Research @MAHSA

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VOYAGE OF DISCOVERY

Foreword

WELCOME to the inaugural issue of RESEARCH @MAHSA, a quarterly newsletter that focuses on the research happenings at MAHSA University. The theme for the newsletter is "Voyage of Discovery" to reflect the quest for new knowledge which can be achieved through research. Numerous initiatives have been introduced at MAHSA to enhance its research output. The purpose of this newsletter is to disseminate research information by highlighting the profiles of our more established as well as upcoming researchers, external grants and awards that have been conferred to researchers from MAHSA and some of the research and conferences organized by both staff and students of MAHSA. It is hoped that this will spur greater interest among staff and students to pursue the research agenda.

Happy reading!!!

Researcher Profile Prof Shamala Devi Sekaran

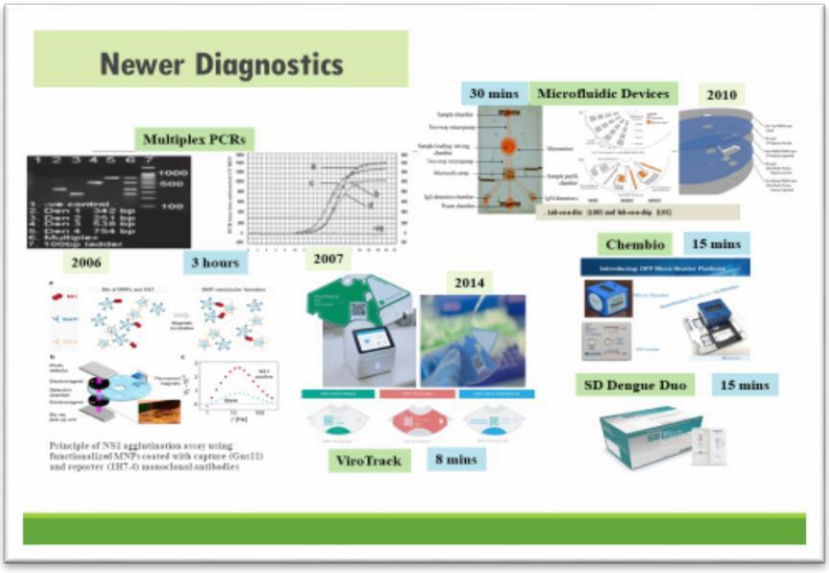
Prof Shamala Devi Sekaran earned her Bachelor's degree in Biology and Genetics in 1975 from one of the nation's top university, University Malaya. She then pursued a Masters degree in Genetics and was offered a tutorship in the Department of Genetics. After being awarded a Masters in Science in 1980, her diligence did not go unnoticed, whereby her supervisors sent her to the Australian National University where she carried out part of her PhD work on T cell cytotoxicity. Prof Shamala was awarded her PhD in 1986. She was appointed as an Associate Professor on the 29th June, 1996 and was made a Professor in 2003 and was reemployed for 3 years after mandatory retirement in 2014. She was named Top Research Scientist in the country in 2015, awarded the title of Distinguished Professor in 2016 by University Malaya and was made a Fellow by the Academy of Sciences Malaysia in 2017. In 2017 she finally left University Malaya and joined MAHSA University in Oct 2017 as a Professor. To date, Prof Shamala has 202 publications, 128 poster and oral presentations and 29 patents. She and her team have developed 8 diagnostic kits which include Real Time PCR for the detection and quantitation of Cytomegalovirus DNA (2003), Real Time PCR for the detection, serotyping and quantitation of dengue virus RNA (2004) (2 kits), Viro-Enceph Kit: for detection of major viral pathogens that cause encephalitis (2005), Pan-respiratory viral RNA detection by Real Time PCR (2006), and a Human Influenza sub-typing kit (2006). She received numerous awards including Excellent Service Award for Ministry of Science & Technology, Malaysia (2004), 4 Silver medals by UM (2004), Gold medal for Invention, Exhibition of New Invention, Techniques and Products 2005, Geneva for the D S Quant Dengue Kit, 1 Silver medal from Biotech Asia Exhibition (2005), 5 Bronze medals from the Research and Innovation Exhibition, UM (2005), 1 Gold medal and 2 Bronze medals from IPTA Research and Development Exhibition (2005), Penghargaan Saintis Cemerlang by the Ministry for Higher Learning (2005), and 1

Silver medal from Malaysian Science and Technology Expo (2006). Apart from that, Prof Shamala achievements heightened with the award Woman Bioinnovator (2008), Anugerah Inovasi Negara (2009), ITEX Silver Award for Simultaneous Detection and Qualification of Dengue and Chikungunya using Multiplex Real-Time RT-PCR (2009), Pencipta 2009 - 1 bronze medal for Development of a single Real Time PCR to detect and Quantitate Dengue and Chikungunya Viruses (2009), Pencipta 2009 - 1 silver medal for the project entitled diagnosis of a dengue infection irrespective of the date of onset of illness and also UMEXPO 2010 with 1 silver and 2 Bronze. Subsequently in year 2014, she was presented with a gold medal for her innovation of dengue rapid diagnostics via surface plasmon resonance biosensor in the 5th Exposition on Islamic Innovation 2014. For her contribution academically, she was also awarded a "Sijil Penghargaan Persaraan" in 2014.

