noh
63	EP_052 <i>Hibiscus sabdariffa</i> MODULATES INFLAMMATORY AND MATRIX GENES IN SENESCENT CARDIAC FIBROBLASTS Mei Siu Lay, Wan Mohamad Adham Afiq Wan Zainuzzaman, Siti Khadijah Mustapha Kamal, Wan Nurul Nadia Wan Seman, Nik Aina Syazana Nik Zainuddin, Chin Long Poo, Mohd Rahimi Ashraf Abd Rahman, Nur Liana Md Nasir, Hussin Muhammad, Norizah Awang
64	EP_054 ENHANCED LENTIVIRAL GFP EXPRESSION DRIVEN BY CMV PROMOTER: TOWARDS SUCCESSFUL GENERATION OF INDUCED NEURAL PROGENITOR CELLS (iNPCs) THROUGH DIRECT REPROGRAMMING Nur Jannaim Muhamad, Fatimah Diana Amin Nordin, Rosnani Mohamed, Mohd Khairul Nizam Mohd Khalid, Julaina Abdul Jalil, Nurul Husna Abd Razak, Muhammad Fauzi Daud, Izyan Mohd Idris
64	EP_055 DENGUE ANTIVIRAL ACTIVITY AMPLIFIED BY ETHANOL-ENHANCED EXTRACTION OF <i>Eurycoma longifolia</i> Hana Md Jelas, Mohammad Afiq Aizuddin Rosdi, Norazlan Mohmad Misnan, Bazilah Jusoh, Mohd Ridzuan Mohd Abd Razak
65	EP_056 T-CELL RESPONSE INDUCED BY THE PFIZER-BIONTECH COVID-19 VACCINE AFTER PRIMARY IMMUNIZATION IN MALAYSIA Shuwahida Shuib, Chong Zhuo Lin, Nurul Najwa Ainaa Alias, Azwin Farhin Yaakob, Mastura Mat Sani, Nurain Nadiyah Jaafar, Najwa Syahirah Roslan, Siti Fatimah Abdullah, Masita Arip
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66	EP_059 ANALYSIS OF DENGUE CASES BY SEROTYPE DYNAMICS, CASE DEMOGRAPHY AND CT VALUE TRENDS IN 2024 Nur Ain Zahidah Zainudin, Jeyanthi Suppiah, Murni Maya Sari Zulkifli, Amir Hussin Adiee, Mohd Effendy Dukut Soeharto, Rozainanee Mohd Zain
67	EP_060 UNCOVERING THE ROLE OF LONG-CHAIN FATTY ACID OXIDATION DISORDERS (LC-FAODs) IN SUDDEN UNEXPECTED DEATH IN INFANCY (SUDI): A BIOCHEMICAL AND MOLECULAR INVESTIGATION Rosnani Mohamed, Izyan Mohd Idris, Nur Jannaim Muhamad, Fatimah Diana Amin Nordin, Affandi Omar, Julaina Abdul Jalil, Anasufiza Habib, Leong Huey Yin, Nikman Adli Nor Hasyim, Saiful Anuar Karsani, Nazia Abdul Majid

