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# Welcome Message

## Biomaterials International 2026

### Invitation

Dear Colleagues,

The Organizing Committee is pleased to invite you to participate in Biomaterials International 2026, which will be held in Seoul, Korea, from July 26 to July 30, 2026. The conference will take place at Seoul National University and will bring together international research communities from a wide range of scientific disciplines, including biology, physiology, materials science, physics, chemistry, engineering, and clinical science. Participants will have the opportunity to exchange ideas and explore the latest advances in biomaterials, techniques, and methodologies.

In addition to plenary and invited lectures, general symposia, and poster presentations, Biomaterials International 2026 will feature several Special Symposia focused on applications of biomaterials in areas such as biomechanics, biosensors and biochips, and biomedical optoelectronics, among other emerging topics.

While Biomaterials International 2026 will present a rich scientific and technological program, we also encourage you to take advantage of the vibrant social and cultural experiences Seoul has to offer. The Organizing Committee is dedicated to ensuring a memorable and rewarding event in one of Korea's most captivating regions.

We sincerely hope you will join us at Biomaterials International 2026 for an enriching and enjoyable experience alongside your colleagues in the field of biomaterials. The entire Organizing Committee eagerly looks forward to welcoming you to the dynamic and innovative city of Seoul.

Yours sincerely,



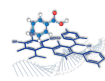
**Shih-Jung (Sean) Liu**

Chair  
Professor, Chang Gung University



**Hyeong-Cheol Yang**

Co-Chair  
Professor, Seoul National University



# Conference Committee

**Chair**            **Shih-Jung Liu** (Department of Mechanical Engineering, Chang Gung University)

**Co-Chair**        **Hyeong-Cheol Yang** (School of Dentistry, Seoul National University)

## Members

<b>Yoon Jeong Park</b>	<b>PhD</b>	(Professor, Dental Research Institute, School of Dentistry, Seoul National University)
<b>Jin-soo Ahn</b>	<b>PhD</b>	(Professor, Dental Research Institute, School of Dentistry, Seoul National University)
<b>Shin-Hye Chung</b>	<b>PhD</b>	(Professor, Dental Research Institute, School of Dentistry, Seoul National University)
<b>Wonjoon Moon</b>	<b>PhD</b>	(Assistant Professor, Dental Research Institute, School of Dentistry, Seoul National University)
<b>Gyeong Mi Seon</b>	<b>PhD</b>	(Assistant Research Professor, Dental Research Institute, School of Dentistry, Seoul National University)
<b>Sun Woo Um</b>		(Dental Research Institute, School of Dentistry, Seoul National University)
<b>Ji Hyeon Yoon</b>		(Dental Research Institute, School of Dentistry, Seoul National University)
<b>Soyun Kang</b>		(Dental Research Institute, School of Dentistry, Seoul National University)
<b>Yeon Joo Kang</b>		(Dental Research Institute, School of Dentistry, Seoul National University)
<b>Pan-Yun Chou</b>	<b>MD/PhD</b>	(Professor, Department of Plastic and Reconstructive Surgery and Craniofacial Research, Chang Gung Memorial Hospital)
<b>Chen-Hung Lee</b>	<b>MD/PhD</b>	(Professor, Department of Cardiology, Chang Gung Memorial Hospital)
<b>Tsung-Ting Tsai</b>	<b>MD/PhD</b>	(Professor, Department of Orthopedic Surgery, Chang Gung Memorial Hospital)
<b>Min-Yeh Chen</b>		(Department of Mechanical Engineering, Chang Gung University)

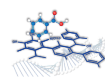
# Symposia

## **General symposia**

- G1. Biodegradable materials and devices
- G2. Metallic biomaterials
- G3. Ceramic biomaterials
- G4. Smart materials
- G5. Synthesis and fabrication of biomaterials and devices
- G6. Regenerative medicine and tissue engineering
- G7. Interactions of biomaterials and cells
- G8. Nanoscale biomaterials
- G9. Delivery of drug, gene, vaccine, and active biomolecules
- G10. Functionalization and bioactivity
- G11. Natural biomaterials

## **Special symposia**

- S1. Nanomedicines
- S2. Biomechanics
- S3. Biosensors and biochips
- S4. Biomedical optoelectronics
- S5. Signal and image processing
- S6. Other techniques and applications



# Plenary Speakers



**Aji A, PhD**

Polytechnique Montreal

**Electrospun fibers for biomedical applications: Cancer testing platform, antibacterial and antiviral masks and bone tissue engineering**



**Hosoda H, PhD**

Institute of Science Tokyo

**Recent achievement of Ni-free Ti-based biomedical superelastic alloys**



**Lee S-H, PhD**

Dongguk University

**The next frontier in regenerative medicine: Leveraging advanced biomaterials to orchestrate stem cell fate — Towards personalized therapeutic applications**

# Plenary Speakers



**Park K, PhD**

Korea Institute of Science  
and Technology

**Engineered extracellular matrix  
derived from human cells for  
regenerative medicine**



**Perret E, PhD**

Swiss Federal Laboratories  
for Materials Science and  
Technology

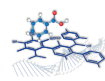
**Liquid-core biomaterial fibers:  
Transforming drug delivery  
through structure and design**



**Pun SH, PhD**

University of Washington at  
Seattle

**Engineering synthetic materials as  
alternatives to biologics in  
medicine**

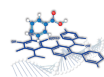


# Invited Speakers

<b>Lee CH</b>	MD/PhD	Chang Gung Memorial Hospital (Cardiology)	Biodegradable core–shell PLGA nanofibers providing sustained release of stem cell–derived, miRNA-loaded extracellular vesicles significantly improve vascular repair
<b>Lee DY</b>	PhD	Hanyang University	Advanced chitosan-based nanotherapeutics for the targeted treatment of inflammatory bowel disease: From enzyme switching to ROS-responsive delivery
<b>Moon W</b>	DDS/PhD	Seoul National University	Photonic biomaterials and biodevices in oral and craniofacial engineering
<b>Nguyen L</b>	PhD	UCL Eastman Dental Institute	Human tissue-driven periodontal regeneration integrating granulation tissue and micrografts with injectable biomaterials
<b>Park KM</b>	PhD	Incheon National University	Bioactive hydrogels for in situ tissue regeneration
<b>Park YS</b>	PhD	Chungbuk National University	Biomaterial-mediated microenvironmental modulation for enhanced regeneration of tonsil-derived stem cells
<b>Scheibel T</b>	PhD	University of Bayreuth	Bioengineering and processing of spider silk proteins for biomedical applications
<b>Srimaneepong V</b>	PhD	Chulalongkorn University	Immunomodulatory enhancement of WE43 magnesium alloy–induced osteogenesis by erythromycin
<b>Stein A</b>	PhD	University of Minnesota	Addressing materials challenges in the miniaturization of ion-selective sensors for wearable devices

