Coccidia are a subclass of microscopic, spore-forming, single-celled obligate intracellular parasites infecting the intestinal tracts of animals. Coccidia infection in sheep and goats can cause ill thrift, severe diarrhea and sometimes death.
Hi all!

I hope you enjoyed reading the previous issue of MSPTM Newsletter. The MSPTM Newsletter editorial team would like to thank members for the contribution of materials for the newsletter. I am sure the updates and achievements from other members are motivating and opening collaborations and networking opportunities. In this current issue we included some updates from some of our members. Thanks for sharing!

In this current issue, we included a new section "MSPTM Personality". In this section, we selected a few MSPTM members to be featured in the newsletter. We hope that this new section will introduce members and their amazing work to others in the society. Thank you to Dr Farah and Dr Rajiv for their contribution and amazing write ups! If you are interested to be featured in the future issues of the newsletter for the interview section, please let us know. We would be super happy to include you!

My team and I enjoyed the task of selecting and organising materials for the newsletter, despite all of us being busy with work and challenges during this pandemic. I am fortunate for the support and understanding from our president, Dr. Sam Mohan and the MSPTM Newsletter editorial team, especially Mrs Premaalatha. I just immigrated a few months ago to Australia and things are a bit hectic. I just started working in three laboratories—parasitology poultry nutrition and immunology. The support and understanding helped me maintain my motivation to complete this newsletter. I hope you will enjoy reading the newsletter as much as we enjoyed organising the contents.

Please do not hesitate to email us at our official email: newslettermsptm@gmail.com for any matters related to the newsletter.

Hope you enjoy reading!

Dijah
Members in media

Congratulations to MSPTM members who were featured in media! We hope this will inspire other members to share knowledge with the public through media. Please let us in the editorial team know if you were featured in any media outlets this year and we can include the information in the next issue!

Dr Zubaidah Ya’cob, The Star 18 July 2020

Members in media

Prof. Dr. Lau Yee Ling

Interview with Living Delight 8TV, 14 September 2020

Title: Malaria-cannot be ignored

Link to recording: https://www.youtube.com/watch?v=DD3GZ7SGhco

Dr Zubaidah Ya’cob,

Interview with RTM (Lensa IPT)

Menjejak lalat hitam di Cameroon

15 August 2020

Link to FB Live recording: https://www.facebook.com/LENSA IPT/videos/977186072744571
Members in media

Assoc. Prof. Nur Faeza Abu Kassim

Facebook Live Ini Sains Beb, 19 February 2021

Title: Mitos aedes dan denggi: Anda Tanya kami jawab

Link to recording: https://fb.watch/3Xe5WVf-Ao/
**Members in media**

**Dr. Chen Chee Dhang**

- Raising dengue awareness on Malaysia Day – Borneo Echo (17 September 2020)
- Sabah dengue awareness drawing competition – See Hua Daily News, (17 September 2020)
- UM & MSPTM co-organised Sabah dengue awareness drawing competition - Overseas Chinese Daily News (8 December 2020)
- Sabah dengue awareness drawing competition – Sin Chew Daily (8 December 2020)
- Sabah dengue drawing competition: Promoting awareness among youth - See Hua Daily News (8 December 2020)
- Increase dengue awareness and prevention via drawing competition – Asia Times (8 December 2020)
- Youth of Sabah need to improve knowledge on dengue – See Hua Daily News (9 December 2020)
- UM & MSPTM co-organised drawing competition to create dengue awareness – Morning Post (9 December 2020)
- 45 pelajar muncul pemenang Pertandingan Lukisan Kesedaran Denggi 2020 (Sabah) – Utusan Borneo (19 December 2020)

**Dr. Vickneswaran Muthu**

- Helo Doktor: Rabies – TV3 (20 December 2020)
- Selamat Pagi Malaysia: Rentas Negeri: Kawalan Kendiri & Pem- atuhan SOP – RTM TV1 (9 December 2020)
- Vaksin Covid-19 - Berita Astro Radio (23 December 2020)
- Vaksin Covid-19 - Berita RTM TV1 (22 December 2020)
- Vaksin Pneumokokkal – Minnal FM (3 December 2020)
- Covid-19 Vaccine – Astro Vizthugal (30 November 2020)
- Masyarakat Peka: Bergerak Mengikut SOP – Selamat Pagi Malaysia – RTM TV1 (23 November 2020)
- Hari Rabies Sedunia 2020 – Minnal FM (30 September 2020)
- Covid-19 and Precautions - Astro Vizthugal (9 October 2020)
Contribution from members

Dr. Zubaidah Ya’cob—TIDREC, UM

This sharing is all about my research on Evaluation of Novel Diagnostic Screening Tool for Detection of Onchocerca in Black Fly Population in Cameroon

The aim:
To evaluate a loop-mediated isothermal amplification (LAMP) assay as detection method for Onchocerca in blackfly populations under field conditions in Cameroon, a country receiving ODA funding. To achieve the key objectives of validating this technique with field-collected samples, and optimization of protocols, this study has been split into two parts: assessing the sensitivity of O-150 primer set to detect Onchocerca spp. infection in *Simulium* and evaluating the specificity of the LAMP assay in detecting *O. volvulus* DNA using O-150 and OvGST1a primer sets. At the end of this project, the sensitivity and specificity of both LAMP primer sets were evaluated and validated from field observational data.

Duration of research (field work):
18 January 2020 until 25 June 2020

International fund received:
Funded by the Biotechnology & Biological Sciences Research Council (BBSRC) Scheme: GCRF, Global Challenge Research Fund under Vector-borne Disease to all the research collaborator institutions: TIDREC UM, Liverpool University, New England Biolabs (NEB, USA) and Cameroon Academy of Sciences. The research was successfully executed amid the movement control order in Africa as well as the rest of the world.