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67	EP_061 NOT ALL COMPLEMENT-DEPENDENT CYTOTOXICITY POSITIVES ARE EQUAL: IgG, IgM, AND THE ROLE OF DONOR SPECIFIC ANTIBODY PROFILING Zurina Shamsuddin, Adibah Hanis Zainudin, Jamiila Ismail, Koay Bee Tee, Salawati Mansor, Asmadamia Abdul Aziz, Masita Arip, Norhazlin Mustafa
68	EP_062 SERUM ANTI-PLA2R ANTIBODY TESTING IN MEMBRANOUS NEPHROPATHY: FINDINGS FROM A MALAYSIAN RETROSPECTIVE STUDY Ainur Yusniza Yusof, Siti Asma Bakar, Siti Ummiyrah Rosley, Nur Syahirah Alias, Bavithra Venu, Siti Fatimah Abdullah
68	EP_063 ENTOMOLOGY: MOLECULAR DIAGNOSTICS UNMASKING IMMATURE INSECTS FOR PRECISE IDENTIFICATION Novita Amhar, Roziah Ali, Azahari Abd Hadi, Khairul Asuad Mohamed, Johnnetha John Gindabal, Hillarian Mojiun
69	EP_065 EFFECTS OF LAURIC ACID-RICH DIETS ON TOLL-LIKE RECEPTOR EXPRESSION IN BALB/C MICE Maisarah Ab Fatah, Sia-Yen Yap, Phooi Tee Voon, Yen Teng Ng, Ammu Radhakrishnan, Kanga Rani Selvaduray
69	EP_066 COMPARATIVE PERFORMANCE OF TWO EXOME PIPELINES IN SHORT HOMOLOGOUS REGIONS OF THE HUMAN GENOME Mohd Khairul Nizam Mohd Khalid, Lua Seok Hian, Amelia Azman, Nor Azimah Abdul Azize, Julaina Abdul Jalil, Yusnita Yakob
70	EP_067 LET IT GLOW: ILLUMINATING DONOR CELLS IN CDC CROSSMATCH – A COMPARATIVE STUDY OF FLUOROQUENCH AND EOSIN STAINING Salawati Mansor, Asmadamia Abdul Aziz, Jamiila Ismail, Koay Bee Tee, Nur Fatini Che Shamsudin, Tengku Norminhalina Tan Mansor, Nur Izzati Sariyah Saadon, Siti Fatimah Mat Ali, Phiong Ying Hui, Wan Nurul Ain Mat Asuar, Nurul Syafiqah, Norfarhana Khairul Fahmy, Zurina Shamsuddin, Muhammad Zhafri Md Zakariah, Adibah Hanis Zainudin, Norhazlin Mustafa
70	EP_068 SEE BEFORE YOU SEQ: A CELL-FIE QC CHECKPOINT TO DETECT MULTIPLETS USING BD RHPASODY™ FOR HIGH-FIDELITY SINGLE-CELL RNA SEQUENCING Jamiila Ismail, Norfarhana Khairul Fahmy, Tengku Nurainna Fatihah Tengku Abdullah, Salawati Mansor, Muhammad Zhafri Md Zakariah, Asmadamia Abdul Aziz, Mohamad Zaimi Abdul Wahab, Yee Seow Yeing, Masita Arip, Norhazlin Mustafa
71	EP_069 COMPREHENSIVE CHARACTERIZATION OF INTRACELLULAR METABOLIC REPROGRAMMING IN COLORECTAL CANCER CELLS USING UNTARGETED LC/MS-QTOF METABOLOMICS Hazwani Mohd Yusof, Sharaniza Ab-Rahim, Wan Zurinah Wan Ngah, Sheila Nathan, A Rahman A Jamal, Musalmah Mazlan
71	EP_071 ROLE OF LIPOPROTEIN MODULATION IN MEDIATING RESISTANCE HER2-POSITIVE BREAST CANCER CELLS Siti Zainab Salim, Shahrul Bariyah Sahul Hamid, Seoparjoo Azmel Mohd Isa, Tengku Rogayah Tengku Abdul Rashid
72	EP_072 SEROLOGICAL TRENDS OF COELIAC DISEASE IN MALAYSIA (2020–2024): INSIGHTS FROM DIAGNOSTIC DATA Siti Asma Bakar, Siti Fatimah Abdullah, Ainur Yusniza Yusof, Syuriatika Dionysius, Masita Arip

