# Minutes of the 16<sup>th</sup> Meeting of the Asian Consortium for the Conservation and Sustainable Use of Microbial Resources (ACM16)

2<sup>nd</sup> Regional Conference on Culture Collections (RCCC 2019) and the 16<sup>th</sup> Asian Consortium for the Conservation and Sustainable Use of Microbial Resources (ACM16) was organized by one of the ACM members, Microbial Culture Collection Unit (UNiCC), Universiti Putra Malaysia at the Institute of Biosicence, Universiti Putra Malaysia, Serdang, Selangor Darul Ehsan on 23-25 July 2019.

Date: July 23 (Tuesday) - 25 (Thursday), 2019

#### Venue of the Meeting:

 Institute of Bioscience, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor Darul Ehsan, Malaysia

Meeting Homepage: http://conference.upm.edu.my/RCCC

#### Participants:

Members: Total of 14 organizations from 9 countries and regions participated

- UNiCC/Malaysia
- TISTR/Thailand
- VTCC/Vietnam
- CGMCC/China
- USTC/Philippines
- KACC/Korea
- KCTC/KRIBB/Korea
- NBRC/Japan
- NIES/Japan
- MARDI/Malaysia
- PNCM/BIOTECH/Philippines
- InaCC/Indonesia
- TBRC/Thailand
- BCRC/FIRDI/Chinese Taipei

## Special Speakers:

- Dr. Ipek Kurtbőke, President, World Federation for Culture Collections (WFCC), Australia
- Prof. Dr. Sazaly Abu Bakar, University of Malaya, Malaysia
- Dr. Pravech Ajawatanawong, Mahidol University, Thailand
- Dr. Juncai Ma, Director, WFCC-MIRCEN World Data Centre for Microorganisms
- Ms. Rie Funabiki, NITE Biological Resource Center (NBRC), Japan

# Program summary

- Welcome Remarks
- MoU exchange between Universiti Putra Malaysia and Institute of Microbiology Chinese Academy of Sciences (IMCAS)
- MoU exchange between Universiti Putra Malaysia and World Data Centre for Microorganisms (WDCM)
- Launching of the Book entitled "Preservation of Microorganisms, A Laboratory Manual", by Tan Geok Hun, Musliyana Mansor and Nor Umaira Abu Asan, 2019
- 2<sup>nd</sup> Regional Conference "Culture Collections The Essential Resources for Life"
  - 1. The Role of Culture Collections in Biotechnological Advancements
  - 2. Country's Update on Biosafety and Biosecurity
  - 3. Management of Biological Resources for Bioscience and Biotechnology
  - 4. Viability Management of Microbial Cultures at Microbial Culture Collection (UNiCC)
  - 5. The Role of InaCC as Biodiversity Conservation Facilities and to Support Bioindustry Development
  - 6.ABS Policy in the National Institute for Environmental Studies and in Its Culture Collection
  - 7. Diversity of Dictyostelid Social Amoebae in Thailand
  - 8. Exploring Malaysian Actinobacteria Diversity for Research
  - 9.*Escherichia coli* Isolated from Fecal Sample of Thai Adults is a Potential Probiotic Bacteria
  - 10.A Prevalence Study of Asymptomatic Carriage of Community-Acquired Nasal Methicillin-Resistant Staphylococcus Aureus (MRSA) and Its Association with Knowledge-Attitude-Practice Among Students of A Public University In Malaysia
  - 11. Development and Probiotic Evaluation of Vaginal Pessary Containing Freeze Dried