Involved researchers:
Dr John Graham Brown (PI) – University of Liverpool, UK
Dr Zubaidah Ya’cob – TIDREC UM, Malaysia
Dr Benjamin Makepeace – Liverpool University, UK
Dr Germanus Soh Bah – Academy of Science Cameroon
Dr Catherine Poole – Research Associate New England Biolabs, MA, USA

Significant contribution to the country:
Has become the first Malaysian scientist involved in the Onchocerciasis research focusing on vector and agents (*Onchocerca ochengi* and *O. volvulus*) in sub-Saharan region Africa
Contribution from members

Dr Heo Chong Chin

I would like to update MSPTM members that I have been appointed by the Dean as the new Director of the Institute of Medical Molecular Biotechnology (IMMB), Faculty of Medicine, UiTM, Sungai Buloh Campus.

This institute hosts a wide range of high tech equipment for various scientific research (e.g., DNA, RNA, protein work, cell culture, imaging, staining, microbiology, parasitology, entomology, natural products, etc) and consists of 9 permanent staff and around 70 graduate students working under its roof.

The Institute welcomes local and international researchers to work with our academic staff and postgraduate students. Please contact me for further information and opportunities to collaborate (email: chin@uitm.edu.my).

Below are some photos to share about the Institute (1. The recent group photo of the management team; 2. The front view of the Institute of Medical Molecular Biotechnology (IMMB), Faculty of Medicine, UiTM Sungai Buloh)

Thank you and we look forward to collaborate with other researchers!
Contribution from members

Dr. Tan Li Peng, BSc, PhD (UKM)

KULAT ENTOMOPATOGEN

Apabila bercerita tentang kulat, pastinya anda akan terfikir tentang cendawan goreng atau sup cendawan yang dihidang ketika makan tengahari; ataupun kulat hijau kebiruan yang tumbuh di atas roti yang telah tamat tempoh; lapisan hitam yang berada dinding rumah akibat cuaca lembap di negara kita; mahupun cordyceps, ubat tradisional cina yang kini semakin mahal kerana amat jarang dijumpai di alam semula jadi. Adakah anda tahu bahawa cordyceps juga merupakan salah satu kulat yang bersifat parasit pada ulat tertentu?

Kulat yang bersifat parasit pada serangga dan artropoda yang lain adalah dikenali sebagai KULAT ENTOMOPATOGEN. Kulat yang menyebabkan penyakit pada serangga ini dapat dimanfaatkan sebagai bioinsektisid untuk mengawal populasi perosak tanaman. Terdapat pelbagai jenis kulat entomopatogen yang kebanyakannya tergolong di bawah order Hypocreales dan Entomophthorales, iaitu dari filum Ascomycota dan Zygomycota.


Gambar 1. Patogenesis kulat Metarhizium anisopliae yang menjangkiti anai-anai Coptotermes curvignathus; bermula dari proses inokulasi, kemudiannya ditumbui miselium dan akhirnya terhasilnya spora konidia.
Jangkitan kulat pada serangga ini berlaku melalui sentuhan apabila konidia, iaitu spora aseksual kulat yang melekat pada kutikel (kulit luar) serangga dan kemudiannya bercambah dan menghasilkan tiub kecambah yang dapat menembusi kutikel serangga dengan daya tekanan fizikal dan bantuan enzim. Setelah berada di dalam hemocoel (rongga badan serangga), kulat ini akan tumbuh dengan pesat dengan penghasilan jasad kulat seperti protoplas atau hifa kulat.

Miselium yang terdiri dari rangkaian hifa ini kemudiannya akan merebak dan menakluki seluruh badan serangga yang akhirnya mengakibatkan kematian pada serangga tersebut. Kematian ini adalah hasil daripada kerosakan fizikal pada kutikel serangga, ketoksikan daripada rembesan toksik oleh kulat tersebut, serta penyahhidratan sel dan kehilangan nutrien akibat diserap oleh kulat tersebut ketika proses tumbesaran di dalam perumah yang dijangkitinya. Miselium ini kemudiannya akan terus tumbuh dan dikesan pada permukaan serangga untuk menghasilkan jasad pembiakan kulat iaitu spora konidia selepas serangga tersebut mati.

Gambar 2. Tiub kecambah (G) yang tumbuh dari spora konidia Metarhizium anisopliae yang melekat pada badan serangga dan kemudiannya menembusi lapisan kutikel di peringkat awal jangkitan. Gambar ini diambil menggunakan teknologi mikroskop elektron imbasan.
Sekiranya kita lihat di peringkat yang lebih kecil dan seni iaitu di peringkat molekul, ada ratusan enzim dan protein yang turut terlibat di dalam patogenesis – iaitu perkembangan penyakit di dalam serangga perumah yang dijangkiti. Ianya bermula dari peringkat sentuhan konidia pada kutikel serangga, sehingga terhasilnya konidia baharu di atas mayat serangga yang terjangkit.

Antara enzim terpenting ketika permulaan jangkitan pada perumah serangga ialah enzim adhesin. Fungsi utamanya ialah membantu konidia untuk kekal melekat pada kutikel serangga sebaik sahaja ia diletak atur di atas badan perumah. Setelah tiub kecambah tumbuh daripada konidia, enzim chitinase dan protease PR1 pula membantu dalam permulaan eksplorasi penaklukan serangga. Ianya membantu untuk memecahkan kutikel serangga pada peringkat molekul bagi membantu appresoria; bahagian hadapan tisu kecambah yang tumbuh dari konidia untuk menembusi ke dalam kutikel serangga.

Ketika proses kolonisasi di dalam rongga badan serangga pula, kulat entomopatogen akan merembeskan toksin seperti destruxin dalam melawan sistem imun serangga, lalu membunuh serangga yang dijangkiti. Akhir sekali, kehadiran protein kejutan haba (heat shock protein) dikesan pada peringkat penghasilan spora konidia di luar mayat serangga. Ianya membantu meningkatkan daya tahan jasad pembiakan kulat tersebut bagi menghadapi tekanan persekitaran sebelum konidia tersebut menjangkiti perumah serangga yang baru.

Antara serangga yang sering diserang kulat entomopatogen terdapat di bawah order Hemiptera, Homoptera, Lepidoptera, Coleoptera, Orthoptera, Blattodea and Diptera. Contohnya adalah afid, lalat putih, kutu loncat, ulat bulu, kumbang, belalang yang menjadi perosak tanaman; ataupun lipas, anai-anai, lalat rumah dan nyamuk yang juga dikenali sebagai perosak bandaran. Kulat ini menjangkiti serangga tertentu sahaja mengikut spesies atau perumah khusus yang selalunya pada peringkat seksual (teleomorfik); ataupun menjangkiti beberapa spesies secara umum apabila pada peringkat aseksual (anamorfik).

