

WBC 2024\_Best Poster Presentation Awardee

Presentation No.	Abstract Title	Presenter's Info.		
		Name	Affiliation	Country/Region
P1-011	Structure and dissolution behavior of CaO-P <sub>2</sub> O <sub>5</sub> -TiO <sub>2</sub> glasses prepared by liquid phase method for biomedical applications	Sungho Lee	AIST	Japan
P1-021	Metal-dopamine Network Coatings for Therapeutic Nitric Oxide Delivery	Qingqing Fan	University of New South Wales	Australia
P1-053	Spontaneously Hyper-Oxygenating Macroscale Cube for Successful Tissue Engineering	Chaerim Yoo	Hanyang university	Korea, Republic of
P1-093	Photocrosslinkable Nanocomposite Hydrogel for Vascularized Liver Tissue Embedded Bioprinting	Jaemyung Shin	University of Calgary	Canada
P1-101	Activating Natural Killer Cells for Cancer Immunotherapy Using Cationic Nanoparticle	Joo Dong Park	Sungkyunkwan University	Korea, Republic of
P1-107	Visible shifts in fluidity and adhesiveness of a pH-responsive nanoparticle-based conductive hydrogel for cancer detection and therapy	Kaustuv Roy	Korea National University of Transportation	Korea, Republic of
P1-108	Immune-Modulating Magnetic Nanoparticles to Enhance the activity of Dendritic cells for Treatment of Breast Cancer	Jaesung Lim	Sungkyunkwan Univeristy	Korea, Republic of
P1-110	Tumor targeted ROS-sensitizing metal laden Polymeric Nanoparticles	Geum Byeol Park	KIRAMS	Korea, Republic of
P1-111	KRAS-Mutated Pancreatic Cancer Treatment through Immunogenic Cell Death and Phagocytosis Dendritic Cell using Antibody-Photosensitizer Conjugate	SooMin Cho	The Catholic University of Korea	Korea, Republic of
P1-123	Membrane-disrupting helical polypeptide induces immune priming and delivers IL-12 mRNA to facilitate synergistic cancer immunotherapy	Susam Lee	Korea Advanced Institute of Science and Technology (KAIST)	Korea, Republic of
P1-135	Pulmonary-delivered formulations of antibiotics and quorum sensing inhibitors for the treatment of respiratory infections	Elzbieta Pamula	AGH University of Krakow, Faculty of Materials Science and Ceramics	Poland
P1-137	Synthesis and stabilization of silver nanoparticles in copolymeric micelles combined with rose bengal for photodynamic therapy	EDVANI MUNIZ	State University of Maringa	Brazil
P1-147	A cardiac microphysiological system for screening lipid nanoparticle/mRNA complexes predicts in vivo efficacy for heart transfection	Gabriel Neiman	University of California at Berkeley	USA
P1-180	A ROS-enhanced Photosensitizer-loaded Photothermal Composite Scaffold for Light-guided Cancer Therapy	Xiaohan Liu	University of Tsukuba; National Institute for Materials Science	Japan
P1-185	Targeted delivery of multiresponsive mesoporous manganese dioxide coated nanotherapeutics for chemo/chemodynamic therapies against colorectal cancer	Xiang-Yun Song	National Tsing Hua University	Chinese Taipei
P1-193	Trojan horse for targeted therapy of kidney cancer	Olga Sindeeva	Skolkovo Institute of Science and Technology	Russia
P1-213	One-pot synthesis of fluorescent polydopamine nanoparticles inspired by melanogenesis in nature	Haejin Jeong	Daegu Gyeongbuk Institute of Science and Technology	Korea, Republic of
P1-215	Self-Assembled Nanostructure Encapsulating 5-Fluorouracil and Doxorubicin for Facilitated Eradication of Colorectal Carcinoma via Synergistic Chemotherapy	Khanh-Linh Le Tran	Kangwon National University	Korea, Republic of
P1-221	Development of polysaccharide immunomodulator for controlling innate immune cells	Yubin Kim	Inha University, Incheon 22212	Korea, Republic of
P1-243	Recapitulate Temporal Gradient of Retinoic Acid Provision for iPSC-Motor Neuron Differentiation Using Biodegradable Porous Silicon Microparticles	Changho Chun	University of Washington	USA
P1-249	Boron alleviates osteoporosis in ovariectomized mice by enhancing osteogenesis of bone marrow mesenchymal stem cell	Ping Du	Shenzhen Institute of Advanced Technology Chinese Academy of Sciences	China
P1-258	Micro-sized gelatin polyurethane composite scaffolds: new delivery carrier for intramyocardial hPSC-derived cardiomyocyte transplantation	Yizhou Chen	University of Toronto	Canada