# Invited Speakers

<b>Tay KP</b>	PhD	National University of Singapore	4R strategies with biomaterials for wound healing
<b>Tsai TT</b>	MD/PhD	Chang Gung Memorial Hospital (Orthopedic Surgery)	Challenges in removing unknown spinal implants from prior surgeries: Strategies and pitfalls
<b>Voelcker N</b>	PhD	Monash Institute of Pharmaceutical Sciences	Porous microneedle arrays for wearable biosensing
<b>von Recum H</b>	PhD	Case Western Reserve University	Predicting unintended drug/material interactions
<b>Yang SG</b>	PhD	Inha University	Photocatalytic BiVO <sub>4</sub> nanoparticles for combination therapy of KRAS mutant colorectal cancer via controlled enzymatic pathway of ferroptosis
<b>Yoshikawa C</b>	PhD	National Institute for Materials Science	Polymer brushes for biointerfaces



# Conference Information

<b>Conference Venue</b>	Seoul National University Dental Hospital		
<b>Registration Service</b>	Date	Time	Venue
	Sunday, July 26	17:00-19:00	Jeonggahanjeongsik
	Monday, July 27	09:00-17:30	Seoul National University Dental Hospital 2nd Floor
	Tuesday, July 28	09:00-18:00	
	Wednesday, July 29	09:00-16:15	
<b>Conference Badge</b>	Please ensure to wear your badge at all times to enter the conference rooms. There may also be coupons placed in your badge to exchange for additional purchase.		
<b>Welcome Reception</b>	Date	Sunday, July 26	
	Time	17:00-19:00	
	Location	Jeonggahanjeongsik ( <a href="https://maps.app.goo.gl/veWwWi6NUhuWqZiY8">https://maps.app.goo.gl/veWwWi6NUhuWqZiY8</a> )	
<b>Conference Banquet</b>	Date	Tuesday, July 28	
	Time	18:30-20:30	
	Location	Moma Restaurant ( <a href="https://maps.app.goo.gl/fHHvXJMx4EHArBLE7">https://maps.app.goo.gl/fHHvXJMx4EHArBLE7</a> )	
Lab Tour	9:00-12:00, Thursday, July 30 (Gathering at 9:00 the entrance of Seoul National University Dental Hospital )		

## Oral Presentation Schedule

Presentation Type	Total Time	Presentation Time	Q&A
Plenary Talk	40 min.	35 min.	5 min.
Invited Talk	25 min.	20 min.	5 min.
Oral Presentation	15 min.	13 min.	2 min.

## Poster Presentation Schedule

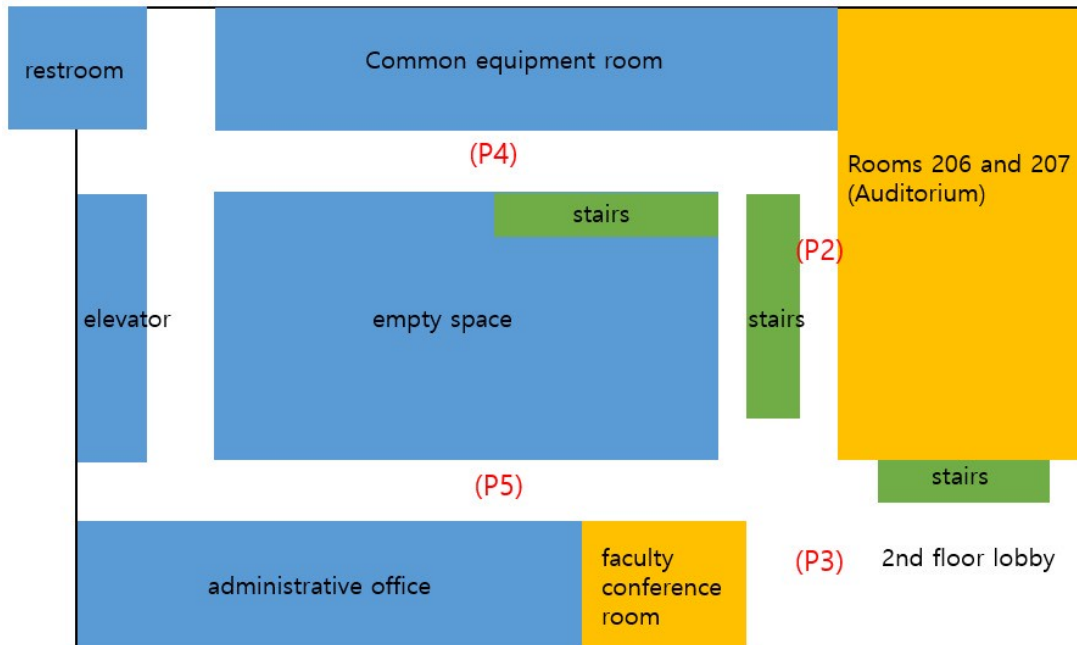
Session	Date	Time	Schedule
<b>Poster Session 1</b> (1 <sup>st</sup> Floor)	Tuesday, July 28	15:45-15:55	Poster Setup
		15:55-16:35	Poster Session
		16:35-16:45	Poster Removal
<b>Poster Session 2</b> (1 <sup>st</sup> Floor)	Tuesday, July 28	17:00-17:10	Poster Setup
		17:10-17:50	Poster Session
		17:50-18:00	Poster Removal

# Floor Plan

## Graduate School of Dentistry (Seoul National University

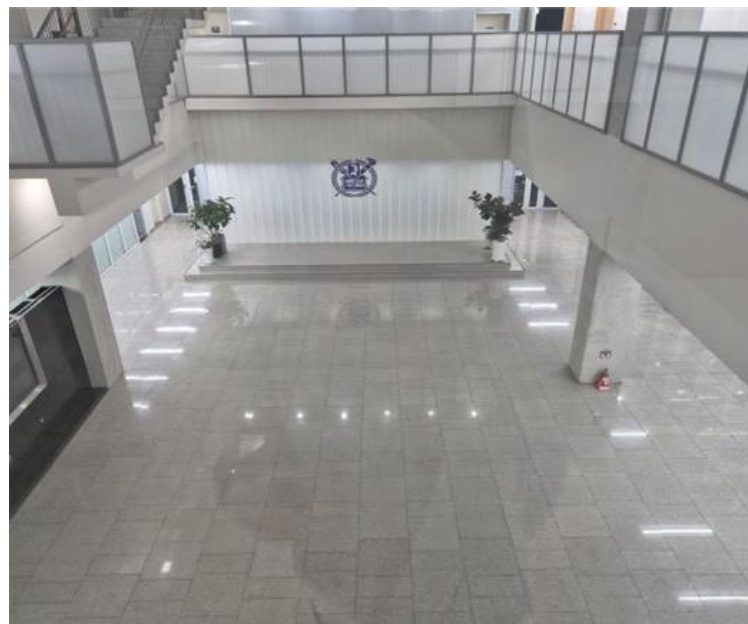
## Dental Hospital) at the Gwanak Campus

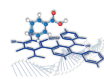
### 2<sup>nd</sup> Floor



### Poster Presentation Venue

#### 1<sup>st</sup> Floor



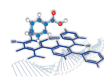


# Program at a Glance

Sunday, July 26		
Time	Venue	Activity
17:00-19:00	Jeonggahanjeongsik	Welcome Reception