Semakin banyak biopestisid kini telah tersedia di pasaran, terutamanya berdasarkan kulat ana-
morfik bawah genera Hypocrealean, iaitu Beauveria, Metarhizium, and Isaria (Paecilomyces). Kulat ini boleh dihasilkan melalui kultivasi di dalam makmal dengan menggunakan media be-
rasaskan sumber kanji seperti beras dan gandum, ataupun secara besar-besaran melalui bio-
reaktor pada skala industri. Terdapat produk kulat entomopatogen dengan jenama Ory-X yang telah yang berjaya dihasilkan dan dikomersilkan di Malaysia oleh FELDA sejak tahun 2008 untuk menangani populasi kumbang badak yang merupakan salah satu perosak pokok ke-
lapa sawit.

Meskipun terdapat banyak kelebihan kulat entomopatogen ini dijadikan sebagai salah satu bio-
insektisid bagi mengawal populasi serangga perosak berbanding dengan produk biologi dan kimia yang lain, penggunaan kulat entomopatogen masih rendah oleh pelbagai pihak di atas beberapa sebab yang tidak dapat dielakkan. Salah satu contoh kekurangan kulat entomopa-
togen ini adalah masa yang lama diambil untuk bertindak ke atas serangga perosak, pros-
es penghasilan yang rumit dan juga jangka hayatnya yang pendek.

Amat jarang sekali untuk suatu kaedah dapat menyelesaikan masalah perosak dengan sempurna. Pendekatan pengurusan perosak bersepadu (Integrated Pest Management – IPM) yang merangkumi pelbagai aspek secara komprehensif adalah lebih terjamin dalam memastikan populasi perosak dapat dikawal secara optimal, di mana ianya mampu untuk mengelakkan kerugian secara ekonomi. Dengan bantuan teknologi yang terkini, program pembangunan kulat entomopatogen miko-insektisid dapat direkayasa dan ditambah baik untuk meningkatkan kuantiti penghasilan dan kestabilan kulat; agar ianya lebih bersedia untuk menjadi sebahagian dari komponen penting IPM yang patut kita praktikkan pada masa hadapan.

Rujukan
Tan Li Peng, Samsuddin Ahmad Syazwan and Seng Hua Lee. Chapter 2: Soil-Borne Ento-
mopahtogenic Bacteria and Fungi in Microbes for Sustainable Insect Pest Management an Eco-
AN INTERVIEW WITH DR. KRISHANASAMY
His Illustrious Journey with the Institute Of Medical Research Centre, Ministry Of Health Malaysia.

Compiled by Assoc. Prof. Dato' Dr. Vellayan Subramaniam

Dr. Krishnasamy worked in IMR for a total of 29 years. He was passionately involved in parasitology work and had dedicated his whole life to the advancement of parasitology. He is very knowledgeable and well recognised with the completion of his Master of Science degree in Dundee, Scotland from 1982 - 1986. Prior to that, he had completed his Bachelor of Science Degree in 1979 and was given the privilege to attend expert training in BAC Queen Elizabeth, London, England. In 1988 he further pursued his PhD studies, on his own effort in Universiti Sains Malaysia, Penang. He successfully completed his PhD in early 1990s, enduring difficult times as he had to go on unpaid leave to follow his passion.

His service record in Institute Medical Research is exemplary and has an amazing track record in the field of parasitology. He left the government service after completing his PhD in 1995. Fortunately, he continued to give his services to IMR as project researcher under some critical projects. His expertise was much sought after by senior researchers in IMR. During this time, he effortlessly worked in government projects such as projects awarded by the Human Resource Ministry under senior researcher, Dr. Sumitra. During this time, he was responsible for the entire research process from the identification of parasites to the completion of the taxonomy studies.

He has supervised few projects for the government as well as for private organisations. As a contract research officer, he served 2 terms with a tenure of 2 or 3 years each. With that, he has produced several publications and co-authored a few student research projects. His expertise in parasitology is well acknowledged in the field of entomology in IMR and other institutions. He has even served as a laboratory tutor under Prof Zambri and Prof Rehana. He shared his expertise and magnificent teaching skills for his favourite subject parasitology for many batches of Veterinary students in early 1990’s.

As a personality, he is very helpful and has effortlessly guided many university, college students and even government officers to complete their thesis. Some of his students have become lecturers in the specified areas and made him proud. Other than that, he has assisted many foreign students under collaborative effort between the Malaysian government and England. Some foreign students came from Brazil Universities and USA such as UCLA to study entomology and also explore the local parasites that are commonly found in Malaysia. He has also graciously accepted visitors from France (Paris National History Museum), Britain (London National History Museum) and Spain.
(Madrid Spanish National History Museum). He has helped to identify some of these parasites, which the visitors have brought as a samples. On a few occasions, he has been sponsored for complete trips to some museums, and has assisted in identifying those parasites.

Refreshing his personal life, Dr. Krishnasamy joined the work force in 1962, and got married in 1965, arranged by his family members. His spouse is from Sentul, Kuala Lumpur. Dr. Krishnasamy’s father also worked with the Ministry of Health (MOH) until his retirement, and he was always very proud of him. His mother had passed away in her early days.

In summary, Dr. Krishnasamy has contributed tremendously in the advancement of parasitology with publications of almost 100-150 papers in reputable journals; and dedicated his entire life in this field. His 29 years in IMR is very remarkable in his personal career path, as well as moulded him to be a well-known researcher held in high regard with his peers. Dr. Krishnasamy has a very calm and caring personality and till today has a sharp mind. During this interview too, he was enthusiastic to share his experiences and knowledge with a very soft spoken voice, He is indeed a joyous, knowledgeable and decent person ever patient to extend his knowledge. He is well disciplined and passionate on his taxonomy work. Many researchers benefitted from his sharing and teaching. The Malaysian Society of Parasitology and Tropical Medicine wishes him good health and thank him for the years of support toward the society.
The Mid-Year Webinar has been successfully conducted on 26th August 2020 online through Zoom Platform at 3.00 – 4.30pm.

