

**International Symposium on Synthetic Biology and CRISPR Technology
(iSynBioCT) 2024**

Program Tentative

23 July 2024 (Tuesday)

Venue: DKB1, FST Deanery Building & Zoom (online)

Time	Activity	Presentation title
8.00 am	Registration & breakfast - Speakers, Participants and Sponsors Registration - VIP and Guest Arrival	
9.00 am	Program commencement (DKB1 & FB Live) National Anthem Negaraku Opening remark by INBIOSIS Director, Prof. Dr. Syarul Nataqain Baharum Officiating remark by UKM Deputy Vice Chancellor (R&I), Prof. Dato' Dr. Wan Kamal Mujani Opening ceremony - Launching of iSynBioCT and UKM Biofoundry (Gimmick and video presentation) - Token of appreciation to UKM DVC, co-organizers (FST & KKM) and Petronas Research Sdn Bhd (PRSB) - Photo session	
9.50 am	Morning break (10 min)	
10.00 am	Keynote talk Prof. Akihiko Kondo Kobe University, Japan	Integrated Biofoundry for the Development of Smart Cells to Produce Chemicals and Fuels from Lignocellulose and Carbon Dioxide
10.45 am	Plenary talk Dr. Wan-Chin Yeap SD Guthrie	Genome Editing Technology For Oil Palm Improvement
11.15 am	Plenary talk Dr. Yuya Misaki PtBio Inc. Japan	Pioneering the future with Genome Editing and BioDX
11.45 am	Plenary talk Dr. Anis Farhan Fatimi Ab Wahab FGV Holdings Berhad	CRISPR/Cas9-assisted Gene Disruption as an Intriguing Approach in <i>Ganoderma</i> -Related Research
12.15 am	Poster Presentation (Persada FST)	

1.00 pm	Lunch Break	
2.00 pm	Plenary talk Prof. Dr. Mohd Firdaus Mohd Raih Universiti Kebangsaan Malaysia (UKM)	Protein Function Gaps and Protein Design in the Age of Competent Artificial Intelligence
2.30 pm	Technical talk Adrian Koh Apical Scientific Sdn Bhd	Harnessing the Power of Acoustics and Biolayer Interferometry for High-Throughput Synthetic Biology
2.45 pm	iSynBioCT talk 1 Dr. Ahmad Bazli Ramzi Universiti Kebangsaan Malaysia (UKM)	Microbial Synthetic Biology as Platform for Advancing Engineering Biology and Collaborative Biofoundry Frameworks
3.00 pm	iSynBioCT talk 2 Dr. Nurul Hidayah Samsulrizal International Islamic University Malaysia (IIUM)	Enhancing Rice Tolerance Against Drought by CRISPR/Cas9-Targeted Mutagenesis in <i>Oryza sativa</i>
3.15 pm	iSynBioCT talk 3 Dr. Norefrina Shafinaz Md Nor Universiti Kebangsaan Malaysia (UKM)	Exploring the Antiviral Potential of <i>Orthosiphon stamineus</i> Against HHV-1: A Combined Approach of In Vitro and In Silico Investigations
3.30 pm	Tea break (10 min)	
3.40 pm	iSynBioCT talk 4 YRP (Zoom) Abdul Halim Mohamad Wahhaj MILA University	Computational Analysis of Potential Marine Bioactive Compounds from Marine Cyanobacteria as an Anticancer Drug Candidate
3.50 pm	iSynBioCT talk 5 YRP (Zoom) Syarul Nugroho Indonesian Oil Palm Research Institute (IOPRI)	Revealing the Role of Glycerol and Ascorbic Acid in Oil Palms Against <i>Ganoderma boninense</i> Based on 1H NMR Metabolomics Analysis
4.00 pm	iSynBioCT talk 6 Dr. Jasmine Elanie Universiti Malaya (UM)	Generation of SEPT5 Knockdown in Neuronal Cells: Prerequisite Condition for Neuropathogenesis Study of Influenza H5 Infection
4.15 pm	iSynBioCT talk 7 Dr. Liyana Azmi Universiti Sains Islam Malaysia (USIM)	Unravelling the Link Between SARS-CoV-2 Mutation Frequencies, Patient Comorbidities, and Structural Dynamics

