



추계학술대회 및 총회

제 29 권 4 호

발 표 자 료 집

2025년 9월 11일(목) ~ 12일(금)

부산 벅스코



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Fall Meeting of the KSBM, September 11-12, 2025, BEXCO Busan, Republic of Korea

Sep. 11 (Thu), 2025					
Time	Room A (321-323호)	Room B (324호)	Room C (325-326호)	5A Hall	
08:00-09:00	Registration				
09:00-10:20	Session 1. Emerging Scientist in Hybrid Biomaterials I Chair: Min-Ho Kang (The Catholic University of Korea), Minsuk Kwak (Yonsei University)	Session 2A. Student Oral Competition I Chair: Min-Jun Baek (Korea Advanced Institute of Science and Technology), Mikyung Kang (Korea University)	Session 2B. Student Oral Competition II Chair: Seo Woo Song (Korea Institute of Science and Technology), Jungho Ahn (Sungkyunkwan University)	Poster Presentation Session (09:30-10:20) Chair: Jeung Baek, Hyeon-Yeol Cho	
	[S1-IL-1] Jaiwoo Lee (College of Pharmacy, Korea University) Engineering Biomaterials for Targeted and Responsive Drug Delivery in Cancer Immunotherapy	[S2A-SOC-1] Jaewook Park (Yonsei University) Modular Reconstruction of Biomimetic Microenvironments Using a Bottom-Up Assembly of Self-Healing Hydrogel Modules with Cellular Composites [S2A-SOC-2] Jae Won Kwon (Korea Institute of Science and Technology) Decellularized Extracellular Matrix Derived from Mesenchymal Stem Cells Promotes Scar-Free Healing in Burn Wounds by Modulating Myofibroblast	[S2B-SOC-1] Yeonju Boo (Pohang University of Science and Technology) Smart Nitric Oxide-Responsive JAK Inhibitor for Targeted Rheumatoid Arthritis Therapy [S2B-SOC-2] Ga-Hyun Bae (Sungkyunkwan University) Lipid Nanoparticle-Mediated Gene Silencing Enhances Ferroptosis for Improved Photodynamic Tumor Therapy		
	[S1-IL-2] Yohan Kim (Sungkyunkwan University) Human Assembloid-Based <i>in vitro</i> Modeling of Periportal Liver Tissue	[S2A-SOC-3] Seongheon Bae (Hanyang University) Engineering 3D Vascularized Tissue by Spatially Regulated Positioning of Spheroids on 3D Printed Scaffold	[S2B-SOC-3] Jeong Yeon Kim (Ewha Womans University) Enhanced Discovery of Glioblastoma-Specific Aptamers By 3D Cell-SELEX Using Hyaluronic Acid Hydrogels		
	[S1-IL-3] Ilkoo Noh (Kangwon National University) Functionalized Cell Membrane Nanoparticles for Biomedical Applications	[S2A-SOC-4] Eui Bum Choi (Korea University) Spheroid Cryopreservation: A Strategy and Its Mechanism [S2A-SOC-5] Eunhae Kim (Dankook University) Development of Therapeutic Delivery via Engineered Fibrinogen-Based Cell and Spheroid Sheet System	[S2B-SOC-4] Jaeseong Lee (Soongsil University) Microfluidic Generation and Analysis of LNPs for RNA Therapeutics [S2B-SOC-5] Phuong Linh Nguyen (Kangwon National University) RAW 264.7 Cell Membrane-Coated PLGA Nanoparticles for Targeted Methotrexate Delivery in Rheumatoid Arthritis Therapy		
	[S1-IL-4] Kihak Gwon (Kyungpook National University) Microfluidic-Assisted Engineered Core-Shell Microcapsules for Tissue Engineering	[S2A-SOC-6] Jongmin Lee (Korea Institute of Science and Technology) Engineered 3D In-Vitro Keloid Skin Model Reproducing the Human Keloid Microenvironment for Drug Screening [S2A-SOC-7] Eunseon Jeong (Yonsei University) Generation of Functional Skeletal Muscle Tissue via Spatially Patterned Cell Constructs	[S2B-SOC-6] Yejin Lee (Seoul National University) Targeted Degradation of NRF2 Transcription Factor by dNRF2 Oligonucleotide PROTAC Enhances Sensitivity of Cancer Redox Stress [S2B-SOC-7] Sunjun Lee (Dongguk University) Osteoarthritis-Specific Drug Delivery System Using Curcumin-PLGA Nanoparticles Coated with Personalized Stem Cell Membranes		