The mid-year webinar was organized with the theme “Covid-19 on Worldwide Dashboard: Pandemic that Unites Science Together”

A total of 340 personnel registered for the event and 234 (69%) participants attended the webinar, including participants from Albania, Bangladesh, China, Indonesia, Nepal, Philippines, Singapore, Switzerland, Thailand, Taiwan, United Kingdom, United States of America and India.

This interesting webinar attracted various groups of participants including MSPTM members, Veterinarian, wildlife veterinarian, clinical microbiologist, science officers, pathologists, medical officers, clinical staff, lecturer and Professor, manager, undergraduate, postgraduate students, and others. The seminar consisted of three key talks related to the overview of current status of Covid-19 in Malaysia, diagnosis and research development in Malaysia, and the covid-19 research in LSTM, UK.

Speakers for this seminar were Professor Dr Russell Stothard, Dr Siti Norlia Othman and Assoc Prof Dr Mohd Rohaizat Hassan. The plenary talks were followed by a forum moderated by Assoc Prof Dr Siti Nursheena Mohd Zain and by presentation slides and question and answer session at the end of the webinar.
MSPTM Events

Dengue Awareness Drawing Competition for Perak 2021

After nearly a year of preparation, the Biodiversity and Ecological Research Network (BEN), University of Malaya and the Malaysian Society of Parasitology and Tropical Medicine (MSPTM) are jointly organizing the Dengue Awareness Drawing Competition 2021 for Perak. The competition starts on 1 January until 31 March 2021. More details can be obtained from attached poster.
International Webinar on Zoonotic Diseases and Novel Approaches in Worm Control
24.09.2020, 11:30 AM Onwards (IST)

GUEST SPEAKERS

Wild life as Reservoirs of Zoonotic Diseases in Asia with an Update on Zoonotic Primate Malaria
Speaker: Dr. Reuben S, Professor, Veterinary Laboratory Diagnostics, University Putra Malaysia

Novel approaches to worm control in small ruminants
Speaker: Dr. Chandrawathani, Chief Editor, Tropical Biomedicine; Former Director of Research & Innovation, Malaysia

Chief Patron
Dr. J. P. Sharma
Hon'ble Vice Chancellor, SKUAST-Jammu

Patrons
Dr. Rajesh Katoch
Dean, Students Welfare, SKUAST-Jammu

Dr. M. S. Bhadwal
Dean, FVSc & AH, SKUAST-Jammu

Organizing Secretary
Dr. Sanku Borkataki, Assistant Professor, Division of Veterinary Parasitology

Co-organizing Secretary
Dr. Anish Yadav, Dr. Rajesh Godara

Registration Link
https://forms.gle/idmdwPA3TR1oMo4w5

Organized by
Division of Veterinary Parasitology, SKUAST-Jammu, India

E-certificate shall be issued to all participants
MSPTM Events

MSPTM Photography Competition 2020

MALAYSIAN SOCIETY OF PARASITOLOGY & TROPICAL MEDICINE

PHOTOGRAPHY COMPETITION 2020

Submission date:
1st December 2020 – 31st January 2021 by 5pm

Only open for MSPTM members

For more information, refer MSPTM website
https://msptm.org/photography-competition-2020/

For enquiry, please contact Ms. Victoria Foo / Dr. Chen Chee Dhang via email msptmevents@gmail.com
Webinar: Adapting to COVID-19: Human, wildlife and domestic animal interactions viewing possible solutions

The MSPTM Webinar 2021 has been successfully conducted on 7th January 2021 online through Zoom Platform at 10.00 – 11.30am.

The webinar was organized with the theme “Adapting to Covid-19: Human, wildlife and domestic animal interactions, viewing possible solutions”

A total of 212 personnel registered for the event and 176 (83%) participants attended the webinar including participants from Malaysia, Singapore, Indonesia, Philippine, Australia, Sudan, India, and Hong Kong. This interesting webinar attracted various groups of participants including MSPTM members, students, researchers, public and private servants from various field.

The seminar consisted of three key talks related to the Zoonotic diseases involving animal to human, the Perhilitan experience in Handling the disease and one health approach in dealing with Covid 19 and zoonotic diseases. Speakers for this seminar were Prof. Dr. Latifah Hassan, Mr Tom Hughes, Mr. Mohd Lutfi Abdullah. The plenary talks were followed by a forum moderated by Dr. Farah Shafawati, and by presentation slides and question and answer session at the end of the webinar.
Interested to be a member?

Step 1
Log on to our website http://msptm.org/member/

Step 2
Click ‘Join as Member’

Step 3
Fill in the online form

For inquiries, please contact

MSPTM Honorary Secretary
secretarymsptm@gmail.com

Benefits of being MSPTM member

1. Members will be included in the email group and will receive emails on upcoming activities and opportunities related to parasitology and tropical medicine.

2. After 3 years of being a member, the society’s journal Tropical Biomedicine will waive publication fees for manuscripts if the member is either the first author or the corresponding author.

3. Members will be given discounted registration fees for attending the annual conference.

4. Members will have the opportunity to be awarded the Sandosham and Nadchadtram medals for the contribution in parasitology and tropical medicine.

5. Members will have the opportunity to be awarded the MSPTM Community Fund.

6. Members will have the opportunity to be awarded the CP Ramachandran Travel Grant.

7. Members will be notified of Mid Year Seminar and attendance is FREE

Membership

New members

We welcome new members to the society and we look forward see them in the upcoming events organized by MSPTM.