Her expertise in the fields of dengue research and immunology have worldwide recognition and have led her to be an invited speaker in several conferences and meetings including PIPOC : International Palm Oil Congress in Kuala Lumpur (2003), Symposium on Dengue Fever and Tuberculosis in Singapore (2004), Asia Pacific Congress of Medical Virology in New Delhi (2006); Asian Dengue Prevention Board Meeting in Colombo, Sri Lanka (2007) and in Bangkok (2007), and the 3rd PDVI Dengue Research Network Meeting in Taiwan (2007). She was also invited to participate in evaluation of dengue diagnostic kits by TDR/WHO (2005-2007) and was responsible for the laboratory diagnostic tests for a multicenter study on clinical dengue infections also organized by WHO/TDR.

In recognition of her prolific contributions in way of publications, Prof Shamala was appointed a member of the Editorial board of five international journals, PLoS One, Journal of Indigenous Research, Journal of Infection in Developing Countries (2007 onwards), Open Virology Journal (2007) and African Journal of Microbiology Research (2007). In addition, she has been asked to review articles from several local and international journals, the most recent ones being from the Asia-Pacific Journal of Public Health (2003-), Infection and Immunity (2003-), Asia Pacific Journal of Molecular Biology and Biotechnology (2006-), Virology (2007-), African Journal of Microbiology Research (2007-) and Clinical Chemistry (2007-).

Prof Shamala is a member of several organizations including the American Society for Microbiology, American Society of



Immunology, Malaysian Society for Medical & Health Sciences, Persatuan Pendidikan Sains Perubatan dan Kesihatan Malaysia (MAEMHS) and the Malaysian Society of Infectious Diseases and Chemotherapy. She was appointed Treasurer of the Asia Pacific Society for Medical Virology where she served for 3 years (2003-2006) before being appointed the country representative of this society (2007 onwards).

During these early years, research about dengue was difficult due to limitations mainly involving research techniques. Firstly, available diagnosis methods of dengue in patients were not specific and efficient enough. Besides, the assay to determine virus titer in the patient sample is not optimal and in vitro dengue virus culture protocol was not standardized, leading to inconsistent results. Collaborations with her former supervisors enabled her to develop the Dengue IgM Capture ELISA for diagnosis, modified the Haemagglutination Inhibition Assay for virus titer determination and improvement of culture techniques for this virus. These early works produced a total of 7 ISI publications (years 1983 – 1990). It was at this time that she began to draw up a plan into the investigation which was to further improve diagnostic methods and understand the pathogenesis of this complicated disease. Prof. Shamala's dengue research career officially begun in year 2003 when she was appointed as the Director in WHO Collaborating Centre, as well as the Head of the Virology Diagnostic Unit in University Malaya Medical Centre (UMMC). Being a part of the WHO collaborating from its inception, she had a hand in this area in teaching, assisting and also helping to organize dengue meetings held by the Director for South East Asia. She took various strategies to obtain grants and started research and development in this dengue diagnostic, pathogenesis and therapeutic fields. Conventional methods that are used to detect dengue virus infection are tedious, laborious, time consuming, sometimes unreliable and also not suitable to screen a large population in a hyper-endemic region. Additionally, the team had to ensure that they were working with dengue and not any other influenza-like disease that it also mimics. Hence to maximize her work she needed to ensure that patients were meticulously diagnosed. As an achievement, two molecular diagnostic kit (MyDENKit & SD Quant) for dengue were developed and have been licensed by a local diagnostic company (GeneFlux Biosciences Sdn Bhd). To enable a single assay to be used instead of the current multiple tests, she begun collaborations to develop an assay to detect multiple parameters in a single step irrespective of the day of onset of fever with Prof. Dennis Grab from the Uniformed Services University USA and Prof Vivek from University of Hawaii and together they ventured to look for other ways to use camel antibodies. Together with the WHO and TDR, she got involved in evaluating dengue kits from which two papers have been published (EID 2009 & Nature Reviews Microbiology 2010). Very recently, Prof. Shamala began collaborations with Blusence-diagnostics, a Danish company using nanoparticles and have set up a company (Blusense Health Sdn Bhd) to conduct clinical research into the validity of newer diagnostics.