P1-261	Creating magneto-active fibrous electrospun scaffolds for the remote mechanotransduction of human mesenchymal stem cells	Clarissa Tomasina	Maastricht University	Netherlands

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P1-263	Orchestrating cell fate. Biomimetic DGL-PEG hydrogels for hMSC osteogenic differentiation	Michele Valeo	University of Bordeaux	France
P1-264	Corneal cell-laden gels crosslinked <i>in situ</i> with bioorthogonal chemistry for corneal regeneration	Lucia Brunel	Stanford University	USA
P1-290	Regulation and directing stem cell fate by materiabiological effects of sulfonated-gelation scaffolds via SIRT1/SIRT3	Qinghao Zhang	Southern University of Science and Technology	China
P1-297	Evaluation of Fibronectin-coated microparticle for iPSCs-derived MSCs isolation	Jae-Hyeok Jang	Kangwon National University	Korea, Republic of
P1-312	Nano-toxicologic analysis of micro/nanoplastic models using an in vitro gut model	Masaya Yamamoto	Tohoku University	Japan
P1-343	Internalization of zinc-doped hydroxyapatite nanoparticles for treatment of intracellular bone infections.	Lizzy Cuypers	RadboudUMC	Netherlands
P1-357	Bioinspired sustainable adhesives for surgical applications	Julie Liu	Purdue University	USA
P1-365	Quaternized <i>N</i> -chloramine-loaded electrospun nanofibers with potent antimicrobial activity	Sarah Currie	University of Manitoba	Canada
P1-387	Evaluation of continuous antimicrobial activity of zinc-substituted hydroxyapatite/polymer composites for anti-infective catheters	Ryuta Shiromaru	Kindai University	Japan
P1-406	Enhancing infected wound healing using self-locomotive, antimicrobial microrobots (SLAM)	Yujin Ahn	University of Illinois at Urbana-Champaign	USA
P1-411	Enhanced Dural Repair Using Biodegradable Sealants Based on Photocurable Hyaluronic Acid	Hyeseon Lee	Pusan National University	Korea, Republic of
P1-423	Molecular binding forces mediated by integrins replicate the lamin A/C-dependent global perception of substrate compliance	Gi-Ju Cho	Korea University	Korea, Republic of
P1-436	Comparison of Macrophage Responses to a Model of Polyethylene Nano and Micro Plastics.	Naoto Washihira	Grad. Sch. Eng., Tohoku Univ.	Japan
P1-437	Activation of fibroblasts migrating through confining microchannels made with polydimethylsiloxane	Yeji Chang	National University of Singapore	Singapore
P1-441	Recapitulating the tissue niche through Regenix™ for the generation of patient-derived xenograft models	Da Hye Song	Cellartgen	Korea, Republic of
P1-461	A dual-mode and trimetallic nanozyme induced highly sensitive osteoprotegerin detection from human serum	Minhaz Uddin Ahmed	UNIVERSITI BRUNEI DARUSSALAM	Brunei Darussalam
P1-464	AI-based Morphology Evaluation for Enhanced Neural Induction Analysis in Neural Stem Cell	Young-woo Jeon	KAIST	Korea, Republic of
P2-053	PEG-norbornene as a photo-click bioink for digital light processing 3D bioprinting	Min Hee Kim	Kyungpook National University	Korea, Republic of
P2-057	3D-Printed composite scaffolds coated with thylakoid for the treatment of osteonecrosis	Sujin Woo	Daegu Catholic University	Korea, Republic of
P2-094	Elucidating 3D Bioprinted Gelatine-Human Skin Dermal Fibroblasts Stability for Wound Dressing Applications via AKT Signalling Pathways	NUR AIFA ASYHIRA KHAIRUL NIZAM	National University of Malaysia	Malaysia
P2-103	Carbon-based nanoparticles for anti-cancer drug delivery	Hongjae Kim	The Catholic University of Korea	Korea, Republic of
P2-112	Adipose Tissue Targeting Peptide-Glycyrrhizin Conjugate for Inflammation Suppression and Obesity Treatment	Lia Priscilla	Hanyang University	Korea, Republic of
P2-117	Co-delivery of berberine and paclitaxel by CXCR4-targeted core/shell nanocarrier to improve breast cancer treatment	Yeonwoo Jang	Chung-Ang University	Korea, Republic of

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P2-119	Hyaluronic acid-coated agmatine-based nanocomplex for nucleus-targeted anticancer therapy	Hyun Ji Cho	The catholic university of Korea	Korea, Republic of
