



BIOTECHNOLOGY INTERNATIONAL CONGRESS (BIC 2025)

ADVANCING BIOTECHNOLOGY WITH
SYNBIO AND AI FOR THAILAND'S BCG
ECONOMY



BANGKOK INTERNATIONAL TRADE &
EXHIBITION CENTRE (BITEC),
THAILAND



YOUNG RESEARCHER AND BEST
POSTER AWARD AVAILABLE



SEPTEMBER 3 – 4, 2025

The 9th Biotechnology International Congress (BIC 2025)

DAY 1 : Wednesday, 3 September 2025

Room : MR212 - MR213				
Start time	End time	Session	Topic	Chair Session
8:00 AM	9:30 AM	Registration		
9:30 AM	10:00 AM	Welcome speech : Mr. Anucha Parnpichate (Assistant Director Competence Center LAB & Health VNU Asia Pacific) Prof. I-Son (Grace) Ng (AFOB Representative) Opening : Assoc. Prof. Chuenchit Boonchird (President Thai Society for Biotechnology)		Assoc. Prof. Rujikan Nasanit
10:00 AM	10:30 AM	Keynote-I : Prof. Pimchai Chaiken	Enzyme Catalysis and Engineering for Synthesis of Valuable Chemicals	
10:30 AM	10:50 AM	Break		
10:50 AM	11:20 AM	Keynote-II : Prof. Bo Yu	Rational Design of Redox Balanced Routes for Biomanufacturing of Fine Chemicals	Assoc. Prof. Rujikan Nasanit
11:20 AM	11:50 AM	Keynote-III : Prof. Hideo Nakano	Antibody Generation, Engineering, and Engineering by Cell-free Protein Synthesis Technologies	
11:50 AM	1:00 PM	Lunch		

DAY 1 : Wednesday, 3 September 2025 : Room MR212

Room MR212																			
Start time	End time	Session / Moderator			Code	Speaker				Topic									
1:00 PM	1:20 PM	Invited Speaker			IV-01	Prof. Wanwipa Vongsangnak				Systems Biology of Microbiome and Applications									
1:20 PM	1:35 PM	Oral Presentations Session I Chair Session : Assoc. Prof. Ratchaneewan Aunpad			OP-02	Phateep Hankittichai				Uncovering the Anti-Inflammatory Potential of <i>Pittosporopsis kerrii</i> Craib: Evaluation of Solvent-Dependent Extracts									
1:35 PM	1:50 PM				OP-03	Rachanimuk Hiransuchalert				R-Phycoerythrin from <i>Pyropia haitanensis</i> : Optimized Extraction, Stabilization, and Biological Characterization									
1:50 PM	2:05 PM				OP-04	Phiyakorn Sriarun				Morphology and Antibacterial Activity of Duck Bile Acids Powder									
2:05 PM	2:20 PM				OP-05	Kanyarak Yana				Development of a Dual-Antigen DNA Vaccine Using Baculovirus for Poultry Red Mite Control									
2:20 PM	2:55 PM	Break																	
2:55 PM	3:55 PM	Poster Session (Between Room MR213 and MR214)																	
		PP-01	PP-02	PP-03	PP-04	PP-05	PP-06	PP-07	PP-08	PP-09	PP-10	PP-11	PP-12	PP-13	PP-14	PP-15	PP-16	PP-17	PP-18
3:55 PM	4:15 PM	Invited Speaker			IV-03	Dr. Weerawat Runguphan				Engineering Yeasts for Biofuels and Biochemicals: From Metabolic Pathway Design to Machine Learning-Guided Optimization									
4:15 PM	4:30 PM	Oral Presentations Session III Chair Session : Assoc. Prof. Rujikan Nasanit			OP-11	Kanok Wongratpanya				Production and Application of Recombinant Superoxide Dismutase from Yeasts with Enhanced Free Radical Scavenging Activity									
4:30 PM	4:45 PM				OP-12	Afrakomah Shallom Getrude				Sustainable Production of Renewable Materials from Oil Palm Trunk Hydrolysate: Fractionation and Characterization of Lignin and Hemicellulose									
4:45 PM	5:00 PM				OP-13	Kornkamol Sunipit				Optimization of Hydrophobin Protein Purification Using Triton X-114									