Lactobacillus Strain

- 12. Inhibitory and Cytotoxic Effects of Postbiotic Produced by *Lactobacillus Plantarum* I-Ul4 Cultivated in Different Culture Media Against MCF-7 Breast Cancer Cell
- 13. New Sterigmatocytin as Cytotoxic Against HT29 Colon Cancer from Sponge-Derived Fungus *A. nomius*
- 14. Production of Versatile Extracellular Cellulolytic and Hemicellulolytic Enzymes by *Lactobacillus plantarum* Ri 11 Using Different Combinations of Various Agro-Wastes
- 15. Introduction of Biosafety Cabinet in Laboratory
- 16. A Global Catalogue of Microbial Genome Type Strain Sequencing Project of WDCM
- 17. Phylogeny of Estuarine eronosporomycetes
- 18. Taxonomic Re-evaluation of Black-koji Molds
- 19. CBD COP 14/NP MOP3 Report and Analysis
- 20. Regulatory Framework Governing Microorganisms in Research and Development: Scope and compliance for Malaysian Scientists
- 21. Maintenance of Bacterial Cultures in Microbiology Laboratory
- 16<sup>th</sup> Meeting of the Asian Consortium for the Conservation and Sustainable Use of Microbial Resources (ACM)
- 1. ACM Member Reports
- 2. ACM Task Force Reports
- 3. General Assembly
- 4. Closing Ceremony
- 5. Sightseeing Melaka on 26 July 2019

## Day 1

## • Welcome Remarks

2nd Regional Conference on Culture Collections (RCCC 2019) and the 16th Asian Consortium for the Conservation and Sustainable Use of Microbial Resources (ACM16) were opened with opening remarks made by Prof. Dr. Zulkifli Idrus, Deputy Vice Chancellor (Research & Innovation), Universiti Putra Malaysia.

# • MoU Exchange and Book Launching

Two MoU exchange ceremony between Universiti Putra Malaysia and Institute of

Microbiology Chinese Academy of Sciences (IMCAS), and Universiti Putra Malaysia and World Data Centre for Microorganisms (WDCM), represented by Prof. Dr. Zulkifli Idrus, Deputy Vice Chancellor (Research & Innovation), Universiti Putra Malaysia and Dr. Juncai Ma, Director, WFCC-MIRCEN World Data Centre for Microorganisms was held. At the same time, a new book entitled ""Preservation of Microorganisms, A Laboratory Manual", written by Tan Geok Hun, Musliyana Mansor and Nor Umaira Abu Asan, 2019 was launched during the event.

## • 2<sup>nd</sup> Regional Conference "Culture Collections – The Essential Resources for Life"

2<sup>nd</sup> Regional Conferences on Culture Collection 2019 (RCCC 2019), in conjunction with ACM meeting, was held. The conference included 1 keynote speaker, 4 plenary speakers, 21 oral presentations and 15 poster presentations. The detail of their topics was as shown below.

## • Plenary session

1. Dr. Ipek Kurtbőke: The Role of Culture Collections in Biotechnological Advancements

2. Prof. Dr. Sazaly Abu Bakar: Country's Update on Biosafety and Biosecurity

3. Dr. Pravech Ajawatanawong: Diversity of Dictyostelid Social Amoebae in Thailand

4. Dr.Juncai Ma: A Global Catalogue of Microbial Genome Type Strain Sequencing Project of WDCM

5. Ms. Rie Funabiki: CBD COP 14/NP MOP3 Report and Analysis

# • Poster Session:

15 Posters were presented by researchers from local and international.

1. Mardi Microbial Culture Collection-The Way Forward <u>Norzaimawati Aman Nejis,</u> Halizah Hamzah and Jeffrey Seng Heng Lim

2. Characterization of *Trichoderma* Species and their *In-Vitro* Antagonism against *Fusarium Solani* from Black Pepper (*Piper nigrum*) Joy Franco Wilson, Franklin Ragai Kundat, Siti Fatimah Razali, Sui Sien Leong, Mui Yun Wong and <u>Yee Min Kwan</u>

3. *Pseudomonas Fluorescent* Strain K29pf a Potential Plant Growth Promoting Bacteria Jeffrey Lim Seng Heng and Nur Samahah Mohd Zainual

