

APBEC 2025 Program

10-11 August 2025, Tsinghua University, Beijing, China

Date	Time	Item	
Aug.10 Sunday	13:00-13:30	Registration Venue: Vanke School of Public Heath Room 105	
	Opening Ceremony Host: Yanan DU (Committee member of APBEC, Vice Dean of School of Biomedical Engineering, Tsinghua University) Venue: Vanke School of Public Heath Room 105		
	13:30-13:40	Welcome Remarks	Prof. Tien Yin WONG (Vice Provost, Tsinghua University, Senior Vice-Chancellor, Tsinghua Medicine, Tsinghua University)
	13:40-13:45	Welcome Remarks	Prof. Guangzhi Wang (Executive Dean, School of Biomedical Engineering, Tsinghua University)
	APBEC Young Scholars Award 2025		
	13:45-13:55	Introduction of APBEC	Prof. I-Ming HSING (President of APBEC and Chair of APBEC Selection Committee, The Hong Kong University of Science and Technology)

	13:55-14:00	Present awards	Prof. I-Ming HSING (President of APBEC and Chair of APBEC Selection Committee, The Hong Kong University of Science and Technology) Prof. Guangzhi WANG/Prof. Peng LIU (Executive Dean of School of Biomedical Engineering, Tsinghua University /Secretary of the Party Committee, School of Biomedical Engineering, Tsinghua University)
	14:00-14:05	Conference Group Photograph	
	Keynote Talks-1 Chair: Chwee Teck LIM (Vice-President of APBEC and Chair of APBEC Selection Committee, National University of Singapore)		
	14:05-14:30	AI in Medicine Speaker: Tien Yin WONG Tsinghua University(Beijing)	
	14:30-14:55	Introduction of the department of bioengineering at UTokyo Speaker: Hitoshi TABATA The University of Tokyo	

	14:55-15:20	<p>Automated, Adaptive and AI-Driven Biomanufacture of Cell and Gene Therapies</p> <p>Speaker: Qasim RAFIQ</p> <p>University College London</p>
	15:20-15:50	Coffee Break
	<p>Keynote Talks-2</p> <p>Chair: Madoka TAKAI</p> <p>(Vice-President of APBEC and Chair of APBEC Selection Committee, University of Tokyo)</p>	
	15:50-16:15	<p>Quantitative susceptibility mapping (QSM) and its applications in studying iron, myelin, fibrosis and calcifications</p> <p>Speaker: Yi WANG</p> <p>Cornell University</p>
	16:15-16:40	<p>Minimally invasive brain computer interface NEO: from bench to bed</p> <p>Speaker: Bo HONG</p> <p>Tsinghua University(Beijing)</p>
	16:40-17:05	<p>State of the Art in fMRI and Optogenetic Integration</p> <p>Speaker: Seong-Gi KIM</p> <p>Sungkyunkwan University</p>
	17:05-	Welcome Dinner at Xi Chunyuan Restaurant, Tsinghua University

Aug.11 Monday	Invited Talks				
	Venue: Medical Science Building				
	9:00-9:20	Parallel Session 1		Parallel Session 2	
		Venue: Medical Science Building Room B416		Venue: Medical Science Building Room B323	
		Theme I: Biomaterials and Tissue/Neuro Engineering Session Chair: Grace CHAO (Committee member of APBEC, Taiwan University)	Development of a Delivery System for HGF DNA Aptamers Speaker: Taichi ITO The University of Tokyo	Theme II: AI for Biomedicine Session Chair: Qiyuan TIAN (Tsinghua University(Beijing))	Comprehensive AI for Spine Deformity: Technologies can be Transferred to Other Specialists Speaker: Teng ZHANG The University of Hong Kong
			Synthetic organoids for precision cancer medicine and regenerative therapy Speaker: Shaohua MA Tsinghua University(Beijing)		Constructing Digital Embryos and Organs Based on Spatiotemporal Omics Technology Speaker: Peng XIE Southeast University
			Engineering Cell Spheroids and Their Decellularized ECM for		Harnessing Large AI Models for Transforming
	9:20-9:40				
	9:40-10:00				