To understand dengue pathogenesis, Prof. Shamala was interested in the immunological profile of dengue fever patients which involves T cells, cytokine levels analysis, HLA association and plasma leakage. To date, 8 papers have been published and

investigations are underway to identify the immunologic profiles associated with increased or decreased risk for severe disease. Investigations into the genetic background of individuals with asymptomatic infections have also led to preliminary findings that indicate association of particular genes with the immune response and two papers have been published in 2014 and another four in 2015-2017. These two areas are important as these imply possible risk association with severe disease.

Prof. Shamala was the Chief Science Officer of a private Malaysian R&D company, Biovalence Sdn Bhd. Here, a locally developed drug towards dengue is undergoing pre-clinical evaluations in various parts of the world. In line with the implementation of "Integrated Management Strategy, 2011" and "Ops Mega Campaign, 2013" by Ministry of Health for dengue prevention and control, Prof Shamala have also been involved in community participation in dissemination of dengue disease information to the public. Through various press interviews, the risk factors and dangers associated with dengue disease severity were conveyed to the society. Besides, being involved in community service with various local companies like "Ridsect" and with international companies via consultation with GLG consultancies, she is also involved with her Resident's Association in periodic talks on dengue and its transmission to assist the community in clearing mosquito breeding areas. As a council member, she has a consultancy with the Gerson Lehrman Group where she is periodically sourced for her comments and expertise in dengue (www.gjgresearch.com). More recently, her laboratory was featured in a documentary on Dengue "Programmed to Kill – Dengue" on the History Channel in Malaysia in 2016.

For the scientific community, in the early years several workshops on "Laboratory Diagnosis of Dengue" to disseminate the latest updates and problems about the current dengue diagnostic methods to advance our knowledge and research in the field and also 3 courses on basic immunology (1198; 2013 and 2017). A 4th workshop is being planned for 2019 at MAHSA University.

She has supervised 19 Master candidates and 20 PhD candidates to completion and currently has 3 PhDs which is ongoing.

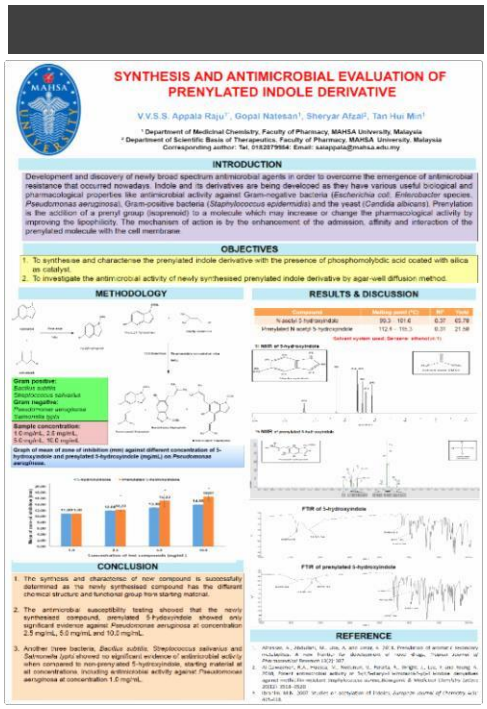
One Day Dengue Symposia

Dengue has been rising exponentially in every ASEAN country and has become one of the most uncontrolled neglected infectious diseases. Despite being around for centuries, we are still struggling with many aspects of this disease from vaccines to anti-dengue drugs and even diagnostics. With the rising trend of this disease it is imperative that we begin taking this disease seriously and determine the various factors and ways to respond. Recognition of the disease depends on the experience of the physician and confirmation relies on the accuracy of the diagnostic test and the ability to interpret the result. Working with this disease we have come to know how complicated diagnosis can be, both at the clinical level and the laboratory level. Dengue diagnosis is not only important for clinical management of patients, but also for epidemiological surveillance, outbreak intervention and vaccine development and monitoring. Laboratory confirmation is an essential part of diagnosing dengue. The main hurdle in developing an ideal diagnostic assay for dengue would lie in the complicated pathogenesis of dengue and the fact that multiple sequential infections occurs in dengue endemic areas. Understanding the clinical conditions of dengue patients is essential for appropriate usage of current dengue diagnostics which are mostly serological-based, nucleic acid-based and antigen based. This symposia reviewed major aspects of the disease, epidemiology, clinical manifestations and diagnostics by leading individuals in the country with demonstrations of newer, validated tests and even allowed those present to be screened for current or prior exposure to dengue thus allowing hands-on experience in using these newer tests. As such many felt the symposium helped them to be updated on this disease and the ideas derived during the discussion to helped to overcome the obstacles in reducing the rate of dengue morbidity and mortality in the region.