DAY 1 : Wednesday, 3 September 2025 : Room MR213

Room MR213																			
Start time	End time	Session / Moderator				Code		Speaker				Topic							
1:00 PM	1:20 PM	Invited Speaker				IV-02		Prof. I-Son (Grace) Ng				Innovative Microalgal Biotechnology for Carbon Capture, Utilization, and Stress Resilience							
1:20 PM	1:35 PM	Oral Presentations Session II Chair Session : Dr. Selorm Torgbo				OP-06		Surisa Suwannarangsee				Engineering Microbial Platforms for the Bio-based Production of Functional Ingredients from Thai Agricultural Resources							
1:35 PM	1:50 PM					OP-08		Vo Minh Quan				Multifunctional Dopamine-Grafted Hyaluronic Acid Hydrogel Designed for Soft Tissue Regeneration and Surgical Hemostasis							
1:50 PM	2:05 PM					OP-09		Suppanut Sripratum				Modification of Bacterial Cellulose-Based Scaffold Using Enzymatic Hydrolysis for Tissue Engineering Applications							
2:05 PM	2:20 PM					OP-10		Thammarit Khamplod				Tenogenic Differentiation of Mesenchymal Stem Cells on Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) Scaffold via Mechanical and Biochemical Stimulations							
2:20 PM	2:55 PM	Break																	
2:55 PM	3:55 PM	Poster Session (Between Room MR213 and MR214)																	
		PP-01	PP-02	PP-03	PP-04	PP-05	PP-06	PP-07	PP-08	PP-09	PP-10	PP-11	PP-12	PP-13	PP-14	PP-15	PP-16	PP-17	PP-18
3:55 PM	4:15 PM	Invited Speaker				IV-04		Dr. Phatthanon Prasitchock				Synthetic Biology's Advancement in Thailand's Bio-Based Manufacturing Value Chain							
4:15 PM	4:30 PM	Oral Presentations Session IV Chair Session : Assoc. Prof. Ratchaneewan Aunpad				OP-14		Siraprapa Klinpet				Extraction and Characterization of Antioxidant Extracellular Vesicles from Citrus Peels							
4:30 PM	4:45 PM					OP-15		Arachaporn Wannaro				Upcycling Coffee Pulp into Cellulose Nanofibrils for Sustainable Skincare Formulations							
4:45 PM	5:00 PM					OP-16		Piyawadee Prasongsansuk				Development of a Microbial Screening Platform for Degradation of Biomolecules and Odors from Organic Waste							



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SEPTEMBER 3 – 4, 2025

The 9th Biotechnology International Congress (BIC 2025)

DAY 2 : Thursday, 4 September 2025

Room : MR212 - MR213

Room : MR212 - MR213																			
Start time	End time	Session							Topic								Chair Session		
8:00 AM	9:30 AM	Registration																	
9:30 AM	10:00 AM	Keynote-IV : Prof. Vilai Rungsardthong							Medicinal Mushrooms: Cultivation and Applications as Functional Foods and Functional Ingredients								Assoc. Prof. Tatsaporn Todhanakasem		
10:00 AM	10:30 AM	Keynote-V : Prof. Benjamas Cheirsilp							Zero-waste Biorefinery of Agro-Industrial Wastes into Biofuels through Oleaginous Microorganisms and Efficient Technique										
10:30 AM	11:00 AM	Break																	
		Poster Session (Between Room MR213 and MR214)																	
		PP-01	PP-02	PP-03	PP-04	PP-05	PP-06	PP-07	PP-08	PP-09	PP-10	PP-11	PP-12	PP-13	PP-14	PP-15	PP-16	PP-17	PP-18
11:00 AM	11:30 AM	Keynote-VI : Assoc. Prof.. Thi Hiep Nguyen							Nature-Derived Biomaterials in Vietnam: From Local Resources to Tissue and Organ Regeneration								Assoc. Prof. Tatsaporn Todhanakasem		
11:30 AM	11:45 AM	Viradee Senapitakkul : Gibthai Co. Ltd.							Integrated Bioprocessing Tools: Empowering SynBio Innovation										
11:45 AM	12:00 AM	Dr. Raksmont Ubonbal : Bio-Active Co. Ltd.							Advance Technologies for Medical Applications										
12:00 AM	1:00 PM	Lunch																	

DAY 2 : Thursday, 4 September 2025 : Room MR212

Room MR212					
Start time	End time	Session	Code	Speaker	Topic
1:00 PM	1:20 PM	Invited Speaker	IV-05	Assoc. Prof. Ts. Sharifah Sopliah Syed Abdullah	Gate-to-Gate Life Cycle Assessment of Bacterial Cellulose Production Utilizing Oil Palm Frond Juice as a Renewable Carbon Source
1:20 PM	1:35 PM	Oral Presentations Session V Chair Session : Asst. Prof. Adisak Romsang	OP-17	Kiratchapat Sirisareewattana	Evaluation of Kaffir Lime Essential Oil as a Potential Anti-inflammatory Agent in Human Airway Epithelial Cell Models (Calu-3 and NCI-H441)
1:35 PM	1:50 PM		OP-18	Ashiraya Kongpatparnit	Impact of Wild Cardamom Essential Oil on 3D-Colon Cancer Spheroids: Insights from HCT 116
1:50 PM	2:05 PM		OP-19	Isaran Kaewketa	<i>Terminalia Catappa</i> Leaf Extract-Incorporated Sodium Alginate/Carboxymethyl Chitosan Hydrogel with Antibacterial, Antioxidant, and Anti-Inflammatory Properties for Burn Wound Healing Applications
2:05 PM	2:20 PM		OP-20	Pimmada Lerdsinpakdee	Transforming Thailand's Bioeconomy: CRISPR-Engineered Corn for Sustainable Chicken Alternatives
2:20 PM	2:35 PM		OP-21	Chanin Suwanpibun	Development of Antioxidant-enrich Cellulose Nanofibrils from Coffee Pulp as Functional Ingredient
2:35 PM	2:50 PM		OP-22	Kawinpop Langpus	Sustainable and Functionalization of Cellulose Fiber with Phenolic Compounds from Durian Rind
2:50 PM	3:05 PM		OP-23	Wanwanat Kwandee	Sustainable Valorization of Rubber Seed Shell through Eco-friendly Cellulose Extraction
3:05 PM	3:50 PM	Awards and Closing Ceremony			