1. Assoc. Prof. Dr Nazri bin Che Dom (Fakulti Sains Kesihatan UiTM Cawangan Selangor Kampus Puncak Alam)

2. Assoc. Prof. Dr Mohd Rohaizat bin Hassan (Department of Community Health, Faculty of Medicine, Universiti Kebangsaan Malaysia)

3. Ms Norshidah Harun (Institute for Research in Molecular Medicine, Universiti Sains Malaysia)

4. Mr Naim Che Kamaruddin (Department of Pathology and Microbiology, Faculty of Veterinary Medicine, Universiti Putra Malaysia)

5. Dr Rajiv Ravi (Quest International University, Ipoh)

6. Dr Muhammad Hafiz Borkhanuddin (Faculty of Science & Marine Environment, Universiti Malaysia Terengganu)

7. Dr Nik Ahmad Irwan Izzauddin Nik Him (School of Biological Sciences, Universiti Sains Malaysia)

8. Ms Hartini Yusof (Fakulti Sains Kesihatan, UiTM Cawangan Selangor Kampus Puncak Alam)

9. Dr Nanthiney Devi Ragavan (MAHSA University)

10. Dr Wahib Mohammed Mohsen Atroosh (Department of Parasitology, University of Malaya)

11. Dr Shigeharu Sato (Faculty of Medicine and Health Sciences, Universiti Malaysia Sabah)

12. Mr Phang Wei Kit (Faculty of Medicine, University of Malaya)

13. Mr Nantha Kumar Jeyaprakasam (Faculty of Medicine, University of Malaya)

14. Mr Awosolu Oluwaseun Bunmi (School of Biological Sciences, Universiti Sains Malaysia)

15. Assoc. Prof. Dr Sanku Borkataki (Division of Veterinary Parasitology, Jammu)

16. Ms Lee Jia Yen (Management and Science University, Shah Alam)
Tropical Biomedicine

- The Tropical Biomedicine journal was first published in 1984 with Dr Mak Joon Wah as the first editor in chief. Four issues with about 25 peer reviewed articles are published annually. Papers pertaining to the advancement of knowledge in the field of parasitology, entomology, tropical medicine and other aspects of biomedical research are accepted. Since 2004, there is free online-access to published papers as an e-journal in MSPTM website.

- **The Impact Factor for Tropical Biomedicine is 0.509 (2019) by Web of Science** (Source: Journal Citations Report, Clarivate Analytics, 2020). Tropical Biomedicine is also Abstracted / Indexed by Medline, Scopus, CAB International, Biological Abstracts, BIOSIS Previews, Essential Science Indicators and Zoological Record.

- The MSPTM is happy to announce the soft launching of OpusSoft© online platform for journal management of Tropical Biomedicine. This will take effect from the 1st December, 2020.

- As of Volume 37(3) 2020 onwards, all articles will have DOI. As of February 2021, Tropical Biomedicine can be viewed in PubMed. As of Dec 2020, Similarity Check (i-Thenticate) was incorporated into review process.

- From January 2021, the publication fee will be revised to MYR1,250 per manuscript (approx. USD300 @ 4.1667)

- Editorial board meeting with 37 members from all over the world was held on 31 Jan 2021.

Log on to: http://msptm.org/journal/ for more information.

The Malaysian Society of Parasitology and Tropical Medicine (MSPTM) Community Fund grants funding to activities which improve quality of life, health and wellbeing. RM 1000-5000 funding is available to support local charities and community projects throughout Malaysia.

The MSPTM Community Fund is seeking to support projects working within a range of themes as set out below:

- Community involvement projects
- Community safety projects
- Community health and wellbeing projects
- Projects to develop skills, education & employment support

**Who can apply?**
This grant is open to all MSPTM members with the following criteria:
- Malaysian citizen
- Project duration: 1-2 years
- Amount: up to RM5000

**How to apply?**
Go to the Malaysian Society of Parasitology and Tropical Medicine (MSPTM) and scroll down to "The MSPTM Community Fund" for details.

**When to apply?**
Closing date 12 noon, 31st October every year.
You will hear the outcome by end of November every year.

**What happens after I apply?**
All applicants will be notified about their outcome in writing. If your application fits the MSPTM Community Fund priority areas, it'll be shortlisted.

**What happens after the grant is awarded?**
All successful applicant must present their progress once a year. An oral presentation at MSPTM annual conference AND submission of a paper to reputable ISI-indexed journal such as Tropical Biomedicine acknowledging the funder are mandatory.

Congratulations to the following recipients;

Dr Lucas Low Van Lun
Research title: Enhancing public knowledge on ectoparasites and associated pathogens from companion animals: A proactive action research.

Dr Farah Shafawathi Mohd Taib
Research title: Awareness Program on rodent borne-disease at Kuala Lumpur public low-cost housing (PPR).

Dr Wathiqah Wahid
Research title: Knowledge, Attitude and Practice of Parasitic Infection Among Zoo Workers in Kuala Lumpur
The CP Ramachandran Travel Grant Award gives partial financial support to members to facilitate their participation in any parasitology and tropical medicine research-related conference, up to a maximum of RM 1500 for each award. You must submit an abstract for oral presentation to apply. Poster presentation is not eligible for application of travel grant award.

**Eligibility**

MSPTM members who fulfilled the following criteria:

- Membership for at least 3 years
- Malaysian citizen
- Travel purpose: to attend parasitology and tropical medicine research-related conference
- Proof of abstract acceptance to conference (if necessary)
- Brochure of the conference
- Expected expenditure
- Amount: up to RM 1500

**Procedure of application**

Applicants are required to fill up the application form and submit to the MSPTM secretary at secretarymsptm@gmail.com. Incomplete application form will not be processed.

All submitted applications will be reviewed by committee and applicants will be notified of their outcome in writing within (two) months from date of submission.

**Successful application**

1. All successful applicants must acknowledge MSPTM with at least one slide during his/her presentation in conference.

2. Grant recipients must submit copies of travel receipts within 1 (one) month of return for reimbursements.

3. Grant recipients must submit a travel report/testimonial with conference photos within 1 (one) month of return. MSPTM reserves the right to publish the travel report/testimonial on MSPTM website or any other social media.

The CP Ramachandran Travel Grant Award is open throughout the year.
The Nadchatram Silver Medal

1. The Nadchatram Silver Medal is in honour of Professor Nadchatram. This Silver Medal is awarded **annually** to outstanding scientists for their achievement in the field of Parasitology and Tropical Medicine.

2. Candidature shall be open to the **MEMBERS OF MALAYSIAN SOCIETY OF PARASITOLOGY AND TROPICAL MEDICINE (MSPTM)**.

3. Only members of **45 YEARS OLD OR BELOW** shall be eligible.

4. There shall be no restriction as to sex or profession of the candidates, nor as to the period during which the research was conducted.

