



2020

FACULTY OF MEDICINE

DEPARTMENT OF PARASITOLOGY

NEWSLETTER



#### DEPARTMENT OF PARASITOLOGY

The Department of Parasitology, Faculty of Medicine, Universiti Malaya is a very active department managed by 30 staff members including 13 academic lecturers, probably one of the largest staffed Parasitology Department in the world. There are three main core functions of the department: teaching, research and diagnostic service. The Department is responsible for teaching Medical Parasitology to the second year pre-clinical MBBS students. Other main courses include Diploma in Nursing and Medical Laboratory Technology, Bachelor of Biomedical Science, Bachelor in Pharmacy, Master of Pathology (MPath) and Master of Public Health (MPH). The Department attracts local and international postgraduate students and to date have helped graduate hundreds of Master and PhD students. This Department has also been involved in offering consultation and teaching to Royal College of Medicine Perak (RCMP), Kolej Universiti Islam Malaysia (KUIM), UiTM and Institute of Medical Research, Malaysia (IMR).

# Foreword

**PROF. DR. LAU YEE LING**  
**Head of Department**



**F**irst, I would like to express my gratitude to all who have been involved and contributed to the preparation of this newsletter headed by Dr Wahib Atroosh. The Department of Parasitology, Faculty of Medicine, Universiti Malaya is committed to provide excellent education to our undergraduate and postgraduate students and conduct research that will benefit our patients and the communities. Over the years, the department has unleashed hundreds of post-graduate students, over and above the training conferred to students by the expected medical and bio-medical programs by very high calibre and distinguished Parasitologists. The Department has been consistently ranked among the top five departments for research and innovation. Despite COVID-19 pandemic, the Department's compassion for contribution has generated seminars and meetings with private and public stakeholders to provide critical information and resources in response to infectious diseases and their socioeconomic consequences to the community. Our students and lecturers have won multiple local and international research awards for their excellent works. Assessing the global parasitological situation, we are also proud to launch a new master programme - Master in Medical Parasitology and Entomology. This is a one-year programme to commence from September 2021 which will be offered to all national and international students aiming to cultivate talented educationists and researchers who are true professionals in modern tropical medicine. We now have five professors, three associate professors and four senior lecturers and one lecturer. Our research focuses on several areas, such as protozoa, nematodes, dengue viruses and medically important mosquitoes, with emphasis placed on both modern and traditional tropical medicine. The Department was the second runner-up for highest publication among non-clinical departments, Faculty of Medicine, UM in 2020 with a ratio of 3.08 publications per academic staff (as of 2<sup>nd</sup> November 2020).



*New*

**MASTER OF MEDICAL PARASITOLOGY & ENTOMOLOGY**  
**BRIDGING KNOWLEDGE TRAINING PROGRAM**



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## PROFESSOR DR. LAU YEE LING

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## ACADEMIC STAFF

- Molecular Cloning and Expression
- Diagnostic Parasitology
- Malaria

Professor Dr Lau Yee Ling is at present the Head of the Department of Parasitology, Faculty of Medicine at Universiti Malaya (UM). She started her academic career as a lecturer at Monash University Sunway Campus while waiting for her PhD viva in 2008. During her time as a lecturer in Monash University, she was awarded two Monash University Research Grants in which enabled her to continue her research in the field of molecular parasitology. She then returned to her alma mater, University of Malaya, as a Senior Lecturer in 2009. She was granted tenure in 2010 and promoted to Associate Professor in 2013, and Professor in 2019.

Professor Lau's scientific career has been dedicated to the study of protozoan parasites, including *Plasmodium knowlesi* and *Toxoplasma gondii*, the causative agents of malaria and toxoplasmosis, respectively. These parasitic diseases exact enormous social and economic burdens. Her research interest mainly focuses on using molecular methods for the detection and characterization of these parasites infecting humans and animals. She has collaborated with local and international researchers, leading to publication of more than 170 ISI journals, with total citations index of 1750 and H-index of 22. This research excellence has enabled her to acquire and be a part of many international and local research grants, i.e., Hubert Curien Partnership-Hibiscus (PHC-Hibiscus), ASEAN-India Collaborative R&D scheme, GCRF Global Impact Acceleration Account (GIAA) Impact Fund, High Impact Research Grant, University of Malaya Research Grant, FRGS, E-science, LRGS and others, with cumulative research funding amounting to at least RM5 million. These were followed by several intellectual property rights under her belt on rapid molecular diagnosis of dengue, malaria and COVID-19. Since 2009, 13 Masters and 17 PhDs have completed their studies with success under her guidance. Currently, they are 4 Masters and 8 PhDs under her supervision. With her experience in grant management, she had held numerous administrative posts such as the Head of Grant Management Unit, of Health and Translational Medicine Cluster and Faculty of Medicine, besides being a committee member in evaluating applications for FRGS, LRGR and TRGS at the national and international levels. She established the Science Café in 2017, which continues to be the main channel of research communication between clinicians and scientists at the Faculty of Medicine. She was also a committee member of the University of Malaya Institutional Biosafety and Biosecurity Committee (IBBC), Animal Experimental Unit, Faculty of Medicine Risk and Quality Management and an internal auditor of Faculty of Medicine. Currently, she is the editor-in-chief for the Journal of Health and Translational Medicine (JUMMEC) for Universiti Malaya, editor of Asia Pacific Journal of Molecular Biology & Biotechnology and associate editor of BMC Infectious Diseases. Through her contribution to the field of science, she is a regular reviewer for a few international journals such as Nature Scientific report, Lancet, PLOS One, Parasites & Vectors, Malaria Journal, International Journal of Tropical Disease & Health and others. With her extensive experience and reputation in the field of molecular parasitology, Professor Lau has been much sought after as speaker and consultant both locally and internationally.

Professor Lau has been an active member of the Malaysian Society of Parasitology and Tropical Medicine (MSPTM). She was a council member of the MSPTM in year 2018-2019. She is also active in the Malaysian Society for Biochemistry and Molecular Biology (MSBMB). She was the Honorary Secretary of the MSBMB in 2017-2019 and the current President.

Professor Lau's passion for research can only be matched with her passion for teaching and education. When conducting classes, besides ensuring her lectures are easy to follow, she makes all attempts to infuse interest and solicit students' participation by incorporating more recent articles and real life scenarios in order to illustrate the day-to-day relevance of the teaching subject matter. And because of her enthusiasm for education, she has volunteered to be the Problem-Based Learning (PBL) Phase II coordinator in 2011 then became the PBL main coordinator in 2018. Recently, she has been actively participating in organizing PBL training workshops for UMMP program.

Professor Lau has been awarded University of Malaya Excellent Service Award three times in 2011, 2013 and 2015. She was awarded MSPTM Nadchadtram Medal in 2014. She has also been awarded a few times for her innovation in research including the Grand Prize in National Exclusive Innovation Challenge Award 2018.





## ACADEMIC STAFF

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### PROFESSOR DR. SURESH KUMAR GOVIND

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- Drug Trials and Parasites Biology
- Diagnostic Parasitology

Professor Dr. Suresh Kumar Govind completed his PhD from the National University of Singapore in 1994. He became a lecturer at the Department of Parasitology, Faculty of Medicine, University of Malaya, and Associate Professor in 2001 and a full Professor in 2006. He also served as the Head of the Department of Parasitology, UM from 2015 to 2019.

His special focused dedication was on *Blastocystis* and for the past 25 years have generated more than 140 scientific papers, presented more than 270 conference papers, and written several chapters in publications by the WHO. He has supervised more than 100 elective, diploma, graduate and post-graduate students including at doctorate level. His expertise in *Blastocystis* has enabled him to be appointed as reviewer for internationally refereed journals and is responsible for placing the organism for the first time in the fact list of the WHO publication on the drinking water guidelines. He was the winner of the National Young Scientist Award, Malaysian Toray Grant Award, Commonwealth Scholarship Award, ITEX Gold Innovative Award (National), ITEX gold medal (International), Malaysian Society of Parasitology and Tropical Medicine Silver Medal, the Prime Minister's Productivity Award, the prestigious Malaysian Toray Science Award as well as winning a few times the University Malaya excellence award. He was conferred the global Malayalee Award, National Educators Award from the Association of Private Institutions for research and Fellow to the Malaysian Academy of Science in 2015. He won the Parija Oration Award from the Indian Academy of Tropical Parasitology and Sandosham Medal Award from MSPTM in 2016 and 2017, respectively, for his outstanding contribution to the field of Parasitology.

He has served as an expert member for the Drinking Water guidelines committee for the World Health Organization since 2004. He has also served as an International Consultant for Indian Ocean Center for Education in Human Values, Mauritius. He has been appointed by the Prime Minister of Malaysia to be a member of the National Unity Consultative Council (NUCC) and the committee for inter-faith promotion (JKMPKA) a board member to IKLIN and currently the Chairman of Board of Trustees for the Yayasan Perpaduan Malaysia. Prof Dr Suresh Govind was the former President of the Sathya Sai International Organization, Malaysia, an organization dedicated to the promotion of human values, service and national unity. He is currently the International coordinator for community engagement for 120 countries for the World Sathya Sai International Organization as well as the Coordinator for the Friendship Group of Inter Religious Service, consisting of members from all the major religious groups in Malaysia.





## ACADEMIC STAFF

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### PROFESSOR DR. FONG MUN YIK

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- Diagnostic Parasitology

Professor Dr. Fong Mun Yik obtained his PhD degree from the University of Malaya (UM) in 1996. He joined the Department of Parasitology, Faculty of Medicine, UM in 1998 as a junior lecturer. He was promoted to the position of Associate Professor in 2003, and to full Professor in 2008.

As an academician in the university, he teaches Medical Parasitology at various levels such as Masters of Pathology, MBBS, Pharmacy, Biomedical Science and Nursing Science degrees. He was a guest lecturer and external examiner for the Southeast Asian Ministers of Education Tropical Medicine Network (SEAMEO-TROPMED) Advanced Diploma of Applied Parasitology and Entomology programme at the Institute for Medical Research, Kuala Lumpur.