This symposia attracted 179 participants of which we had 14 were from MAHSA University and 165 from Malaysians in other institutions/health centres/hospitals and diagnostic laboratories in Malaysia. The symposium was opened by the YBhg Prof. Dato Dr Khairul Anuar B. Abdullah, Vice Chancellor, MAHSA University at 8.45am on the 14th July 2018. There were eight (8) speakers; the first was by Dr Rose Nani Binti Mudin, Head, Vector Borne Disease Sector, Disease Control Division, Ministry of Health Malaysia who spoke on the current incidences in the country and what was being done to mitigate the rising incidence. Her talk drew many questions. This was then followed by one of our own staff, Prof Ngau Yen Yew from the Department of Medicine, Faculty of Medicine, MAHSA University who elaborated on a number of severe dengue cases he had experienced while serving at the General Hospital, Kuala Lumpur. Prof Lucy Lum Chai See from the Department of Paedritics, Faculty of Medicine, University Malaya elaborated on how to manage patients in shock and recognize the interventions that work and need to be carefully monitored. Dr Ravindran Thayan, the Head of the Virology Unit, Infectious Disease Research Centre, Institute for Medical Research, Kuala Lumpur, Malaysia then presented on the current diagnostics and the issues related to using the various diagnsotic assays. He was then followed by Dr Maria Kahar Bador from University Malaya Medical Centre whio shared her experiences in diagnsoing dengue in the laboratory. The symposium was an outstanding success based on the feedback from the participants. The speakers showed us the meaning of being a teacher, researcher and innovator and especially of what it means to be passionate in their subject. Their clarity and understanding of the subject was outstanding and kept participants to the end. 73% of the participants returned the feedback form with most rating the course as very satisfactory, speakers as very good, materials presented informative and presentable and very likely to recommend future MAHSA Symposiums.

In summary, the symposia was a grand and landmark success. Overall there were some minor problems encountered but that did not the spirit of the symposia. It was resolved to hold this on a yearly basis and hope more MAHSA staff will attend.

Synthesis and Antimicrobial Evaluation of Prenylated Indole Derivatives



By V.V.S.S Appala Raju, Gopal Natesan, Sheryar Afzal and Tan Hui Min

Dr Appala Raju from the Faculty of Pharmacy presented a poster on “Synthesis and Antimicrobial Evaluation of Prenylated Indole Derivatives” at ICOPP-2018 (1ST International Conference on Pharmacy Practice 2018) on 27-28 June 2018 at Kuala Lumpur, Malaysia. The aim of this study is to synthesise, characterise and evaluate the antimicrobial activity of prenylated indole derivative. Indole derivatives have been synthesised by using acylation method. The prenylated indole derivatives were synthesised by using phosphomolybdic acid coated with silica as an effective catalyst at room temperature or under reflux. Addition of prenyl group into indole derivatives can improve the antimicrobial activity. Synthesised prenylated indole derivative was evaluated for antimicrobial activity by using agarwell diffusion method. The prenylated indole derivative exhibited antimicrobial activity against Pseudomonas Aeruginosa. It showed significant result at concentration of 2.5 mg/mL, 5.0 mg/mL and 10.0 mg/mL.

Home Based IOT Automation

Ms Nur Azliza Ahmad presented her poster presentation on "Home Based IOT Automation" at ESSE2018 (Engineering & Science Student Exhibition 2018) on 16 July 2018 at MAHSA University, Malaysia. The project proposes an efficient implementation for IoT (Internet of Things) used for monitoring and controlling the home appliances via phones. Home automation system uses the portable devices as a user interface. They can communicate with home automation network through an Internet gateway, by means of low power communication protocols like Wi-Fi. This project aims at controlling home appliances via Smartphone using Wi-Fi as communication protocol and raspberry pi as server system. The user here will move directly with the system through a web-based interface over the web, whereas home appliances like lights, fan and door lock are remotely controlled through easy website. The main objective of this paper is to design and provide implementation details of IOT based ICMS for home as well as for any real- life applications to automatically switch on/off lights, fans, gas, gates using sensors, which is capable of controlling and automating most of the real-life appliances through an easy manageable android based interface. Smart home is building automation for a home that involves the control and automation to manage both assets and resources efficiently based on a supplied information. It comes with an embedded micro-controller and an on-board Wi-Fi shield making use of which all the electrical appliances inside the home can be controlled and managed.

From left: Prof. Dato' Dr. Ishak Bin Abdul Razak, Associate Professor Balijepalli Madhu Katyayani, Associate Professor Dr. Tan Koon Tatt and Ms. Shalini Vellasamy

MAHSA Awarded FRGS Grants

The year 2018 was a bright year for MAHSA, when we obtained research grants under the Ministry of Education. Eight applications were submitted of which three applications were successful resulting in a success rate of 37.5%. This compares favourably with the national average of about 18% success rate for all grant applications under the Ministry of Education for year 2018. The total grants received amounted to RM335, 200. All the grants awarded were under the National Priority Area of Healthcare and Medicine. MAHSA would like to congratulate the Project Leader and the team members for their commendable effort.

