

AUGUST 6 (THU)

PL1

Plenary Lecture I

09:30-10:10

The Forum 國際會議廳

Chair: Hsing-Wen Sung (National Tsing Hua University, Taiwan)

P1-1 09:30

Nanobottles for Encapsulation and Controlled Release

Younan Xia (Johns Hopkins University, USA)

C1

C J Lee Memorial International Symposium I "Precision Medicine"

10:20-12:10

The Forum

國際會議廳

Chair: Abraham Lee (UC Irvine, USA)

Dehui Wan (National Tsing Hua University, Taiwan)

C1-1 10:20

Adipose Tissue and Resident Immune Cell Dynamics in Physiology and Diseases

Chih-Hao Lee (Academia Sinica, Taiwan)

C1-2 10:50

RNA Nanomedicine for Cancer Immunotherapy and Beyond

Jinjun Shi (Harvard University, USA)

C1-3 11:20

Industrializing Curative Cell and Gene Therapies: Autologous CAR T, AAV Manufacturing, and the Path to Digitally Enabled, Rapid, and Reliable Supply

Kun (Quinn) Yao (AstraZeneca Biologics, USA)

C1-4 11:50

Monomeric Insulin Analog and Stabilizing Excipient Enabled Ultrafast Insulin Formulation

Danny Hung-Chieh Chou (Stanford University, USA)

C2

C J Lee Memorial International Symposium II "Bioimaging and Theranostics"

13:00-14:50

The Forum

國際會議廳

Chair: San-Yuan Chen (National Yang Ming Chiao Tung University, Taiwan)

Tzu-Wei Wang (National Tsing Hua University, Taiwan)

C2-1 13:00

Near-Infrared Organic Nanomaterials for Advanced Bioimaging and Phototherapy

Chun-Sing Lee (City University of Hong Kong, Hong Kong)

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C2

C J Lee Memorial International Symposium II "Bioimaging and Theranostics"

13:00-14:50

The Forum

國際會議廳

Chair: San-Yuan Chen (National Yang Ming Chiao Tung University, Taiwan)
Tzu-Wei Wang (National Tsing Hua University, Taiwan)

C2-2 13:30

The Transparent Mice: Reversible Optical Transparency in Live Animals

Guosong Hong (Stanford University, USA)

C2-3 14:00

Chemical Biology Toolbox in Localized Molecular Imaging & Drug-targeting Therapeutic Manipulation

Bengang Xing (The Hong Kong Polytechnic University, Hong Kong)

C2-4 14:30

Reprogramming Immunodeficiency in Lung Metastases via PD-L1 siRNA Delivery Using a Catalytic Nanosponge

Shang-Hsiu Hu (National Tsing Hua University, Taiwan)

C3

C J Lee Memorial International Symposium III "Advanced Drug & Gene Delivery"

15:00-17:10

The Forum

國際會議廳

Chair: Yunching (Becky) Chen (Academia Sinica, Taiwan)
Pei Kan (Pharmosa Biopharm Inc., Taiwan)

C3-1 15:00

Polymer-based Drug and Gene Delivery for Anti-Cancer Therapy

Won Jong Kim (POSTECH, Korea)

C3-2 15:30

From Docking to Delivery: Machine Learning-Optimized Lipid Nanoparticles for RNA Therapeutics

Shyh-Dar Li (The University of British Columbia, Canada)

C3-3 16:00

Immune Modulation Strategies for Improved Tumor Control and Therapy

Ji Hoon Jeong (Sungkyunkwan University, Korea)

C3-4 16:30

Nanozymes in Antimicrobial Nanomedicine: From Catalysis to Pathogen Killing

Mrinmoy De (Indian Institute of Science, India)

C3-5 16:50

Antibody-Directed Tumor Reprogramming for Precision Immuno-Oncology

Simmyung Yook (Sungkyunkwan University (SKKU), Korea)

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D1

Drug Delivery System

藥物遞送

10:20-12:10

Raphael Hall 拉斐爾廳

Chair: Fwu-Long Mi (Taipei Medical University, Taiwan)

Wen-Hsuan Chiang (National Chung Hsing University, Taiwan)

D1-1 10:20

Supramolecular (Semi-Carbonized) Seaweed Polysaccharides for Biomedical Applications

Chih-Ching Huang (National Taiwan Ocean University, Taiwan)

D1-2 10:45

Sustained Dual-Drug Delivery via Bilateral Microneedles for Androgenetic Alopecia Therapy

Mei-Chin Chen (National Cheng Kung University, Taiwan)

D1-3 11:05

Engineered Catalytic Nanomedicine for Adaptive Tumor Microenvironment Modulation in Cancer Therapy

Yu-Fen Huang (National Tsing Hua University, Taiwan)

D1-4 11:25

Three-Fluid Nozzle Spray Drying for Engineering Advanced Inhalable Dry Powder Formulations