4. Antibacterial Potential of Gallic Acid Pure Compound on *Staphylococcus Aureus*, Mrsa And *Klebsiella Pneumoniae* Clinical Strains

<u>Yahaya Hassan</u>, Kumurya Abdulhadi Sale, Sharif Alhassan Abdullahi, Mohammed Sani Jaafaru and Yahaya Yakubu

5. Effect of Agar and Gellan Gum on Aerial Mycelia Formation of Rare Thermophilic *Actinobacteria* Isolated from Indonesia

<u>Dhian Chitra Ayu Fitri Sari</u>, Fitria Ningsih, Akira Yokota, Shuhei Yabe, Ariyanti Oetari and Wellyzar Sjamsuridzal

6. Maintainance, Preservation and the Role of Microbial Culture in Department of Chemistry <u>Md Tab, Mahzan</u>, Minor, Nurulermila, Mohd Rashid, Nur Syahirah, Mohamed Noordin, Mohamed Nizam and Uma Priya Kupusamy

7. Development of Biochemical Fertilizer from Plant Growth Promoting Rhizobacteria for Oil Palm Growth

Tony Shih Hao Peng, Erwan Syah Tugiman, Izwanizan Arifin, Geok Hun Tan

8. Evaluation of Different Ages of *Pleurotus Sajor-Caju* Liquid Culture Mycelium for Protoplast Production by Enzymatic Digestion

<u>Rosnani Abdul Rashid</u>, Hassan Hamdani Hassan Mutaat, Nurul Liyana Hassan, and Mohd Meswan Maskom

9. Nutritional Profile and Functional Properties Ofan Edible Heterocystous Filamentous Cyanobacteria, *Nostoc Commune* (Biotech 4020) from Ilocos Norte, Philippines <u>Eldrin DLR. Arguelles</u>, Rosario G. Monsalud and Arsenia B. Sapin

10. Isolation and Identification of *Gluconobacter* Strains Isolated from Wild Plants and Fermented Foods in Korea

Jun Heo, Jeong-Seon Kim, Soo-Jin Kim, Seung-Beom Hong, and Soon-Wo Kwon

11. Draft Genome Sequence of a Novel Marine Actinobacterium Zoe Yi Ng and <u>Geok Yuan Annie Tan</u>

12. Characterization of Indole Acetic Acid producing *Bacillus* Spp. Strains Isolated from Mycorrhizal Corn Roots

<u>Cristine Marie B. Brown</u>, Bernadette C. Mendoza, Marilyn B. Brown and Rosario G. Monsalud

13. *Lactococcus Lactis* Secreting Phage Endolysin as Potential Antimicrobial Against Methicilin Resistant *Staphylococcus Aureus* 

<u>Carumathy Chandran</u>, Raha Abdul Rahim, Lim Swee Hua Erin, Khatijah Yusoff, Adelene Song Ai-Lian

14. Effects of Bacterial Cell Wall Synthesis (*Uppp*) Gene Modification on *Klebsiella Pneumoniae* Colony Morphology

<u>Mohd Nasharudin Razak</u>, Raha Abdul Rahim, Abdul Rahman Omar, Zunita Zakaria, Nurulfiza Mat Isa

15. V Protein, The Virulence Factor across the Family *Paramyxoviridae* <u>May Ling Tham</u>, Khatijah Yusoff, Sarah Othman and Suet Lin Chia

## Closing of the International Conference

The International conference was successfully concluded with enthusiastic participation of invited speakers, ACM members and several microbiology researchers from Malaysian universities and research organizations. The organizers thanked all the participants for making the international conference a grand success.

## Day 2 (Afternoon) and Day 3

 On the 2nd and 3rd day, there were parallel programs carried out, one was 16th Meeting of Asian Consortium for the Conservation and Sustainable Use of Microbial Resources (ACM16) and 2nd Post-Conference Workshop on Phylogenetic Tree Analysis. The ACM'16 meeting was attended by 40 delegates from Malaysia, Japan, China, South Korea, Thailand, Philippines, Vietnam, Indonesia and Chinese Taipei. For the workshop, there were 29 participants.