Professor Fong's main research interest is in molecular parasitology, particularly in the areas of molecular epidemiology and development of recombinant antigens for serodiagnosis of parasitic infections. His main focus now is on the zoonotic malaria parasite *Plasmodium knowlesi*.

Professor Fong has received numerous research grants from various external funding bodies including China Medical Board, Academy of Science Malaysia, Malaysian Toray Science Foundation, the Ministry of Science's Intensified Research Priority Area (IRPA) and ScienceFund, Ministry of Higher Education's High Impact Research Grant, Long-Term Research Grant and Fundamental Research Grant Schemes.

Professor Fong was elected as the President of the Malaysian Society of Parasitology and Tropical Medicine (MSPTM) in 2006-2007 and 2011-2012. In 2007, he was given the honour to chair the organising committee of the joint MSPTM and Royal Society of Tropical Medicine and Hygiene (London) Centenary Celebration. He was the President of the Malaysian Society of Molecular Biology and Biotechnology in 2007-2009.

Professor Fong has served as research proposals assessor for UM Wellness, UM Biotechnology & Bioproduct clusters, FRGS, MyLab and ScienceFund grant schemes. He was appointed by the USM Vice Chancellor to serve in the university's Industry and Community Advisory Panel in 2013-2015, and by the USM Senate to be in the Committee of Studies, Master of Biomedicine Programme. He also was an academic assessor for new Master (USM) and Bachelor (UiTM) degree programmes. He also reviews research proposals for the National Science Center, Poland.

Professor Fong serves as the member of the Editorial Board of Tropical Biomedicine, and the Asian-Pacific Journal of Tropical Medicine. He is a regular reviewer of manuscripts for PLoS One, Malaria Journal, Parasites & Vectors, AJTMH, Acta Tropica, Infection, Genetics and Evolution and BMC Infectious Diseases.

Professor Fong joined the UM Quality Management and Enhancement Centre (QMEC) in 2005, appointed QMEC's Head of Documentation Unit in 2009-2016, and Deputy Director in 2016. He is a MOHE-appointed auditor for the Malaysian Research Assessment (MyRA). He is a member of the Board of Governors of the International University of Malaya-Wales (IUMW) since 2013.

Professor Fong has been awarded the UM Excellent Service Award four times – in 2002, 2006, 2009 and 2013. He was awarded the Malaysian Society of Parasitology and Tropical Medicine (MSPTM) Medal in 2007.



## ACADEMIC STAFF

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### PROFESSOR DR. YVONNE LIM AI LIAN

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- Gut Microbiota
- Indigenous Health
- Molecular Epidemiology
- Waterborne Parasites  
(*Cryptosporidium*, *Giardia*)

Dr. Yvonne Lim Ai Lian is a senior professor at the Department of Parasitology, Faculty of Medicine, Universiti Malaya (UM), Kuala Lumpur and a fellow of the Academy of Sciences Malaysia. Currently, she is the Director of International Relations Office (IRO), UM and serves on the University Senate. She was the former Deputy Dean (Research) of Faculty of Medicine, UM and the past president of the Malaysian Society of Parasitology and Tropical Medicine (MSPTM).

Her research focuses on host-parasite interactions and the epidemiology and control of neglected tropical diseases primarily among the underserved and indigenous communities. Her work has been funded by various national and international grants (e.g. NIH). In her pursuit to better understand and control these diseases, her team has developed and evaluated time- and cost-effective solutions, such as multi-hits health education packages, rapid molecular diagnostics and provision of spatial distribution maps using geographic information system (GIS). In recent years, there is also a growing interest that some parasites such as helminths (worms) may play a role in the future treatment of inflammatory diseases. Using multidisciplinary advance approaches, her team's landmark publication with collaborators from New York University in *Science* unravelled the mechanisms of how low levels of helminth infection promote growth of probiotic gut microbiota. Her team is currently collaborating with researchers at the National Institutes of Health (NIH), USA to further elucidate the role of gut microbiota-helminth associations and the effects of this relationship on other non-communicable diseases.

She has published more than 200 scientific papers, 9 book chapters and 3 books. She has a vast network of local and international partnerships. She was a visiting fellow at the Department of Veterinary Science, University of Melbourne, Australia and was appointed a visiting professor at the Department of Molecular Parasitology and Tropical Diseases, Taipei Medical University, Taiwan. She is currently an international member of the Scientific Advisory Committee (SAC) in the Infectious Diseases Data Observatory (IDDO) Schistosomiasis and Soil-Transmitted Helminthiasis Data Treatment Platform which provides independent scientific expertise, guidance and support. She is also involved in the formulation of the National Policy for the Development of Orang Asli (Indigenous) with the Department of Orang Asli Development (JAKOA), Malaysia.

Dr. Yvonne Lim has been a panel member of evaluators for various national and selected international research grant schemes. She has received numerous awards and recognitions, among which were the Royal Society of Tropical Medicine and Hygiene (RSTMH) Centenary Scholarship, Malaysian Society of Parasitology and Tropical Medicine Life Membership, Malaysian Society of Parasitology and Tropical Medicine Medal for being an outstanding young scientist, the University of Malaya Excellence Award for outstanding achievement in the category of Excellent Lecturer (for Sciences) and the Top Research Scientists Malaysia (TRSM) Award. In 2018, she was featured as one of the 10 Science Stars of East Asia in *Nature*.





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### PROFESSOR DATIN DR. INDRA VYTHILINGAM

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- Medical Entomology
- Vectors for malaria, dengue, JE, & filariasis

Datin Dr Indra Vythilingam is a Professor at the Department of Parasitology, Faculty of Medicine, University of Malaya (UM). She has been with the Department since September 2011. Prior to that, she was working at the Institute of Medical Research (IMR), Malaysia and Environmental Health Institute, Singapore. At UM she was instrumental in designing and seeing through the establishment of the Arthropod Containment Level 2 Laboratory (ACL2) at Department of Parasitology. This facility is the only one at the university and it allows work on mosquito infection.

Indra has been the key person playing a vital role in spearheading many projects on vectors of malaria and dengue. She was the pioneer to incriminate the vectors of *Plasmodium knowlesi* in the current era and was responsible for establishing that *P. knowlesi* was also found in humans from all states in P. Malaysia. She has also established a new proactive paradigm for dengue surveillance, where infected mosquitoes are detected before cases are reported. A cluster randomised control trial is underway to establish the effectiveness of this paradigm. Along with her fellow colleagues she has obtained an LRGS grant from the Ministry of Education to study the vectors of zoonotic malaria throughout P. Malaysia.

She has published more than 120 scientific papers in peer-reviewed international and local journals, ten book chapters and one book. From 2012 onwards, 6 PhD students and 2 MSc students have graduated under her supervision. Currently she is supervising 5 PhD students and 1 MSc students. In recognition of her outstanding contribution to the field of parasitology and tropical medicine in Malaysia and Southeast Asia, she was awarded by the Malaysia Society of Parasitology and Tropical Medicine the most prestigious award, the Sandosham Medal in 2006. In 2017 she was awarded Malaysia's Research Star Award for outstanding national research in Tropical Diseases by the Ministry of Higher Education. She was the president of the Malaysian Society of Parasitology and Tropical Medicine in 1998 and 2004.

She was appointed a WHO malaria consultant for Lao PDR from 1999 to 2002. During this time (in 2000), her team conducted studies on the bionomics of malaria vectors in southern part of Lao PDR and the epidemiology of malaria resulting in the incrimination of *An. dirus* for the first time as vector of malaria in Lao PDR.

Indra has been appointed a member of the WHO Expert Advisory Panel on Vector Biology and Control since 1998 (till 2021). She has been appointed as temporary adviser, WHO on many occasions. In 2013 until 2016, she was appointed as member of the WHO Vector Control Advisory Group (VCAG) on New Tools for vector control.

She was the Editor of Tropical Biomedicine from 2006-2014 and was responsible for obtaining the ISI status from Thompson Web of Science. It is the first local medical journal to obtain impact factor in the country. Currently she is the subject Editor for an international journal Parasites and Vectors - a tier 1 journal.





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### ASSOC. PROF. DR. ZURAINEE MOHAMED NOR

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- Entomology
- Drinking Water Quality  
(*Giardiasis, Cryptosporidiosis*)
- Humoral Immunology

Associate Professor Dr. Zurainee Mohamed Nor has been with the Department of Parasitology, Faculty of Medicine since 1991. She joined the department as a tutor and then as a lecturer after she completed her PhD at the University of Strathclyde, Scotland, United Kingdom in 1995. Apart from teaching, researching and supervising students, she has been participating in many activities at the department, faculty and university levels. She was among the key persons responsible for the development of Para:SEAD Lab, the diagnostic laboratory for parasitic infection under University Malaya Medical Centre (UMMC). In relation to that, she was invited by Prof. Hue Smith to visit the Scottish Parasite Diagnostic Lab (SPDL) in order to study the running of an accredited diagnostic laboratory. She was also one of the Japanese Society for the Promotional of Science (JSPS) scholarship recipient that provided her the opportunity to visit Chiba University, Japan and worked under the supervision of Prof. Yano.

At the department level, she was appointed as Program Coordinator, Quality Manager (DQM), and Internal Auditor for many years. At the faculty level she was appointed as Academic Advisor for second year medical students and as Advisor to the Medical Society (MedSoc). She involved heavily in the New Intergrated Curriculum Program (NIC) as Phase 2 Coordinator, a committee member of Faculty Quality Management System Unit, as Faculty Internal Auditor and involved as co-researcher in a study conducted by the faculty entitled "The Migrant Workers and Diseases". At the university level she served the university as Principal to several UM residential colleges (4th, 5th 6th and 8th RC). As the Principal of residential college, she was responsible for ensuring the welfare of students and shaping soft skills among students staying at those colleges. She was also appointed as the Head of SERU (UM Student Empowerment & Research Unit) and as University Internal Auditor. She is also one of the consultants appointed by the Vice Chancellor for the analysis of waterborne parasites involving samples from government and private agencies.