Monday, July 27	
Venue	Auditorium
09:00-09:05	<p><b>Opening Ceremony</b></p> <p>Liu SJ, PhD/Chang Gung University Yang HC, PhD/Seoul National University Park Y-S, DDS, PhD/Seoul National University</p>
09:05-10:25	<p>Auditorium</p> <p><b>Plenary Talks</b></p>
10:25-10:35	Break Time
10:35-11:50	<p>Auditorium</p> <p><b>Invited Talks</b></p>
11:50-13:00	Lunch Time
13:00-13:50	<p>Auditorium</p> <p><b>Invited Talks</b></p>
13:50-14:00	Break Time
14:00-15:30	<p>Auditorium / Room #103</p> <p><b>Oral Talks</b></p>
15:30-15:45	Break Time
15:45-17:30	<p>Auditorium / Room #103</p> <p><b>Oral Talks</b></p>

Tuesday, July 28	
Venue	Auditorium
<b>09:00-10:20</b>	<b>Plenary Talks</b>
10:20-10:30	Break Time
Venue	Auditorium
<b>10:30-11:45</b>	<b>Invited Talks</b>
11:45-13:00	Lunch Time
Venue	Auditorium
<b>13:00-13:50</b>	<b>Invited Talks</b>
13:50-14:00	Break Time
Venue	Auditorium / Room #103
<b>14:00-15:45</b>	<b>Oral Talks</b>
Venue	1 <sup>st</sup> Floor
<b>15:45-16:45</b>	<b>Poster Session 1 Presentations</b>
16:45-17:00	Break Time
Venue	1 <sup>st</sup> Floor
<b>17:00-18:00</b>	<b>Poster Session 2 Presentations</b>
Venue	Moma Restaurant
<b>18:30-20:30</b>	<b>Banquet</b>



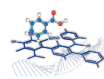
Wednesday, July 29	
Venue	Auditorium
<b>09:00-10:20</b>	<b>Plenary Talks</b>
10:20-10:30	Break Time
Venue	Auditorium
<b>10:30-11:45</b>	<b>Invited Talks</b>
11:45-13:00	Lunch Time
Venue	Auditorium
<b>13:00-13:50</b>	<b>Invited Talks</b>
13:50-14:00	Break Time
Venue	Auditorium / Room #103
<b>14:00-16:00</b>	<b>Oral Talks</b>
Venue	Auditorium
<b>16:00-16:15</b>	<b>Closing Ceremony</b>

Thursday, July 30	
Venue	Graduate School of Dentistry, Seoul National University
<b>9:00-12:00</b>	<b>Lab Tour</b>

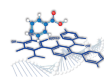
# Oral Sessions

Monday, July 27	
Venue	Auditorium
09:00-09:05	<p><b>Opening Ceremony</b></p> <p><b>Liu SJ</b>, PhD/Chang Gung University <b>Yang HC</b>, PhD/Seoul National University</p> <p><b>Park Y-S</b>, DDS, PhD/Seoul National University</p>
Venue	Auditorium
Chair	<b>Hyeong-Cheol Yang (Seoul National University)</b>
09:05-09:45	<p><b>#1083 Engineered Extracellular Matrix Derived from Human Cells for Regenerative Medicine</b></p> <p><u>Kwideok Park</u></p>
09:45-10:25	<p><b>#0000 Electrospun Fibers for Biomedical Applications: Cancer Testing Platforms, Antibacterial and Antiviral Masks, and Bone Tissue Engineering</b></p> <p><u>Aiji A</u></p>
<b>10:25-10:35</b>	<b>Break Time</b>
Venue	Auditorium
Chair	<b>Shang-Hsiu Hu (National Tsing Hua University)</b>
10:35-11:00	<p><b>#1025 Strategies for Removing Pedicle Screws of Unknown Manufacturer in Revision Spine Surgery</b></p> <p><u>Tsung-Ting Tsai</u></p>
11:00-11:25	<p><b>#1036 Porous Microneedle Arrays for Electrochemical Biosensing in Interstitial Fluid</b></p> <p><u>Nicolas Voelcker</u></p>
11:25-11:50	<p><b>#1047 Advanced Chitosan-Based Nanotherapeutics for the Targeted Treatment of Inflammatory Bowel Disease: From Enzyme Switching to ROS-Responsive Delivery</b></p> <p><u>Dong Yun Lee</u></p>
11:50-13:00	<b>Lunch Time</b>



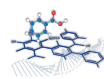
Monday, July 27	
<b>Venue</b>	<b>Auditorium</b>
<b>Chair</b>	<b>Tsung-Ting Tsai (Chang Gung Memorial Hospital)</b>
13:00-13:25	<b>#0000 Immunomodulatory Enhancement of WE43 Magnesium Alloy–Induced Osteogenesis by Erythromycin</b> <u>Srimaneepong V</u>
13:25-13:50	<b>#0000 Human Tissue-Driven Periodontal Regeneration Integrating Granulation Tissue and Micrografts with Injectable Biomaterials</b> <u>Nguyen L</u>
13:50-14:00	<b>Break Time</b>
<b>Venue</b>	<b>Auditorium</b>
<b>Chair</b>	<b>Linh Nguyen (UCL Eastman Dental Institute)</b>
14:00-14:15	<b>#1006 3D-Printed Nanoparticles as a Delivery Vehicle for Catalase Against Oxidative Stress</b> <u>S. Lee, D. Lee, N. Rajput, Aya Shanti</u>
14:15-14:30	<b>#1010 Porous Organogel Materials as Bacterial Culture Supports for Probiotic Delivery</b> A. Gregorio Gomes, E. Perez, G. Ramos, B. Payre, G. Garrait, <u>S. Franceschi</u>
14:30-14:45	<b>#1035 Hydrophobic Tagging-Engineered Antigens Potentiate Antibacterial Immunity</b> Yang Wu, Tay Kah Ping, <u>Andy Tay</u>
14:45-15:00	<b>#1037 Dysfunctional T Cell Reprogramming via Catalytic Nanosponge-Mediated Tumor-Specific Antigen Capture</b> <u>Shang-Hsiu Hu</u>
15:00-15:15	<b>#1082 MPC Polymer-Based Lipid Nanoparticles for mRNA Delivery to Suspension Cells</b> S. Obuchi, U. Chung, <u>Y. Teramura</u>
15:15-15:30	<b>#1086 Development of a Nuclear-Targeting Nanocarrier for Overcoming Drug Resistance in Cancer</b> S. Kawashima, <u>K. Nagahama</u>
15:30-15:45	<b>Break Time</b>