# 16<sup>th</sup> Meeting of the Asian Consortium for the Conservation and Sustainable Use of Microbial Resources (ACM)

The 16<sup>th</sup> ACM was opened with opening remarks made by Mr. Hitoshi Masuda, Director-General of Biological Resource Center, NITE (NBRC), Japan.

## Members Report

Member reports were presented on annual activities and their achievement from 12 member organizations. The presenters were listed as follows.

- 1. Associate Professor Dr. Geok Hun Tan, UNiCC/Malaysia
- 2. Dr. Susakul Palakawong Na Ayudthaya, TISTR/Thailand
- 3. Dr. Thao Nguyen, VTCC/Vietnam
- 4. Dr. Man Cai, CGMCC/China
- 5. Dr. Kim Hazel V. Arafiles, USTC/Philippines
- 6. Dr. Song-Gun Kim, KCTC/KRIBB/Korea
- 7. Dr. Katsutoshi Fujita, NBRC/Japan
- 8. Dr. Jeffrey Seng Heng Lim, MARDI/Malaysia
- 9. Dr. Eldrin Dlr. Arguelles, PNCM/BIOTECH/Philippines

- 10. Dr. Atit Kanti, InaCC/Indonesia
- 11. Dr. Chitwadee Phithakrotchanakoon, TBRC/Thailand
- 12. Dr. Lina Huang, BCRC/FIRDI/Chinese Taipei

## ACM Task Force Meeting

Annual activity of four task forces was presented as follows.

## • Asian BRC Network (ABRCN-TF)

Dr. Supawadee Ingsriswang representing Dr. Juncai Ma reported the activities of ABRCN-TF and introduced the future work plan of ABRCN-TF.

## • Human Resource Development (HRD-TF)

Dr. Song-Gun Kim, a new chair of HRD-TF, reported on the activities taken place in 2018/2019. He also reported on HRD activities of its members: BIOTEC, KCTC, NBRC, UNICC, PNCM and VTCC.

## • Management of Material Transfer (MMT-TF)

Ms. Rie Funabiki summarized MMT-TF activities from 2006-2019 and the previous schemes of microbial strains transfer. She reported the future plan for MMT on the development of model of contractual clauses of MAT/MTA. She also shared a few contractual clauses which are currently available.

## • Mutual Aid Association for mBRC (MAA-TF)

Dr. Takahide Ishida reported three years activities of MAA-TF. Dr. Takahide Ishida reviewed the 1<sup>st</sup> year activity of 2017 on international distribution and exchange of microbial strains. 2<sup>nd</sup> year activity took place in 2018 at Ulaanbaatar, Mongolia, and national ABS legislation of the member countries were shared as follows:

- Ishida (NIES): Background of CBD
- Tan (UNiCC): Malaysian new law
- Enkhee (MAS): Mongolian laws in preparation
- Yuan (FIRDI): Pathogenicity and transfer
- Kim (KCTC): Korean regulations
- Gina (USTC): Philippine's situation

For the 3<sup>rd</sup> year activity, Dr. Takahide Ishida focused on Accession Agreement. He explained the accession conditions in order to clarify the rights and responsibility of the depositor and the culture collection. The team referred to NBRC Material Transfer Agreement for Deposit that was revised in 2018 and discussed some of major points such as commercial use, and ownership. Dr. Takahide Ishida explained the future work plan of the taskforce.