As a researcher, her study of interest includes filaria, *Toxoplasma*, malaria, waterborne parasites and plant extract. She has supervised numbers of local and international undergraduate, Master and PhD students. As a lecturer she received invitations from other public and private universities like University Putra Malaysia (UPM), and MAHSA University to give lecture/practical classes and as External Examiner for DAP&E, Master and PhD candidates from Institute of Medical Research (IMR), Universiti Sains Malaysia (USM) and Universiti Sains Islam Malaysia (USIM). She is also invited as External Examiner for Second Professional Examination 2018/2019 by USIM.

As far as her involvement in scientific society she was a member of the Malaysian Society for Parasite and Tropical Medicine (MSPTM) and once held the Treasurer post. She is a member to the Malaysian Scientific Association (MSA) and was one of the council members for several terms and once held the Secretary post. She was heavily involved as the Chairperson for several yearly programs organized by MSA and state governments, designed for secondary school students in relation to Science & Technology.

As a Certified Auditor, she was frequently invited by private accreditation bodies to audit selected government hospitals and academic institutions.



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### ASSOC. PROF. DR. WAN YUSOFF WAN SULAIMAN

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- Medical Entomology
- Forensic Entomology

Dr. Wan Yusoff obtained his PhD from Keele University, UK in 1999. He is life member of British Society for Parasitology since 1995, member of Malaysian Society of Parasitology and Tropical Medicine.

He has been appointed as consultant for many projects/companies such as Putrajaya Lake and Wetland Water Quality and Biological Monitoring Services for Perbadanan Putrajaya, Evaluation of Insecticides product from CUBA, Water-borne vector and mosquito.

Dr. Wan Yusoff has received University Malaya Excellent Award – Consultancy in 2018, and numerous time of certificate of excellent service from UM.

Currently, he is the Deputy Dean of Development, Faculty of Medicine, University of Malaya. He has published numerous papers and chapters in book. He has received grants from various funding bodies including UM internal RU grant, UMRG, FRGS, and international funding. His research interests focus on mosquito geospatial and temporal distribution monitoring, insect immunology, and vector-borne diseases.





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### ASSOC. PROF. DR. TAN TIAN CHYE

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- Phylogenetic

Dr Tan Tian Chye obtained his PhD in Medical Parasitology from University of Malaya in 2005 and was appointed as a lecturer at the Department of Parasitology, Faculty of Medicine in the same year. He was later promoted to Associate Professor in 2016. His primary research focus has been aimed at elucidating the pathogenic role of *Blastocystis*, an intestinal parasite. Over the years, he has diversified his research into the PCR detection and *in vitro cultivation* of malaria, toxoplasmosis as well as waterborne pathogens. In 2011, he underwent training at University of Illinois (USA) under Professor Dr. Ramaswamy Kalyanasundaram on a NIH-funded project entitled DNA-vaccine development for lymphatic filariasis.

He is a prolific publisher of academic articles in peer-reviewed scientific, medical and veterinary 'high impact' journals. To date, he has produced more than 50 international ISI journal articles in the field of parasitology and microbiology. His article entitled "Predominance of amoeboid forms of *Blastocystis* in isolates from symptomatic patients" was awarded the Best International Paper in 2006 by the *Blastocystis* Research Foundation based in the United State of America. It was a landmark paper revealing the role of the amoeboid form of *Blastocystis* in causing disease in human and it was frequently cited by peers. He has co-authored a chapter entitled "Romancing *Blastocystis* : A 20-year affair" in *Parasites and their vectors: A special focus on Southeast Asia*, published by a prestigious international journal.

He had six research grants which he led as principal investigator and 5 more as co-investigator. The total amount of the grants acquired was RM660,000. He has established international linkages particularly with researchers in Thailand and the Phillipines on the waterborne pathogens.

Over the years, he has contributed significantly in teaching activities and the development and delivery of curriculum in the various administrative roles that he has held. He has been actively involved in teaching students in the courses of Bachelor of Medicine and Surgery (MBBS), Bachelor of Biomedical Sciences, Pharmacy, Nursing and Diploma in Medical Laboratory Technologist. He was the Faculty Coordinator for MBBS programme for 3 years from 2013 to 2016. He chaired the faculty vetting committee and was the key person to ensure the smooth running of the course as well as the examination for the Phase II MBBS students. He was student-oriented and had regularly met up the MBBS students. He has been appointed as the Imaging Services Manager (Electron Microscopy) in the Central Unit for Advanced Research Imaging (CENTUARI), Faculty of Medicine since 2016 till date.

He is also active in participating in professional body. He is a life member of the Malaysian Society of Parasitology and Tropical Medicine (MSPTM). He has served as a council member of the MSPTM for five terms and was the Honorary Treasurer for two terms. In honour for his contribution to the Society, he was awarded the MSPTM Medal in 2012.





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## ACADEMIC STAFF

### DR. AMIRAH AMIR

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- Non-human primate malaria
- *Anopheles* colonization
- Medical parasitology

Dr. Amirah Amir obtained her MBBS from University of Malaya in 2008. After completing her compulsory service under Ministry of Health, she pursued her PhD in Parasitology and currently holds the post of Medical Lecturer in Faculty of Medicine, University of Malaya.

She has published 28 research papers in peer-reviewed journals with H-index of 7 and a total of 121 citations. Her topic of interest is malaria, zoonotic malaria and medical parasitology. She has also contributed several book chapters on Problem Based Learning and has published a textbook with Springer titled 'Medical Parasitology – A Textbook'.

Dr. Amirah has been the recipient/co-recipient of several research grant including the UM Research Fund Assistance (BKP), Hubert Curien Partnership (PHC-Hibiscus) Grant, Fundamental Research Grant Scheme (FRGS), and Long Term Research Grant Scheme (LRGS).

Dr. Amirah is currently the coordinator of the Parasitology Diagnostic Unit in University Malaya Medical Centre where she provides consultation on medical parasitology. She also serves as the advisory committee chair and coordinator for the malaria screening program under Laboratory Quality Assurance Scheme (LABQAS).

Dr. Amirah is passionate about teaching and is the department's coordinator for Master of Pathology (MPath), University Malaya Medical Programme (UMMP) and is part of the faculty's Problem Based Learning (PBL) team.

Dr. Amirah is currently an Editor for the Journal of Health and Translational Medicine (JUMMEC) and Associate Editor for Asia Pacific Journal of Molecular Biology and Biotechnology (APJMBB). She is also the Honorary Treasurer for Malaysian Society for Molecular Biology and Biotechnology. She is a member of Malaysian Society of Parasitology and Tropical Medicine and life member of Malaysian Medical Association.

Dr. Amirah has been awarded the UM Excellent Service Award in 2018 and Certificate of Excellent Service twice – in 2017 and 2020. She also won the Bronze medal in Knovasi: Kongress & Pertandingan Inovasi Pengajaran & Pembelajaran, UKM, 2020 for her contribution in generating solutions for problem-based learning (PBL) beginners.



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## ACADEMIC STAFF

### DR. NORAISHAH MYDIN ABDUL-AZIZ

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- Arthropods of Medical Importance
- Neural Tube Defect  
(*Developmental Neurobiology*)

It has been 10 years since I published my first paper (Abdul-Aziz NM, Turmaine M, Greene ND, & Copp AJ. 2009. EphrinA-EphA receptor interactions in mouse spinal neurulation: implications for neural fold fusion. *Int J Dev Biol*, 53(4), 559-68) and 11 years since I first joined the ever-joyful Department of Parasitology which has been my home away from home. Due to my interesting personality and curriculum vitae among others, I have come to the humble realisation that happiness exists in great bounty when pleasure is derived from nurturing young minds in the ever-challenging premise known as life. I am humbled by students continuously requesting positions in my laboratory despite the current tenuous scenario in procuring research grants. I am humbled too by the patient group which I support known as MALAYSIA NTD. Neural tube defects (NTDs) is a devastating condition and is in fact the leading central nervous system malformation in humans with an occurrence of 1-10 in 1000 births worldwide (Mohd-Zin S W, Marwan AI, Abou Chaar MK, Ahmad-Annuar A, & Abdul-Aziz NM. 2017. Spina Bifida: Pathogenesis, Mechanisms, and Genes in Mice and Humans. *Scientifica* (Cairo), 2017, 5364827). I should know as I have it. I have suffered the consequences of spina bifida occulta with neurological deficits since birth with an L3 lesion.

I am perhaps the oldest surviving person in Malaysia with spina bifida and a permanent ileal conduit which I have had since the age of 3. I understand the difficulties and anxieties of this condition so very acutely which is how I have built a network between individuals with spina bifida, their families, their care-givers and have tried to a certain extent to get government bodies in Malaysia to be vested in the interests of individuals with spina bifida which I hope to continue pursuing comfortable ensconced in the great working environment which is Department of Parasitology, FOM.

The peaceful environment of the Department of Parasitology has enabled me to build a mouse model with spina bifida occulta which may be the answer to the understanding of the mechanism between the aperta-type and the occulta-type as this is the first model of occulta with neurological deficits targeting 2 very specific genes whereby the surface ectoderm or the presumptive skin seems to be integral in the understanding of neural tube defects. A novel occulta-type spina bifida mediated by murine double heterozygotes EphA2 and EphA4 receptor tyrosine kinases. I am also now embarking on a series of proposed experiments to study the effects of parasites such as *Blastocystis hominis*, *Toxoplasma gondii* and *Giardia lamblia* on the developing mouse embryo. This is timely considering the recent outbreak of microorganisms potentially causing birth defects It has been an interesting journey thus far!

**HIDUP JABATAN PARASITOLOGI !**





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### Dr. Romano Ngui

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- Molecular Epidemiology and Public Health
- Medical Parasitology

Dr. Romano Ngui obtained his degree in Bachelor of Biomedical Science (2008), Master of Medical Science (2010) and Doctor of Philosophy (PhD) (2013) from the University of Malaya. His PhD thesis has been awarded distinction by the University of Malaya. Currently, he is a Senior Lecturer at the Department of Parasitology, Faculty of Medicine, University of Malaya.