4.30 pm	iSynBioCT talk 8 Dr. Nallammai Taylor's University	Resolving Interspecific and Intergeneric Relationships of Selected Peninsular Malaysia <i>Amomum</i> Species (Zingiberaceae) Through Plastid Phylogenomics Analysis
4.45 pm	iSynBioCT talk 9 YRP Babalola Abdulhafeez Oluwabunmi Universiti Sains Malaya (USM)	Utilising <i>Mycobacterium tuberculosis</i> as a Model Through Machine Learning Techniques to Identify and Characterise Small Proteins
4.55 pm	iSynBioCT talk 10 YRP Nurul Ain Shahira Mohd Asri Universiti Teknologi MARA (UiTM)	Optimising PCR Analysis of Oil Palm DNA Using SSR Marker (MEGCIR3607) via FTA Card Application: A Reliable, Rapid, and Convenient Method
5.05 pm	iSynBioCT talk 11 YRP Pirasannah Erriah Universiti Putra Malaysia (UPM)	Discovery of Gram-Positive and Gram-Negative Bacteria Inhibiting Lipopeptides in <i>Bacillus velezensis</i> Strain PD9
5.15 pm	iSynBioCT talk 12 YRP Ng Heng Kang Universiti Malaya (UM)	Construction of an Enhanced PDM4 Suicide Vector for Gene Knockout in Carbapenem-Resistant <i>Acinetobacter baumannii</i>
5.25 pm	iSynBioCT talk 13 YRP Amirul Akmal Zulkifli Universiti Teknologi MARA (UiTM)	Genetic Sequencing Analysis of Oil Palm DNA Extracted via FTA Card
5.35 pm	End of session/tea time	

24 July 2024 (Wednesday)

Venue: DKB1, FST Deanery Building & Zoom (Online)

Time	Activity	Presentation Title
8.00 am	Registration & breakfast - Speakers, Participants and Sponsors Registration - VIP and Guest Arrival	
9.00 am	Program Commencement (DKB1 & FB Live) Forum Innovation & Technology for Sustainable Bioeconomy Moderator: Assoc. Prof. Ts. Dr. Mohd Faizal Ibrahim (UPM/AFOB-MC) Panel 1: Mr. Mohammad Ghaddaffi Mohd Noh (Petronas Research Sdn Bhd) Panel 2: Mr. Lakshmi Narasimhan (Novozymes Malaysia Sdn Bhd) Panel 3: Mrs. Ts. Soeraya Satem Ahmad (Bioeconomy Corporation)	
10.30 am	Morning break (10 min)	
10.40 am	Keynote talk Datuk Dr Ahmad Parveez Hj Ghulam Kadir Malaysian Palm Oil Board (MPOB)	CRISPR/Cas Technology: A Revolutionary Technology for Sustainable Food Security and Bioeconomy
11.25 am	Plenary talk Prof. Dr. Syarul Nataqain Baharum Universiti Kebangsaan Malaysia (UKM)	Integrating Systems and Synthetic Biology for Natural Product Research
11.55 am	Plenary talk Dr. Zool Hilmi Ibrahim Petronas Research Sdn Bhd (PRSB)	Advancing Bio-based Solutions: Innovations for Sustainability
12.25 am	Technical talk Bernd Willems Twist Bioscience/Everlife Research Instrument Sdn Bhd	Writing the Future of Synthetic Biology with Twist Bioscience
12.40 pm	Poster Session & Lunch Break	
2.00 pm	Plenary talk Mr. Yu Inaba Euglena Japan	High-Efficiency Genome Editing in <i>Euglena gracilis</i>
2.30 pm	iSynBioCT talk 14 Assoc. Prof. Dr. Abdul Munir Universiti Kebangsaan Malaysia (UKM)	Development of RNA Interference (RNAi) for Gene Knockdown in an Oil Palm Fungal Pathogen, <i>Ganoderma boninense</i>
2.45 pm	iSynBioCT talk 15 Dr. Ho Chun Loong	Engineering Microbes for Various Medical Applications