## • BRC Standardization (BRCS-TF)

Dr. Hiroko Kawasaki summarized BRCS-TF for the 1<sup>st</sup> time. This TF was formed in 2018 during ACM 15<sup>th</sup> in Mongolia. The scope and objectives of this TF are as follows:

- 1. Develop and provide guidelines to implement international standards
- 2. Play roles in the development of a new international standard necessary for BRCs
- 3. Provide technical guidelines to ensure the service quality of ACM BRCs
- 4. Share information and keep ACM members updated with the latest requirements and specification of international standards

The 1<sup>st</sup> meeting was held at Sukosol Hotel, Bangkok, Thailand on 29 Jan 2019 and 2<sup>nd</sup> meeting was held during ACM16, Universiti Putra Malaysia, Malaysia. Dr. Hiroko Kawasaki also summarized the work plan for the year 2019-2021.

# General Assembly

The chair and vice-chair of this section were Associate Professor Dr. Tan Geok Hun and Mr. Hitoshi Masuda. In general assembly, reports and discussions were made regarding the following agenda; (1) Adoption of 15th ACM Minutes, (2) ACM Admin Ruler Ver. 3, (3) AOB, and (4) Announcement of ACM 17 (2020) & ACM 18 (2021).

# Agenda 1: Adoption of 15th ACM minutes

Ms. Rie Funabiki reported the minutes of 15<sup>th</sup> Asian Consortium (ACM14) hosted by Institute of General and Experimental Biology (IGEB) of Mongolian Academy of Sciences (MAS), at The Blue Sky Hotel & Tower, Ulaanbaatar on 4th October and at Red Rock Resort Hotel on 5th and 6th October 2018. All participants confirmed the contents and adopted the minutes.

# Agenda 2: Adoption of New Member Organization

The introductory material of National Agriculturally Important Microbial Culture Collection

(NAIMCC) of India, an applicant for ACM membership, was presented by Ms. Rie Funabiki, and its acceptance was deliberated. Four ACM members (NBRC, USTC, UNICC and VTCC) expressed their reluctance in accepting its membership due to NAIMCC's absence from the ACM 16 meeting and uncertainty about the contribution NAIMCC would make to ACM community. As a result, the decision was deferred until the NAIMCC attends the ACM17 in Japan.

## Agenda 3: AOB

#### Membership of KNRRC

It was informed that KNRRC was dissolved recently, and its ACM membership was discussed. Dr. Jung-Sook Lee clarified that the formation of KNRRC is based on project, not the institution. It was decided that KNRRC was delated from the ACM member list as it did not exist anymore as an entity.

#### **BSL** information

Regarding the BSL information, Dr. Hiroko Kawasaki would collect the Biosafety Information at <u>bio-it-safe@nite.go.jp</u>

## Agenda 4: Announcement of ACM17 (2020) and ACM 18 (2021)

It was announced by Mr. Hiroyuki, Kubo, NBRC that the next ACM annual meeting, ACM17 would be held in Japan in September, 2020. ACM17 will be jointly hosted by Biological Resource Center, National Institute of Technology and Evaluation (NBRC), Japan Collection of Microorganisms (JCM), RIKEN BioResource Center (RIKEN BRC) and Microbial Culture Collection, National Institute for Environmental Studies (MCC-NIES). The 18<sup>th</sup> ACM annual meeting would be held in Thailand and hosted by Thailand Institute of Scientific and Technological Research (TISTR), Thailand.

## Closing Ceremony

A post conference tour to Melaka was successfully organized on the 26th July 2019. Besides that, the leisure activities such as visiting to Beryl's Chocolate & Confectionary Sdn. Bhd. and exotic fruits tasting (durian, cempadak, mangosteens, rambutan and some other local fruits) took place at the end of the meeting.