Monday, July 27	
Venue	Auditorium
Chair	Koji Nagahama (Konan University)
15:45-16:00	<b>#1005 Angiopep-2-Modified Graphene Oxide for Dual-Drug Delivery in Targeted Chemo-Photothermal Treatment of Glioblastoma</b> <u>Banendu Sunder Dash</u>
16:00-16:15	<b>#1020 PD-L1 Aptamer-Engineered Pluripotent Nanoreactor for Chemodynamically Motivated Cancer Cuproptosis-Immunotherapy</b> <u>Chunhui Wu</u> , Ningxi Li, Hong Yang, Yiyao Liu
6:15-16:30	<b>#1022 Targeting YAP Mechanotransduction for Tumor Therapy Using Engineered Nanotherapeutics</b> <u>Tingting. Li</u> , Ping Li, Y.Y. Liu
16:30-16:45	<b>#1050 H<sub>2</sub>S-Responsive CuSe Nanoparticles Undergo In Situ Conversion to CuSSe with Bandgap Modulation for Oxygen Self-Supply and Enhanced Colon Cancer Phototherapy</b> Manoj Kandel, <u>Hsin-Cheng Chiu</u>
16:45-17:00	<b>#1075 Myeloid-Derived Suppressor Cell-Guided Mesoporous Silica Nanoparticles Enhance Delivery of BET Inhibitors and Remodel the Tumor Microenvironment in Pancreatic Cancer</b> Li-Chan Chang, Li Xu, Yin-Fen Liu, Chang-An Lin, Si-Han Wu, <u>Wen-Pin Su</u>
17:00-17:15	<b>#1080 Green Synthesis of Silver Nanoparticles by Cold Plasma Jet for Antimicrobial Application</b> <u>R. Morarad</u> , P.zcMeepean, N. Sritapanya, W. Kiatarkom, K. Nilgumhang, P. Uttayarat
17:15-17:30	<b>#1101 Inclusion-Free Ultrahigh-Purity Mg-Zn Alloys for Next-Generation Biodissolvable Implants</b> <u>K. Ueda</u> , K. Sasaki, T. Nakata, T. Narushima



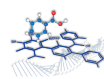
Monday, July 27	
Venue	Room #103
Chair	Viritpon Srimaneepong (Chulalongkorn University)
14:00-14:15	<b>#1014 In Situ Grown Porphyrin-Based Covalent Organic Framework on Multi-Walled Carbon Nanotubes for Real-Time Monitoring of Superoxide Anion in Living Cells</b> Y.J. Bai, H.H. Yu, X. Zhang, M.Q. Chen, C. Liu, P.H. Zhu, <u>J.H. Yu</u>
14:15-14:30	<b>#1018 Thermoelectricity-Mediated Photoelectrochemical Sensing Platform Based on a Cas12a Amplification System to Detect A<math>\beta</math>42</b> M.Q. Chen, L.N. Zhang, C. Liu, X. Zhang, Y.J. Bai, H.H. Yu, L. Shan, <u>J.H. Yu</u>
14:30-14:45	<b>#1026 Smartphone-Assisted Fluorescence-Based Detection Using a Sunrise-Type Smart Amplification Process and a 3D-Printed Ultraviolet Light-Emitting Diode Device for the Diagnosis of Tuberculosis</b> Shang-Yen Tsai, Chung-An Chen, Natalie Yi-Ju Ho, Hui-Yi Hsiao, Song-Shu Lin, Po-Liang Lai, <u>Tsung-Ting Tsai</u>
14:45-15:00	<b>#1027 Smartphone-Assisted Tuberculosis Detection by a Smart Amplification Process and Lateral Flow Immunoassay with a 3D-Printed Device</b> Shang-Yun Tsai, Chung-An Chen, Natalie Yi-Ju Ho, Chang-Chi Yang, Hui-Yi Hsiao, Tse-Hao Huang, Ming-Kai Hsieh, Po-Liang Lai, <u>Tsung-Ting Tsai</u>
15:00-15:15	<b>#1043 Layered Metal Sulfides as Advanced Electrocatalysts for the Hydrogen Evolution Reaction</b> <u>Y.T. Qian</u>
15:15-15:30	<b>#1044 Current State of Applications, Market Prospects, and Analysis of Industrialization Pathways for Nanofunctional Materials in the Cosmetic Industry</b> <u>S. Chen</u>
15:30-15:45	Break Time

Monday, July 27	
Venue	Room #103
Chair	Nicolas Voelcker (Monash Institute of Pharmaceutical Sciences)
15:45-16:00	<b>#1008 Hydrolytically Stable Carboxyl-Functionalized Silatrane for Controlled Biointerface Engineering and High-Performance Biosensing</b> Van-Truc Vu , <u>Chun-Jen Huang</u>
16:00-16:15	<b>#1009 Demineralized Bone Bioinks with Enhanced Odontogenic Differentiation: Synthesis and Characterization</b> <u>Sudarshini Nath</u> , Heesun Hong, Ji-Hyun Jang, Moon Sik Oh, Sol Kim, Ok Joo Lee, Ji Seung Lee, Kyunghee Kim, Chul Hee Lee, Ki Hyun Kim, Yusang Son , Chan Hum Park , Soon Hee Kim
16:15-16:30	<b>#1012 Optimized Bilayer Osteochondral Graft in a Rabbit Xenogeneic Model Using a DLP-Printed <math>\beta</math>-TCP Bioceramic Scaffold and hADSC-Laden Biohydrogel</b> <u>C.-K. Wang</u> , C.-Y. Lee, S. Nedunchezian
16:30-16:45	<b>#1033 Digital Light Processing (DLP) Bioprinting of Clinically Relevant Soft Tissues</b> <u>S. Vijayavenkataraman</u>
16:45-17:00	<b>#1051 Eosin Y/AgNPs-Doped Polyimide Porous Membrane via the Breath Figure Method for Optical Ammonia Gas Sensing</b> Manna Septriani Simanjuntak, <u>Cheng Shane Chu</u>
17:00-17:15	<b>#1057 A Breast Cancer–Immune Assembloid Platform for TLS Mechanisms and Personalized Immunotherapy</b> Xuelu Li, <u>Andy Tay</u>



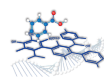
Tuesday, July 28	
<b>Venue</b>	<b>Auditorium</b>
<b>Chair</b>	<b>Andreas Stein (University of Minnesota)</b>
09:00-09:40	<b>#0000 Recent Achievements in Ni-Free Ti-Based Biomedical Superelastic Alloys</b> <u>Hosoda H</u>
09:40-10:20	<b>#1077 Biomaterial Solutions in Immunotherapy and Trauma Medicine</b> <u>Suzie H. Pun</u>
10:20-10:30	<b>Break Time</b>
<b>Venue</b>	<b>Auditorium</b>
<b>Chair</b>	<b>Andy Tay Kah Ping (National University of Singapore)</b>
10:30-10:55	<b>#1072 Addressing Materials Challenges in the Miniaturization of Ion-Selective Sensors for Wearable Devices</b> M. Komal, F. Farjana, K. Madungwe, S.L. Swisher, P. Bühlmann, <u>A. Stein</u>
10:55-11:20	<b>#1081 Polymer Brushes for Biointerfaces</b> <u>Chiaki Yoshikawa</u>
11:20-11:45	<b>#1129 Bioengineering of Spider Silk Proteins for Heart Muscle Regeneration</b> <u>Thomas Scheibel</u>
11:45-13:00	<b>Lunch Time</b>
<b>Venue</b>	<b>Auditorium</b>
<b>Chair</b>	<b>Her-Hsiung Huang (National Yang Ming Chiao Tung University)</b>
13:00-13:25	<b>#0000 4R Strategies with Biomaterials for Wound Healing</b> <u>Tay KP</u>
13:25-13:50	<b>#0000 Bioactive Hydrogels for In Situ Tissue Regeneration</b> <u>Park KM</u>
13:50-14:00	<b>Break Time</b>