To date, he has published over 60 journals (ISI Cited Publication) and 2 book chapters. According to the latest Thomson Reuters record, he has 13 h-index. Likewise, he has 17 h-index with 1012 citations based on the Google Scholars Citation record. Currently, he supervised 4 PhD and 2 Master candidates with 2 already completed. He is also actively supervising undergraduate final year research project including international internship students. His research interest is the epidemiological distribution of infectious diseases particularly Parasitology and Tropical Medicine that to developed and applied molecular and statistical models/tools to support operational research activities relating to infectious diseases control.

He has won several awards including University of Malaya Excellent Award under the category 'PhD Candidates with Highest Impact Publication' and 'PhD Candidates Completed Less Than 3 Years' (2013), 'Gold Medal Award' and 'Most Powerful Innovation Award' in the BioMalaysia Research Exhibition, Ministry of Science, Technology, and Innovation (MOSTI) and Malaysian Biotechnology Cooperation (2013) and the University of Malaya Excellent Service Award (Anugerah Perkhidmatan Cemerlang, APC) (2017).

He has attended intensive research training at the London School of Hygiene and Tropical Medicine (LSHTM), United Kingdom in the field of Spatial Epidemiology in Public Health (2011).

He has also been successfully selected to attend several international workshops including Introduction to Modeling of Infectious Diseases Workshop organized by Hong Kong University-Pasteur Research Pole (2016), Ungku Omar-Newton Fund Epidemiological Modeling Workshop organized by the University of Malaya and Imperial College London (2017) and Southeast Asian Scholars for Higher Education Leadership (SEASHEL) (2018) organized by the Ministry of Higher Education, Malaysia.

Apart from his academic position, he is also actively involved in various co-curriculum student activities includes sport, community and volunteerism work through his roles as a Fellow of the First Residential College, University of Malaya. Some of these activities have gained media coverage in major newspapers and mass media stream including RTM 1, Berita Harian, Harian Metro, Sinar Harian, and Utusan Borneo. He is also an active member of the Malaysian Society of Parasitology and Tropical Medicine (MSPTM) since 2008. He has served as Assistant Honorary Secretary and Council Member to the society).





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## ACADEMIC STAFF

### DR. CHEONG FEI WEN

[fwcheong18@um.edu.my](mailto:fwcheong18@um.edu.my)  
03-7967 6618

- Molecular Cloning
- Protein Expression
- Epitope Mapping
- Malaria

Cheong Fei Wen obtained her Bachelor's Degree in Biomedical Science (with distinction) from University of Malaya (UM), Malaysia in 2009. She passed her PhD with distinction early 2015 and received her PhD scroll in UM convocation 2015. She joined Department of Parasitology, Faculty of Medicine, UM as senior lecturer since 2016 and received excellent service certificate in year 2019. Since PhD study, she explored into several malaria-related aspects, including protein expression of the Plasmodium knowlesi merozoite surface proteins; immunogenicity study using animal models; and epitope mapping. Her current research interests include phenotypic and genotypic measures on Plasmodium sp. resistance against anti-malarial drugs, immunogenicity profiling of potential malarial vaccine candidates, and genome engineering in P. knowlesi using CRISPR-Cas9 system. With her deep passion in research, she has been successfully selected and awarded to attend several international workshops/courses including Ungku Omar-Newton Fund Researcher Links Workshop: Neglected Disease in SEA: Building Capacity in Epidemiological Modelling (University of Malaya, Malaysia & Imperial College London, UK) and Wellcome Genome Campus Advanced Course: Malaria Experimental Genetics (WGCAC, UK). She has also obtained and be part of several research grants, including UM Research Fund Assistance (BKP), Postgraduate Research Fund (PPP), Frontier Research Grant (FRG), MOHE Fundamental Research Grant Scheme (FRGS), and Long Term Research Grant Scheme (LRGS). With that, she has published about 20 research articles in ISI-indexed journals. She is currently the editor of the Journal of Health and Translational Medicine (JUMMEC), associate editor of Asia Pacific Journal of Molecular Biology and Biotechnology (APJMBB), and editorial board member of Tropical Biomedicine. She is also currently the department course coordinator for courses Diagnostic Parasitology and Advanced Diagnostic Parasitology in Bachelor's Degree of Biomedical Science Programme, committee member of Quality Assurance Programme - Quality Committee FOM, committee member of Seminar Proposal Defence for Postgraduates FOM, and committee member for Jawatankuasa Kurikulum di Peringkat Jabatan (JKKJ) and Jawatankuasa Pengajian (JKP) for Master of Medical Parasitology and Entomology Programme.



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## ACADEMIC STAFF

### DR. WAHIB MOHAMMED MOHSEN ATROOSH

wahib@um.edu.my  
03-7967 3789

- Malaria epidemiology & genotyping
- *Plasmodium falciparum*
- Antimalarial drug resistance

Dr. Wahib Atroosh, from Yemen, joined the Department of Parasitology, UM in 2019.

He has started his postgraduate studies as a Master student in the Department of Parasitology, UM in December 2009 and continued PhD in 2012 and later has awarded the PhD with Distinction in 2017.

The scientific career of Dr. Wahib has dedicated to the falciparum malaria parasite, the most malignant cause of human malaria, top-ranked the mortality rate and the leader of the parasite-resistance to antimalarial drugs.

Dr. Wahib research work has mainly focused on the monitoring of antimalarial drugs resistance using *in vivo* clinical trial and molecular gene markers. Moreover, he has contributed to soil transmitted helminths (STH) and health education program research projects.

Over the years of being a researcher at the Department of Parasitology, he has published 22 papers in ISI-indexed journals, and with h-index of 13 and a total of 627 citations.

Dr. Wahib is also contributing as a reviewer in medical journals including International Research Journal of Public and Environmental Health, Pathogens and Global Health, PLoS ONE, PLoS Neglected Tropical Diseases, Parasites & Vectors and the Transaction of the Royal Society of Tropical Medicine and Hygiene.

More recently, Dr. Wahib has joined an overseas research collaboration with the Medical Research Center, Jazan University, Saudi Arabia on epidemiology, genotyping and monitoring the antimalarial drugs resistance of falciparum malaria parasites.



# SUPPORT STAFF

**Mazni Mohamed Ali**  
Administrative Assistant



**Mohd Afiffudin Mohd Ali**  
Administrative Assistant



**Awang Bhukhari Bin Matsat**  
Administrative Assistant



**Dzuzaini Mohd Ghazali**  
Research Officer



**Mohd Khairul Bin Roslan**  
Medical Laboratory Technologist



**Mohd Redzuan Ahmad Naziri**  
Medical Laboratory Technologist



**Sharifah Nor Akmar Syed Mohd**  
Medical Laboratory Technologist



**Hasidah binti Omar**  
Medical Laboratory Technologist (PPUM staff)



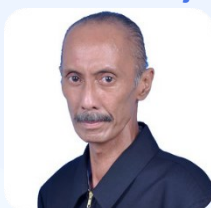
**Wan Hafiz bin Wan Ismail**  
Medical Laboratory Technologist (PPUM staff)



**Farikha binti Sarip**  
Medical Laboratory Technologist (PPUM staff)



**Mohd Sazalle Jamil**  
Pembantu Am Pejabat



**Khatijah Hj Othman**  
Medical Laboratory Technologist  
(Retired on 28.2.2020)



**Rohani Ali**  
Pembantu Am Pejabat





# POST-DOCTORAL RESEARCH FELLOWS

**Dr. Jeremy Ryan De Silva**  
Malaria (*Plasmodium knowlesi*)  
jeremy8811@um.edu.my



**Dr. Lee Soo Ching**  
Parasitic Infections, Gut microbiota, Nutritional status & inflammatory responses)  
leesc@um.edu.my



**Dr. Jonathan Liew Wee Kent**  
Molecular epidemiology & malaria vectors  
jonathanliew@um.edu.my



**Dr. Lai Meng Yee**  
Malaria (*Plasmodium knowlesi*)  
mengylai11@um.edu.my



**Dr. Arutchelvan Rajamanikam**  
Gut microbiome; *Blastocystis* & host-pathogen interaction; pathobiome  
arun04@um.edu.my



**Dr. Tan Tiong Kai (Stanley)**  
Nematology (drug resistance); Medico-veterinary parasitology & entomology  
tantk@um.edu.my



**Dr. Yap Nan Jiun**  
Molecular epidemiology and characterization of parasites  
nanjiunyap@um.edu.my



# POSTGRADUATES

## Ph.D. students

1	MVA190022	Aimi Diyana Gapor
2	MHA160007	Azdayanti Muslim
3	17169664	Er Yi Xian
4	17218454	Freddy Franklin A/L Anthony Joseph
5	MHA160019	Manal Ali Saleh Al-Ashwal
6	MVA190004	Nantha Kumar A/L Jeyaprakasam
7	MVA180045	Naqib Rafieqin B. Noordin
8	MHA150008	Muhammad Aidil Bin Roslan
9	MHA130080	Nabil Ahmed Mohammed Nasr
10	MVA170003	Pavitra A/P Soosai
11	17219440	Phang Wei Kit
12	MVA190005	Sandhya Pramasivan
13	MVA170036	Sheela Devi A/P Sugadan
14	MVA180036	Sivaneswari A/P Selvarajoo
15	MVA190025	Siti Waheeda Binti Mohd Zin @ Zain
16	MHA150029	Sonal Girish
17	MVA190020	Tan Jia Hui
18	MVA180032	Tan Pei Yee
19	MGN180028	Tan Wing
21	17218684	Ummi Wahidah Binti Azlan
22	MHA150047	Vinnie Siow Wei Yin
23	MHA150016	Wan Najdah Binti Wan Mohamad Ali