MAHSA Research Carnival

MAHSA launched its first Research Carnival with the theme "Showcasing Research @ MAHSA 2018" in the month of November 2018. This event marks the culmination of the research efforts undertaken by staff and students of MAHSA for most of the year as MAHSA embarked on its aggressive effort to enhance its research visibility nationally. Many research initiatives have been introduced in 2018 to encourage staff to devote more time and effort in undertaking research and to accept research as part of our quest to advance new knowledge.

Various events were organized to showcase the research efforts at MAHSA during the research carnival. For the first time, the prestigious Prof. Tan Sri Datuk Dr. Hj. Mohamed Haniffa bin Hj. Abdullah Research Excellence Award has been

Dr. Hj. Mohamed Haniffa bin Hj. Abdullah Research Excellence Award has been introduced. This annual award which comprises of a revolving trophy will be given to the faculty with the best research output for the year. MAHSA has also initiated the Best Researcher Award to acknowledge individuals for their overall research achievements. Awards have also been created to give recognition to staff with the most number of publications in 2018. Oral and poster presentation competitions were also carried out. For this year the number of participants for the oral and poster competitions had been limited to only those who have been shortlisted by the faculties.

Speech & Opening Ceremony
By Chancellor & Vice Chancellor MAHSA University

Poster Presentation
By Staff of MAHSA University

MoU Signing Ceremony

The Faculty of Engineering & Information Technology is proud to announce the signing of a Memorandum of Understanding (MoU) between MAHSA University and The Institution of Engineering and Technology (IET), Malaysia Network. The MoU was signed on Thursday 19th of July by Prof. Dato' Dr. Ishak bin Abdul Razak, Deputy Vice Chancellor (Research & Innovation) of MAHSA University and Ir Chris Chew, Chairman of the IET Malaysia Network and was witnessed by Assoc. Prof. Ir. Dr. Leong Wai Yie, Dean of Faculty of Engineering & Information Technology. The signing ceremony was also attended by Dato' Dr. Zaininah binti Mohd Zain, Deputy Vice-Chancellor (Student Affairs & Alumni) of MAHSA University.

The Faculty of Engineering & Information Technology and IET Malaysia Network have pursuant to the MoU mutually agreed to jointly coordinate and conduct seminars, workshops, conferences as well as to promote students activities in the field of engineering and to collaborate in the areas of research and development.

IET is a multidisciplinary professional engineering institution with over 160,000 members from over 120 countries. The IET publishes a rich mix of books, journal and magazines with more than 100 new titles a year and has a block catalogue of more than 500 publications. The Institution is registered as a Charity in England and Wales (No. 211014) and Scotland (No. SC038698).

The collaboration between the Faculty of Engineering & Information Technology and IET will see a stronger university-industry engagement as well as an opportunity for networking between students and professional in the field of engineering. The Malaysian Local Network of IET has encouraged the formation of On Campus with various public and private university including MAHSA and the students will have the benefit of being mentored by the Young Professional Section of IET.

Souvenir Exchange

MoU Signing

Clinical Trial Research Collboration between MAHSA University & Sunstar Japan Pvt. Ltd

This is a clinical trial research project entitled "Efficacy of Locally Delivered Minocycline in Advanced Periodontitis" done by MAHSA University in collaboration with Sunstar Japan Pvt Ltd. The Project is funded by Sunstar with a grant of RM 120, 000.00 as well as test drugs and placebo to be used for the clinical trial. The Project has been approved by MAHSA's Research Review Committee with the Chief Investigator being Professor Dr. Tara Tayeib Ali and the Co-Investigators are Dr. Padmini Hari and Associate Professor Dr. Aied Mohammed.

This project has been submitted to RRC, MAHSA University and ethical clearance has been obtained. SUNSTAR Japan Pvt. Ltd currently is funding the project worth RM 120, 000 besides providing the test drug and placebo for investigation to be carried out.

Name of Chief Investigator: Prof.Dr.Tara Tayeib Ali

Co- Investigators: Dr.Padmini Hari, AP Dr. Aied Mohammed

Periodontitis is a complex, multifactorial disease characterized by the loss of connective tissue attachment with destruction of periodontium caused mainly by Gram-negative anaerobes. However, recent investigations have implicated new pathogens such as Filifactor alocis, Synergistetes, TM7s being associated with advanced periodontitis (Al-Alimi et al 2015). The efficacy of mechanical plaque removal to eliminate the etiology is limited and transient in subgingival area especially in deep periodontal pockets. Recolonization of the tooth surface can occur after instrumentation especially from the bacterial reservoirs in the inaccessible areas.