 APPENDIX 1. Schedule of the 2nd Regional Conference on Culture Collections (RCCC 2019) and the 16th Asian Consortium for the Conservation and Sustainable Use of Microbial Resources (ACM16)

2<sup>nd</sup> Regional Conference on Culture Collections - The Essential Resources for Life

## **TENTATIVE CONFERENCE PROGRAMME**

DAY 1: 23 July 2019 (Tuesday)	
Time	Programme
8.00 - 9.00	Registration
am	
Opening Ceremony, MoU Exchange and Book Launching	
10.00 - 10.30	Photography Session and Tea break
am	

	SESSION 1: Culture Collection, Conservation, and Governance 1	
	Khatijah Yusoff (UPM)	
10:30 – 11:10	Keynote	
am	The Role of Culture Collections in Biotechnological Advancements	
	Ipek Kurtboke (President, World Federation of Culture	
	Collections)	
11.10 - 11.40	Plenary 1	
am	Country's Update on Biosafety and Biosecurity	
	Sazaly Abu Bakar (University of Malaya, Malaysia)	
11:40 – 11:55	Speaker 1	
pm	Management of Biological Resources for Bioscience and	
	Biotechnology	
	Song-Gun Kim (Biological Resource Center/KCTC, Korea	
	Research Institute of Bioscience and Biotechnology (KRIBB),	
	Republic of Korea)	
11:55 – 12:10	Speaker 2	
pm	Viability Management of Microbial Cultures at Microbial Culture	
	Collection (UNICC)	
	Geok Hun Tan (Universiti Putra Malaysia)	
12:10 – 12:25	Speaker 3	
pm	The Role of InaCC as Biodiversity Conservation Facilities and to	
	Support Bioindustry Development	
	Atit Kanti (Indonesian Culture Collection (InaCC), Indonesian	
	Institute of Sciences (LIPI), Indonesia)	
12:25 – 12:40	Speaker 4	
	ABS Policy in the National Institute for Environmental Studies and in	

	Its Culture Collection Takahide Ishida (National Institute of Genetics, Japan)
12:40 - 2:00 pm	Lunch and Poster judging session 1

SESSION 2: Mi	SESSION 2: Microbial Diversity	
	Suet Lin Chia (UPM)	
2:00 - 2:30	Plenary 2	
pm	Diversity of Dictyostelid Social Amoebae in Thailand	
	Pravech Ajawatanawong (Mahidol University, Thailand)	
2:30 – 2:45	Speaker 5	
pm	Exploring Malaysian Actinobacteria Diversity for Research	
	Getha Krishnasamy (Forest Research Institute of Malaysia)	
2:45 – 3:00	Speaker 6 - student	
pm	Escherichia coli Isolated from Fecal Sample of Thai Adults is a	
	Potential Probiotic Bacteria	
	Atchareeya Nakkarach (Universiti Putra Malaysia)	
3:00 – 3:15	Speaker 7	
pm	A Prevalence Study of Asymptomatic Carriage of Community-	
	Acquired Nasal Methicillin-Resistant Staphylococcus Aureus	
	(MRSA) and Its Association with Knowledge-Attitude-Practice	
	Among Students of A Public University In Malaysia	
	Isabel Fong Lim (Universiti Malaysia Sarawak)	
3:15 – 3:30	Speaker 8 - student	
pm	Development and Probiotic Evaluation of Vaginal Pessary	
	Containing Freeze Dried Lactobacillus Strain	
	Premmala Rangasamy (Universiti Putra Malaysia)	
3:30 - 4:00	Tea break and Poster judging session 2	
pm		

SESSION 3: Ap	oplication of Microorganism
•	Adelene Ai-Lian Song (UPM)
4:00 - 4:15	Speaker 9 - student
pm	Inhibitory and Cytotoxic Effects of Postbiotic Produced by
	Lactobacillus Plantarum I-UI4 Cultivated in Differrent Culture Media
	Against MCF-7 Breast Cancer Cell
	Han Yun Yap (Universiti Putra Malaysia)
4:15 – 4:30	Speaker 10 - student
pm	New Sterigmatocytin as Cytotoxic Against HT29 Colon Cancer from
	Sponge-Derived Fungus A. nomius
	Muh Ade Artasasta (Andalas University, Indonesia)
4:30 – 4:45	Speaker 11 - student
pm	Production of Versatile Extracellular Cellulolytic and Hemicellulolytic
	Enzymes by <i>Lactobacillus plantarum</i> Ri 11 Using Different
	Combinations of Various Agro-Wastes
	Nursyafiqah Athirah Mohamad Zabidi (Universiti Putra
	Malaysia)