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73	EP_074 GENOME-WIDE DNA METHYLATION PROFILING REVEALS EPIGENETIC ALTERATIONS IN ACUTE MYELOID LEUKAEMIA CELL LINES <u>Yuslina Mat Yusoff</u>, Norfarhana Mazlan, Mohd Khairul Nizam Mohd Khalid, Zahidah Abu Seman, Muhammad Redha Abdullah Zawawi, Saiful Effendi Syafruddin, Mohamad Aimanuddin Mohtar, Noor Atiqah Fakharuzi, Shaik Ahmad Kamal Shaik M Fakiruddin, Azian Naila Md Nor, Ermi Neiza Mohd Sahid, Adiratna Mat Ripen
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75	EP_078 GREATER RISK OF WEIGHT GAIN WITH JAK INHIBITORS COMPARED TO BIOLOGIC DMARDS IN RHEUMATOID ARTHRITIS PATIENTS: DATA FROM THE BITORA STUDY <u>Siti Aisyah Abdul Ahmad</u>, Shereen Ch'ng Suyin, Ee Ling Lai, Mooi Khin H'ng, Kiah Loon Ng, Suhaida Ahmad Maulana, Azwarina Hanim Ramlan, Syang Pyng Gan, Chuang Tin Quake, Farah Nadiyah Sulaiman, Phing Sue Wong, Chun Ruh Ng, Voon Ya Tay, Azrianna Nurfizan Azmi, Jasmine Yew Sze Yin, Chou Luan Tan, Hui Jen Ding, Dayang Masyrinartie Suahilai, Sharifah Aishah Wan Mohamad Akbar, Ying Fun Ng, Surendran Ramasamy, Ravathy A/P Nasadurai, Norliza Zainudin, Ping Seung Ong, Avreena Kaur Bhullar A/P Authar Singh, Choon Seong Ng, Mohd Hakimi Nordin, Hwai Jien Lee, Seow Ching Ng, Shakira Selvananda, Mariam Hamid Mustapha, E'rlene Low Li Ern, Hoh Yuen Loong, Nurnabila Syafiqah Muhamad Rizal, Siti Fariha Ghazali, Nur Jannah Zulkefli, Nor Jannatul Husna Jamaludin, Swee Gaik Ong, Siti Mariam Ab Rahim, Liza Mohd Isa, Kar Hoo Lee, Ing Soo Lau, Cheng Lay Teh, Eashwary Mageswaren, Suk Chyn Gun, Nur Aida Sabrina Mohd Rashid, Haziqah Itqan Alias, Nurul Aain Ahmad Fauzi, Nor Shuhaila Shahril, Habibah Mohd Yusoo, Hwee Cheng Chong, Asmahan Mohamed Ismail, Ai Lee Lim, Asmah Mohd, Mollyza Mohd Zain, Chun Lai Too
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77	EP_082 ANTIMICROBIAL ACTIVITY OF GINGER-HONEY FORMULATION FROM MALAY MEDICAL MANUSCRIPT AGAINST RESPIRATORY PATHOGEN <i>Streptococcus pneumoniae</i> Anis Kautsar Othman, <u>Hanani Ahmad Yusof</u>