Tuesday, July 28	
Venue	Auditorium
Chair	Chiaki Yoshikawa (National Institute for Materials Science)
14:00-14:15	<b>#1011 A Nanophotonic Biomaterial Interface for Metabolic Programming of Adaptive Living Oxygen Therapeutics</b> D. Zhong, <u>A. Tay</u>
14:15-14:30	<b>#1045 EV-Liposome Hybrids via Membrane Fusion Using Cell-Penetrating Peptide-Conjugated Lipids</b> Yuya Sato, <u>Yuji Teramura</u>
14:30-14:45	<b>#1084 Mycelium Leather as a Sustainable Biomaterial: Effects of Post-Harvest Treatments and Structural Modification</b> K. Rahman, <u>P.P.C. Chang</u>
14:45-15:00	<b>#1100 Engineering a Bioactive PMMA-Silica Hybrid Scaffold for Enhanced Bone Regeneration</b> <u>Ren Jei Chung</u>
15:00-15:15	<b>#1106 Photo-Responsive Peptide Hydrogel for Spatiotemporal Control of Embryoid Morphogenesis</b> T.T.D Dinh, C. Bai, I.A. Middleton, K. Kilian, <u>P. Thordarson</u>
15:15-15:30	<b>#1117 Exploring the Mechanism of Protein Liquid-Liquid Phase Separation with Lattice Model Simulations</b> <u>Javaid Zunera</u> , Kyota Yasuda, Shin-Ichi Tate
15:30-15:45	<b>#1126 Extraction and Characterization of Type II Collagen from Crocodile By-Products as a Potential Biomaterial</b> Panssachon Kraikhun, Rudee Surarit, Aree Wanasuntronwong, <u>Nuttawee Niamsiri</u>



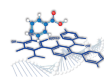
Tuesday, July 28	
Venue	Room #103
Chair	Thomas Scheibel (University of Bayreuth)
14:00-14:15	<b>#1102 Micropatterned GelMA Hydrogels with Electrical Stimulation Enable Accelerated Maturation of a Functional 3D Neuromuscular Model for ALS Evaluation</b> <u>Chun-Sheng Yu</u> , <u>Ying-Chieh Chen</u>
14:15-14:30	<b>#1112 Fabrication of Carbon-Doped TiO<sub>2</sub> Films via Reactive Sputtering and Their Visible-Light-Induced Antibacterial Activity</b> <u>S. Shim</u> , K. Ueda, K. Ogasawara, T. Narushima
14:30-14:45	<b>#1114 Substrate Surface Functionalized with Long-Chain Alkyl-Modified Poly(vinyl alcohol) That Facilitates Transition from Immediate Cell Capture to Adhesion</b> Erika Yoshihara, <u>Kimio Sumaru</u>
14:45-15:00	<b>#1132 Electrochemical Behavior of Magnesium–Calcium Alloy under Loading Conditions for Craniofacial Implants</b> <u>Andril Arafat</u> , Nur Amirah Shaharom, Abdul Hakim Md Yusop, Is Prima Nanda, Ahmad Kafrawi Nasution, Dieter Rahmadiawan
15:00-15:15	<b>#1133 Covalently Cross-Linked and Entangled Degradable Elastomers for Green Wearable Electronics</b> <u>Minxuan Kuang</u> , Xiuqin Zhang
15:15-15:30	<b>#1135 Integration of Thermographic Metrics as Surrogate Markers of Microvascular Healing for Enhanced Wound Healing Trajectory Assessment</b> <u>Igor Jaszczyszyn</u> , Jakub Rochoń, Mateusz Turalski, Arkadiusz Gąsiński, Paweł Wiśniowski, Michał Grą, Piotr Kalinowski
15:30-15:45	<b>#1007 Nanomaterial-Layered Scaffolds for Stem Cell Enhancement via Mechanobiology</b> <u>R. K. Singh</u>

Tuesday, July 28	
<b>Venue</b>	<b>1<sup>st</sup> Floor</b>
15:45-16:45	<b>Poster Session 1 Presentations</b>
16:45-17:00	<b>Break Time</b>
<b>Venue</b>	<b>1<sup>st</sup> Floor</b>
17:00-18:00	<b>Poster Session 2 Presentations</b>
<b>Venue</b>	<b>Moma Restaurant</b>
18:30-20:30	<b>Banquet</b>



Wednesday, July 29	
<b>Venue</b>	<b>Auditorium</b>
<b>Chair</b>	<b>Horst von Recum (Case Western Reserve University)</b>
09:00-09:40	<b>#1059 Liquid-Core Biomaterial Fibers: Transforming Drug Delivery through Structure and Design</b> <u>Edith Perret</u>
9:40-10:20	<b>#1116 Leveraging Biomaterials to Orchestrate Stem Cell Fate Toward Personalized Therapeutic Applications</b> <u>Soo-Hong Lee</u>
10:20-10:30	<b>Break Time</b>
<b>Venue</b>	<b>Auditorium</b>
<b>Chair</b>	<b>Su-Geun Yang (Inha University)</b>
10:30-10:55	<b>#0000 Biomaterial-Mediated Microenvironmental Modulation for Enhanced Regeneration of Tonsil-Derived Stem Cells</b> <u>Park YS</u>
10:55-11:20	<b>#0000 Photonic Biomaterials and Biodevices in Oral and Craniofacial Engineering</b> <u>Moon W</u>
11:20-11:45	<b>#1139 Double-Emulsion Microparticles Combined with iPSC-EVs for Cardiac Regeneration and Fibrotic Remodeling</b> <u>Chen-Hung Lee</u>
11:45-13:00	<b>Lunch Time</b>
<b>Venue</b>	<b>Auditorium</b>
<b>Chair</b>	<b>Chi-Yun Wang (Ming Chi University of Technology)</b>
13:00-13:25	<b>#0000 Predicting Unintended Drug/Material Interactions</b> <u>von Recum H</u>
13:25-13:50	<b>#0000 Photocatalytic BiVO<sub>4</sub> Nanoparticles for Combination Therapy of KRAS-Mutant Colorectal Cancer via Controlled Enzymatic Pathways of Ferroptosis</b> <u>Yang SG</u>
13:50-14:00	<b>Break Time</b>

Wednesday, July 29	
Venue	Auditorium
Chair	Yoon Shin Park (Chungbuk National University)
14:00-14:15	<b>#1118 Engineered Virus-Like Nanobubble with MnO<sub>2</sub>/ICG Interface for Targeted, Image-Guided Synergistic Cancer Therapy</b> <u>P.S. Hung</u> , H.W. Yang
14:15-14:30	<b>#1124 Development of Novel Auxetic Skin Grafts with High Expansion Potential</b> <u>A. Chanda</u>
14:30-14:45	<b>#1134 Nocturnal Thermoregulation in Obstructive Sleep Apnea: A Non-Invasive Continuous Monitoring Approach Using Wearable Sensors</b> <u>Weronika Bielska</u> , Karol Pierzchała, Zuzanna Boczar, Piotr Białasiewicz, Wojciech Kuczyński
14:45-15:00	<b>#1131 Nanofiber Materials for Biomedical Applications</b> <u>J. Xie</u>
15:00-15:15	<b>#1128 This Study Explores How EGCG and Chitosan Coatings Can Enhance Osseointegration on the SLLA Surface under High Oxidative Stress</b> <u>Yushan Huang</u> , Ying-Sui Sun, Yu-Rou Lin, Wen-Chen Chen, Sheng-Yen Lin
15:15-15:30	<b>#1001 Marine Biomaterials and High-Value Utilization of Biological Resources</b> <u>Jingdi Chen</u> , Jing Wang, Panpan Pan
15:30-15:45	<b>#1140 Nanomaterial-Layered Scaffolds for Stem Cell Enhancement via Mechanobiology</b> <u>R. K. Singh</u>
15:45-16:00	<b>#1058 Silk-Derived Sericin as A Modulator of Inflammation in a DNCB-Induced Rat Model of Atopic Dermatitis: From In Vitro Mechanisms To In Vivo Translation</b> <u>J. Jurak</u> , I. Jaszczyszyn, M. Rybka, Ł. Mazurek, A. Laskowska, J. Czuwara, M. Wojtkowiak, A. Sureda, M. Konop
Venue	Auditorium
16:00-16:15	Closing Ceremony