10:20-10:40	Opening Ceremony (Room A)				
10:40-11:20	Plenary Lecture I (Room A) [PL-1] Kun Na (The Catholic University of Korea) ROS Generating Biomaterials in Therapy, DDS and Cell Activation		Chair : Kwideok Park (Korea Institute of Science and Technology)		
11:20-12:00	KSBM General Meeting (Room A)				
12:00-13:00	Break				
13:00-14:20	Session 3. Emerging Scientist in Hybrid Biomaterials II Chair: Hyun-Ji Park (Ajou University), Jun Shik Choi (Korea Institute of Radiological Medical Sciences)	Session 4. Emerging Leaders: Early Career Excellence in Biomaterials Chair: Hyejeong Seong (Korea Institute of Science and Technology), Eunjung Kim (Incheon National University), Mikyung Shin (Sungkyunkwan University), Jihye Kim (Ajou University)	Session 5. Global Frontiers in Biomaterials I Chair: Yeu Chun Kim (Korea Advanced Institute of Science and Technology)	Poster Viewing & Exhibition (10:20-17:40)	
	[S3-IL-1] Young Uk Cho (Incheon National University) MRI-Compatible, Transparent PEDOT: PSS Neural Implants for the Alleviation of Neuropathic Pain [S3-IL-2] Yoon Ho Roh (Incheon National University) Hydrogel Microparticles for Multiplexed Detection of Biomolecules	[S4-OP-1] Sora Son (Gyeongsang National University) [S4-OP-2] Yeonwoo Jang (Chung-Ang University) [S4-OP-3] Min-Ju Lee (Dongguk University) [S4-OP-4] Min-Ji Kang (Sungkyunkwan University) [S4-OP-5] Hyeon-Ji Oh (Sungkyunkwan University) [S4-OP-6] Gaen Lee (Sungkyunkwan University) [S4-OP-7] Myungji Kim (Pohang University of Science and Technology)	13:00-13:30 [S5-IL-1] Hiroshi Abe (Nagoya University) Chemistry-Based mRNA Design Enhancing Translation Toward Therapeutics		
	[S3-IL-3] Laura Ha (Sun Moon University) Nanobiohybrids: A Material-Based Approach for Biomedical Applications [S3-IL-4] Myungjae Song (Gachon University) Bridging Gene Editing and Biomaterials: CRISPR in Therapeutic Delivery	[S4-OP-8] Jae Seo Lee (Kyung Hee University) [S4-OP-9] Jyu Hyun (Sungkyunkwan University) [S4-OP-10] Soojong Roh (Korea Institutes of Science and Technology) [S4-OP-11] Sumin Kim (Sungkyunkwan University) [S4-OP-12] Seo Young Cheon (The Catholic University of Korea) [S4-OP-13] Su Yeon Lim (Kangwon National University) [S4-OP-14] Heewon Choi (Sungkyunkwan University)	13:30-14:00 [S5-IL-2] James Lai (National Taiwan University of Science and Technology) Engineering Stimuli Responsive Polymers to Transform Bioprocessing for Biomarker Detection and <i>in vitro</i> Diagnostics 14:00-14:30 [S5-IL-3] Deok-Ho Kim (Johns Hopkins University) Engineering Biomaterials and Biosensors for Advanced Organoid and Microphysiological Systems		
	Break				
	Session 6. Nanobiomedicine Approaches for Disease Treatment Chair: Jun-O Jin (College of Medicine, Ulsan University), Youngeun Kim (Seoul National University)	Session 7. Beyond Boundaries: Integrating New Disciplines into Biomaterials Chair: Yoon Shin Park (Chungbuk National University), Jin Yoo (Korea Institute of Science and Technology), Sung Yun Yang (Chungnam National University), Hwan Drew Kim (Seoul National University of Science and Technology)	Break (14:30-14:50)		