P2-126	Switchable antibody production and delivering nanoparticles for anti-cancer immunotherapy	Mihyeon Park	POSTECH	Korea, Republic of
P2-131	Modified SIRPα-Drug Conjugates for CD47-Targeted Cancer Therapy	Seungmi Hue	Korea Institute of Science and Technology	Korea, Republic of
P2-132	Cation-free zwitterionic polymers as mRNA delivery career	Akihisa Otaka	Okayama-university	Japan
P2-136	Osmosis-driven delayed pulse release from bioresorbable capsules for vaccine booster delivery	Ferry Melchels	University of South Australia	Australia
P2-161	Delivery of CRISPR/Cas9 plasmid DNA using lysine-based cationic lipid nanoparticle	Wenhan Sung	Waseda University	Japan
P2-164	Liposomes decorated with antifungal peptide penetratin exhibit enhanced antifungal activity against <i>Candida</i> spp.	Veronica LaMastro	Brown University	USA
P2-167	Optimizing ionizable lipid tails for liver and non-liver delivery of mRNA lipid nanoparticles	Kaitlin Mrksich	University of Pennsylvania	USA
P2-170	Evaluation of the uptake behavior of anti-inflammatory agents conjugated poly(L-lysine) into platelets.	Rina Yokoi	Kansai University	Japan
P2-174	Chemically triggered conformational change of polymeric nano-assemblies for <i>in situ</i> generation of multivalent ligands of cancer cells	Rentaro Sakamoto	Osaka University	Japan
P2-177	Chitosan-based nanocapsules with hyaluronan synthase for increasing endogenous hyaluronic acid production	Yong-Ji Chen	I-Shou University	Chinese Taipei
P2-178	Macrophage-Targeted Delivery of Immunomodulatory Drugs to Promote Tissue Repair	Shreya Soni	Drexel University	USA
P2-209	Targeted delivery of liposomal curcumin through ultrasound facilitation to a breast cancer cell line	Ghaleb Hussein	American University of Sharjah	United Arab Emirates
P2-221	A Self-Assembled Virus-like Particles Encapsulating KillerRed protein for Photodynamic therapy	Ji-Yeon Sim	Seoul National University	Korea, Republic of
P2-226	Systematic study of size/surface chemistry tunable polymerized RNA nanoparticles for efficient targeted therapeutics	Kyungjik Yang	Yonsei University	Korea, Republic of
P2-229	Hyaluronic acid hydrogel with gradient mechanical properties for tissue engineering	Mina Kwon	Pusan National University	Korea, Republic of
P2-247	'Living' fluid interface elucidates unique cell adhesion behaviors at extremely soft scaffolds.	Jun Nakanishi	National Institute for Materials Science	Japan
P2-249	Platelet rich fibrin - from autologous bioactive molecule sustained delivery to antibacterial effect	Arita Dubnika	Riga Technical University	Latvia
P2-252	Promoting jaw bone regeneration with an injectable hydrogel adaptive to the microenvironment	Lingyan Cao	Shanghai Jiao Tong University	China
P2-259	Facile Fabrication of Anisotropic Porous Collagen Scaffolds	Kenneth Kimmins	University of Toronto	Canada
P2-262	Ultrasound-enhanced cavitation using sub-micron stabilising nuclei for tissue engineering applications	Veronica Lucian	University of Oxford	United Kingdom
P2-264	Optimising collagen I scaffolds for the promotion of vascularisation within HSKMC and HDMEC co-cultures.	Rosie Lester	Department of Materials Science and Metallurgy, University of Cambridge	United Kingdom
P2-275	3D printed Mg alloy TPMS scaffolds with multi-scale functionalities for high-performance bone regeneration	Bo Peng	Tsinghua University	China

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P2-292	Design of a dual therapeutic platform for the delivery of natural bioactive compounds and bacteriophages for topical skin applications	Emmanuel PAUTHE	CY Cergy Paris Université, ERRMECe Laboratory, Biomaterials for Health Group, France	France
P2-298	<i>Ex-vivo</i> , Post-radiation Evolution of Glioblastoma Extracellular Matrix	Alireza Sohrabi	University of Texas at Austin	USA
P2-308	Exploring platelet-rich plasma (PRP) and whole ovary laparoscopic incision (WOLI) in ovarian rejuvenation: insights from a pilot study in sheep	Carolina Herranz-Diez	Universitat de Barcelona	Spain
P2-320	Enhancing cardiac mechanical recovery: insights from mechanical support with adjustable patches	Yuwen Lu	Zhejiang University	China