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77	EP_084 SENESCENCE-RELATED CYTOTOXICITY AND PHYTOCHEMICAL PROFILING OF <i>Hibiscus sabdariffa</i> <u>Wan Mohamad Adham Afiq Wan Zainuzzaman</u>, Siti Khadijah Mustapha Kamal, Wan Nurul Nadia Wan Seman, Nik Aina Syazana Nik Zainuddin, Chin Long Poo, Mohd Rahimi Ashraf Abd Rahman, Nur Liana Md Nasir, Norizah Awang, Nor Syaidatul Akmal Mohd Yousof, Hussin Muhammad, Mei Siu Lau
78	EP_085 IN VITRO MICRONUCLEUS ASSAY FOR <i>Dioscorea hispida</i> GENOTOXICITY ASSESSMENT <u>Siti Khadijah Mustapha Kamal</u>, Norizah Awang, Nur Liana Md Nasir, Nik Aina Syazana Nik Zainuddin, Lau Mei Siu, Mohd Rahimi Ashraf Abd Rahman, Poo Chin Long, Siti Soleha Abdullah, Elda Nurafnie Ibnu Rasid, Hussin Muhammad
78	EP_086 SKF7® AS A NATURAL HORMONAL REGULATOR IN MENOPAUSAL RATS <u>Noraini Ahmad Mustapa</u>, Mei Siu Lau, Elda Nurafnie Ibnu Rasid, Siti Khadijah Mustapha Kamal, Nik Aina Syazana Nik Zainuddin, Chin Long Poo, Mohd Rahimi Ashraf Abd Rahman, Nur Liana Md Nasir, Norizah Awang, Hussin Muhammad
79	EP_087 OESTROGEN-REGULATING EFFECTS OF SKF7® IN MENOPAUSAL RATS <u>Noor Syairah Sallim @ Ikram</u>, Mei Siu Lau, Elda Nurafnie Ibnu Rasid, Siti Khadijah Mustapha Kamal, Nik Aina Syazana Nik Zainuddin, Chin Long Poo, Mohd Rahimi Ashraf Abd Rahman, Nur Liana Md Nasir, Norizah Awang, Hussin Muhammad
79	EP_088 GENOTOXICITY ASSESSMENT OF <i>Dioscorea Hispida</i> USING BACTERIAL REVERSE MUTATION ASSAY <u>Nur Liana Md Nasir</u>, Norizah Awang, Nik Aina Syazana Nik Zainuddin, Chin Long Poo, Mohd Rahimi Ashraf Abd Rahman, Siti Khadijah Mustapha Kamal, Mei Siu Lau, Siti Soleha Abdullah, Elda Nurafnie Ibnu Rasid, Hussin Muhammad
80	EP_089 FLAVONOID-SAPONIN FRACTION FROM LEAVES OF <i>Mitragyna speciosa</i> AS A NEPHROPROTECTIVE AGENT AGAINST GENTAMICIN-INDUCED TOXICITY IN RATS <u>Hidayatul Khamariah</u>, Z.A., Abd. Rashid L., Mohd Kamal N.H. & Azman, M.
80	EP_090 SKF7 SHOWS PROMISE IN REDUCING OVARIAN OXIDATIVE STRESS: A NATURAL ALTERNATIVE TO ESTRADIOL? <u>Siti Soleha Ab Dullah</u>, Nur Liana Md Nasir, Norizah Awang, Nik Aina Syazana Nik Zainuddin, Poo Chin Long, Mohd Rahimi Ashraf Abd Rahman, Siti Khadijah Mustapha Kamal, Lau Mei Siu, Elda Nurafnie Ibnu Rasid, Hussin Muhammad
81	EP_091 CARDIOTOXICITY ASSESSMENT OF <i>Hibiscus sabdariffa</i> L. DERIVED PRODUCT, SÍ ROJA, IN ZEBRAFISH EMBRYOS <u>Chin Long Poo</u>, Mohd Rahimi Ashraf Abd Rahman, Norizah Awang, Nik Aina Syazana Nik Zainuddin, Nur Liana Md Nasir, Mei Siu Lau, Siti Khadijah Mustapha Kamal, Siti Soleha Ab Dullah, Maizatul Hasyima Omar, Hussin Muhammad
81	EP_092 EMBRYOTOXICITY AND TERATOGENIC EFFECTS OF SÍ ROJA, A <i>Hibiscus sabdariffa</i> L. DERIVED PRODUCT, IN ZEBRAFISH (<i>Danio rerio</i>) MODEL <u>Mohd Rahimi Ashraf Abd Rahman</u>, Chin Long Poo, Norizah Awang, Nik Aina Syazana Nik Zainuddin, Nur Liana Md Nasir, Mei Siu Lau, Siti Khadijah Mustapha Kamal, Siti Soleha Ab Dullah, Maizatul Hasyima Omar, Hussin Muhammad

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85	EP_100 BUNGA KANTAN ALLEVIATE THE COGNITIVE IMPAIRMENT IN DIABETIC RAT <u>Wan Amir Nizam Wan Ahmad</u>, Toh Zeny, Liza Noordin, Lee Yuen Shin, Ahmad Tarmizi Che Has
85	EP_101 INTEGRATING RISK-BASED VALIDATION IN GMP-COMPLIANT CELL AND GENE THERAPY FACILITY: A QUALITY BY DESIGN (QbD) PERSPECTIVE Noor Atiqah Fakharuzi, Kamal Shaik Fakiruddin, Wan Sakeenah Wan Nazri, Yuslina Mat Yusoff, Sujatha Suthandiram, Adiratna Mat Ripen, Lim Moon Nian
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87	EP_104 BEYOND HLA-B*15:02: NEW GENETIC CLUES IN CARBAMAZEPINE-INDUCED STEVENS-JOHNSON SYNDROME <u>Adibah Hanis Zainudin</u>, Bee Tee Koay, Jamiila Ismail, Zurina Shamsuddin, Salawati Mansor, Asmadamia Abdul Aziz, Masita Arip, Norhazlin Mustafa