			Regenerative Therapies Speaker: Chieh-Cheng HUANG Tsing Hua University(Hsinchu)		Healthcare Speaker: Hao CHEN The Hong Kong University of Science and Technology
	10:00-10:20		Behaviorally Reinforced Generative Spike Prediction Model: Towards the Rewiring of Disconnected Brain Areas Speaker: Yiwen WANG The Hong Kong University of Science and Technology		Ai for human neuroimaging Speaker: Qiyuan TIAN Tsinghua University(Beijing)
	10:20-10:50		Poster Session Coffee Break Medical Science Building 2nd floor		
	10:50-11:10		Tissue-adhesive Neuroprosthetic Devices Speaker: Donghee SON Sungkyunkwan University	Theme IV: Bioimaging Session Chair:Jinwook CHOI (Committee member of APBEC, Seoul National University)	Deep Learning Methods for Low-Dose Tau PET Enhancement Speaker: Kevin Tze-Hsiang CHEN Taiwan University

	11:10-11:30		Polyelectrolyte Carriers: Protecting and Delivering Bioactive Agents for Tissue Repair Speaker: Justin J. CHUNG Seoul National University Hospital		Acoustic-assisted optical sensing in brain tissue Speaker: Keiich NAKAGAWA The University of Tokyo
	11:30-11:50		Advances in Cardiovascular Nanomedicines Speaker: Hongliang HE Southeast University		The age for clinical metabolic MRI-from anatomy to cell metabolic language Speaker: Xiaolei SONG Tsinghua University(Beijing)
	11:50-14:00	Lunch at Medical Scinece Building Room B323, Tsinghua University Lab Tour of the School of BME, Tsinghua University (Guide: Xiaolei SONG, Xiaochuan DAI) Poster Session			
	14:00-14:20	Parallel Session 1 Medical Science Building Room B416			APBEC Executive Committee Meeting Medical Science Building Room B215
		Theme III: Micro/nano Medicine	Antigen-specific immune tolerance induced by ultrasmall		Proposed Agenda Items

		Session Chair: Xiaochuan DAI (Tsinghua University(Beijing))	silica drug delivery system Speaker: Kai MA Tsinghua University(Beijing)	1. Succession arrangement of the APBEC President 2. Activities for 2026
	14:20-14:40		Immune organoids as a physiologically authentic model to study human immunity Speaker: Tay Kah Ping Andy National University of Singapore	
	14:40-15:00		Merging Bio-integrated Materials and Devices with Ultrasound: Opportunities in Sensing, Modulation and Actuation Speaker: Jiaqi LIU The Hong Kong University of Science and Technology	
	15:00-15:20		Developing Next-Generation of Adeno-associated Viral (AAVs) Vectors for Therapeutic Gene Delivery	

			Speaker: Bonnie Danqing ZHU The Hong Kong University of Science and Technology	
	15:20-15:40		Decoding Physiology Through Skin Vibrations: From Skin-Interfaced to Contactless Wearables Speaker: Changsheng WU National University of Singapore	
	15:40-16:00		Wearable Skin-tone Friendly Electronic Device for Cardiovascular Monitoring Speaker: Ting-Wei WANG Tsing Hua University(Hsinchu)	
	16:00-16:10	Poster Session Coffee Break Medical Science Building 2nd floor		

	16:10-16:40	Session I: AI empowered Research and Education Session Chair: Liu Peng(Tsinghua University(Beijing))/Guang zhi Wang(Tsinghua University(Beijing))	Profs. Chwee Teck LIM,I MING HSING, Grace CHAO, Jinwook CHOI, Madoka TAKAI, Qasim RAFIQ and all the Invited Speakers
	16:40-17:10	Session II: How to facilitate international collaboration in this era? Session Chair:Yanan Du(Committee member of APBEC, Tsinghua University(Beijing))	
	Chosing Ceremony Poster Award		
	17:10-17:15	Present awards	Prof. Peng LIU (Secretary of the Party Committee, School of Biomedical Engineering, Tsinghua University)
	17:15-17:20	Concluding Remarks	