All nominations to be sent to
Honorary Secretary
MSPTM Council
secretarymsptm@gmail.com

For more info please log on to: [http://msptm.org/sandoshamandnadchatrammedals/](http://msptm.org/sandoshamandnadchatrammedals/)
The 57th council of MSPTM is pleased to announce the winner of Nadchatram Medal 2020, Dr Lucas Low Van Lun. The Nadchatram Medal will be presented to the winner during the opening ceremony of 57th Annual Scientific Conference of Malaysian Society of Parasitology and Tropical Medicine.

Lucas Low Van Lun received his bachelor’s degree in Biodiversity Management with first-class honours from the Universiti Malaysia Terengganu in 2010. He then earned his PhD with ‘distinction thesis’ from the University of Malaya (UM) in 2013, for his studies on the molecular and biochemical basis of insecticide resistance in medically important group of mosquitoes. Following the completion of his PhD study, he was enrolled as a Post-Doctoral Research Fellow for three years at Institute of Biological Sciences, Faculty of Science, UM. Currently, he is a senior lecturer at Tropical Infectious Diseases Research and Education Centre (TIDREC), a Higher Institution Centre of Excellence (HICoE) in Malaysia. Awarded by the university, he was a recipient for Certificate of Excellent Service in 2018, and Excellence Service Award in 2019.

His current research interests include insect vectors of medical-veterinary importance such as mosquitoes, flies, ticks, fleas, lice and mites; and their associated infectious disease agents. In his scientific career, he has been fortunate to work under the mentorship of the world-renowned black fly taxonomist, Prof. Emeritus Dr. Hiroyuki Takaoka for the discovery of new species and taxonomic classification of black flies in the Oriental region. At present, he owned taxonomic authorities for 10 new species of black flies discovered in Southeast Asia. He has strong research networks in both local and international institutions and has authored more than 90 articles in ISI-indexed journals. He is an active member of the Malaysian Society of Parasitology and Tropical Medicine (MSPTM). He was the Honorary Assistant Treasurer in 2018/2019, and Honorary Assistant Secretary for 2019/2020. He was the organizing committee member for the 54th, 55th and 56th Annual Scientific Conference of the MSPTM, and the chairperson for the pre-conference rodent database workshop.

Congratulations and we wish you all success in your future endeavours.
My name is Farah Haziqah Meor Termizi and I was born in 11th December 1986 at Ipoh, Perak and obtained my primary education at SMK ST. Bernadette’s Convent in Batu Gajah, Perak. To further my secondary studies, I went to Perak Matriculation College, Gopeng, Perak and later I earned my BSc. (Hon.) degree in 2008 from University Sains Malaysia, Penang, Malaysia majoring under Management of Vector & Parasite.

In 2012, I graduated with a MSc from the same university majoring in Applied Parasitology under the supervision of Prof. Dr. Abdul Wahab Abdul Rahman.

I started my PhD. studies in September 2012 at Faculty of Science, University of Malaya under the supervision of Assoc. Prof. Dr. Siti Nursheena Mohd Zain and Prof. Suressh Kumar Govind, the funding was kindly provided by the Academic Staff Training Scheme (ASTS).

I was appointed as a parasitology lecturer at School of Biological Sciences, Universiti Sains Malaysia, Main Campus, Penang in September 2017. Currently, I’m teaching 3 courses at undergraduate level: Ecology, Medical and Veterinary Helminthology and Scientific Writing, Seminar and Current Topics in Biology. Apart from these courses, I was also assigned as the industrial training coordinator for School of Biological Sciences, USM. On the research front, I have published more than 7 papers in international citation-indexed journals. I have also published/presented 15 conference papers. Currently, I’m supervising 1 MSc and 3 Ph.D. students.
2. Do you mind sharing with us about your research background and research interest?

*Blastocystis* sp. is a common intestinal parasite infecting human and a wide range of animals worldwide. It exhibits an extensive genetic diversity and 28 subtypes (STs) have thus far been identified in mammalian and avian hosts. Since several STs are common to humans and animals, it was proposed that a proportion of human infections may result from zoonotic transmission. However, the contribution of each animal source to human infection remains to be clarified. Therefore, my research deals with the diagnosis, epidemiology, genetic diversity and taxonomy of this common intestinal protozoan parasite isolated from different animals in Malaysia.

*Blastocystis* sp. isolated from chicken.
3. What are the most interesting findings from your research so far?

The five most interesting findings from my research team are as below:

a) It was proved that pH 7 to 5 supported the optimal growth of Blastocystis isolates while low pH (less than pH 4) condition suppressed the growth of this parasite. It also confirmed that a further increase of pH towards neutral condition significantly increases the number of viable cells. The results suggest that growth of Blastocystis sp. in cats and dogs were inhibited by the low pH in the stomach and therefore unlikely to be natural animal reservoir of Blastocystis sp.

b) Besides, we were able to elucidate the current status, ultrastructural and subtype of Blastocystis sp. isolated from the local poultry population in Malaysia. The finding highlighted zoonotic implication to humans especially among animal handlers in the chicken farming community in which multiple Blastocystis subtypes were reported in chicken isolates.

c) Study was also conducted on the epidemiology, phenotypic, ultrastructural and subtype characteristics of Blastocystis sp. in urban wild rodents. The finding has important implications as Blastocystis ST4 and pathogenic subtype; ST1 was recorded for the first time from the local wild rat population. The importance of understanding Blastocystis sp. in the environment is crucial because rodents found in close contact with humans and source infection to humans. Therefore, rodent control must be carried out by the local municipals in order to prevent rodent borne diseases.

d) The team also presents the findings of Blastocystis infections in Periplaneta americana, the common household cockroach in Malaysia and a first to characterize the subtypes infecting cockroaches namely, the newly discovered subtype, ST15 and ST17. It shed light on the transmission and distribution as well as, better understanding of the evolution and polymorphism of this organism.

e) House geckos were found free from infection and could be attributed to their diet and low risk of food and water contamination as well as minimum exposure in their environment to faecal material from human and non-human hosts. As a result, house geckos were unlikely to be the animal reservoir of Blastocystis sp. However, further molecular and larger scale studies would provide clearer picture of the epidemiology of Blastocystis in house geckos.
4. If you can only choose ONE, what is your favourite vector/parasite. Can you tell us why it is your favourite?