P2-341	Instantly activating hemostatic cellulose sealants application for uncontrollable bleeding	Jeon Jihoon	Yonsei University	Korea, Republic of
P2-350	Controlling the Balance of Tautomeric States in Oxidized Dopa: Understanding via Thiol-abundant Protein in Interfacial Mussel Foot Proteins	Taehee Yoon	Department of Chemical engineering, Pohang University of Science and Technology (POSTECH)	Korea, Republic of
P2-369	Hydrogen sulfide-releasing bioactive brush for cardiovascular stents	Daihua Fu	Sichuan University	China
P2-375	Anti-swellable supramolecular adhesives for dural closure	Hiyori Komatsu	University of Tsukuba, National Institute for Materials and Science	Japan
P2-393	CADAVER PILOT STUDY: PHOSPHOSERINE BIOADHESIVE AS RESORBABLE VERTEBRAL SCREW AUGMENTATION AGENT	Philip Procter	Department of Materials Science and Engineering, Uppsala University	France
P2-403	Characteristics of polysaccharides-containing care solution on tear film components removal and lubrication for orthokeratology lenses	You-Cheng Chang	NTUT	Chinese Taipei
P2-414	Ultra-tiny gelatin nanoparticles-combined hybrid stem cell spheroids for tissue regeneration	Kim Dream	Chonnam National University	Korea, Republic of
P2-424	3D in vitro synovial membrane model on polycaprolactone-micropatterned nanofibrous microwells for screening disease-modifying anti-rheumatic drugs	Dongwoo Kim	Department of Applied Bioengineering, Graduate School of Convergence Science and Technology, Seoul National University	Korea, Republic of
P2-435	Predictive side of in vitro tissue models: the case of engineered 3D skin	Viktorie Rockova	(1) Institute of Experimental Medicine CAS, Prague, Czech Republic; (2) Department of Physiology, Faculty of Science, Charles University in Prague	Czech Republic
P2-436	Microscale Bioreactor Based <i>In Vitro</i> Human Biomimetic Liver Acinus Model for Drug Induced Liver Injury Evaluation	Souradeep Dey	Centre for Nanotechnology, Indian Institute of Technology Guwahati, Guwahati-781039, Assam, India.	India
P2-440	Engineering Pulmonary Microtissues to Investigate Fibroblast Mediated Tissue Remodeling	Elisa Nieves	Georgia Institute of Technology	USA
P2-453	Desorption of salivary pellicle and primer adsorption on zirconium dioxide dental ceramics	Hanna Tiainen	University of Oslo	Norway
P2-465	Catalase-like hydrogel crosslinked with Fe-porphyrin to enhance wound healing in diabetes	Min ji Kim	Seoul National University	Korea, Republic of
P2-466	Biomaterialized manganese oxide-based nanoparticle attenuates gouty arthritis symptoms	Padmanaban Sathiyamoorthy	Chonnam National University	Korea, Republic of
P3-012	Hydrogel based adhesive film (H-AF) for versatile electrical interfacing in soft electronics	Yurim Lee	School of Electrical and Electronic Engineering, Yonsei University	Korea, Republic of
P3-028	Minimally designed thermo-magnetic dual responsive soft robots for complex applications	Clio Siebenmorgen	Rijksuniversiteit Groningen / University Medical Center Groningen	Netherlands
P3-045	Magnetically responsive injectable gellan gum-based hydrogel for aligned tissue regeneration	Arianna Rossi	Institute of Science, Technology and Sustainability for Ceramics, National Research Council of Italy, ISSMC-CNR and University of Messina; Department of Chemical, Biological, Pharmaceutical and Environmental Sciences	Italy
P3-048	Being a target for glycation by methylglyoxal contributes to therapeutic efficacy of injectable collagen hydrogels post-myocardial infarction	Xixi Guo	University of Ottawa Heart Institute	Canada
P3-059	Glucose as a Stimulus for Dynamic Crosslinking of Injectable and Shape-adaptive Hydrogel Scaffolds for Bone Tissue Regeneration	Birzhan Abdikhan	Nazarbayev University	Kazakhstan

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P3-071	Prediction of Printing Resolution using Rheology-Informed Hierarchical Machine Learning	Dageon Oh	Industry 4.0 Convergence Bionics Engineering, Pukyong National University	Korea, Republic of