## Master students

1	MGN170011	Ahmad Fakhriy Hassan
2	MGN180037	Fatma Diyana Bt Mohd Bukhari
3	MMF190001	Lee Phone Youth @ Zen Lee
4	MGN140062	Mohamad Azlan Bin Abd. Majid
5	MGN130029	Mohamad Hafiz Bin Abd Basher
6	17217909	Ng Yee Ling
7	S20209043/1	Nisheljeet Singh A/L Joginder Singh
8	MGN170026	Ong Nyee Huey
9	MGN160037	Rafidah Ali
10	17062142	Siti Farah Norasyikeen Bt Sidi Omar
11	MGN180029	Syahirah Nadiyah Binti Mohd Johari
12	MMF190020	Ummi Kalthum Bt Azlan



**Prof. Dr. Lau Yee Ling**

- Program Berimpak Tinggi 6 (HIP6), Principal Investigator(PI), 2020 - 2021, Geran Khas Dana Harta Intelek (COPYRIGHT)
- Point-Of-Care (POC) Reverse Transcription Loop-Mediated Isothermal Amplification Assay for rapid detection of SARS-CoV-2, Principal Investigator(PI), 2020 - 2021, Prototype Research Grant Scheme (PRGS)
- Rapid Point-Of-Care (POC) tests for the detection of malaria, Principal Investigator(PI), 2019 - 2023, Long Term Research Grant Scheme (LRGS)

**Prof. Dr. Suresh Kumar**

- Development of a predictive tool for the predisposition of colorectal cancer (CRC) using gut microbiome analysis and mucosal immunity with reference to *Blastocystis* sp. (TRGS - Programme)
- Elucidating the interaction between *Blastocystis* sp. and microbial diversity to study its effect on healthy individuals and patients with different stages of colorectal cancer. (TRGS - Project)
- Assessment of gut microbiota including *Blastocystis* sp. In the early detection of mental illness

**Prof. Datin Dr. Indra Vythilingam**

- Geographical distribution and bionomics of the vectors of *Plasmodium knowlesi* malaria with reference to malaria elimination in P. Malaysia, Principal Investigator(PI), 2019 - 2022, Long Term Research Grant Scheme (LRGS)
- Endogenous viral elements in Malaysian Aedes mosquitoes with natural resistance against chikungunya virus, Consultant, 2018 - 2021, RU GERAN - Fakulti Program

**Prof. Dr. Fong Mun Yik**

- Characterising the zoonotic potential of *Plasmodium cynomolgi*, a malaria parasite prevalent in macaques in Malaysia and Southeast Asia, Principal Investigator(PI), 2020-2023, Fundamental Research Grant Scheme (FRGS)
- Genetic diversity of *Plasmodium knowlesi* invasion-related proteins, (Project Leader), 2019 - 2023, Long Term Research Grant Scheme (LRGS)
- A Multi-pronged approach in combating Knowlesi Malaria, (Program Leader), 2019 - 2023, Long Term Research Grant Scheme (LRGS)
- Effect of erythrocyte Duffy (fy) polymorphism on human susceptibility to the zoonotic malaria parasite *Plasmodium knowlesi*, Principal Investigator(PI), 2017 - 2020, UM Grant - Frontier Research Grant

**Prof. Dr. Yvonne Lim Ai Lian**

- The microbiome diversity of the Malaysian long house of Borneo, Principal Investigator(PI), 2019 - 2020, University of Malaya Partnership Grant
- Interactions between helminth colonization and the gut microbiota, Principal Investigator(PI), 2018 - 2022, International Funding.

# RESEARCH GRANTS

*continue,*

A/P Dr. Wan Yusoff Wan Sulaiman	<ul style="list-style-type: none"> <li>Genetic approaches to reducing vector competence of <i>Aedes Aegypti</i> for Chikungunya Virus, Consultant, 2016 - 2022, International Funding</li> </ul>
Dr. Noraishah Mydin Abdul-Aziz	<ul style="list-style-type: none"> <li>Identification of candidate gene variants and its relevance in the understanding of Spina Bifida in Malaysia, Principal Investigator(PI), 2019 - 2022, Fundamental Research Grant Scheme (FRGS)</li> </ul>
Dr. Romano Ngui	<ul style="list-style-type: none"> <li>Geographical distribution and bionomics of the vectors of <i>Plasmodium Knowlesi</i> malaria with reference to malaria elimination in P. Malaysia, Consultant, 2019 - 2023, Long Term Research Grant Scheme (LRGS)</li> <li>The microbiome diversity of the Malaysian long house of Borneo, Consultant, 2019 - 2020, Partnership Grant</li> <li>Molecular characterization and associated clinical manifestation of opportunistic pathogenic organisms among immunocompromised children with cancer, Principal Investigator(PI), 2019 - 2021, Others MOHE - Top 100 (IIRG)-HWB</li> <li>Development and evaluation of rapid and simultaneous detection of Neglected Helminths species using Pentaplex Conventional Polymerase Chain Reaction (PCR) Assay, Principal Investigator(PI), 2018 - 2021, Private Funding</li> <li>Geospatial and temporal distribution of Aedes mosquitoes in Dengue hotspot localities in Selangor, Consultant, 2018 - 2021, RU Geran</li> <li>Population based-cross-sectional study of parasitic infection among Orang Ulu communities in Sarawak, Principal Investigator (PI), 2017 - 2020, Geran Penyelidikan Universiti Malaya (UMRG Programme) - HTM (Wellness)</li> <li>Study of emerging zoonotic infectious diseases among the Orang Asli as early disease detection system, 2020 – 2022, Penyelidikan Fakulti Perubatan</li> </ul>
Dr. Amirah Amir	<ul style="list-style-type: none"> <li>Zoogeographical distribution, epidemiology, and multilocus genotyping of <i>Plasmodium Knowlesi</i> among primates in Peninsular Malaysia, Principal Investigator(PI), 2019 - 2023, Long Term Research Grant Scheme (LRGS)</li> </ul>
Dr. Cheong Fei Wen	<ul style="list-style-type: none"> <li>Would genetic polymorphism in <i>Plasmodium Knowlesi</i> Duffy binding protein alpha (PkDBPalpha) lead to differences in regulation of immune responses in host?, Principal Investigator(PI), 2019 - 2021, Fundamental Research Grant Scheme (FRGS)</li> </ul>



# PUBLICATIONS

## SECOND RUNNER-UP

Highest ISI-Indexed Publication - 2020

Non-Clinical Departments, FOM

(Ratio of Published Papers/Academic Staff = 3.08)

(as 2<sup>nd</sup> November 2020)



Ser.	Title	Journal	IF	Tier
1	Increased prevalence of pfdhfr and pfdhps mutations associated with sulfadoxine-pyrimethamine resistance in <i>Plasmodium falciparum</i> isolates from Jazan Region, Southwestern Saudi Arabia: important implications for malaria treatment policy	Malaria Journal	2.631	Q1
2	Gender beyond male and female: Occurrence of a gynandromorph in the Japanese encephalitis vector <i>Culex sitiens</i> (Diptera: Culicidae)	Acta Tropica	2.629	Q1
3	The study of seroprevalence of hepatitis E virus and an investigation into the lifestyle behaviours of the aborigines in Malaysia	Zoonoses and Public Health	2.164	Q1
4	Updates on malaria incidence and profile in Malaysia from 2013 to 2017	Malaria Journal	2.631	Q1
5	Description, molecular characteristics and Wolbachia endosymbionts of <i>Onchocerca borneensis</i> Uni, Mat Udin & Takaoka n. sp. (Nematoda: Filarioidea) from the Bornean bearded pig <i>Sus barbatus</i> Muller (Cetartiodactyla: Suidae) of Sarawak, Malaysia	Parasites & Vectors	3.031	Q1
6	Dengue fever among febrile patients in Taiz City, Yemen during the 2016 war: Clinical manifestations, risk factors, and patients knowledge, attitudes, and practices toward the disease	One Health	4.694	Q1
7	<i>Plasmodium vivax</i> drug resistance markers: Genetic polymorphisms and mutation patterns in isolates from Malaysia	Acta Tropica	2.629	Q1
8	Temporal changes in gut microbiota profile in children with acute lymphoblastic leukemia prior to commencement-, during-, and post-cessation of chemotherapy	BMC Cancer	2.933	Q3
9	Identification of <i>Plasmodium knowlesi</i> Merozoite Surface Protein-1(19) (PkMSP-1(19)) novel binding peptides from a phage display library	Tropical Medicine & International Health	2.423	Q2
10	Effect of <i>Brugia pahangi</i> co-infection with <i>Plasmodium berghei</i> ANKA in gerbils ( <i>Meriones unguiculatus</i> )	Parasitology Research	2.067	Q2
11	Plasmodium-infected erythrocytes induce secretion of IGFBP7 to form type II rosettes and escape phagocytosis	eLife	7.551	Q1
12	Two genetically distinct <i>Plasmodium knowlesi</i> Duffy binding protein alpha region II (PkDBP alpha II) haplotypes demonstrate higher binding level to Fy(a plus b plus) erythrocytes than Fy(a plus b-) erythrocytes	American Journal of Tropical Medicine and Hygiene	2.126	Q2
13	Seroprevalence of <i>Sarcocystis falcatula</i> in two islands of Malaysia using recombinant surface antigen 4	Korean Journal of Parasitology	1.167	Q4
14	A holistic approach is needed to control the perpetual burden of soil-transmitted helminth infections among indigenous schoolchildren in Malaysia	Pathogens and Global Health	1.969	Q2
15	<i>Toxoplasma gondii</i> infection among selected indigenous community in Sarawak, East Malaysia	Tropical Biomedicine	0.418	Q4
16	Copro-molecular study of <i>Entamoeba</i> infection among the indigenous community in Malaysia: A first report on the species-specific prevalence of <i>Entamoeba</i> in dogs	Acta Tropica	2.629	Q1
17	Temporal variation in diversity and community structure of preimaginal blackflies (Diptera: Simuliidae) in a tropical forest reserve in Malaysia	Acta Tropica	2.629	Q1
18	Genetic diversity and differentiation in the blackflies <i>Simulium cheongi</i> , <i>Simulium jeffreyi</i> and <i>Simulium vanluni</i> (Diptera: Simuliidae) in Peninsular Malaysia	Acta Tropica	2.629	Q1