_Blastocystis_ – Parasite of interest

_Blastocystis_ sp. isolated from broiler chicken.

Despite more than 1 billion carriers worldwide, the public health significance of this protozoan parasite remains unknown. Interestingly, _Blastocystis_ has been found more commonly in the gastrointestinal tract of healthy individuals. For _Blastocystis_, the main taxonomic identifier is the subtype (STs). The genetic diversity of _Blastocystis_ is becoming comparable to the universe! Until today, 28 subtypes (STs) of _Blastocystis_ had been acknowledged and since then, quite a few more have been suggested by independent researchers all around the world. While it’s great to see the field advance and more and more researchers interested on _Blastocystis_, new lineages are being continuously revealed as the diversity of _Blastocystis_ in humans and animals is huge. Thus, we need research input from bordering fields, such as biology in term of its genomics, cell biology, etc. and veterinary medicine particularly the host specificity and impact of _Blastocystis_ on animal health.
5. Please share with us your latest research publications.

2020


6. Any advice to other young researchers?

Having a good mentor early in a career especially for a young researcher/academician can mean the difference between success and failure. Effective mentorship can make a critical difference in shaping early career decisions. Dato’ Dr. Chandrawathani Panchadcharam used to say, “Do small things with great love”. She who inspires and encourages me to strive for greatness as an academic, live to our fullest potential and see the best in myself.

Whereas, my PhD supervisor, Assoc. Prof. Dr. Siti Sheena taught me that in order to make the journey as a researcher as successful and enjoyable as possible, we need to have an effective verbal communication skill. They are my beloved supervisor and great mentors that makes me become strong, motivated, confident and focused.
7. Can you share with us your aspiration for MSPTM?

It has been a wonderful opportunity for me to be the member of MSPTM. From my first time joining the 49th Annual Scientific Conference of the Malaysian Society of Parasitology and Tropical Medicine which was held on March 2013, I knew that this Society was a home for me, a place where I could meet new colleagues, mentors and friends plus I could learn more about the amazing diversity of parasites as well as studies on parasitology field conducted by the local researchers. I hope the that MSPTM will continue to grow from strength to strength by providing a platform for parasitological research workers to get together to discuss and exchange information and scientific knowledge as parasites are being gradually recognized as important pathogens with significant global economic, environmental, and public health impacts.
Dr. Rajiv Ravi

1. Please introduce yourself to MSPTM members and tell us a little bit about your academic background.

Post-Doctoral Medical Entomology (U.M.K) 2019
PhD in Molecular Parasitology (U.S.M) 2018
MSc in Applied Parasitology (USM) 2013
BSc in Biotechnology (UNISEL) 2010

Dr. Rajiv Ravi is currently a Lecturer at QUEST International University, Perak for Bachelor of Science (Hons) in Biotechnology and Bachelor of Biomedical Sciences (Hons) Programs.
2. Do you mind sharing with us about your research background and research interest?

Research focuses on insects that are vectors of diseases, and integrating natural alternative vector control methods. The transmission of dengue is caused by two main Aedes mosquito species: *Aedes aegypti* and *Aedes albopictus*.

Different classes of insecticides used for controlling public health have raised the concern of resistance among mosquitoes, as well as environmental pollution caused by the control measures. The overdependence on synthetic chemical insecticides has led to the rise of insecticide resistance problems which occur among most of the arthropod species including Aedes mosquitoes.

Bio-insecticides have been suggested as a new potential alternative method that can replace synthetic chemical insecticides to overcome these vector problems.

3. What are the most interesting findings from your research so far?

The potential use of *Azolla pinnata* plant as an alternative bio-insecticide against *Aedes aegypti* and *Aedes albopictus* mosquitoes.

In the adulticidal test, *A. pinnata* extracts showed LC$_{50}$ and LC$_{95}$ values of 2572.45 and 6100.74 ppm, respectively, against *Ae. Aegypti* and LC$_{50}$ and LC$_{95}$ values of 2329.34 and 5315.86 ppm, respectively, against *Ae. albopictus*.

Alternative uses of bio-insecticides will provide a more suitable and sustainable solution against *Ae. Aegypti* and *Ae. albopictus*. Conception from United Nations (UN) global sustainable goals and following a safer and greener alternative conception from *A. pinnata* plant, the purpose of this study was to evaluate the effectiveness of *A. pinnata* liquid extracts on *Aedes* adulticidal, ovicidal and ovipositional deterring activity and its liquid chemical compounds.
4. If you can only choose ONE, what is your favourite vector/parasite. Can you tell us why it is your favourite?

![Image of aedes aegypti larvae with plant extracts in midgut]

This is interesting as you can see the plant extracts in the midgut of this *Ae. aegypti* larvae.

5. Please share with us your latest research publications.

2020


6. Any advice to other young researchers?

All the discoveries and inventions that allow us to live our daily lives would never have existed without research. Perform your research duties with full of fulfilments.

7. Can you share with us your aspiration for MSPTM?

To build collaborations and success together in research areas.
Retirement Note:

Prof Dr. Suresh Kumar P. Govind

On behalf of MSPTM, I would like to announce the retirement of Prof Professor Dr. Suresh Kumar Govind who has been one of the most valued member of the Medical Faculty (FOM), University of Malaya spanning more than 25 years.

Prof Dr Suresh obtained his primary and secondary education at the Jalan Kuantan School (1) and Victoria Institution respectively. His professional journey began at Tuanku Abdul Rahman College where he completed his Diploma in Science and obtained his Bachelors of Science (Bio/Chem) from Campbell University North Carolina USA in 1985. Due to his profound interest in the field of parasitology, he continued to obtain Diploma in Applied Parasitology and Entomology (DAP & E) at the Institute of Medical Research, Kuala Lumpur and MSC in Medical Parasitology from University of Malaya. With an outstanding scholarly achievement, he offered a scholarship to pursue his PhD from the National University of Singapore in 1994.