P3-100	Flexink - a new PEG-tyramine-based material for coaxial printing of small-diameter vessels	Julia Siminska-Stanny	Universite Libre de Bruxelles	Belgium
P3-106	A novel bioink to create vascularized structures harnessing microfluidic bioprinting	Efsun Senturk	3D Microfluidic Bioprinting Lab, Center for Life Nano- & Neuro-Science (CLN2S), Italian Institute of Technology (IIT)	Italy
P3-108	3D-bioprinted liver tissue model for testing the activity and cytotoxicity of drugs - revolution in preclinical testing of oncological drugs	Marta Klak	Polbionica sp. z o.o.	Poland
P3-117	Enhancing Oral Bioavailability of Peptide-Conjugated Antitumor Prodrugs with Milk-Derived Exosomes	Hochung Jang	Korea Institute of Science and Technology (KIST)	Korea, Republic of
P3-123	Fine-Tuning Liposomal Membrane Elasticity for Improved Biodistribution and Anti-Inflammatory Efficacy in Systemic Rheumatoid Arthritis Treatment	Dahwun Kim	Sungkyunkwan University	Korea, Republic of
P3-140	Development of LNP-Exosome hybrid system for targeted pancreas KRAS <sup>G12D</sup> oncogene silencing and its application toward gemcitabine chemotherapy	Heewon Park	Department of Chemical and Biomolecular Engineering, Korea Advanced Institute of Science and Technology (KAIST)	Korea, Republic of
P3-145	Novel drug development system: Development of an electrical cell viability monitoring device based on drug-loaded cancer cell targeting aptamer	Nayeon Kwon	Kwangwoon University	Korea, Republic of
P3-148	Laser triggered nitric oxide releasing hydrogel strengthens antitumor immune response through tumor collagen depletion during NIR laser assisted photoimmunotherapy	Adityanarayan Mohapatra	Chonnam National University	Korea, Republic of
P3-171	Coiled-coil peptide nanofibers as a platform for a dual-target active immunotherapy against complement anaphylatoxins.	Helena Freire Haddad	Duke University	USA
P3-173	Molecular tuned extracellular blebs for improved vaccination and intracellular delivery	Olivia Ritchie	University of California, Irvine	USA
P3-193	Peritoneal macrophage-derived extracellular vesicles: a new multi-target therapy for inflammatory disease	Yizhuo Wang	West China Hospital of Sichuan University	China
P3-194	Development of Multifunctional Gold Nanoparticles for Reprogramming Tumor-associated Macrophages Combined with Photodynamic Immunotherapy	Ting-Yu Cheng	Department of Photonics, National Cheng Kung University	Chinese Taipei
P3-198	Bispecific, exosome-mimetic lipid nanoparticles facilitate dual siRNAs for synergistic therapy against pancreatic cancer	Zhen Zhang	Tsinghua Shenzhen International Graduate School, Tsinghua University	China
P3-206	Production of functional exosomes released from epigenetically modified cancer cells	Kiyoshi Sato	Department of Applied Chemistry, Graduate School of Urban Environmental Sciences, Tokyo Metropolitan University	Japan
P3-216	A surgically optimised intraoperative immunotherapy-releasing hydrogel prevents cancer recurrence	Joost Lesterhuis	Telethon Kids Institute, University of Western Australia	Australia
P3-231	A biodegradable magnesium alloy promotes subperiosteal osteogenesis via interleukin-10-dependent macrophage immunomodulation	Liangwei Chen	Peking Univerisy School and Hospital of Stomatology	China
P3-244	Biomaterialized mesenchymal stem cell derived extracellular matrix prompts osteogenesis and bone regeneration	Jae Won Kwon	Korea Institute of Science and Technology (KIST), University of Science and Technology (UST)	Korea, Republic of
P3-247	SDF1 $\alpha$ -overexpressing tonsillar mesenchymal stem cell-derived exosome and edaravone-loaded scaffolds for kidney regeneration by activating GDNF/RET pathway	Seung Yeon Lee	Department of Biomedical Science, CHA University	Korea, Republic of
P3-262	Regulatory mechanisms for the orientation of bone matrix controlled by osteocyte mechanoresponses using a novel anisotropic mechano-coculture device	Tadaaki Matsuzaka	Division of Materials and Manufacturing Science, Graduate School of Engineering, Osaka University	Japan