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88	EP_106 INTEGRATED ANALYSIS OF ACUTE MYELOID LEUKAEMIA GENOMES USING TARGETED NEXT-GENERATION SEQUENCING AND WHOLE EXOME SEQUENCING <u>Zahidah Abu Seman</u>, Ermi Neiza Mohd Sahid, Dr Azian Naila Md Nor, Julia Abdullah, Nurul Aqilah Ali, Fifi Shawani Abtah, Siti Noorain Mohd Razali, Mohd Khairul Nizam Mohd Khalid, Yuslina Mat Yusoff
88	EP_107 EFFICIENT GENERATION OF MALAYSIAN INDUCED PLURIPOTENT STEM CELL (IPSC) LINES FROM PERIPHERAL BLOOD MONONUCLEAR CELLS: A BREAKTHROUGH FOR PRECISION MEDICINE <u>Nurul Ain Nasim Mohd Yusoff*</u>, Khairul Akmal Abdul Rahman, Ulfatul Khusna Samuri, Shaik Ahmad Kamal Shaik Fakiruddin, Zulaiha Muda, Tan Jun Jie, Fatin Fazrina Roslan, Adiratna Mat Ripen, Yuslina Mat Yusoff
89	EP_111 EMERGENCE OF FLUOROQUINOLONE-RESISTANT <i>Salmonella enterica</i> SEROVAR TYPHI GENOTYPE 4.3.1.3.BDQ IN MALAYSIA <u>Nor Hazrin Abd Hazis</u>, Hana Farizah Zamri, Mohammad Ridhuan Mohd Ali, Jama'ayah Mohamed Zahidi and Rohaidah Hashim
89	EP_112 APPLICATION OF RESPONSE SURFACE METHODOLOGY FOR OPTIMISING THE EXPRESSION OF RECOMBINANT 56KDA TYPE-SPECIFIC ANTIGEN <u>Aisya Nazura Azman</u>, Shirley Hii Yi Fen, Rohaidah Hashim, Siti Roszilawati Ramli
90	EP_114 FIRST REPORT AND MOLECULAR EVIDENCE OF <i>Carios vespertilionis</i> TICKS (IXODIDA: ARGASIDAE) FROM MALAYSIA <u>Ernieenor Faraliana Che Lah</u>, Ernna George, Ellyncia Bd Bilin, Mariana Ahamad
90	EP_115 UNMASKING MELIOIDOSIS: A RE-EVALUATION OF POST-MORTEM DIAGNOSES IN SUSPECTED LEPTOSPIROSIS FATALITIES <u>Mohd Nadzuan Yahaya</u>, Murnihayati Hassan, Mohammad Ridhuan Mohd Ali, Rohaidah Hashim, Mohamad Farhan Mormin, Meruwan Amin Shoib, Muslihah Mohamad
91	EP_116 EMERGING TRENDS OF HUMAN <i>USTILAGO</i> INFECTIONS IN MALAYSIA: A 5-YEAR RETROSPECTIVE LABORATORY REVIEW <u>Nur Fadhilah Abu Bakar</u>, Murnihayati Hassan, Salina Mohamed Sukur, Rohaidah Hashim
91	EP_117 TWO-YEAR RETROSPECTIVE ANALYSIS OF TISSUE SAMPLES REFERRED FOR SUSPECTED SPOROTRICHOSIS IN MALAYSIA <u>Thiruchelvam Selvadurai</u>, Mohd Nadzuan Yahaya, Salina Mohamed Sukur, Ratna Mohd Tap, Joel Ryan Jokius, Mohammad Ridhuan Mohd Ali, Murnihayati Hassan
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93	EP_121 EFFICACY OF CATTLE BED NET TRAPS FOR MOSQUITO SURVEILLANCE IN RURAL MALAYSIAN LANDSCAPES Shazreena Rosli, Azahari Abd Hadi, Khairul Asuad Muhamed, Hillarian Mojiun, Tarcisius Amping Anak Jackson, Farah Diana Ariffin, Abdul As Shafiq Abdul Aziz, Wan Muhd Firdaus Wan Ismail, Nurulhusna Ab Hamid
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94	EP_123 ABSENCE OF <i>LEPTOSPIRA</i> DNA IN RODENTS, WATER, AND SOIL AT A RECREATIONAL FOREST IN HULU LANGAT, SELANGOR: FINDINGS FROM A ONE HEALTH SURVEILLANCE APPROACH <u>Meruwan Amin Shoib</u> , Mohd Nadzuan Yahaya, Murnihayati Hassan, Mohammad Ridhuan Mohd Ali, Rohaidah Hashim
94	EP_124 UNMASKING THE DOMINANT ENTEROVIRUS SEROTYPE AMONG MALAYSIAN PATIENTS WITH SEVERE CLINICAL MANIFESTATIONS (2020-2023) Muhammad Zul Izlan Zulkifli, Wan Nabilatul Huda Wan Ghazali, Rafidah Abdul Karim, Siti Albaniah Ugiman and Nor Aziyah Mat Rahim
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95	EP_127 MOZZHUB: A WEB-BASED DENGUE HOTSPOT DETECTION SYSTEM USING BIPARTITE NETWORK ANALYSIS Lonny Chen Rong Qi Ahmad, Sarbhan Singh, Balvinder Singh Gill, Jane Labadin, Boon Hao Hong, Wei King Tiong, Cia Vei Tan, Sumarni Mohd Ghazali, Jenarun Jelip, Norhayati Mokhtar
96	EP_128 HEAVY METALS IN CEPHALOPODS FROM PENINSULAR MALAYSIA AND THEIR HEALTH RISK ASSESSMENT <u>Suraiami Mustar</u> , Wan Nurul Farah Wan Azmi, Nurul Izzah Ahmad, Noraishah Mohammad Sham
96	EP_129 SCOPING REVIEW ON FERTILITY RATE: PUBLIC KNOWLEDGE, PERCEPTION AND THE IMPACTS OF FERTILITY RATE ON DEMOGRAPHIC TRENDS AND SOCIOECONOMIC OUTCOMES Fatin Nurnadhirah binti Mior Yusoff, Suzanah binti Abdul Rahman
97	EP_130 SILENT THREAT IN THE FLOW: TRACKING IN-CELL ANTIBIOTIC RESISTANCE GENES IN THE MALAYSIAN DRINKING WATER SYSTEM <u>Zuraifah Asrah Mohamad</u> , Nur Fatimah Sholehah Zakaria, Sophia Karen Bakon