Ser.	Title	Journal	IF	Tier
19	First case report of paragonimiasis in a Malaysian man	Tropical Biomedicine	0.418	Q4
20	Molecular detection of porcine <i>Enterocytozoon bieneusi</i> infection in Peninsular Malaysia and epidemiological risk factors associated with potentially zoonotic genotypes	Parasitology Research	2.067	Q2
21	Synthesis, cytotoxicity and antimalarial activities of thiosemicarbazones and their nickel (II) complexes	Journal of Molecular Structure	2.12	Q3
22	Epitope variances demonstrated by <i>Blastocystis</i> sp. ST3 symptomatic and asymptomatic isolates	Tropical Biomedicine	0.418	Q4
23	Inapparent dengue in a community living among dengue-positive <i>Aedes</i> mosquitoes and in a hospital in Klang Valley, Malaysia	Acta Tropica	2.629	Q1
24	Real-time reverse transcription loop-mediated isothermal amplification for rapid detection of SARS-CoV-2	Peerj	2.353	Q2
25	Possible factors influencing the seroprevalence of dengue among residents of the forest fringe areas of Peninsular Malaysia	Journal of Tropical Medicine	1.233	Q3
26	Clinical theragnostic potential of diverse Mirna expressions in prostate cancer: a systematic review and meta-analysis	Cancers	6.126	Q1
27	Detection of <i>Plasmodium knowlesi</i> using recombinase polymerase amplification (RPA) combined with SYBR Green I	Acta Tropica	2.555	Q1
28	Evaluation of WarmStart Colorimetric Loop-Mediated Isothermal Amplification assay for diagnosis of malaria	American Journal of Tropical Medicine and Hygiene	2.126	Q2
29	Vector competence of Malaysian <i>Aedes aegypti</i> to Zika virus and impact of sequential arbovirus infections	Acta Tropica	2.555	Q1
30	Investigative study on the role of the Toxo 5699 gene in the <i>Toxoplasma gondii</i> lytic cycle using the CRISPR/Cas9 system	Tropical Biomedicine	0.509	Q4
31	Cross-species reactivity of antibodies against <i>Plasmodium vivax</i> blood-stage antigens to <i>Plasmodium knowlesi</i>	PLoS NTD	3.885	Q1
32	Knowledge, attitude and practice on dengue prevention and dengue seroprevalence in a dengue hotspot in Malaysia: A cross-sectional study	Scientific Reports	3.998	Q1
33	Droplet digital polymerase chain reaction (ddPCR) for the detection of <i>Plasmodium knowlesi</i> and <i>Plasmodium vivax</i>	Malaria Journal	2.631	Q1
34	Seroprevalence of Nipah Virus Infection in Peninsular Malaysia	Journal of Infectious Diseases	5.022	Q1
35	Elimination of contamination in Loop-Mediated Isothermal Amplification assay for detection of human malaria	Tropical Biomedicine	0.509	Q4
36	Prevalence of asymptomatic and/or low-density malaria infection among high-risk groups in Peninsular Malaysia	American Journal of Tropical Medicine and Hygiene	2.126	Q2
37	Erythrocyte binding activity of PkDBPaII of <i>Plasmodium knowlesi</i> isolated from high and low parasitemia cases	American Journal of Tropical Medicine and Hygiene	2.126	Q2
38	Enteral myiasis causing acute dysentery: A case report	Tropical Biomedicine	0.509	Q4
39	Spatial and temporal analysis of <i>Plasmodium knowlesi</i> infection in Peninsular Malaysia, 2011 to 2018	International Journal of Environmental Research and Public Health	2.468	Q2
40	Genetic diversity of <i>Pediculus humanus capitis</i> (Phthiraptera: Pediculidae) in Peninsular Malaysia and molecular detection of its potential associated pathogens	Journal of Medical Entomology	1.925	Q1
41	Seropositivity and risk factors of <i>Toxocara canis</i> infection in adult asthmatic patients	Tropical Biomedicine	0.509	Q4



Ser.	Title	Journal	IF	Tier
42	Natural Wolbachia infection in field-collected <i>Anopheles</i> and other mosquito species from Malaysia	Parasites & Vectors	3.031	Q1
43	Human exposure to zoonotic malaria vectors in village, farm and forest habitats in Sabah, Malaysian Borneo	PLoS NTD	3.885	Q1
44	Detection of Japanese encephalitis virus in <i>Culex</i> Mosquitoes in Singapore	American Journal of Tropical Medicine and Hygiene	2.126	Q2
45	<i>Plasmodium knowlesi</i> infecting humans in Southeast Asia: What's next?	PLoS NTD	3.885	Q1
46	First evidence of <i>Bartonella phoceensis</i> and <i>Candidatus Mycoplasma haemomuris</i> subsp. <i>ratti</i> in synanthropic rodents in Malaysia	Asian Pacific Journal of Tropical Medicine	1.940	Q2
47	Genetic diversity of circumsporozoite protein in <i>Plasmodium knowlesi</i> isolates from Malaysian Borneo and Peninsular Malaysia	Malaria Journal	2.631	Q1
48	Characterization of benzimidazole resistance in <i>Haemonchus contortus</i> : Integration of phenotypic, genotypic and proteomic approaches	Parasitology Research	1.641	Q3
49	A sensitive Reverse Transcription Loop-Mediated Isothermal Amplification assay for direct visual detection of SARS-CoV-2	American Journal of Tropical Medicine and Hygiene	2.126	Q2
50	Indoor and outdoor residual spraying of a novel formulation of deltamethrin K-Othrine® (Polyzone) for the control of simian malaria in Sabah, Malaysia	PLoS ONE	2.740	Q2
51	Case report: recurrence of <i>Plasmodium vivax</i> malaria due to defective cytochrome P450 2D6 function in Pos Lenjang, Pahang, Malaysia	Transactions of The Royal Society of Tropical Medicine and Hygiene	1.868	Q3
52	Natural <i>Plasmodium</i> infection in wild macaques of three states in Peninsular Malaysia	Acta Tropica	2.555	Q1
53	Asymptomatic neurotoxicity of amyloid $\beta$ -peptides (A $\beta$ 1-42 and A $\beta$ 25-35) on mouse embryonic stem cell-derived neural cells	Bosnian Journal of Basic Medical Sciences	2.050	Q3
54	Survey of dengue knowledge and prevention practices associated with sociodemographic status: a cross-sectional study among the community living in an urban area of Selangor, Malaysia	Journal of the American Mosquito Control Association	0.942	Q3
55	An overview of rickettsiae in Southeast Asia: Vector-animal-human interface	Acta Tropica	2.629	Q1
56	Detection of <i>Toxoplasma gondii</i> by Loop-Mediated Isothermal Amplification in blood and urine samples from women, Saudi Arabia	Journal of Clinical and Diagnostic Research	0.289	Q3
57	Phytochemical screening, gas chromatography mass spectroscopy (GC-MS) and in vitro antiplasmodial analysis of <i>Senna siamea</i> leaves as antimalarial, Yobe State, Nigeria	Nigerian Journal of Parasitology	0.130	Q4
58	Spatial distribution, enzymatic activity, and insecticide resistance status of <i>Aedes aegypti</i> and <i>Aedes albopictus</i> from dengue hotspot areas in Kuala Lumpur and Selangor, Malaysia	Serangga	0.42	Q4
59	Preliminary assessment on malaria-related knowledge, attitudes and practices (KAP) amongst visitors at selected recreational parks in Peninsular Malaysia	Serangga	0.42	Q4
60	MTRR gene variant rs1801394 found in Malaysian patients with neural tube defects	Neuroscience Research Notes	--	--

# DIAGNOSTIC UNIT OF PARASITOLOGY

*Diagnostic Parasitology laboratory performs approximately 350-400 cases per month*



## NUMBER OF TESTS DONE IN 2020

Test	No. Tests
Stool (FEME)	1015
Malaria Microscopy	388
Malaria (PCR)	3
<i>Acanthamoeba</i> spp. culture	81
Filariasis (Blood film)	30
Filariasis (Serology)	23
Toxoplasmosis (Serology)	68
Toxoplasmosis (PCR)	31
Amoebiasis (Serology)	22
Strongyloidiasis (Serology)	6
Schistosomiasis (Serology)	4
Cysticercosis	14
Toxocariasis	7
Echinococcosis (Serology)	2
Leishmaniasis (Serology)	2
Bone marrow ( <i>Leishmania</i> spp.)	1
Urine for Schistosome	4
Ectoparasite / maggot identification	9
<b>TOTAL NO. OF TESTS</b>	<b>1710</b>