The use of systemic and locally-delivered antimicrobial agents as an adjunct to mechanical therapy has proven to be effective in the treatment of advanced chronic periodontitis. Local delivery of antimicrobial agents provide higher concentrations in the availability of the drug at the specific infected sites with the advantage of sustained release besides reducing the problem of resistant strains and unwanted adverse side-effects.

Periocline is a long acting, sustained release local drug delivery system consisting of 2% minocycline hydrochloride in an ointment containing microcapsule type particles. Periocline contains 20mg of minocycline in 0.5 gm of gel in a disposable polypropylene applicator (2% minocycline HCl). Although, research has yielded promising results with the local application of minocycline in the treatment of periodontal disease, there is scarcity of reports on the use of local delivery agents with respect to new range of putative pathogens in advanced periodontitis, wherein there is an exaggerated breakdown of periodontal tissues at the affected sites.. In addition, increase in organisms associated with periodontal health particularly Actinomyces Cluster, Actinomyces sp. OT169, OT170, Neisseria sicca will also be investigated.

In this randomized clinical trial, 50 patients with Advanced Periodontitis will be enrolled in the research. Patients with at least 3-4 teeth with probing pocket depth of ≥6mm that bleed on probing will be selected. A total of 150- 200 teeth from the patients will be selected for the study. The subjects will be randomly allocated to test (Periocline) and control (Placebo) groups. The study is a double-blind, parallel study. The results of the Research will enable MAHSA to publish the research and to present the findings at the Asian Pacific Society of Periodontology Meeting (APSP).

MAHSA wishes the Chief Investigator and Co-Investigators all the best in their research endeavor.

Research Investigators



Prof. Dr. Tara Tayeib Ali | Dr. Padmini Hari | AP Dr. Aied Mohammed

Healthy Gingiva

Periodontitis
Advanced stage in 39-years-old Indian man

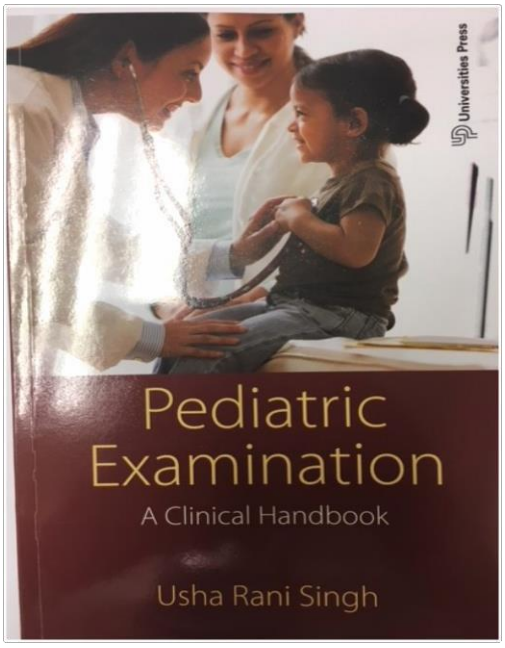
Young Researcher Profile: Mr Mansoor Ali Mohd Yusoof

Mr. Mansoor Ali graduated from University Tunku Abdul Rahman in 1999 as an ACCA affiliate. He completed his Master in Business Administration and is now pursuing his PhD at University Malaya. Being a student at the First ranking research university in Malaysia, Mansoor Ali is exposed to the skills in conducting the academic research and publishing the research in quality journal.

Mr. Mansoor recently published an article entitled "Determinants of e-Wallet Acceptance among the existing e-commerce users in Malaysia: A Structural Equation Modelling Approach", in the Journal of Advanced Research in Dynamical and Control Systems (JARDCS). This research is the first of its kind whereby the study was conducted on -the determinants that contribute towards the use and acceptance of the e-wallet among Malaysian, with its diverse ethnicity and conservative culture.

The Research has identified performance expectancy, effort expectancy, and perceived trust as the important determinants toward the behavioural intention to use the e-wallet as well as the role of age and gender as mediating factors towards the behavioural intention to use the e-wallet. The measurement model is tested using Structural Equation Modelling (SEM). The Research yielded that the identified determinants to have a strong influence on the use and acceptance of e-wallet among the existing users of e-commerce.

Book: Usha Rani Singh, 2018. Pediatric Examination: A Clinical Handbook



Professor Usha Rani is a Professor of the Faculty of Medicine, MAHSA University. Her book entitled "Pediatric Examination: A Clinical Handbook" was recently published by the Universities Press. This book was written by her in to demands by her students for a book that would teach them how to examine babies and children. Through her book, she will enable medical students to acquire adequate practical skills to detect abnormal signs and symptoms, analyse them logically, try and knit them into one pathogenesis, and thus be able to diagnose common everyday problems for children. The book is certainly of use to all as most doctors do become primary care physicians and deliver emergency and /or essential primary care to children too. Infants and toddlers need to be handled with love and patience so as to be able to be allowed to examine them.