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98	EP_132 LINKING STRESS TO SLEEP QUALITY AMONG UNDERGRADUATES: A CROSS-SECTIONAL STUDY <u>Norfaizatul Shalida Omar</u> , Danial Hakim Ab. Talip, Muhammad Asyraf Rusaimi, Chew Cai Ni, Aishah Nurinsyirah Mohd Khamdan
98	EP_133 PRELIMINARY STUDY OF AMBIENT RADIOACTIVE PARTICLES IN GEBENG INDUSTRIAL ESTATE VICINITY Ahmad Afiq Al-Hakimi, Noor Fatihah Mohamad Fandi, Nor Ain Rabaiee, <u>Norhidayah Binti Ahmad</u>
99	EP_134 PREDICTING ANAEMIA RISK IN MALAYSIAN WOMEN: A COMPARISON OF LOGISTIC REGRESSION AND TREE-BASED MACHINE LEARNING MODELS USING NATIONAL HEALTH AND MORBIDITY SURVEY (NHMS) 2019 <u>Yusrina binti Mohd Yusoff</u> , Najjah Tohar, Suraini Mohd Suhaimi, Mohd Azahadi Omar, Mohd Zulfadli Hafiz Ismail
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101	EP_140 ARSENIC EXPOSURE AND RISK OF MYOCARDIAL INFARCTION IN THE MALAYSIAN POPULATION <u>Roshan Jahn Mohd Salim Mullahi Jahn</u> , Zurahanim Fasha Annual, Shazana Rifham Abdullah, Farah Huda Mohkiar, Norfashihah Faridus, Mohd Fairulnizal Md Noh

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103	EP_143 MACRONUTRIENT CONTENT OF SELECTED TRADITIONAL MALAYSIAN <i>KUIH</i> AND DESSERTS <u>Norhayati Mustafa Khalid</u>, Nurul Aznyda Norizan, Aswir Abd Rashed, Rusidah Selamat, Tee E Siong, Mohd Fairulnizal Md Noh
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107	EP_150 ESSENTIAL MINERAL COMPOSITION AND VARIABILITY IN PROCESSED FOODS: NUTRITIONAL AND HEALTH IMPLICATIONS <u>Farah Azreen Mohammad</u>, Masturah Che Abdullah, Norfashihah Faridus, Norhayati Mustafa Khalid, Nurul Aznyda Norizan, Aswir Abd Rashed, Mohd Fairulnizal Md Noh