## INDUSTRIAL TRAINING PROGRAMME

College of Medical Laboratory Technology,  
Universiti Malaya Medical Centre



PICOMS International University College



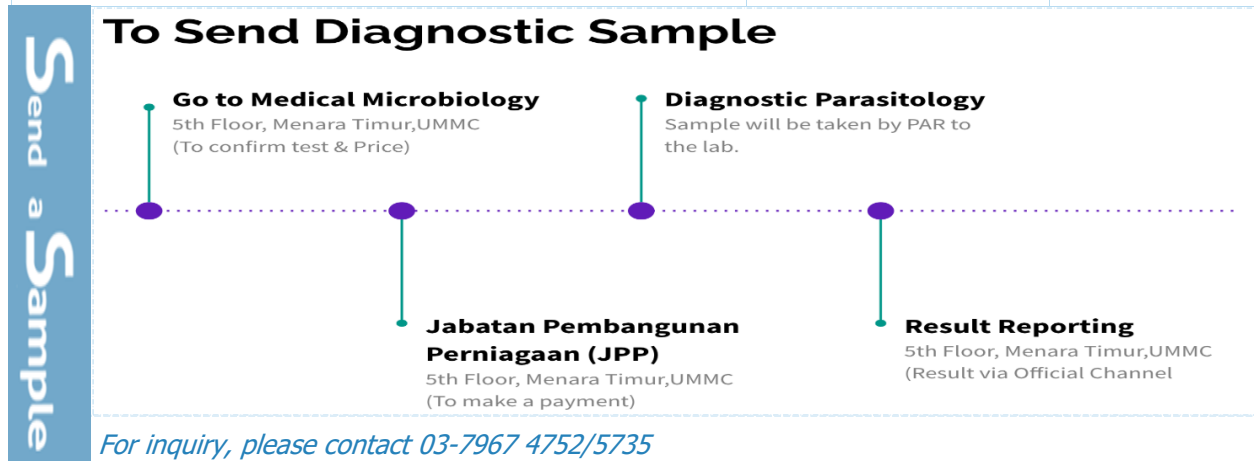
University Tunku Abdul Rahman





## LIST OF TESTS OFFERED IN DIAGNOSTIC PARASITOLOGY

NAME OF TEST		ORDER CODE (LIS)	PRICE (RM)
<b>BLOOD</b>	Malaria Detection	MALA	70.00
	Microfilariae Detection	FILA	60.00
<b>SEROLOGY</b>	Amoebiasis	SAMO	310.00
	Cysticercosis	SCYS	390.00
	Echinococcosis	SECH	310.00
	Filariasis	SFIL	100.00
	Leishmaniasis	SLEI	325.00
	Schistosomiasis	SSCH	295.00
	Strongyloidiasis	SSTR	320.00
	Toxocariasis	STOC	305.00
	Toxoplasmosis	STOM	275.00
<b>STOOL</b>	Stool FEME	PARAS	80.00
<b>MOLECULAR</b>	PCR Malaria	PMALA	315.00
	PCR Toxoplasmosis	PTOM	315.00
<b>OTHERS:</b>			
Identification of Dipteran Larvae / Ectoparasites/ Helminths		PMAGT	50.00
Urine / Vaginal Discharge		USCH / UTRI	45.00
Leishmania donovani - Bone Marrow Smear		PBLE	50.00
Acanthamoeba Culture		ACAN	65.00





## PROPOSAL DEFENCE SEMINAR:

Name	Matric no	Seminar title
NANTHA KUMAR A/L JEYAPRAKASAM	MVA190004	BIONOMICS OF SIMIAN MALARIA VECTORS AND MOLECULAR CHARACTERISATION OF ITS PARASITES IN PENINSULAR MALAYSIA.
SANDTHYA PRAMASIVAN	MVA190005	GENETIC VARIATION AND SPATIAL DISTRIBUTION OF THE SIMIAN MALARIA VECTORS OF PENINSULAR MALAYSIA.
UMMI KALTHUM BT AZLAN	MMF190020	THE EFFECT OF <i>PLASMODIUM KNOWLESII</i> DUFFY BINDING PROTEIN ALPHA REGION II (PKDBPAII) GENETIC POLYMORPHISMS ON THE IMMUNE RESPONSES IN ANIMAL MODELS.
LEE PHONE YOUTH @ ZEN LEE	MMF190001	DEVELOPMENT OF POINT-OF-CARE LOOP MEDIATED ISOTHERMAL AMPLIFICATION-LATERAL FLOW (LAMP-LF) ASSAY FOR DETECTION OF <i>PLASMODIUM</i> SPECIES.
TAN JIA HUI	MVA190020	DEVELOPMENT AND OPTIMIZATION OF IMMUNOCHROMATOGRAPHIC TEST (ICT) FOR RAPID DIAGNOSIS OF HUMAN MALARIA AND ITS FIELD EVALUATION.
PHANG WEI KIT	17219440	GENETIC DIVERSITY OF <i>PLASMODIUM KNOWLESII</i> AND MODELLING OF ITS TRANSMISSION IN PENINSULAR MALAYSIA.
NG YEE LING	17217909	GENETIC DIVERSITY AND IMMUNOGENETICITY PROFILING (IN ANIMAL MODELS) OF <i>PLASMODIUM KNOWLESII</i> APICAL MEMBRANE ANTIGEN 1 (PKAMA-1) FROM PENINSULAR MALAYSIA AND MALAYSIAN BORNEO.
UMMI WAHIDAH BINTI AZLAN	17218684	GENETIC DIVERSITY AND IMMUNOGENICITY PROFILLING OF <i>PLASMODIUM KNOWLESII</i> SURFACE PROTEIN ALTERED THROMBOSPONDIN REPEATED DOMAIN (PKSPATR) AND RHOPTRY ASSOCIATED PROTEIN 1 (PKRAP1)
SITI WAHEEDA BINTI MOHD ZIN @ ZAIN	MVA190025	EPIDEMIOLOGY AND STUDY OF CANDIDATE NEURAL TUBE DEFECTS GENE VARIANTS IN MALAYSIA
SITI FARAH NORASYIKEEN BT SIDI OMAR	17062142	MOLECULAR CHARACTERIZATION AND ASSOCIATED CLINICAL MANIFESTATION OF OPPORTUNISTIC PATHOGENIC ORGANISMS AMONG CHILDREN WITH CANCER
SITI FARAH NORASYIKEEN BT SIDI OMAR	17062142	STUDY OF GASTROINTESTINAL PARASITE AND GUT MICROBIOTA AMONG CANCER PATIENTS IN TERTIARY TEACHING HOSPITAL IN MALAYSIA



## CANDIDATURE DEFENCE SEMINAR:

AZDAYANTI MUSLIM	MHA160007	A COMPARATIVE STUDY ON SOIL-TRANSMITTED HELMINTH INFECTIONS, MALNUTRITION STATUS, EFFECT OF ANTHELMINTIC TREATMENT AND GUT MICROBIOTA BETWEEN INDIGENOUS NEGRITO IN RESETTLEMENT AT TOWN PERIPHERIES AND INLAND JUNGLE.
PAVITRA A/P SOOSAI	MVA170003	ECOLOGY, GENETIC AND PROTEIN PROFILING OF <i>SIMULIUM CHEONGI</i> , <i>SIMULIUM JEFFREYI</i> AND <i>SIMULIUM VANLUNI</i> (DIPTERA: SIMULIIDAE) IN TROPICAL STREAMS IN MALAYSIA.
MUHAMMAD AIDIL BIN ROSLAN	MHA150008	MOLECULAR DETECTION OF DENGUE VIRUS, WOLBACHIA AND SPATIAL DISPERSAL OF FIELD-CAPTURED AEDES SPECIES USING MODIFIED STICKY OVITRAP IN THE URBAN COMMUNITY IN PETALING JAYA, SELANGOR.
RAFIDAH ALI	MGN160037	KNOWLEDGE, ATTITUDES AND PRACTICES OF PARK VISITORS REGARDING MOSQUITO AS VECTOR, MOSQUITO DISTRIBUTION AND INSECTICIDE RESISTANCE STATUS AT THE SELECTED RECREATIONAL PARKS IN PENINSULAR MALAYSIA.
FATMA DIYANA BINTI MOHD BUKHARI	MGN180037	BINDING ACTIVITY OF <i>PLASMODIUM KNOWLESI</i> DUFFY BINDING PROTEIN ALPHA REGION II (PKDBPAII) CORRESPONDING TO HIGH AND LOW PARASITAEMIA ISOLATES
AZDAYANTI MUSLIM	MHA160007	A COMPARATIVE STUDY ON SOIL-TRANSMITTED HELMINTH INFECTIONS, MALNUTRITION STATUS, EFFECT OF ANTHELMINTIC TREATMENT AND GUT MICROBIOTA BETWEEN INDIGENOUS NEGRITO IN RESETTLEMENT AT TOWN PERIPHERIES AND INLAND JUNGLE

## THESIS SEMINAR:

AZDAYANTI BINTI MUSLIM	MHA160007	SOIL-TRANSMITTED HELMINTH INFECTIONS, MALNUTRITION STATUS, EFFECT OF ANTHELMINTIC TREATMENT AND GUT MICROBIOTA: A COMPARISON BETWEEN NEGRITOS (INDIGENOUS) IN INLAND JUNGLE AND THOSE IN RESETTLEMENT AT TOWN PERIPHERIES
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## CONFIRMATION SEMINAR:

SIVANESWARI A/P SELVARAJOO	MVA180036	CLUSTER RANDOMIZED TRIAL: GRAVID OVIPOSITING STICKY TRAP (GOS) AND NS1 ANTIGEN TEST KIT FOR DENGUE VECTOR SURVEILLANCE IN SELANGOR, MALAYSIA.
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## CONVERSION MASTER TO PhD SEMINAR:

TAN WING	MGN180028	RAPID DIAGNOSIS AND INFECTIOUSNESS OF SYMPTOMATIC AND ASYMPTOMATIC DENGUE
LEE PHONE YOUTH @ ZEN LEE	17202081	DEVELOPMENT OF A POINT-OF-CARE LOOP MEDIATED ISOTHERMAL AMPLIFICATION ASSAY FOR THE DETECTION OF HUMAN PLASMODIUM SPECIES

Istiadat  
*Konwokesyen*  
Convocation Ceremony  
60



CONVOCATION 2020



Ph.D

Thesis title: Molecular investigation of human and simian *Plasmodium* species  
among human archived blood samples in Malaysia

*(Convocated in 2020)*



# REMARKABLE ACHIEVEMENT & AWARDS



## I: ACADEMIC SAFF

### **PROF. DR. SURESH KUMAR**

Gold Medal Winner

4<sup>th</sup> Wave Execution Integrity Software.