Wei-Ren Ke (National Taiwan University, Taiwan)

D1-5 11:45

Intelligent Biomaterials-Enabled Drug Delivery and Precision Cell Engineering for Disease Therapy

Wei Chen (Academia Sinica, Taiwan)

AUGUST 7 (FRI)

PL2 Plenary Lecture II

09:00-09:40

The Forum 國際會議廳

Chair: Yu-Chen Hu (National Tsing Hua University, Taiwan)

P2-1 09:00

Noninvasive Gut-to-Brain Oral Delivery Systems

Hsing-Wen Sung (National Tsing-Hua University)

C4

C J Lee Memorial International Symposium IV "Translational Biomaterials & Regenerative Medicine"

10:00-12:00

The Forum

國際會議廳

Chair: Hsin-Cheng Chiu (National Tsing Hua University, Taiwan)
I-Chi Lee (National Tsing Hua University, Taiwan)

C4-1 10:00

Biofabrication of Engineered Tissues to Treat Muscle Regeneration and Atrophy

Ngan F. Huang (Stanford University, USA)

C4-2 10:30

Leveraging Biomaterials to Orchestrate Stem Cell Fate Toward Personalized Therapeutic Applications

Soo-Hong Lee (Dongguk University, Korea)

C4-3 11:00

Enhanced Mechanical Properties and Printability in 3D Bioprinting Using Natural Polymer-based Bioinks

Yun Jung Yang (Inha University, Korea)

C4-4 11:20

Protein A BC Domain-Engineered Biomaterials for Precision Antibody Interface Control in Diagnostics and Localized Chemo-Immunotherapy

Chang Sup Kim (Dongguk University, Korea)

C4-5 11:40

Development of Poly(γ -glutamic acid)-based Hydrogels for Biomedical Applications

Yu-I Hsu (Osaka University, Japan)

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C5

C J Lee Memorial International Symposium V "Nanobioelectronics"

13:00-15:00

The Forum

國際會議廳

Chair: Ying-Chih Liao (National Taiwan University, Taiwan)

Yen-Wen Lu (National Taiwan University, Taiwan)

C5-1 13:00

Medical Micro/Nanorobots for In Vivo Navigation and Precision Therapeutics

Wei Gao (California Institute of Technology, USA)

C5-2 13:30

Triboelectric Medicine: Shaping the Future of Biomedical Innovation

Sang-Woo Kim (Yonsei University, Korea)

C5-3 14:00

Micro/Nano Devices for 2D and 3D Cellular Transfection and Analysis

Tuhin Subhra Santra (Indian Institute of Technology Madras, India)

C5-4 14:20

Triboelectrification at Solid-Liquid Interfaces: Surface Chemistry-Driven Charge Transfer for Self-Powered Nanosensing

Zong-Hong Lin (National Taiwan University, Taiwan)

C5-5 14:40

Luminescent Nanotransducers for Wireless Photoactivation of Cancer Therapies

Kai Huang (University of Toronto, Canada)

D2

Biomedical Materials and Translational Medicine I

10:00-12:00

Raphael Hall

生醫材料與轉譯醫學 I

拉斐爾廳

Chair: Yu-Hsiang Lee (National Central University, Taiwan)

Yu-Jung Lin (Research Center for Applied Sciences, Taiwan)

D2-1 10:00

Self-assembly of biopolymers for biomaterials applications

Shan-Hui Hsu (National Taiwan University, Taiwan)

D2-2 10:25

Precision Radiobiology Meets Nanomedicine: Advancing BNCT for Metastatic Cancer

Pei-Yuin Keng (National Tsing Hua University, Taiwan)

D2-3 10:45

Intranasal Hemoglobin-Glycol Chitosan-Loaded Cellular Vesicles for Programmable Shockwave Therapy to Mitigate Ischemic Stroke

Andrew E.-Y. Chuang (Taipei Medical University, Taiwan)

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D2

Biomedical Materials and Translational Medicine I

生醫材料與轉譯醫學 I

10:00-12:00

Raphael Hall

拉斐爾廳

Chair: Yu-Hsiang Lee (National Central University, Taiwan)

Yu-Jung Lin (Research Center for Applied Sciences, Taiwan)

D2-4 11:05

Inhalable pH-sensitive Liposome Formulation of PD-L1 Inhibitor and Cisplatin for Combination Therapy in Early-Stage Lung Cancer Treatment

Yan-Jye Shyong (National Cheng Kung University, Taiwan)

D2-5 11:25

Focused Ultrasound Stimulation of Peripheral Nerves for Metabolic Regulation in Diabetes

Gin-Shin Chen (National Health Research Institutes, Taiwan)

D3

Intelligent Diagnostics, Sensing and Biomedical Imaging

智慧診斷、感測與生醫影像

13:00-15:00

Archimedes Hall

阿基米德廳

Chair: Lun-De Liao (National Health Research Institutes, Taiwan)