	CAS-Shenzhen Institutes of Advanced Technology (SIAT), China	
3.00 pm	iSynBioCT talk 16 Dr. Peer Mohamed Universiti Kebangsaan Malaysia (UKM)	Genetic Modification of <i>Clostridium butyricum</i> Using CRISPR for Enhanced Biohydrogen Production
3.15 pm	Plenary talk Assoc. Prof. Dr. Hamidun Bunawan Universiti Kebangsaan Malaysia (UKM)	Yeast Homologous Recombination-Based Cloning as an Efficient way of Constructing Infectious Clones of Tungro Viruses
3.45 pm	Tea break (10-min)	
3.55 pm	iSynBioCT talk 17 YRP (Zoom) YouKyeong Lee Sungshin University, South Korea	Research and Activity Evaluation of Enzyme Applicable to Astaxanthin Extraction from <i>Xanthophyllomyces dendrorhous</i>
4.05 pm	iSynBioCT talk 18 Dr. Nadiawati Alias Universiti Sultan Zainal Abidin (UniSZA)	inBio-CaLyT: A Potential Biofilm Inhibitor Protein Against Multidrug Resistance Bacteria
4.20 pm	iSynBioCT talk 19 Dr. Siti Nur Hazwani Oslan Universiti Malaysia Sabah (UMS)	Enhancing of <i>Lactobacillus plantarum</i> Production for Probiotic Starter Culture Through Optimization of Growth Conditions by Response Surface Methodology
4.30 pm	iSynBioCT talk 20 YRP Dr. Lim Si Jie Universiti Putra Malaysia (UPM)	Characterizing the Fungal Pathogenicity of a Locally Isolated, Non-Conventional Expression Host, <i>Meyerozyma guilliermondii</i> Strain SO
4.40 pm	iSynBioCT talk 21 YRP Mohd Norfikri Omar Universiti Kebangsaan Malaysia (UKM)	Metabolic and Genome Engineering of <i>Corynebacterium glutamicum</i> for Improved Utilization of Oil Palm Trunk Hydrolysate
4.50 pm	iSynBioCT talk 22 YRP Johan Ariff Mohtar Universiti Malaysia Perlis (UniMAP)	CRISPideR: Far from 'Home'
5.00 pm	iSynBioCT talk 23 YRP Mohamad Alif Bin Ismail Taylor's University	Rational Design of Peptides Targeting EGFR Using EGF-EGFR Interaction Models
5.10 pm	Closing ceremony - Certificate presentation & Photo session	
5.35 pm	End of session/ tea time	

Conference Presentation Guideline

Keynote talk: 45 minutes (Inclusive of 5-10 minutes of Q&A)

Plenary talk: 30 minutes (Inclusive of 5-10 minutes of Q&A)

Technical talk: 15 minutes (Inclusive of 5 minutes of Q&A)

iSynBioCT Speaker presentation: 15 minutes (inclusive of 5 minutes of Q&A)

iSynBioCT Young Researcher presentation (YRP): 10 minutes* (inclusive of 2 minutes of Q&A)

*Zoom presenter: Provide pre-recorded 8 min-video & available for live 2-min Q&A session

Poster presentation: 5 minutes (inclusive of 2 minutes of Q&A)

Innovation & Technology for Sustainable Bioeconomy Forum Guideline

Dialogue: 60 minutes (Inclusive of 30 minutes of Q&A)