

Molecular Diagnostics & Biomarker Discovery

Redefining Healthcare: Multi-Omics Driven Diagnostics and Therapeutics

19-20 August 2026

Iconic Marjorie Hotel, a Tribute Portfolio by Marriott International

Penang, MALAYSIA

mdbd.usm.my | mdbd@usm.my

Day 1 – 19 August 2026 (Wednesday)

Time	Session
08:00 – 08:30	Registration & Arrival of Participants
08:30 – 08:50	Welcoming Remarks – Assoc. Prof. Dr Aziah (INFORMM Director & MDBD2026 Advisor) Welcoming Remarks – Imelia Wong (Country General Manager, Malaysia, Thermo Fisher Scientific)
08:50 – 09:00	Opening Remarks – Prof. Dato’ Seri Ir. Dr. Abdul Rahman Mohamed (Vice-Chancellor, Universiti Sains Malaysia)
09:00 – 09:20	USM-Thermo Fisher Scientific MoU Signing Ceremony
09:20 – 10:00	Keynote Address Translational Biotechnology in Malaysia: Integrating Multi Omics Innovations into Real World Healthcare Solutions Prof. Datuk Wira Dr Raha Abdul Rahim (CEO, National Institute of Biotechnology Malaysia)
10:00 – 10:20	Break, Poster Viewing & Networking
10:20 – 11:20	Plenary Session 1: Diagnostics HLA-C-derived peptide MH-1 as an intervention agent against SARS-CoV-2 infectio - Prof. Dr Chang Chia-Ching (National Yang Ming Chiao Tung University, Taiwan) The Evolution of TB laboratory Diagnostics: From Conventional Baselines to Decentralized Molecular Networks - Dr Nur Eyuni Mohd Salleh (National Public Health Laboratory Johor Bharu, Malaysia Ministry of Health)

11:20 – 11:40	Technical Talk Enabling Multi-Omics Research: Transforming Complex Biology into Scientific Breakthrough Tian Sheng Lew, PhD (Technical Sales Manager, Biosciences, Thermo Fisher Scientific, Southeast Asia)
11:40 – 12:40	Plenary Session 2: Biomarker Discovery From Molecular Signatures to Artificial Intelligence-Powered Precision Prevention and Medicine - Assoc. Prof. Surasak Wanram (Ubon Ratchathani University, Thailand) Long Non-Coding RNAs as Emerging Biomarkers and Therapeutic Targets in Cancer - Dr Mirna Mourtada-Maarabouni (Keele University, United Kingdom)
12:40 – 13:00	Technical Talk From Discovery to Decision: Enabling Precision Medicine with Ion Torrent™ Sequencing Osman, Muhammad Afiq (Clinical Technical Sales Specialist, Thermo Fisher Scientific, Southeast Asia)
13:00 – 14:00	Lunch
14:00 – 15:00	Plenary Session 3: Therapeutics Paradigm Shifts in the Understanding and Applications of Mesenchymal Stem Cells: With Insights from Cytopeutics' Pre-clinical and Clinical Research - Prof. Dr Chin Sze Piaw (Cytopeutics Sdn Bhd) From Cells to Vesicles: Multiomics Biomarker Signatures of Stem Cell and EV Therapies for Precision Medicine - Prof. Dr Badrul Hisyam Yahya (Pusat Kanser Tun Abdullah Ahmad Badawi, Universiti Sains Malaysia)
15:00 – 15:40	Forum Redefining Healthcare: Multi-Omics Driven Diagnostics and Therapeutics Moderator: Assoc. Prof. Dr Aziah Ismail Panel: <i>To be announced.</i>

15:40 – 16:00	Break, Poster Viewing & Networking
16:00 – 17:30	Oral Presentation Sessions 1 (Parallel) Room A – Diagnostics & Biomarker Discovery Room B – Therapeutics
17:30	End

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Day 2 – 20 August 2026 (Thursday)

Time	Session
09:00 – 10:00	Oral Presentation Sessions 2 (Parallel) Room A – Diagnostics & Biomarker Discovery Room B – Therapeutics
10:00 – 10:20	Break, Poster Viewing & Networking
10:20 – 12:20	Plenary Session 4: Road Map of Diagnostic & Therapeutic Innovations From Data to Device: An AI-Guided EV Biochip for Multi-Cancer Detection - Prof. Dr Shieh Dar-Bin (Senior Vice President, National Yang Ming Chiao Tung University, Taiwan) Preclinical Path Towards Advancement of Pharmaceuticals, Nutraceuticals and Biologics - Assoc. Prof. Dr Tye Gee Jun (Director, Malaysia Institute of Pharmaceutical and Nutraceuticals) Oncology Capability Expanded Through Molecular Diagnostic in Malaysia - Dr Akhmal Yusof (CEO, Clinical Research Malaysia) The Future of Medical Device Innovation in Malaysia - Ts. Dr Muralitharan Paramasua (CEO, Medical Device Authority (MDA), Ministry of Health)

12:20 – 13:00	Technical Talks Advancing Translational Research Through Simplified Spatial Proteomics Workflows - Steven Ta, M.Sc. (Technical Sales Specialist, Cellular Imaging, Thermo Fisher Scientific, Southeast Asia) Precision Mass Spectrometry: Accelerating Biopharma and Multi-Omics Insights with the Orbitrap Exploris 240 - Assoc. Professor Dr Mohd Nazri Ismail (Analytical Biochemistry Research Centre (ABrC), Universiti Sains Malaysia)
13:00 – 14:00	Lunch
14:00 – 15:40	Oral Presentation Sessions 3 (Parallel) Room A – Diagnostics & Biomarker Discovery Room B – Therapeutics
15:40 – 16:00	Break, Poster Viewing & Networking
16:00 – 16:50	Oral Presentation Sessions 4 (Parallel) Room A – Diagnostics & Biomarker Discovery Room B – Therapeutics
16:50 – 17:20	Technical Talks Precise, non-contact picoliter dispensing to enhance preparation of dose-response curves - Mr Chan Randall (Product Manager, Laboratory Plastics Essential, Thermo Fisher Scientific, Southeast Asia) - Dr Mohd Helmi Zakariah (General Manager, MyRNA Diagnostics Sdn. Bhd.)
17:20 – 17:50	Best Presenters Award Ceremony & Closing Remarks
17:50	End

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