Wednesday, July 29	
Venue	Room #103
Chair	Chen-Hung Lee (Chang Gung Memorial Hospital)
14:00-14:15	<b>#1109 A Dugout-Like Microneedle Patch Enabling Deep Tissue Regeneration in Chronic Wounds via Co-Delivery of Irisin and Fibroblasts</b> Yu-Chi, Pan, His-Chen, Tung, Shu-Hung Huang, <u>Hung-Wei Yang</u>
14:15-14:30	<b>#1113 Artificial T Cell–Mimicking Virus-Like Nanoparticles Enable Synergistic Chemotherapy and Immune Checkpoint Blockade in Triple-Negative Breast Cancer</b> <u>S.H. Wu</u> , H.W. Yang
14:30-14:45	<b>#1091 Multi-Scale Characterization of Collagen Supramolecular Chirality and Fiber Orientation in Muscle-Associated Fascia</b> <u>Sahar Ilyas</u> , Ali Haider, Kyota Yasuda, Andrew K. Schulz, Elizabeth J Dresselhaus, Hisako Sato, Elisabetta Matsumoto, Katsuya Inoue
14:45-15:00	<b>#1108 Twinkling Peptide Nanoemulsions Enabling Precision Ultrasound Detection of Atherosclerotic Plaques</b> Inhye Kim, Jacob C. Elliott, Atip Lawanprasert, Anthony M. Koehle III, Grace M. Wood, Rita Castro, Julianna C. Simon, <u>Scott H. Medina</u>
15:00-15:15	<b>#1103 Real-Time, Non-Invasive Bioimpedance Sensing for Cross-Scale Evaluation of Cellular Behavior, Vascular Network Formation, and Tissue Identity</b> C.L. Chang, <u>Y.C. Chen</u>
15:15-15:30	<b>#1115 Amylose-Coated Waxy Corn Starch for Stabilising Oral Viscosity During Slow Swallowing Initiation</b> <u>T. Tongbram</u> , P.K. Borah, G.E. Yakubov, L.S. Badwaik
15:30-15:45	<b>#1142 A Biomimetic Asymmetric Structured Intelligent Wound Dressing with Dual-Modality Humidity–Pressure Sensing for Non-Invasive and Real-Time Wound Healing Monitoring</b> S.S. Ding, X. Jin, J. Guo, B.X. Kou, M.Y. Chai, S. Dou, G.L. Jin, H.J. Zhang, X.M. Zhao, J.Y. Ma, X.Y. Li, X.N. Liu, <u>B. Wang</u> , X.Q. Zhang
15:45-16:00	<b>#1104 Development of a Composite Alginate Hydrogel with Lutein and Caffeic Acid Phenethyl Ester for Ocular Maintenance</b> Chieh-An Chen, <u>Yu-Hsiang Lee</u>
Venue	Auditorium
16:00-16:15	Closing Ceremony

# Poster Session 1

Date: Tuesday, July 28

Time: 15:45-16:45

Venue: Room #103

## Category: G01. Biodegradable materials and devices

001) #1063 **Assessment of Weldline Strength in Biochar-Reinforced Polylactide Composites**

Tzu-Wei Huang, Bo-Kwei Hung, Yi-Hua Kuo, Shih-Jung Liu, Hiroshi Ito

## Category: G02. Metallic biomaterials

002) #1056 **Effect of Oxygen Content on the Microstructure and Mechanical Properties of  $\alpha+\beta$ -Type Ti-4.5Al-6Nb-2Fe-2Mo Alloys**

T. Araki, K. Ueda, T. Narushima

003) #1064 **Drug Release from a Nano-Hydroxyapatite-Reinforced Resorbable Nanofibrous Scaffold in In Vitro and In Vivo Models of Female Pelvic Organ Prolapse**

Yi-Pin Chen, Tsia-Shu Lo, Yu-Han Chien, Yi-Hua Kuo, Shih-Jung Liu

004) #1069 **Phase Transformation Associated with Shape-Advance Phenomenon during Heating in Ti-17Nb-3Al Alloy**

Tomoya Nakae, Sengo Kobayashi, Satoshi Okano

005) #1071 **Effect of Carbon and Molybdenum on Hot Workability and Mechanical Properties of Biomedical Co-Cr-Fe-Ni-Mo-C Alloys**

Ren Kato, Kai Hiyama, Ryoji Sahara, Kyosuke Ueda, Takayuki Narushima

006) #1078 **Effect of Heat Treatment on the Depth Distribution of Cu in Ti-10Cu Alloys**

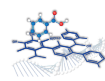
Satoshi Okano, Yuta Hisamori, Sengo Kobayashi

007) #1085 **Fabrication of Visible-Light-Responsive TiO<sub>2</sub> Films on Ti Using Thermal Oxidation and Their Antibacterial Properties**

Shunsuke Sasanuma, Kyosuke Ueda, Koetsu Ogasawara, Takayuki Narushima

008) #1143 **Corrosion Protection of Porous Ti-Nb-Zr-Sn Scaffolds by Polydopamine Coating under Inflammatory Conditions**

K.Y. Lin, Y.L. Huang, H.H. Huang



**Category: G03. Ceramic biomaterials**

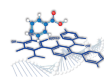
- 009) #1040 **Optimizing Mg/Ca Ratios in MgO–CaO–SiO<sub>2</sub> Bioactive Glass for Enhanced Osteogenic Differentiation of Human Adipose-Derived Stem Cells**  
Pin Yi Chen, Guan-Yi Hung, Chi Yun Wang, Hui-Yi Hsiao, Po-Liang Lai
- 010) #1054 **Thermal Treatment Effects on Crystallization and Surface Behavior of Zn-Doped Hydroxyapatite Thin Films for Biomedical Coating Applications**  
Sin-Liang Ou, Chun Ming Chang, Wen-Sen Fan, Chuan-Yi Lin, Cheng-Jui Wang, Chung-Kai Huang
- 011) #1144 **Combined Simulated Intraoral Aging Effects on the Fracture Properties of Two Types of Multilayer Zirconia: Comparison between ISO Standard Specimens and Simulated Crowns**  
T.T. Chen, C.Y. Liu, H.H. Huang
- 012) #1055 **Tuning Hydroxyapatite Thin Film Properties via Zinc Doping Concentration for Potential Biomedical Applications**  
Sin-Liang Ou, An-Shun Liu, Cheng-Jui Wang, Chun Ming Chang, Wen-Sen Fan, Cheng-Jian Dai, Phu-Quy Nguyen
- 013) #1074 **Synthesis of Ag- and Ta-Co-Doped SiO<sub>2</sub>–CaO–P<sub>2</sub>O<sub>5</sub> Bioactive Glass Powders Using the Sol–Gel Method**  
Kota Sekine, Kyosuke Ueda, Takayuki Narushima