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108	EP_152 IMPACT OF BARIATRIC SURGERY ON 1-YEAR LIPID PROFILE TRAJECTORIES IN OBESE INDIVIDUALS WITH DIFFERENT GLYCAEMIC STATES <u>Liyana Ahmad Zamri</u>, Nur Azlin Zainal Abidin, Farah Huda Mohkhar, You Zhuan Tan, Fazliana Mansor, Poh Yue Tsen, Shu Yu Lim, Gee Tikfu
108	EP_153 RISK FACTOR PROFILES IN YOUNG ADULTS WITH PREHYPERTENSION AND HYPERTENSION ATTENDING IUM PRIMARY HEALTHCARE SERVICE <u>Kit Yee Yan</u>, Norbaiyah Mohamed Bakrim, Aszrin Abdullah, Nor Zamzila Abdullah, Norlelawati Ab Talib, Nur Amira Saidin
109	EP_154 COMPARATIVE STUDY OF APOLIPOPROTEIN A1 LEVELS IN OBESE SCHIZOPHRENIA AND CONTROLS <u>Rinesh Ram Mohan</u>, Nour El Huda Abd Rahim, Norlelawati A. Talib, Norbaiyah Mohamed Bakrim, Mohd Asyraf Abdull Jalil, Siti Norain Mat Rasid
110	EP_155 FOOD ANALYSIS AT THE INSTITUTE FOR MEDICAL RESEARCH (IMR): ADVANCEMENTS AND APPLICATIONS FOR MALAYSIAN FOOD COMPOSITION DATABASE <u>Mohd Fairulnizal Md Noh</u>, Aswir Abd Rashed, Norhayati Mustafa Khalid, Nurul Aznyda Azizan, Suraiami Mustar, Rathi Devi Nair, Vimala RMT Balasubramanian, Mohd Azerulazree Jamilan, Mohd Naeem Mohd Nawi, Rusidah Selamat
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RF_07

URINARY ENDOTHELIN-1 AS A POTENTIAL NON-INVASIVE BIOMARKER FOR YOUNG HYPERTENSIVE ADULTS

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ABSTRACT

INTRODUCTION: The increasing burden of hypertension among young adults is alarming, given that cardiovascular risk begins as early as the prehypertensive stage. Hence, identifying potential protein biomarkers associated with early blood pressure (BP) elevation is essential for improving risk stratification and enabling timely intervention. Plasma endothelin-1 (ET-1) has been shown to be implicated in the early development of hypertension; however, the role of urinary ET-1 remains underexplored. The less invasive nature of urine sampling compared to blood collection could enhance compliance in hypertension screening efforts among the young population.

OBJECTIVE(S): To investigate the concentration of urinary ET-1 in young prehypertensive and hypertensive adults.

MATERIALS & METHODS: This was a comparative cross-sectional study recruiting a total of 72 participants aged 18 to 45 years, comprising 24 normotensive, 25 prehypertensive, and 23 newly diagnosed hypertensive individuals. Urine and blood samples were collected, and ET-1 concentrations were quantified using enzyme-linked immunosorbent assay (ELISA).

RESULTS: Urinary ET-1 concentrations demonstrated a decreasing trend across normotensive, prehypertensive, and hypertensive groups (median [interquartile range]: 3.84 [7.05] vs 2.12 [2.04] vs 1.37 [5.01] pg/mL), with significantly lower levels in the hypertensive group compared to the normotensive group ($p = 0.035$). There was no significant association between urinary ET-1 and elevated blood pressure following adjustment for established cardiovascular risk factors. There was also no significant correlation between plasma and urinary ET-1 levels.

CONCLUSION: The significantly lower urinary ET-1 levels observed in the hypertensive group suggest that diminished renal ET-1 production may contribute to the early pathophysiology of young-onset hypertension. Renally synthesised ET-1, which is essential in the regulation of sodium and water excretion, may serve as a promising non-invasive biomarker for the early detection of hypertension in a young cohort. Further research is warranted to validate its association with elevated BP in larger and more diverse cohorts.

KEYWORDS: Hypertension, Prehypertension, Endothelin-1, Urine, Young Adults

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