He was then absorbed as a lecturer at the Department of Parasitology, Faculty of Medicine, University of Malaya, and Associate Professor in 2001 and a full Professorship in 2006 which he had served till now. His tenacity and strong character enabled him to serve as the Head of the department for 4 consecutive years – 2015 till 2019.

As a researcher, in the past 25 years, he has been investigating the pathogenesis of an intestinal protozoan parasite, Blastocystis sp. and published more than 120 scientific papers, presented approximately 250 conference papers, and written several chapters in publications by World Health Organization. In his journey of revealing the effects of Blastocystis sp towards human health and diseases, he has produced more than 100 elective, diploma, graduate and post-graduate students including those at doctorate level. He is a world renowned researcher of Blastocystis infections and this was evident as he for the first time, managed to place the organism in the fact list of WHO drinking water guidelines. Since then (year 2005), he has been serving as an expert member for the Drinking Water guidelines committee for WHO.
His contributions towards research in the field of parasitology is remarkable - won the National Young Scientist Award, Malaysian Toray Grant Award, Commonwealth Scholarship Award, Gold Innovative award at the national level as well as the GOLD medal at the international ITEX exhibition, 2020. He has also won the Malaysian Society of Parasitology and Tropical Medicine’s prestigious awards namely The Nadchatram Silver Medal and The Sandosham Gold Medal for his outstanding contributions in research, apart from contributing to MSPTM society as ex-secretary, ex-president and life member. Other professional memberships include Member of the Institute of Biology, United Kingdom (which carries the title CBiol, MBiol), Malaysian Scientific Association (which carries the title A.M.S.A), Member of the Royal Society of Tropical Medicine and Hygiene and Life member of the Indian Society of Parasitology.

He has also received numerous recognitions at National level, to name few would be the Prime Minister’s Productivity award, the prestigious Malaysian Toray Science award as well as multiple University Malaya excellence awards. At international level, he was conferred the Global Malayalee Award for research in 2015 the National Educators Award from the Association of Private Institutions. In 2016, he received the Parija Oration Award from the Indian Academy of Tropical Parasitology for outstanding contribution to the field of Parasitology.
Apart from research, he favours and prioritises human values, and has been serving the public limitless-ly via many professional NGOs, societies and publications. He was the former President of the Sathya Sai International Organization, Malaysia, an organization dedicated to promote human values, service and national unity. He has been instrumental in many nation building programmes in the country and have, travelled extensively around the world upon invitation to speak to youth, educators and members of the organization on human values and selfless service. He pioneered and has been coordinating a program called Drug and Alcohol abuse, Relationship matters, the lack of good time management (Time wastage) and Smoking (D.A.R.T.S), University Malaya since 2018 in order to prevent and create awareness on the misuse of drug, alcohol and suicidal cases among the youth. In addition to this, he has authored more than 7 books mainly on human values and the universal teachings of Bhagavan Baba (To love all, Serve all). He is currently the International coordinator for community engagement for 121 countries for the world SSIO as well as the Coordinator for the Friendship Group of Inter-Religious Service, consisting of members from all the major religious groups in Malaysia. His community contributions are well recognised as he was appointed as member of the Executive Committee Under the Cabinet Special Committee to identify and monitor the participation of the Indian community in Government programs and projects (CCIC), Ministry of Health Malaysia (2017-2018) and as Expert Advisor of Research Grant Technical Committee, National Population and Family Development Board (LPPKN), Malaysia in 2020.

Although what said here was just a portion of his great achievements and contributions, we believe he had certainly brought higher value to students, researchers and society. With this, we wish Prof Dr Suresh, a wonderful retirement and all the success as he continues to embark in his next endeavour.

Dr Chandramathi Raju

Faculty of Medicine, University Malaya

MSPTM Exco 2020/2021
Congratulations to Professor Dr Yvonne Lim Ai Lian and Academician Professor Dato’ Dr Khairul Anuar Abdullah for their new appointment as ASM Council Members for the term 2020/2021.

Congratulations to Dr Heo Chong Chin for his new appointment as Young Scientists Network Exco for the term 2020/2021.
Prof Dr. Chua Tock Hing from Universiti Malaysia Sabah (UMS) has won a WHO/TDR grant for his research entitled: “Environmental management as an ecological intervention in reducing *Anopheles balabacensis* population, vector of monkey malaria in Sabah” for year 2020-2021. Congratulations!

Dr Basripuzi Nurul Hayyan Hassan Basripuzi was awarded a Fundamental Research Grant Scheme for her research: Interrelationship between parasitism with meat and meat production among Mafriwal cattle. Congratulations!
Updates: MSPTM Office Lot

The EXCO is happy to announce that we have successfully renovated our other office lot in Diamond Square.

12-4-1, Block D, Diamond Square,
Jalan 4/50, Off Jalan Gombak,
53000 Setapak, Gombak, Kuala Lumpur.

This renovation was necessary as the said lot has been rented for 2 decades without any maintenance work. With this renovation we will increase the rental to RM1200/month and manage it ourselves. The previous rental was RM850 under a management company contract which we terminated in October.
The pictures below were taken recently and if anyone is interested please call our MSPTM direct line +6018-3510 398 or email the secretary.
Dear all MSPTM members,

The Malaysian Society of Parasitology and Tropical Medicine Newsletter was brought out by the society TWICE a year for members.

Since 2016 the issues were in electronic format and were sent to members by email. The previous issues were uploaded on the society’s website (http://msptm.org/newsletter/)

The newsletter team is now gathering info for the 2020 issues, and we don’t want to miss out interesting updates from you!

Thus, we welcome contributions from MSPTM members on activities/events that happened between January 2020 to June 2020 such as;

1. Achievements, promotions, or awards accepted.
2. Articles on workshops, conferences, seminars or knowledge transfer activities attended/organised which are related to parasitology/tropical medicine.
3. Media exposures such as newspaper clips, magazine articles, radio/tv interviews.

Kindly send the information with any related pictures/links to newslettermsptm@gmail.com before the 25th of December 2020.

We hope that by sharing interesting news about MSPTM members, we will improve networking between each other and motivate our members to strive for excellence.