**Category: G04. Smart materials**

- 014) #1023 **Soft Robot for Integrated Tumor/Infection Therapy and Painless Postoperative Drainage**  
Hong Yang, Wanyi Zhou, Chunhui Wu, Yiyao Liu

**Category: G05. Polymer composites**

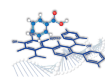
- 015) #1052 **Versatile  $\beta$ -Carboline-Conjugated Hyaluronic Acid-Based Hydrogel for Antimicrobial Therapy, Resistance Mitigation, and Wound Healing**  
S. Chauhan, D. Manna
- 016) #1053 **Metal-Responsive Fluorophore- and Amikacin-Conjugated Heparin for Bacterial Cell Imaging and Antibacterial Applications**  
R. Karn, D. Manna
- 017) #1066 **Achieving High Cellular Bioactivity via Hydrothermal Surface Modification of  $\beta$ -Tricalcium Phosphate**  
Yan-Ting Chen, Guan-Yi Hung, Chi Yun Wang, Cheng-Sao Chen, Pin Yi Chen, Po-Liang Lai
- 018) #1076 **Synergistic Anti-Inflammatory and Osteoclast-Inhibitory Effects of Ca/Zn-Coated Ti-6Al-4V Fabricated via Electrophoretic Deposition**  
Yu-Jie Wu, Chi-Yun Wang, Po-Liang Lai, Pin-Yi Chen, Cheng-Sao Chen
- 019) #1096 **Multifunctional Electrospun PVA/Honey Composite Nanofibrous Wound Dressing**  
Chen Chuan Yen, Yi Cheng Lu, Mei-Chen Lin
- 020) #1098 **Fabrication and Characterization of PVA/SrCl<sub>2</sub> Electrospun Fibers for Bone Tissue Engineering Applications**  
Yi Cheng Lu, Chen Chuan Yen, Mei-Chen Lin
- 021) #1130 **Biocompatibility and Antibacterial Enhancement of Micro-Arc Oxidation-Pretreated Titanium via Tantalum Oxide Coatings**  
Ming-Tzu Tsai, Hsu Jui-Ting, Heng-Li Huang, Yin-Yu Chang, Yang-Hao Hong, Yu-Ting Lin, Min-Xuan Hong
- 022) #1137 **Biomimetic Osmolyte Polymers for Protein Stabilization**  
Enas Sakkamini, Takahisa Anada, Masaru Tanaka

**Category: G06. Regenerative medicine and tissue engineering**

- 023) #1038 **Poly-L-Lactic Acid Promotes a More Favorable Repair Trajectory than PLGA in a Unified Murine Myocardial Infarction Model**  
Bingxin Huang, Engui Wang, Han Ouyang, Yunpeng Ling
- 024) #1042 **Keratin-Based Bioactive Dressings Enriched with Small Molecules Accelerate Diabetic Wound Healing via Immunomodulation and Cytokeratin Activation**  
M. Rybka, Ł. Mazurek, J. Jurak, M. Szudzi, J. Czuwara, M. Dziadek, S. Salagierski, A. Sureda, M. Ufnal, M. Konop
- 025) #1048 **Antiarrhythmic Potential of Mirabegron in Suppressing Ventricular Fibrillation**  
Y.L. Sung
- 026) #1087 **In Vivo Mechano-Tissue Engineering by Hydrogels Capable of Transmitting Intercellular Mechanical Stress**  
Ayane Kunieda, Natsumi Ueda, Natsumi Ueda, Akihiro Mikuma, Ssouma Kawashima, Koji Nagahama
- 027) #1093 **Neuronal Differentiation Potential of Biodegradable Andrographolide-Loaded Bovine Serum Albumin Nanogel**  
H.M.S.H Soe, D. Tantikanlayaporn
- 028) #1095 **Mechanism of Arecoline-Induced Macrophage-Fibroblast Interaction in Oral Submucosal Fibrosis**  
W.C. Chen, C.Y. Ho, E.R. Chuanhg, Y.L. Kuo, Y.S. Sun
- 029) #1107 **Processing of Human Amniotic Membranes as Biological Dressings for Treating Ocular Surface Disorders**  
Pimpon Uttayarat, Rawita Morarad, Pranita Meepean, Natawan Sritapanya Wasawat Kiatarkom, Nuatawan – Thamrongsiripak, Kanchana Chahom Rapeeporn – Yodprom, Maethaphan Kitporntheranunt
- 030) #1121 **Photo-Responsive Antibacterial Bioceramic Scaffold for Bone Reconstruction and Infection Prevention**  
M. Kuboki, M. Shimabukuro, S. Kusumoto, R. Miyake, T. Yokoi, R. Kishida, E. Marukawa and M. Kawashita
- 031) #1125 **Collagen–Hyaluronic Acid Hydrogel with Embedded Chondrocytes as a Platform for Modeling Early Stages of Endochondral Ossification In Vitro**  
Marina Malic, Martina Doubkova, Simon Prazak, Antonín Brož, Kristyna Havlickova, Vera Jencova, Daniel Hadraba, Lucie Bacakova

**Category: G07.**

- 032) #1017 **3D Bioprinting of Functional Pancreatic Islet Organoids Using a GelMA–ECM–PRP Tri-Component Bioink for Enhanced Vascularization and Immune Compatibility in Diabetes Therapy**  
Zhu Biwen
- 033) #1024 **Novel CNTs/Cu Nanodots–Arabic Gum Hybrid Induces Cytotoxicity and Apoptosis in Breast and Lung Cancer Cells**  
N.H. Aljarba, A.A. Qurtam, Mo Al-Zharani, W.M. Daoush, A. AlHarb, N.M. Alyami, S. Alkahtani, F.A. Nasr, M.A. Alkhateeb
- 034) #1070 **Effect of Microstructure on Phase-Dependent Osteoblast Adhesion in Titanium Alloys**  
Sengo Kobayashi, Shoma Shibata, Kotaro Hayashi, Satoshi Okano
- 035) #1105 **Discovering the Effects of an Anticancer Drug and *Ganoderma microsporum* Immunomodulatory Protein on Oral Cancer Cells and Human Gingival Fibroblasts**  
S.Y. Lin, C.H. Yang, M.Y. Wu, Y.S. Sun
- 036) #1110 **Self-Aggregation of Cells with Concentrated Polymer Brush-Modified E-Spun Fibers**  
A. Jean, C. Yoshikawa
- 037) #1120 **Cell Response to Polyacrylamide-Based Conductive Hydrogels for Biomedical Applications**  
Antonín Brož, Marina Malic, Terezia Futoova, Martina Doubkova, Arti Singh, Jinhwan Yoon
- 038) #1138 **Enhancing Central Nervous System Delivery via RVG29-Conjugated Upconversion Nanoparticles**  
Haitao Liu, Hengde Li, Saman Hamidi, Xi Chen, Angelo H. All
- 039) #1141 **Extracellular Matrix Formation on Nonwoven Scaffolds for Applications in Cell-Based Leather Engineering**  
Himari Sasaki, Katsuhisa Sakauchi