14:40-16:00	[S6-IL-1] Jung Heon Lee (Sungkyunkwan University) DNApatite: An Elastic Apatite with Sub-Nanometer Scale Organo-Inorganic Structures [S6-IL-2] Kyusik Shim (PLCOSkin Co., Ltd) Lymphatic Vessel Regeneration through Biomaterials and Cell Therapy [S6-IL-3] Eun Jung Lee (Kyungpook National University) Naturally Derived Nanocarriers for Modulation of Immune Microenvironment [S6-IL-4] Seongchan Kim (College of Pharmacy, Gyeongsang National University) Tailored Nanomedicine Strategies for Advanced Biologic Therapeutics in Hepatocellular Carcinoma	[S7-IL-1] Min Young Lee (Korea Institute of Materials Science) Plasmonic Material-Based Development of Cancer Diagnostic Applications [S7-IL-2] Jeong Hoon Lee (Korea University) Beyond Limits: AI-Enabled Rapid Diagnostics for Spatial and Temporal Expansion [S7-IL-3] Hyun-Ji Park (Ajou University) An Integrated Organoid Modeling and Bioinformatics to Define the Role of Macrophages in Vascular Repair [S7-IL-4] Eunjung Kim (Incheon National University) From Fusion to Function: Engineering Membrane-Mimicking Nanomaterials for Optical Biosensing [S7-IL-5] Anna Seo (SEEANN Solution) Patient-Specific Devices Design for Surgery	Session 8. Global Frontiers in Biomaterials II Chair: Won-Gun Koh (Yonsei University) 14:50-15:20 [S8-IL-1] Huaxiao Adam Yang (University of North Texas) hPSC-Derived Organoid Vascularization and Intelligence 15:20-15:50 [S8-IL-2] Akira Matsumoto (Institute of Science Tokyo) "Borono-Lectins" in Action: From G6-Diol Recognition to Advanced Biomedical Applications 15:50-16:20 [S8-IL-3] Hua Ai (Sichuan University) MRI Nanoprobcs: Design Considerations and Biological Responses		
	Break				
	Session 9. Biomaterials for Precision Immune Modulation for Therapy Chair: Gayong Shim (Soongsil University), Yoo-soo Yang (Sungkyunkwan University)	Session 10. Multifunctional Materials: Pushing the Boundaries of Bioengineering Chair: Chaenyung Cha (Ulsan National Institute of Science and Technology), Kyueu Lee (Kyungpook National University)		Break (16:20-16:40)	
	16:20-17:40	[S9-IL-1] Yong Taik Lim (Sungkyunkwan University) Designer Materials for Kinetic Immune Modulation	[S10-IL-1] Su-Hwan Kim (Chung-Ang University) Metal-Free PCET-Active Nanozymes for ROS Regulation and Gasotransmitter Generation	Session 11. Biomaterials Preservation by Ice-Biointerface Augmentation (sponsored by ERC) Chair: Eunji Lee (Gwangju Institute of Science and Technology), Ki Wan Bong (Korea University)	
		[S9-IL-2] Ju Hee Ryu (Korea Institute of Science and Technology) Programmable DNA Origami Nanomaterials for Precision Immune Modulation and Regenerative Therapy	[S10-IL-2] Jin Yoo (Korea Institute of Science and Technology) Ge-Like Functional Coatings for Antifouling and Antithrombotic Surfaces	16:40-17:00 [S11-IL-1] Dong June Ahn (Korea University) Augmented Biopreservation: From Cells to Tissues	
[S9-IL-3] Joonbeom Bae (Korea University) Engineered Cell-Based Therapeutic Platforms for Tumor-Targeted Immunotherapy		[S10-IL-3] Seung Yun Yang (Pusan National University) Injectable Photocrosslinked Microgels: From Local Cancer Treatment to Cell Therapy	17:00-17:20 [S11-IL-2] Seok Chung (Korea University) Cold Chain & Microphysiological Systems		
[S9-IL-4] Wonhwa Lee (Sungkyunkwan University) Novel Therapeutic Strategies for Severe Pulmonary Infectious Diseases		[S10-IL-4] Ja-Hyoung Ryu (Ulsan National Institute of Science and Technology) Supramolecular Lysosome-Targeting Chimeras (Supra-LYTAC) for Targeted Protein Degradation	17:20-17:40 [S11-IL-3] Do-Nyun Kim (Seoul National University) DNA Origami and Its Application for Cell Cryopreservation		
17:40-18:00	KSBM-KOFWST Award (Room A)				
18:00-21:00	Gala Dinner				