Category: Education

Asia's Leading Invention, Innovation & Technology Exhibition (ITEX' 20)

20-21 November 2020, Kuala Lumpur, Malaysia

### **PROF. DR. YVONNE LIM AI LIAN**

Council Member: Academic of Sciences Malaysia (ASM), 2020-2021

### **PROF. DR. LAU YEE LING & PROF. DR. FONG MUN YIK**

Malaysia Toray Science Foundation (MTSF) Science & Technology Award & Grants

2020 (30,000)

### **PROF. DR. LAU YEE LING**

Gold Medal

7th Korea Creative Invention Contest (CiC), Korea Invention News (Kinews)

2020

### **DR. AMIRAH AMIR**

Bronze Medal

Knovasi: Kongress & Pertandingan Inovasi Pengajaran & Pembelajaran

UKM, 2020

## II: STUDENTS

### **NG. YEE LING**

Gold Award

Best Oral Presentation

International E-conference on Biotechnology, Bioinformatics and Biomedicine

Malaysia, 2020

### **FATMA DIYANA BT. MOHD BUKHARI & LEE PHONE YOUTH @ ZEN LEE**

Bronze Awards

Best Oral Presentation

International E-conference on Biotechnology, Bioinformatics and Biomedicine

Malaysia, 2020

# DEPARTMENT ACTIVITIES

SPEAKER	DATE	TOPIC
<b>Dr. Afdalina Tumian</b> Int. Islamic Univ. Malaysia (IIUM)	08/01/20	Department of Parasitology Journal Club: When Data Sciences Meet Biology
<b>Dr. Caroline L. Ng.</b> University of Nebraska Medical Center, USA	18/02/20	Department of Parasitology Journal Club: Stress response, proteasomes & artemisinin resistance
<b>Dr. George Snounou</b> Université Paris-Saclay, Inserm, CEA, France	24-28 /02/20	Research consultation
<b>Dr. Ahmed Khaldun Ismail</b> Universiti Kebangsaan Malaysia (UKM)	26/02/20	Department of Parasitology Journal Club: Clinical Manifestation from <i>Theleticopis malayensis</i> bite evenoming
<b>Dr. Heo Chong Chin</b> UTMARA	26/02/20	Department of Parasitology Journal Club: Carrion ecology and forensic entomology: current research and its future
<b>Dr. Noraishah Mydin Abdul Aziz</b> Dept. Parasitology, UM	22/03/20	Reg Congress of the Perinatal Soc of Malaysia (PSM) Why are we still having neural tube defects?
<b>Dr. Noraishah Mydin Abdul Aziz</b> Dept. Parasitology, UM	15/04/20	BFM interview Higher Education
<b>Dr. Noraishah Mydin Abdul Aziz</b> Dept. Parasitology, UM	05/05/20	United Voice Talk Malaysia: What is Spina Bifida?
<b>Prof. Dr. Suresh Kumar</b> Dept. Parasitology, UM	04/05/20	Facebook Live: Unleashing Success Principles: Series I
<b>Prof. Dr. Suresh Kumar</b> Dept. Parasitology, UM	18/05/20	Facebook Live: Unleashing Success Principles: Series II
<b>Prof. Dr. Suresh Kumar</b> Dept. Parasitology, UM	30/05/20	Facebook Live: Unleashing Success Principles: Series III
<b>Dr. Noraishah Mydin Abdul Aziz</b> Dept. Parasitology, UM	03/06/20	BFM Interview: E-Learning Infrastructure
<b>Prof. Datin Dr. Indra Vythilingam</b> Dept. Parasitology, UM	09/06/20	APMEN Technical Talk: Forest Goers and residual malaria: addressing the Challenges: <i>P. knowlesi</i> and forest goers: What's Next?
<b>Prof. Dr. Suresh Kumar</b> Dept. Parasitology, UM	13/06/20	Facebook Live: Unleashing Success Principles: Series IV
<b>Prof. Dr. Suresh Kumar</b> Dept. Parasitology, UM	27/06/20	Facebook Live: Unleashing Success Principles: Series V
<b>Prof. Datin Dr. Indra Vythilingam</b> Dept. Parasitology, UM	22/06/20	Malaria Immunology & Elimination (MIE) 2020: Virtual Symposium Is Simian malaria a threat to malaria elimination?
<b>Assoc. Prof. Dr. Siti Nursheena Mohd Zain</b> Faculty of Science, UM	26/06/20	Department of Parasitology Journal Club: Parasitic infections among migrant workers and health policy implications
<b>Yvonne Lim Ai Lian</b> Dept. Parasitology, UM	29/06/20	Rethink, Reengineer and Revolutionise Research in Tropical Diseases, Academy of Sciences Malaysia
<b>Dr. Hajjah Katijjahbe Binti Md Ali</b> Hospital Canselor Tuanku Muhriz (HCTM)	27/07/20	Department of Parasitology Journal Club: Randomized Control Trial: A practical approach in writing proposal
<b>Prof. Dr. Lau Yee Ling</b> Dept. Parasitology, UM	6/08/20	Pensyarah Perdana: <i>Knowlesi</i> Malaria
<b>Dr. Siti Harwani Md. Yusoff</b> University Sains Malaysia (USM)	23/09/20	Department of Parasitology Journal Club: Can We Predict Earthquake?
<b>Dept. Parasitology Support Staff</b>	15/10/20	Safety toolbox briefing & training workshop
<b>Dr. Noraishah Mydin Abdul Aziz</b> Dept. Parasitology, UM	21/10/20	Lecture at the Department of Biomedical Science, FOM, UM
<b>Prof. Dr. Manickam Ravichandran</b> AIMST University	26/11/20	Department of Parasitology Journal Club: A Bacterial Vectored Vaccine Platform For Emerging Disease
<b>Prof. Dr. Jennifer Ann Harikrishna</b> Centre for Res in Biotech for Agri, UM	26/11/20	Molecular Biology & Biotechnology for Climate Change: A Model Study in Banana
<b>Dr. Chau De Ming, UPM</b> University Putra Malaysia (UPM)	09/12/20	Department of Parasitology Journal Club: Make research integrity education fun and relevant
<b>Prof. Dr. Yvonne Lim Ai Lian</b> Dept. Parasitology, UM	21/12/20	UM-CGMH Basic Science Immunology & Microbiota
<b>Dr. Wahib Mohammed Mohsen</b> Dept. Parasitology, UM	22 /12/20	Bridging Knowledge Training Program: EndNote Citation Manager for postgraduate students



# Special events!

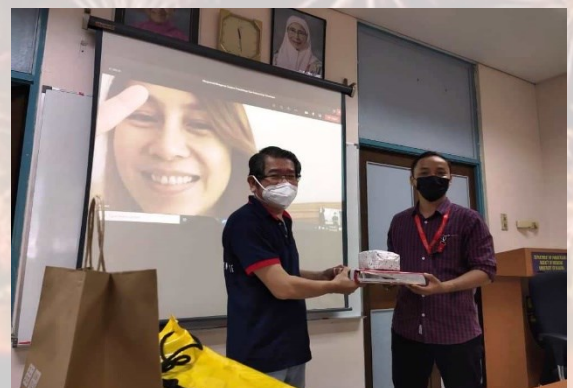
CNY 2020  
4th February 2020



Syarahana Perdana  
Professor Dr. Lau Yee Ling  
6th August 2020



Mohd Afiffudin Farewell  
10th December 2020





UNIVERSITI MALAYA

# MASTER OF MEDICAL PARASITOLOGY AND ENTOMOLOGY

ONE-YEAR MASTER DEGREE BY COURSEWORK



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THE UNIQUENESS OF THE PROGRAMME ARE:

- Completion in ONE year
- Affordable (Local RM35k; International USD 15k)
- Renowned and highly experienced faculty
- Guided hands-on practical sessions
- Engaging and interactive learning sessions
- Exhaustive and informative details on major parasites of medical importance and their vectors
- A multi-disciplinary approach towards understanding the role and relationship of parasites, vectors and humans
- Opportunities to gain practical insights on best practices in control and prevention from different countries
- Includes cutting-edge methods and approaches in research
- Expert supervision on research project
- A gateway towards PhD level programme



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“

The Department is one of the oldest and possibly the largest Parasitology Departments in the world. UM is currently ranked 9<sup>th</sup> in Asia and 59<sup>th</sup> in the QS world university ranking.

”

# MASTER OF MEDICAL PARASITOLOGY AND ENTOMOLOGY



## Some of the subjects that will be covered:

- o Global trends of parasitic infections
- o Climate change, population migration and movement
- o Hygiene hypothesis
- o Policy formulation
- o Cutting edge techniques in parasitology and entomology
- o Hands-on *in-vitro* culture techniques
- o Parasite-microbiota interactions
- o Genomic and post-genomic advancement
- o Parasite omics
- o Hybridoma antibody
- o Imaging toolbox
- o Geographical information system
- o Data interpretation techniques
- o Epidemiology of major parasitic infections
- o Parasites and autoimmune, cancer and neurological diseases
- o Emerging and opportunistic parasites
- o Innovative control and preventive measures
- o Applied entomology
- o Advanced molecular tools
- o Field techniques
- o Bionomics of vectors
- o Insecticide and drug resistance

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MORE INFORMATION: DEPARTMENT OF PARASITOLOGY, FACULTY OF MEDICINE, UNIVERSITI MALAYA  
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Online/bank transfer/cheque deposit to:

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- Tax deduction limited to 10% (individuals & companies) from aggregative income.
- UM will approve the received funding and release the receipt of tax reduction to be included in the annual tax assessment to LHDN.
- We need to have your full name/company name, your Malaysian Identity Card number/company registration number (as required to be written on the tax-exempt receipt) and mailing address to post the receipt to.
- You should receive your receipt of tax reduction within 1-2 months.
- We will issue the receipt as per transaction date within the same calendar year.

### A DONATION DRIVE TO BUILD A LECTURE HALL FOR MASTER IN PARASITOLOGY AND ENTOMOLOGY


Dewan CP Ramachandran-A space that will flower the potentials of seeds we are planting for Parasitology and Entomology in students globally which we are confident will grow into giant trees that will benefit many nations.

# HELP US TO HELP THEM!

### WE CAN ALL MAKE A CHANGE

Department of Parasitology  
Faculty of Medicine  
Universiti Malaysia

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