# Poster Session 2

Date: Tuesday, July 28

Time: 17:00-18:00

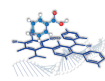
Venue: Room #103

## Category: G09.

- 040) #1029 **Novel Self-Assembled Antimicrobial Peptide Pardaxin Hydrogel as a Functional Biomaterial for Food Packaging and Preservation**  
Sanjay Prasad Selvaraj, Ju-Chun Chang, Karukuvelraja Raja, Jing-Ting Zhu, Prakash Kishore Hazam, Wen-Chun Lin, Jung-Ren-Huang, Tsung-Lin Li, Jyh-Yih Chen
- 041) #1034 **Biogenic Nanoscale Silver: A Multifunctional Platform for Rapid Catalysis and Nanomedicine**  
Manthae C. Phom, Tavishe Phucho
- 042) #1041 **Plant-Derived Nanomaterial-Mediated Corrosion Inhibition: Mechanistic Elucidation of Phytochemical–Nanoparticle Interfacial Interactions**  
Therola Sangtam, Ambrish Singh
- 043) #1065 **Dye-Sensitized Upconversion Nanoparticles with Enhanced Aqueous Luminescence**  
Hendge Li, Haitao Liu, Angelo Homayoun Ali
- 044) #1099 **Green Electrospinning Process: Effects of Water-Soluble Chitosan Content on the Morphology and Fundamental Properties of PVA Nanofibers**  
Zhi-Yun Li, Yanyu Lin, Mei-Chen Lin
- 045) #1148 **Eco-Friendly Electrospun PVA Nanofibers Loaded with Green-Synthesized Silver Nanoparticles for Antimicrobial Wound Dressings**  
Ewa Kijeńska-Gawrońska, Moein Zarei, Jakub Trzciński, Dominik Baraniecki, Mustafa Alsarraf, Monika Staniszewska

**Category: G09.**

- 046) #1013 **Engineering Gas-Generating Nanofiber Platforms for Enhanced Bioactive Release**  
R. Benziane, A. Zeeshan
- 047) #1046 **Enhanced Intracellular Co-Delivery of Doxorubicin and Fe(II) Using Tumor Acidity-Responsive PEG-Sheddable Bimetal-Tannic Acid Nanocapsules for Combined Chemo/Chemodynamic Therapy**  
Wen-Hsuan Chiang, Chuan-Cheng Chiu, Yen-Hsuan Chang
- 048) #1067 **Thermoresponsive Hydrogel as a Delivery Platform for Phage phiPA1-3 and Its Derived Enzyme to Mitigate Carbapenem-Resistant *P. aeruginosa* in an Ex Vivo Porcine Skin Model**  
Y.C. Tsai, Ling-Chun Lin
- 049) #1068 **Thermosensitive Hydrogel Loaded with *Bacillus rugosus* S7 Cell-Free Supernatant: A Novel Therapeutic Strategy Against Bacterial Vaginosis**  
Jo-Ting Hung, Ling-Chun Lin
- 050) #1079 **Engineered pH-Responsive Polysaccharide Nanoparticle for Targeted and Controlled Cancer Drug Delivery**  
Y.H. Lin, H.L. Huang
- 051) #1088 **Development of a Nucleolus-Targeted Drug Delivery System Based on Nuclear-Translocating Nanoparticles**  
H. Taniguchi, S. Kawashima, D. Miyoshi, K. Kawauchi, K. Nagahama
- 052) #1089 **Bioengineered Epsilon-15 Virus-Like Particles as Protein Delivery Nanocarriers for Photodynamic Therapy**  
Hao-Han Pang, Chia-Yu Hsu
- 053) #1090 **Development of a Natural Herbal Combination Compound-Loaded Nanodrug for Glioblastoma Therapy**  
Z.J. Peng, C.Y. Hsu, M.Y. Lee, Y.C. Chang, H.H. Pang
- 054) #1092 **Hydrophobic Deep Eutectic Solvent-Based Microemulsions Enhance the Anti-Inflammatory and Antioxidant Activity of Curcuminoids**  
Kantapich Kongpol, Gorawit Yusakul, Kulthida Vaeteewoottacharn, Anuchit Phanumartwiwath
- 055) #1097 **Characterization and Application of a Thermosensitive Chitosan/Pluronic® F-127 Hydrogel Incorporating Clotrimazole for Vaginal Drug Delivery Systems**  
I-Han Liao, Yueh-Hua Chung, Mei-Chen Lin
- 056) #1146 **Direct Generation of High-Concentration Lipid-Shell Ultrafine Bubbles via Thin-Film High-Speed Agitation**  
H. Kida, M. Noma, Y. Yamasaki, M. Tachibana, H. Endo, L. B. Feril, K. Tachibana



- 057) #1147 **Electrospun PVA/PVP/Pectin Nanofibrous Patches Loaded with Hawthorn Extract and Dragon's Blood for Synergistic Wound Care**  
Moein Zarej, Jakub Trzciński, Dominik Baraniecki, Paulina Trzaskowska Mustafa Alsarraf, Monika Staniszevska, Jagan Mohan Dodda, Tomáš Kovářik, Jaeyun Kim, Ewa Kijeńska-Gawrońska

**Category: G10.**

- 058) #1032 **Post-Fabrication Silver Ion Incorporation into Electrospun Polypeptide Membranes for Stable Antibacterial Functionalization**  
Z.W. Hu, T.L. Ma
- 059) #1122 **PVDF Piezoelectric Film-Mediated Modification of Titanium Dental Implants for Improved Antibacterial Activity and Osseointegration**  
Xusheng Yang, Guomin Wang
- 060) #1127 **Zwitterion-Functionalized Silver Nanoparticle-Embedded Polyurethane Nanofiber Membranes for Highly Efficient Antibacterial Applications**  
Yu-Wei Cheng, Yen-Yu Lin

**Category: G11.**

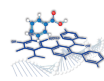
- 061) #1004 **Valorization of Human Hair Keratins into Functional Films**  
Partha Pratim Das, Kee Woei Ng
- 062) #1015 **Far-Infrared-Active Fossil-Based Composite Biomaterials Modulate Brain Water Dynamics and Metabolism: An In Vivo MRI Study**  
C.Y. Lin, H.C. Lo, K.N. Shih, W.T. Huang, C.L. Juang, H.C. Wen
- 063) #1019 **Topical Hydrogen Gas Therapy Mitigates Acute Radiation Dermatitis by Reducing DNA Damage and Inflammation**  
Deng-Yu Kuo, Yu-Chi Wang, Pei-Han Chou, Tse-Ying Liu
- 064) #1073 **pH-Responsive Chitosan–Polysaccharide Composite Biofilm with Essential Oils for Food Spoilage Monitoring**  
Anuchit Phanumartwiwath, Desy Liana
- 065) #1111 **The Influence of the Micro- and Macrostructure of Additively Manufactured Hydrogel Structures on Their Physicochemical and Mechanical Properties in the Context of Applications in Wound Dressings**  
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