	Min-Ju Lee ¹ , Deogil Kim ¹ , Gunwoo Lee ¹ , Yoshie Arai ¹ , and Soo-Hong Lee ^{1,*} ¹ Department of Medical Biotechnology, Dongguk University-Seoul, Seoul 04620, Korea, *soohong@dongguk.edu		and Technology (KIST), ² Department of Applied Bioengineering, Graduate School of Convergence Science and Technology, Seoul National University, *Corresponding author: jyoo@kist.re.kr
S4-OP-4	Spatially Controlled Multicellular Differentiation of Stem Cells Using Metal–Organic Framework Coated Nanopattern Arrays Min-Ji Kang ¹ , Yeon-Woo Cho ¹ , and Tae-Hyung Kim ^{1,2,*} ¹ Department of Intelligent Precision Healthcare Convergence, Institute for Cross-disciplinary Studies (ICS), Sungkyunkwan University (SKKU), Korea, ² Department of Biomedical Engineering, ICS, SKKU, Korea, *thkim0512@skku.edu	S4-OP-11	Catechol-Functionalized Polyphenol Hydrogels for Bioelectronic Applications Sumin Kim ^{1,2} and Mikyung Shin ^{1,2,3,*} ¹ Department of Intelligent Precision Healthcare Convergence, Sungkyunkwan University, ² Center for Neuroscience Imaging Research, Institute for Basic Science (IBS), ³ Department of Biomedical Engineering, Sungkyunkwan University, *mikyungshin@g.skku.edu
S4-OP-5	Photodynamic Therapy with Charge-Controlled Cell-Derived Nanovesicles Hyeon-Ji Oh ¹ and Wooram Park ^{1,*} ¹ Department of Integrative Biotechnology, Sungkyunkwan University, Seobu-ro 2066, Suwon, Gyeonggi 16419, Republic of Korea, *parkwr@skku.edu	S4-OP-12	Lacuna-Mimicking Clusters of Human Nasal Septal Chondrocytes in Click Chemistry-Based Hydrogel for Cartilage Regeneration In vivo Seo Young Cheon ¹ , Jung Ho Jeon ¹ , Sung Won Kim ^{1,*} , and Heebeom Koo ^{1,*} ¹ Department of Medical Life Sciences and Department of Medical Sciences (Graduate School), College of Medicine, The Catholic University of Korea, 222 Banpo-daero, Seocho-gu, Seoul 06591, Republic of Korea, *Corresponding author: hbkkoo@catholic.ac.kr
S4-OP-6	Development of an Endometrium-on-a-Chip Platform for Evaluating Endometrial Receptivity Gaeun Lee ¹ , Yu-Gyeong Lee ² , Youn-Jung Kang ^{3,*} , and Jungho Ahn ^{1,4,*} ¹ Department of MetaBioHealth, Sungkyunkwan University, ² Department of Biomedical Science, School of Life Science, CHA University, ³ Department of Biochemistry, Research Institute for Basic Medical Science, School of Medicine, CHA University, ⁴ Department of Biophysics, Sungkyunkwan University, *jhahn513@skku.edu	S4-OP-13	Advanced Breast Cancer Immunotherapy: Surface Modification of NK Cells for Embedding Antibody-Drug Conjugates Su Yeon Lim ¹ , Seungmin Han ⁴ , Jeong-Ann Park ³ , Hyun-Ouk Kim ^{1,2} , Suk-Jin Ha ^{1,2} , Young-Wook Won ⁴ , and Kwang Suk Lim ^{1,2,*} ¹ Department of Smart Health Science and Technology, Kangwon National University, Chuncheon 24341, Republic of Korea, ² Department of Biotechnology and Bioengineering, College of ACE, Kangwon National University, Chuncheon 24341, Republic of Korea, ³ Department of Environmental Engineering, College of ACE, Kangwon National University, Chuncheon 24341, Republic of Korea, ⁴ Department of Biomedical Engineering, College of Engineering, University of North Texas, TX 76203-5017, USA, *kslim@kangwon.ac.kr
S4-OP-7	Bespoke Tissue-Specific Niche Engineering for Stem Cell Differentiation, Maturation, and Translational Regenerative Medicine Myungji Kim ¹ and Jinah Jang ^{1,2,3,4,*} ¹ Department of Mechanical Engineering, Pohang University of Science and Technology (POSTECH), ² Department of Convergence IT Engineering, POSTECH, ³ Division of Interdisciplinary Bioscience and Bioengineering, POSTECH, ⁴ Center for 3D Organ Printing and Stem Cells, POSTECH, *jinahjang@postech.ac.kr	S4-OP-14	Implantable Electronics Based on Soft, Tissue-Adhesive Biomaterials for Precision Diagnosis and Therapy Heewon Choi ¹ and Donghee Son ^{1,*} ¹ Department of Electrical and Computer Engineering, Sungkyunkwan University, Suwon, Republic of Korea, *daniel3600@g.skku.edu
S4-OP-8	Synergistic Effect of Hypoxic Conditioning and Cell-Tethering Colloidal Gels Enhanced MSC Paracrine Factors and Accelerated Vessel Regeneration Jae Seo Lee ¹ , Myung Chul Lee ² , Seongsu Kim ³ , Su Ryon Shin ⁴ , and Il Keun Kwon ^{1,*} ¹ Department of Dentistry, Graduate School, Kyung Hee University, Republic of Korea, ² Medicinal Materials Research Center, Biomedical Research Division, Korea Institute of Science and Technology (KIST), Republic of Korea, ³ Biomaterials Research Center, Biomedical Research Division, Korea Institute of Science and Technology (KIST), Republic of Korea, ⁴ Division of Engineering in Medicine, Department of Medicine, Brigham and Women's Hospital, Harvard Medical School, USA, *corresponding author e-mail: kwoni@khu.ac.kr		
S4-OP-9	Rapid Formation of Heterotypic Pseudo-Islet Spheroids Using Subaqueous Acoustic Pressure System Enhances Graft Survival Function Jiyu Hyun ¹ and Suk Ho Bhang ^{1,*} ¹ School of Chemical Engineering, Sungkyunkwan University, Suwon, 16419, Republic of Korea, *sukhobhang@skku.edu		
S4-OP-10	Structurally Tuned Self-Powered Piezoelectric PLLA Scaffolds for Cartilage Regeneration Soonjong Roh ^{1,2} and Jin Yoo ^{1,*} ¹ Biomaterials Research Center, Korea Institutes of Science		