Bor-Ran Li (National Yang Ming Chiao Tung University, Taiwan)

D3-1 13:00

Microneedle-Based Biosensors: Sampling, Monitoring, and Diagnosis

Hung-Wei Yang (National Cheng Kung University, Taiwan)

D3-2 13:25

Transforming Clinical Diagnostics through Multimodal Biosensors and Microfluidics

Jyong-Huei Lee (National Taiwan University, Taiwan)

D3-3 13:45

Biodegradable Mxene-Bamboo Cellulose Paper Electrodes for Green Wearable Sensing and Exoskeleton Control

Tzu-En Lin (National Taiwan University, Taiwan)

D3-4 14:05

Deep Learning-Based Prediction of Dynamic PET Radiotracer Kinetics

Kevin T. Chen (National Taiwan University, Taiwan)

D3-5 14:25

Battery-free Chipless IoT Smart Clothing for Simultaneous Multi-Site Hemodynamic Monitoring

Ting-Wei Wang (National Tsing Hua University, Taiwan)

AUGUST 7 (FRI)

D4

Biomedical Materials and Translational Medicine II

生醫材料與轉譯醫學 II

13:00-15:00

Raphael Hall

拉斐爾廳

Chair: Jui-Che Lin (National Cheng Kung University, Taiwan)

Yi-Chen Li (Feng Chia University, Taiwan)

D4-1 13:00

The platelet secretome as a biomaterial platform for tissue repair and controlled delivery

Thierry Burnouf (Taipei Medical University, Taiwan)

D4-2 13:25

Bioprinting Vascularized and Hierarchical Tissue Models Using Microribbon Bioinks with Tunable Stiffness and Porosity

Hung-Pang Lee (National Tsing Hua University, Taiwan)

D4-3 13:45

FePt Nanoparticles for Cancer Therapy : From Radiosensitization, Ferroptosis, and Immune Activation

Tsung-Lin Tsai (National Cheng Kung University, Taiwan)

D4-4 14:05

Keratin Subfraction-Based Nanoparticle Design for Controlled Drug Release

Yang Wei (National Taipei University of Technology, Taiwan)

D4-5 14:25

Functional polylactide nanoparticles and polylactide-antibiotic conjugates for cancer therapy and wound healing applications

Chih-Kuang Chen (National Sun Yat-sen University, Taiwan)

D5

Regenerative Medicine and Tissue Engineering

再生醫學與組織工程

13:00-15:00

Alexander Hall

亞歷山大廳

Chair: Shwu-Jen Chang (I-Shou University, Taiwan)

Chao-Ling Yao (National Cheng Kung University, Taiwan)

D5-1 13:00

TBA

Jaw-Lin Wang (National Taiwan University, Taiwan)

D5-2 13:25

Engineering Dynamic Neuromuscular Tissues: From Programmable Biomaterials to Disease Models, Regeneration, and Real-Time Monitoring

Ying-Chieh Chen (National Tsing Hua University, Taiwan)

D5-3 13:45

Synergistic Effects of Wavy Topography and Nanoparticle-Coating on MSC Osteogenesis

Pen-Hsiu Grace Chao (National Taiwan University, Taiwan)

AUGUST 7 (FRI)

D5

Regenerative Medicine and Tissue Engineering

再生醫學與組織工程

13:00-15:00

Alexander Hall

亞歷山大廳

Chair: Shwu-Jen Chang (I-Shou University, Taiwan)

Chao-Ling Yao (National Cheng Kung University, Taiwan)

D5-4 14:05

Development of a Dual-Responsive PNIPAM-Gelatin Hydrogel for WJ-MSC Delivery in the Treatment of Critical Limb Ischemia

Yung-Hsin Cheng (National Taiwan University of Science and Technology, Taiwan)

D5-5 14:25

Construction of the biomimic hydrogel system based on thermo-sensitive block copolymers for in-situ 3D culturing

Chih-Yu Kuo (National Taipei University of Technology, Taiwan)

I1

Industrial Forum

產業論壇

10:00-12:00

Archimedes Hall 阿基米德廳

Chair: Ren-Jei Chung (National Taipei University of Technology, Taiwan)

I1-1 10:00

如何制定市場規格來引導生醫材料產品設計開發

Chun-Jen Liao (Taiwan Meta Innovation Medical Device Co., Ltd. , Taiwan)

I1-2 10:40

從生醫材料到長壽醫學：新世代生物材料在健康老化中的角色

Yung-Hao (Nick) Tsou (PrimeExo Bio Co., Ltd. , Taiwan)

I1-3 11:20

再生醫療產品與醫材開發的產業考量

Yi-Pei Hung (UnicoCell Biomed Co., Ltd. , Taiwan)