4:45 – 5:15	Speaker 12 (Technical Talk)
pm	Introduction of Biosafety Cabinet in Laboratory
	Kwang Shan Lu
5:15 – 5:45	Poster judging session 3
pm	
8:00 pm	Dinner (For ACM16 Members only)
•	Venue: Gazania Room, Palm Garden Hotel, IOI Resort Putrajaya

	DAY 2: 24 July 2019 (Wednesday)	
Time	Programme	
SESSION 4: Da	SESSION 4: Database Management & Bioinformatics	
Chairperson: L	eslie Thian Lung Than (UPM)	
9.00 - 9.30	Plenary 3	
am	A Global Catalogue of Microbial Genome Type Strain Sequencing	
	Project of WDCM	
	Juncai Ma (Director, WFCC-MIRCEN World Data Centre for	
	Microorganisms)	
9:30 – 9:45	Speaker 13 - student	
am	Phylogeny of Estuarine eronosporomycetes	
	Reuel Bennett (University of Santo Tomas, Philippines)	
9:45 – 10:00	Speaker 14	
am	Taxonomic Re-evaluation of Black-koji Molds	
	Seung-Beom Hong (National Academy of Agricultural Science,	
	Korea)	
10.00 - 10.30	Tea break	
am		

SESSION 5: Culture Collection, Conservation, and Governance 2 Chairperson: Hooi Ling Foo (UPM)	
10:30 - 11:00	Plenary 4
am	CBD COP 14/NP MOP3 Report and Analysis
	Rie Funabiki (NITE Biological Resources Center, Japan)
	Speaker 15
11.00 – 11.15	Regulatory Framework Governing Microorganisms in Research and
am	Development: Scope and compliance for Malaysian Scientists
	Saraswathy Subramaniam (Biosafety consultant, Genetic
	Modification Advisory Committee, Malaysia)
11:15 – 11:30	Speaker 16 - RO
am	Maintenance of Bacterial Cultures in Microbiology Laboratory
	Nur Syahirah Mohd Rashid (Department of Chemistry Malaysia)
11:45 – 12:30	Announcement of the Winners and Closing Ceremony of the
am	Conference
12:30 – 2:00	Lunch break
pm	

## TENTATIVE ASIAN CONSORTIUM FOR THE CONSERVATION AND SUSTAINABLE USE OF MICROBIAL RESOURCES (ACM) MEETING (FOR ACM MEMBERS ONLY)

	DAY 2: 24 July 2019 (Wednesday) Venue: Institute of Bioscience, UPM
Time	Programme
2:00 – 3:30 pm	<ul> <li>Opening remarks         <ul> <li>Hitoshi Masuda</li> <li>Head of the ACM Secretariat</li> <li>Diretor-General, NOTE Biological Resource Center</li> </ul> </li> <li>ACM Member Report         <ul> <li>1) Geok Hun Tan</li> <li>Microbial Culture Collection Unit (UNiCC), Institute of Bioscience, Universiti Putra Malaysia, Malaysia</li> <li>2) Susakul Palakawong Na Ayudthaya</li> <li>TISTR Culture Collection, Thailand Institute of Scientific and Technological Research (TISTR), Thailand</li> <li>3) Thao Nguyen</li> <li>Vietnam Type Culture Collection (VTCC), Vietnam</li> <li>4) Man Cai</li> <li>China General Microbiological Culture Collection Center (CGMCCC), Institute of Microbiology, China</li> </ul> </li> </ul>
	<ul> <li>5) Kim Hazel V. Arafiles University of Santo Tomas Collection of Microbial Strains, Philippine</li> <li>6) Song-Gun Kim Biological Resource Center/KCTC, Korea Research Institute of Bioscience and Biotechnology (KRIBB), Republic of Korea</li> </ul>
3:30 – 4:00 pm	Tea break
4:00 – 5:30 pm	<ul> <li>ACM Member Report <ol> <li>Katsutoshi Fujita</li> <li>Biological Resource Center, National Institute of Technology and Evaluation (NBRC), Japan</li> <li>Jeffrey Seng Heng Lim</li> <li>Malaysian Agricultural Research and Development Institute (MARDI), Malaysia</li> <li>Eldrin Dir. Arguelles</li> <li>The Philippine National Collection of Microorganisms (PNCM), Philippine</li> <li>Atit Kanti</li> <li>Indonesian Culture Collection (InaCC), Indonesian Institute of Sciences (LIPI)</li> <li>Chitwadee Phithakrotchanakoon Thailand Bioresource Research Center (TBRC), Thailand</li> </ol></li></ul>