Session 5: Global Frontiers in Biomaterials I

PM 13:00-14:30

Chair : Yeu Chun Kim (KAIST)

S5-IL-1	Chemistry-Based mRNA Design Enhancing Translation Toward Therapeutics Hiroshi Abe ^{1,*} ¹ Department of Chemistry, Graduate School of Science, Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464-8602, Japan, *abe.hiroshi.p4@f.mail.nagoya-u.ac.jp/filiation.
S5-IL-2	Engineering Stimuli-Responsive Polymers to Transform Bioprocessing for Biomarker Detection and in vitro Diagnostics James Lai ^{1,2,*} ¹ Department of Materials Science and Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan, ² Department of Bioengineering, University of Washington, Seattle, WA, USA, *jameslai@mail.ntust.edu.tw
S5-IL-3	Engineering Biomaterials and Biosensors for Advanced Organoid and Microphysiological Systems

- ¹School of Chemical Engineering, College of Engineering, Sungkyunkwan University, Suwon 16419, Republic of Korea, ²Department of Chemical Engineering and Biotechnology, Tech University of Korea, Siheung 15073, Republic of Korea, ³Department of Health Sciences and Technology, SAIHST, Sungkyunkwan University, Seoul 06351, Republic of Korea, ⁴Biomedical Institute for Convergence at SKKU (BICS), Sungkyunkwan University, Suwon 16419, Republic of Korea, *corresponding author e-mail: jhpark1@skku.edu
- PO-316 **A Bispecific EGFR-Directed Therapeutic for Simultaneous Cancer Suppression and Immune Activation**
Hani Choi^{1,2}, Minji Ann^{1,2}, and Kun Na^{1,2,*}
¹Department of Biotechnology, The Catholic University of Korea, Republic of Korea, ²Department of Biomedical-Chemical Engineering, The Catholic University of Korea, Republic of Korea, *kna6997@catholic.ac.kr
- PO-317 **Engineered MSCs Inducing Necroptosis for Immune Activation and Melanoma Suppression**
Hani Choi^{1,2}, Soyeon Bak^{1,2}, and Kun Na^{1,2,*}
¹Department of Biotechnology, The Catholic University of Korea, Republic of Korea, ²Department of Biomedical-Chemical Engineering, The Catholic University of Korea, Republic of Korea, *kna6997@catholic.ac.kr
- PO-318 **Self-Assembled Paclitaxel/NO Nanoparticles Based on Multivalent Host-Guest Chemistry for Tumor-Targeted Chemoimmunotherapy**
Kyeongjin Cho¹ and Jihoon kim^{1,*}
¹School of Integrative Engineering, Chung-Ang University, South Korea, *jihoonkim@cau.ac.kr
- PO-319 **CD44-Targeting Levan Nanoparticles Conjugated to NK Cells for Tumor-Specific Immunotherapy**
Jieun Ha¹, Minkyung Kim¹, Juwon Kang¹, and Kye Il Joo^{1,*}
¹Department of Chemical Engineering and Materials Science, Ewha Womans University, Seoul, Korea, *kijoo@ewha.ac.kr
- PO-320 **Immunoengineered Hybrid Nanovesicles from M1 and M2 Macrophages for Sequential Activation and Treg cell Induction of Naïve CD4⁺ T Cells**
Inho Baek¹, Yoshie Arai¹, Jinsung Ahn¹, Bowon Kim¹, and Soo-Hong Lee^{1,*}
¹Department of Biomedical Engineering, Dongguk University, Seoul, Republic of Korea, *soohong@dongguk.edu
- PO-321 **Vessel Normalization via Anti-Angiogenic Extracellular Vesicles: A Promising Strategy to Enhance Immune Checkpoint Blockade Therapy**
Duong Van Hieu¹, Sol Shin^{1,2}, and Jae Hyung Park^{1,2,3,*}
¹School of Chemical Engineering, College of Engineering, Sungkyunkwan University (SKKU), ²Biomedical Institute for Convergence at SKKU (BICS), Sungkyunkwan University, ³Department of Health Sciences and Technology, SAIHST, Sungkyunkwan University, Seoul 06355, Republic of Korea, *jhpark1@skku.edu
- PO-322 **Antigen Presenting Cell Mimetic Lipid Nanoparticles Loaded with mTOR siRNA for Regulatory T cell Induction**