She aims to help students evaluate children for diseases that are common, important or need urgent and immediate attention and attempts to provide a basic structure on which would be doctors can develop their skills. The writing is simple, easily read and easy to understand. She further emphasizes that the book enables development of clinical skills which is an essential tool in medical practice and is needed to arrive at a diagnosis. Also Prof Usha states that is important not to miss a clinical sign; only then the practitioner will know what the possible pathology is; what tests to request for; and how to interpret them. She firmly believes that no technological advancement can replace a well-taken history, or a carefully done physical examination.

4th Pharmacy Students' Scientific Conference

Fourth Pharmacy Students' Scientific Conference to Integrate Pharmacy Education into Research and Practice. The annual Pharmacy Students' Scientific Conference, with the motivating theme of Integrating Pharmacy Education into Research & Practice, took place on 28th August 2018 at Auditorium, Level 9, Pharmacy Building, MAHSA University. The conference was inaugurated by the Honorable Professor Dato' Dr Khairul Anuar Abdullah, Vice Chancellor, MAHSA University.

Over 100 undergraduate students from the University attended the conference. The students were inspired by motivational guest speakers and took part in a series of inspirational activities.

Distinguished Invited Speakers included Professor Dr Gan Siew Hua Deputy Head for School of Pharmacy (Research), Monash University Malaysia delivered a motivationally talk about "Culture and Ethics in Research"

-and Mr John Chang Chiew Pheng President, Malaysian Professional Centre (BIM) delivered an energetic and inspiring lecture entitled "Life-Long Ethos of Professional Continuous Development".

The conference was open to all BPharm (Hons) final year and post-graduate students to present their research findings through oral or poster presentation. The aim was to provide an opportunity to both students and researchers to share their research findings and new ideas. The sharing of knowledge among the participants undoubtedly sets conducive research ecosystem towards promoting evidence-based practices. There were 43 participants for the conference presenting their research in the areas of Medicinal Chemistry, Scientific Basis of Therapeutics, Dosage Form Design, Pharmacy Practice and Clinical Pharmacy.

Well-experienced academic members from Faculties of Medicine, Dentistry, and Health and Sports Science were invited to evaluate the abstracts of the participant.

The winners of the poster presentation are:

First place: Ng Li Shan (Induction of apoptosis and cell cycle arrest by copper complex towards MCF-7 breast cancer cells).

Second place: Lo Nyuk Chu (Preparation and characterisation of zerumbone-loaded liposomes).

Third place: Tan Xin Yi (Phytochemical screening and evaluation of anti-inflammatory activity of gardenia carinata leaves)

The winners of the oral presentation are:

First place: Miss Saalini A/P Mahalingam with the title In vitro anti-psoriatic activity of natural and semi-synthetic andrographolide derivatives.

Second place: Tan Mei Wei with the title Delivery of paclitaxel into breast cancer cells utilising strontium salt nanoparticles.

Third place: Naavina Christie with the title the effect of different types and concentrations of surfactant on the dissolution rate of paracetamol oral dispersible tablet.

The conference concluded with the significant White Coat Ceremony for the BPharm (Hons) Batch 4 (2014) student, who graduated on the 17th November 2018 and the Thesis Submission Ceremony as well as the Conferment of Certificate of Completion for Bachelor of Pharmacy (Hons) Programme (Academic Session 2014/2018). These meaningful events were witnessed by VC, and all DVCs.

Dr Audrey Yong, Deputy Dean (Research and Innovation) of Faculty of Pharmacy at MAHSA University, said:

"The event was invaluable and inspiring to our students' future aspirations, this is the only avenue to allow all of our student to showcase their research finding helping them to remove any barriers they may have towards research. It has had a positive and lasting impact on them. It was also a great opportunity for students to learn from the invited speakers regarding research culture and ethics and life-ling ethos of professional continuous development."

One of the BPharm final year students, Ms Nurul Nadiah said:

I've learned a lot from all of the speakers during the PSSC. The stories of their backgrounds and how they've made it this far truly inspires me to follow my dreams and passion.

Ms Saalini Mahalingam, another final student and winner of the oral presentation, said:

"I found Mr John Chang's motivational talk inspiring and it made me want to do great things."

4th Physiotherapy Students' Scientific Conference: Mind Your Health

On the 30th and 31st of October 2018, the MAHSA Association of Physiotherapy Students were proud to hold their 4th Annual Physiotherapy Student Scientific Conference. The theme for this year was 'MIND YOUR HEALTH', where the importance of physical as well as mental health was brought forward.