P3-270	Unveiling the Versatility of Elastin-Like Recombinamers in Biomedicine and Nanotechnology	Pablo Rodríguez-Alonso	Technical Proteins Nanobiotechnology, S.L.	Spain
P3-276	Composite of cell and gel having hierarchical structure for artificial cartilage regeneration	Ryoma Takagi	University of Toyama	Japan
P3-280	Waterborne polylactic acid-polyurethane copolymer scaffold promotes nerve regeneration by regulating energy metabolism and vascularization	Yuan Feng	Sichuan University	China

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P3-281	Positively Charged Polyurethanes Scaffolds in Central Nerve Repair	Jingjing Lin	sichuan university	China
P3-284	Engineered cell-cell and cell-matrix interactions guide neural maturation within viscoelastic matrices	Michelle Huang	Stanford University	USA
P3-289	Breaking the Silence: Nano-Engineered Scaffolds for Tympanic Membrane Regeneration	Shivesh Anand	Aarhus University	Denmark
P3-295	Nano- and micro-scale topographical regulation of osteogenesis	Shirley Ting	National Taiwan University	Chinese Taipei
P3-315	Unraveling the mechanical properties of 3D-printed bovine and synthetic hydroxyapatites bone scaffolds for bone tissue reconstruction	Maria Apriliani Gani	Bandung Institute of Technology	Indonesia
P3-330	Nanodiamond functionalized implant surfaces for the formation of a vital oral soft tissue composite	Kedar Mehta	Dresden University of Technology, Institute of Materials Science, Max Bergmann Center of Biomaterials	Germany
P3-334	Selective inhibition of tumour cell growth on cerium oxide nanoparticle layers	Tamaki Naganuma	National Institute for Materials Science	Japan
P3-347	Engineering pre-vascularized 3D tissue and rapid convergence with host blood vessels via co-cultured spheroids-laden hydrogel	Hyunseok Kwon	Hanyang University	Korea, Republic of
P3-356	Identifying differential mechanical markers for in vitro regenerative muscle models	Tae Yoon Kwon	KAIST	Korea, Republic of
P3-360	Cell-derived ECM incorporated bioactive hydrogels for <i>in situ</i> tissue regeneration	Yeonjeong Kim	Department of Bioengineering and Nano-Bioengineering, Incheon National University	Korea, Republic of
P3-364	Predicting response to cetuximab therapy by monitoring EGFR internalization and degradation	Yejin Sung	Korea Institute of Science and Technology (KIST)	Korea, Republic of
P3-370	Widely distributable boronic acid-based adhesive hydrogel for treating vascular graft stenosis and myocardial infarction	Hue Le	National Cerebral and Cardiovascular Center Research Institute	Japan
P3-381	Implantable SERS-based, multiplexed nanotags for in-vivo tissue-state tracking	Connie Wang	Massachusetts Institute of Technology	USA
P3-382	Protein-engineered microcapsules for targeted spheroid delivery as a novel treatment for diffuse cartilage lesions	Desiré Venegas Bustos	University of Valladolid	Spain
P3-383	Injectable MSC Spheroid and Microgel Granular Composites for Engineering Cartilage Tissue	Nikolas Di Caprio	University of Pennsylvania	USA
P3-417	Preparation and application of angelica dahurica/keratin microneedles patches for oral soft tissue wound healing	Minhua Teng	Affiliated Hospital of Qingdao University	China
P3-431	3D <i>In-vitro</i> Modeling for Myeloid Sarcoma with Brain Decellularized ECM Recapitulating Brain-Adaptive Phenotypic Changes	Heejeong Yoon	UNIST	Korea, Republic of
P3-434	Engineered hydrogel elucidates contributions of matrix mechanics to pathobiology of adenocarcinoma and identify matrix-activated therapeutic targets	Ricardo Cruz-Acuna	Columbia University Irving Medical Center	USA
P3-435	Large-size spheroid formation based on silk fibroin hydrogel particles	Yusuke Kambe	Institute of Agrobiological Sciences, National Agriculture and Food Research Organization	Japan
P3-443	A tumour-engineered platform of pancreatic cancer	Verena Kast	Leibniz Institute of Polymer Research Dresden e.V., Institute of Biofunctional Polymer Materials	Germany
P3-450	Evaluating biophysical pattern of glioblastoma-mediated microglia invasion using tissue-engineered cancer models	Chia-Wen Chang	University of Illinois Urbana-Champaign	USA