Bowon Kim¹, Jinsung Ahn¹, Kyung-Yup Cha¹, Yoshie Arai^{1,*}, and Soo-Hong Lee^{1,*}
¹Department of Biomedical Engineering, Dongguk University, 32 Dongguk-ro, Ilsandong-gu, Goyang-si 10326, Republic of Korea, *soohong@dongguk.edu
- PO-323 **Engineering of Lyophilized Polyphenol-Mediated Cancer Vaccine for Enhancing Antitumor Immune Response**
Kim-Phuong Phan¹, Seung-Hyun Kim², Tiep Tien Nguyen¹, Nhu-Nam Nguyen¹, Jeong Uk Choi^{2,*}, and
- Jee-Heon Jeong^{1,*}
¹Department of Precision Medicine, School of Medicine, Sungkyunkwan University, Suwon, Gyeonggi 16419, Republic of Korea, ²Department of Regulatory Science, Graduate School, Kyung Hee University, Seoul 02453, Republic of Korea, *jeeheon@g.skku.edu
- PO-324 **Combination Therapy of Immunotherapy and Tumor Cuproptosis Induction Prevented Metastatic Cancer**
Da young Kim¹, Eunseo Jeong¹, and Jun-O Jin^{1,*}
¹Department of Microbiology, Brain Korea 21 project, University of Ulsan College of Medicine, ASAN Medical Center, Seoul, 05505, South Korea, *Corresponding author E-mail : junojin@amc.seoul.kr
- PO-325 **Phytosphingosine-Loaded Lipid Nanoparticles for Lung Cancer Treatment**
So-Jung Kim¹, Daeun Lim¹, and Jun-O Jin^{1,*}
¹Department of Microbiology, Brain Korea 21 project, University of Ulsan College of Medicine, ASAN Medical Center, Seoul, 05505, South Korea, *Corresponding author E-mail: junojin@amc.seoul.kr
- PO-326 **Photoimmunotherapy by Manganese-Contained Alginate Hydrogel for Colon Cancer and Its Metastasis Treatment**
Hae-Bin Park¹, Dayoung Ryu¹, Minhyuk Lee¹, and Jun-O Jin^{1,*}
¹Department of Microbiology, Brain Korea 21 project, University of Ulsan College of Medicine, ASAN Medical Center, Seoul, 05505, South Korea, *Corresponding author E-mail: junojin@amc.seoul.kr
- 분야 VI: Biofabrication & 3D Printing**
- PO-327 **Pateint-Specific Multifunctional Hydrogel Scaffold for Anti-Osteosarcoma and Bone Regeneration**
Hyeong Seok Kang¹, Sejoon Bang¹, Jong Hwa Seo¹, Chan Ho Moon¹, Ju Yeong Gwon², and Hyun-Do Jung^{1,*}
¹Devison of Material Science and Engineering, Hanyang University, ²Department of Bioengineering, Hanyang University, *hdjung@hanyang.ac.kr
- PO-328 **NIR-Responsive aDNA-Coated Shape Memory Scaffolds for Synergistic Osteosarcoma Therapy and Bone Repair**
Jong Hwa Seo¹, Sejoon Bang¹, Hyeong Seok Kang¹, Chan Ho Moon¹, Ju Yeong Gwon², Hoon Kim³, and Hyun-Do Jung^{1,*}
¹Devison of Materials Science and Engineering, Hanyang University, ²Department of Bioengineering, Hanyang University, ³Graphy Inc., Graphy R&D Center, Korea, *hdjung@hanyang.ac.kr
- PO-329 **Multifunctional 3D-Printed Hydrogel Scaffold for Post-Surgical Osteosarcoma Ablation and Bone Regeneration**
Sejoon Bang¹, Hyeong Seok Kang¹, Jong Hwa Seo¹, Chan Ho Moon¹, Ju Yeong Gwon², and Hyun-Do Jung^{1,*}
¹Devison of Material Science and Engineering, Hanyang University, ²Department of Bioengineering, Hanyang University, *hdjung@hanyang.ac.kr
- PO-330 **Engineering Bespoke Stem Cell-Derived Pancreatic Islet Niches and Hypoimmunogenic Constructs for Diabetes Therapy**
Myungji Kim¹, In Kyong Shim², Jihwan Kim¹, Sebin Lee¹, Song Cheol Kim^{2,3}, and Jinah Jang^{1,4,5,6,*}
¹Department of Mechanical Engineering, Pohang University of Science and Technology (POSTECH), ²Asan Institute for Life Science, University of Ulsan College of Medicine and Asan Medical Center, ³Division of Hepato-Biliary and Pancreatic Surgery, Department of Surgery, University of Ulsan College of Medicine and