'MIND YOUR HEALTH' was an apt theme, as the World Confederation of Physical Therapists, had made "Mental Health in Physiotherapy" their focus this year for World Physiotherapy Day, which was held in September. In this day and age, it has become clear that physiotherapists have a very pertinent role in managing patients with mental health issues, and it is also evident that people with mental health issues are more at risk of having poor physical health.

We found ourselves holding our breath in anticipation when the Conference was officially kicked off by our esteemed Pro-chancellor and Executive Chairman, Prof Tan Sri Datuk Dr. Hj. Mohamed Haniffa bin Hj. Abdullah. The students were excited to see Tan Sri Haniffa himself, taking time out to attend the Conference. Tan Sri Haniffa emphasized the importance of mental health and how physiotherapists will have to play a strong part in it. It was inspiring to hear Tan Sri Haniffa encouraging and complementing us on the organization of this Conference.

The Ceremony's opening and welcoming addresses was by the Dean of the Faculty of Health and Sports Sciences, Assoc. Prof. Chan Sook Chin and the Chair of the Organising Committee, John Mong. The rousing speeches were followed by a highly entertaining dance performance by the university's resident dance club, which saw the participation of Assoc. Prof Chan Sook Chin which made the performance memorable. She received an astounding round of applause.

We were very fortunate to secure speakers who were experts in their field. The keynote lecture was presented by YBhg Dato' Tan -Yoke Hwa, the 1st Director of Allied Health Sciences Division, Ministry of Health (2008). She was Chief Dietician at HKL as well as a trained clinical hypnotherapist. She had a very clear idea what mental health entailed and how mental health had to be managed in Malaysia currently.

Assoc. Prof Chan Sook Chin, further enlightened us on the role of physiotherapy in mental health, and it took some of us by surprise to see the available scope of physiotherapy in mental health. Our final mental health speaker, Dr Shawn Le Ji Kwan, a Clinical Psychologist, who is now lecturing at several universities as well as practising at Selayang Hospital, completed the eye opening experience of mental health. He was very pragmatic and gave us practical skills and tips that we could use on patients who are stressed or even depressed.

This year's Organising Committee wanted to include every physiotherapy student for the Conference. Many a time we have found that the first year students were left out as they have inadequate physiotherapy knowledge to take them through the two days. So this year, there were 2 parallel sessions.

The first session focussed on a separate neurological issue – Parkinson's disease. We were most fortunate to have Dr Tan Ai Huey, Senior Lecturer and Consultant Neurologist (Movement Disorders), from UM to speak to us that day. She gave such an interesting and informative talk on Parkinson's that many of our minds had a paradigm shift. She made the presentation real with her videos of patients. It was great to hear her emphasise the importance of physiotherapy in Parkinson's disease. And to drive the point in we had Ms Joanne Chan, Lecturer (UTAR) and Madam Mahadevi Barathi, Deputy Head, Physiotherapy, MAHSA, who talked to us about the assessment and management of Parkinson's, respectively. Both of them had vast experience in the clinical field, and were specialising in Parkinson's disease in their practice in Singapore.

The parallel sessions for the first year students included sessions by our very own lecturers, Mdm P. Bhavani, Mdm V Banumathi and clinical instructor Mr Chew Wai Hoong. They covered topics such as scopes of physiotherapy, movement analysis and scoring A's in their physiotherapy examinations. You could tell that the students were very engaged in the sessions.

The second day was dedicated to what most physiotherapists know and love – sports physiotherapy. Focussing on badminton and sports injuries, we had an exposure to injuries, prevention, techniques and the way to sports rehabilitation. We had Sports Physiotherapist, Mr Frederick Khoo, and Mr Marcus Sia, as well as our lecturers Mr Ravikumar and Mr Muthukumaran presenting very interesting sessions.

Within the Conference there were also oral presentations by our very own graduating physiotherapy students. The research papers presented by our fellow students highlighted the importance of not only conducting research in physiotherapy but also communicating the findings of said research effectively. Among the paper presentations, Chan Weng Joon, won the Free Paper Award for his quality research and succinct presentation.

The Organising Committee pulled no stops. Good food and tea breaks were provided for the students. Events with students cannot be complete without a photo booth and in preparation for Halloween, a Halloween photo booth was organised, which proved to be very popular. In addition, the support from our sponsors was much appreciated. We managed to get seven sponsors. The registration fees and sponsorship, really helped to push the Conference funds up.

The success of the Conference would also be due to the participation of our physiotherapy student body. We had 400 over participants – the best response over the years. In addition, the Organising Committee, comprising of physiotherapy students from Year 2 to Year 4, from the Degree as well as the Diploma programme, with the guidance of our Advisor, Mdm Mahadevi, were a great bunch of people to work with.

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