P3-451	Personalized 3D osteosarcoma models for recapitulating interpatient heterogeneity	Jeehee Lee	Stanford University	USA
P3-462	ReGum™, a next-generation natural scaffold for periodontal repair	Ishay Attar	BioChange ltd	Israel

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P3-470	Instantaneously responsive continuous glucose monitoring microneedle patches for diabetic monitoring	Inhoo Choi	POSTECH	Korea, Republic of
P3-474	Modular supramolecular nanofibers enable sublingual immunization with a variety of peptide epitopes	Emily Roe	Duke University	USA
P4-034	Additive manufacturing of biodegradable MgZnCa alloys using laser powder bed fusion	Giulio Cavaliere	Uppsala University	Sweden
P4-058	Spontaneous cellular assembly in artificial small diameter blood vessels produced using a novel extrusion-based 3D printing technique	Hyoryung Nam	POSTECH	Korea, Republic of
P4-060	Effect of fibrous hydrogels containg bioink on fabricating artificial skeletal muscle constructs	Kyoungryong Kim	SungKyunKwan University	Korea, Republic of
P4-075	Development of Cardiac Chamber-Shaped 4D-Printed Structure Mimicking Myocardial Fiber Orientation Using Magnetic Polarity Patterning	Hwanyong Choi	Postech	Korea, Republic of
P4-080	Surface nanotopography and cell shape modulate tumor cell susceptibility to NK cell cytotoxicity	Yongbum Cho	Research Institute of Advanced Materials (RIAM), Institute of Engineering Research, Seoul National University	Korea, Republic of
P4-085	High speed production of stretched collagen microfibers comprised of aligned collagen fibrils for creating artificial tendons	Shunji Yunoki	Hokkaido University	Japan
P4-093	Harnessing HfO <sub>2</sub> Nanoparticles for Wearable Tumor Monitoring and Sonodynamic Therapy in Advancing Cancer Care	Putry Yosefa Siboro	National Tsing Hua University	Chinese Taipei
P4-104	Adaptive core-shell assembly for sustained release of particles or drugs from nanofibrous scaffolds	Sabine Illner	Institute for Biomedical Engineering, University Medical Center Rostock	Germany
P4-126	Nucleic acid-based micelle incorporated with USE1-silencing siRNA for lung cancer therapy	Daeho Kwon	Pukyong National University	Korea, Republic of
P4-134	Nasal vaccines introduce an innovative approach for treating infectious diseases	HANI CHOI	The Catholic University of Korea	Korea, Republic of
P4-144	Combined hybrid structure of siRNA tailed IVT mRNA (ChRiST mRNA) for enhancing mRNA influenza virus vaccine efficacy.	Hye Seung Song	College of Pharmacy, Gyeongsang National University	Korea, Republic of
P4-153	<i>In situ</i> hypoxia modulating nano-catalase for amplifying DNA damage in radiation resistive colon tumors	Vasvani Shyam Hareshkumar	DR Cure Inc., Hwasun 58128, Republic of Korea. Department of Biomedical Sciences and BioMedical Sciences Graduate Program (BMSGP), Chonnam National University Medical School	Korea, Republic of
P4-174	Glutathione-responsive nanogels for intracellular drug delivery	Stéphane Bernhard	ETH Zürich	Switzerland
P4-178	Understanding the biomolecular corona formation at the nano-bio interface	Vaidehi Londhe	Leibniz-Institut für Polymerforschung e.V., Dresden	Germany
P4-179	Dynamics of artificial molecular motors in lipid membranes: insights into shape transitions and membrane modulation	Ainoa Guinart Planellas	University of Groningen	Netherlands
P4-189	Lipid nanoparticle-mediated gene editing in the mouse brain	Shuting Sarah Cai	Columbia University	USA
P4-190	Synergistic effect of eco-friendly synthesized silver nanoparticles and chitosan amplifies the response of the electrochemical sensor	Anjuman Nesa Anju	Yamagata University	Japan
P4-197	Enabling DNA synthesis via polymer-oligonucleotide conjugates	Karol Mai	National Taiwan University of Science and Technology	Chinese Taipei
P4-221	MXenes-based innovative nanoarchitectonics for therapeutic and tissue regeneration abilities	Ranjith Kumar Kankala	Huaqiao University	China
P4-245	Application of injectable tissue putty for tendon regeneration in rat model	Seon-Hwa Kim	Industry 4.0 Convergence Bionics Engineering, Pukyong National University, Republic of Korea	Korea, Republic of