DAY 2 : Thursday, 4 September 2025 : Room MR213

Room MR213					
Start time	End time	Session	Code	Speaker	Topic
1:00 PM	1:20 PM	Invited Speaker	IV06	Assoc. Prof. Nitnipa Soontorngun	Development & Trends in Biotechnological Production and Applications of Yeast Biosurfactants
1:20 PM	1:35 PM	Oral Presentations Session VI Chair Session : Assoc. Prof. Tatsaporn Todhanakasem	OP-01	Natasha Skoko	Low-Cost Solutions and Global Partnerships in Biologics Development
1:35 PM	1:50 PM		OP-25	Kanjana Tuantet	Bioprocess Development of Pearl Algae Cultivation for Integrated CO ₂ Utilization and High-Value Biomass Production
1:50 PM	2:05 PM		OP-26	Chittaphone Banditvong	Sustainable Cellulose Extraction from Cassava Pulp: A Low-Chemical Approach to Agricultural Waste Valorization
2:05 PM	2:20 PM		OP-27	Kanchana Saengchan	Effects of Hydrocyclone Underflow Discharge and Pressure Drop on Starch Recovery Efficiency in Cassava Starch Processing
3:05 PM	3:50 PM	Awards and Closing Ceremony (MR212)			

Poster Session

Code	Speaker	Topic
PP-01	Maria Fernanda Garcia Gonzalez	Evaluation of Fibrosis Biomarkers in Patients with Metabolic Dysfunction-Associated Steatotic Liver Disease
PP-02	Alisa Thiamsakul	Nutritional Value and Collagen Extraction of Ball Sea Cucumber (<i>Phyllophorella kohkutiensis</i> Heding & Panning, 1954): A Potential for Beverage Product Development
PP-03	Panumas Puechpon	Role of LvToll7 in Immune Defense Against <i>Vibrio parahaemolyticus</i> in Whiteleg Shrimp
PP-04	Saowapark Arunrat	Functional Analysis of LvPerlucin in <i>Litopenaeus vannamei</i> Reveals Its Critical Role in Antiviral Defense Against WSSV
PP-05	Phuwadech Suriamma	A Study of the Hom's (<i>Strobilanthes cusia</i> (Nees) Bremek.) Genes in Different Varieties for the Application in Effective Natural Dye Production
PP-08	Sirapatsorn Tantayakhom	Effects of Rice Bran Supplementation on Blood Pressure Parameters: A Systematic Review and Meta-Analysis
PP-09	Kanyanat Kaewiad	Insulin Secretion Activity of <i>Momordica charantia</i> and <i>Moringa oleifera</i> Extract (S-BALANZ product) on RIN-5F Cell Line
PP-10	Piyada Bussadee	Engineering <i>Saccharomyces cerevisiae</i> for Galactaric Acid Production Using a Novel Uronate Dehydrogenase Identified from Wastewater Metagenomes
PP-11	Weera Piyatheerawong	Exploitation of Chitosan as a Carrier for Ethanol Production from <i>Saccharomyces cerevisiae</i> DB-KKU-Y-53
PP-14	Najai Wongpaibool	Development of an Assistive Device for Hand Contracture Rehabilitation
PP-15	Jantima Arnthong	Enhanced Recovery of Phenolic Compounds and Sugars from Coffee Wastes Using a Mutant <i>Aspergillus aculeatinus</i> Enzyme
PP-16	Kiatissak Yimchom	Evaluating Yeast Performance in Date Fruit Wine Fermentation
PP-17	Worawoot Aiduang	Exploring the Potential of Pure Mushroom Mycelium and Biomass Residues to Develop Sustainable Biocomposites for the Eco-Friendly Material Sectors
PP-18	Phatcharaphong Khaosaart	Enhancing of 3-Hydroxypropionic Acid by Overexpression of ACC1 Gene via Glucose Utilization Pathway in <i>Saccharomyces cerevisiae</i>