	Bioresource Collection and Research Center (BCRC) of Food Industry Research and Development Institute (FIRDI), Taiwan
--	--

DAY 3: 25 July 2019 (Thursday)	
Time	Venue: Institute of Bioscience, UPM
Time	Programme
0.00 40.00	ACM Task Force Meeting
9:00 – 10:00 am	Asian BRC Network (ABRCN)
10.00 – 10.30	Human Resource Development (HRD)
am	
10:30 - 11:00	Tea break
am	
11.00 – 11.30	Management of Material Transfer (MMT)
am	
11.30 – 12.00	Mutual Aid Association (MAA)
noon	
12.00 - 12.30	BRC Standardization (BRCS)
pm	
12:30 – 2:00 pm	Lunch break
2:00 – 4:00 pm	ACM General Assembly
	Chair: Geok Hun Tan (UNiCC, Malaysia)
	Vice-Chair: CEO NITE (Japan)
	Convene by Rie Funabiki of the ACM Secretariat
	Agendas:
	1. Adoption of 15th ACM Minutes
	2. Adoption of New Member
	3. AOB
	4. Announcement of ACM17 and future ACM meetings
4:00 – 4:30 pm	Photography session, Tea Break and dismiss

DAY 4: 26 July 2019 (Friday) For ACM Members Only	
Time	Programme
	Tour to Melaka
7.00 am	Depart from Palm Garden Hotel, IOI Resort, Putrajaya
9.00 am	Arrive at Melaka City
5.00 pm	Depart from Melaka City
7.00 pm	Arrive at Palm Garden Hotel, IOI Resort, Putrajaya

TENTATIVE POST-CONFERENCE WORKSHOP ON PHYLOGENETIC TREE ANALYSIS

DAY 2: 24 July 2019 (Wednesday)		
Venue: iDEC (Putra Infoport), UPM		
Instructor: Pravech Ajawatanawong		
Time	Programme	
2:30 – 3:00 pm	Lecture 1	
	Principles and Concepts of Molecular Phylogenetics	
3:00 – 3:30 pm	Practical 1	
	Homology Searching and Data Preparation	
3:30 – 4:00 pm	Tea break	
4:00 – 5:00 pm	Practical 2	
	CSI Phylogeny – An Idea of Phylogenetic Applications	

DAY 3: 25 July 2019 (Thursday)		
Venue: iDEC (Putra Infoport), UPM		
Instructor: Pravech Ajawatanawong		
Time	Programme	
8:30 - 10:00	Lecture 2	
am	Phylogenetic Systematic and Diversity	
10:00 - 10:30	Tea break	
am		
10:30 - 12:30	Practical 3	
pm	Phylogenetic Diversity	
12:30 - 2:00	Lunch break	
pm		
2:00 – 3:30 pm	Practical 4	
	Phylogenetic Analysis and the Tree of Life (ToL) Study	
3:30 – 4:00 pm	Tea break	
4:00 – 5:00 pm	Discussion and Closing ceremony	