P4-266	Hydrogel-based cell mechanical microenvironment and mechano-regenerative medicine for myogenesis	Yufei Ma	Xi'an Jiaotong University	China

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P4-270	Development of therapeutic agents for spinal cord injury using bioactive substances derived from porcine liver decomposition product	Ueno Rintaro	Biomedical Engineering Division, Graduate School of Science and Technology, Shinshu University	Japan
P4-273	Understanding of the effects of gravity-control on the proliferation and differentiation of human mesenchymal stem cells.	Kenshin Hirota	University of Toyama	Japan
P4-275	Selenium nanoparticles as catalysts for nitric oxide generation	Shu Geng	School of Chemical Engineering and Australian Centre for Nanomedicine (ACN), The University of New South Wales (UNSW Sydney)	Australia
P4-298	Increasing Peripheral Nerve Tissue Vascularization with Natural Polymer Based Nerve Guide Conduit Design with VEGF Surface Immobilization	Dila Hatun Sal	Department of Materials Science & Engineering, KROTO Research Institute, The University of Sheffield	United Kingdom
P4-323	Phosphorylated focal adhesion kinase by mild reduction of cell surface proteins inhibits a RhoA/ROCK2-dependent adipogenic differentiation	Jihoon Jeong	Soonchunhyang Institute of Medi-bio Science (SIMS)	Korea, Republic of
P4-347	Enhanced Endothelial Differentiation and Angiogenesis Induction by Mesenchymal Stem Cell Spheroids	Eun Ji Jeong	Interdisciplinary Program in Stem Cell Biology, Seoul National University	Korea, Republic of
P4-350	A multi-functional film consisting of bioactive layer and anti-adhesion layer for sound tendon regeneration	Ho Yong Kim	Dankook University	Korea, Republic of
P4-353	Topological cues regulate mechanotransduction and maturation of muscle cells	Yeji Lee	Pohang University of Science and Technology (POSTECH)	Korea, Republic of
P4-358	Facile PDMS Surface Modification: Dual Layer Coating To Prevent Biofouling For The Potential Use Of Urinary Tract Biomaterial	Taehyeon Kim	(Univ/Yonsei)	Korea, Republic of
P4-372	Drug-eluting bioabsorbable surgical suture potential for wound healing	Azam Ali	University	New Zealand
P4-383	Poly(ethylene glycol)-hyaluronic acid composite hydrogels as a vitreous substitute	Ting Wang	Department of Ophthalmology, West China Hospital of Sichuan University	China
P4-407	Injectable and Adhesive Hydrogel Formulation for Exosome Delivery: A Minimally Invasive Therapeutic Strategy for the Treatment of Myocardial Infarction	Ubaid Tariq	Department of Biological Sciences and Bioengineering, Indian Institute of Technology Kanpur	India
P4-410	Towards biomanufacturing of an innovative collagen hydrogel-based dermal template for enhanced wound healing	Le Quang Bach	Bioprocessing Technology Institute (BTI), Agency for Science Technology and Research (A*STAR)	Singapore
P4-421	Modeling Endometriosis in a Human Fallopian Tube-on-a-Chip: Investigating the Degradation of Ciliated Cells	Seunghee Kim	Research Institute of Women's Health, Brain Korea 21 Project, Sookmyung Women's University	Korea, Republic of
P4-427	Developing a Phage Therapy Assessment Platform Using a Human Colon-on-a-chip	Jungin Park	UNIST	Korea, Republic of
P4-435	Multiscale 3D-printing of microfluidic chips with integrated biosynthetic vessel networks	Robin Maatz	Technical University of Darmstadt, BioMedical Printing Technology	Germany
P4-446	Development of an in vitro platform for analyzing the correlation between matrix stiffness and cancer stemness using in-bath 3D bioprinting	Won-Woo Cho	Pohang University of Science and Technology	Korea, Republic of
P4-448	Exosomes analysis at single particle level with wide-field fluorescence microscopy by capturing into porous anodized aluminum oxide	Masahiro Okada	Department of Chemistry, Graduate School of Science, Tohoku University, Japan	Japan
P4-464	High-throughput microfluidic system for single cell acidification screening	Hyejoong Jeong	Seoul National University	Korea, Republic of