



한국조직공학·재생의학회  
Korean Tissue Engineering and Regenerative Medicine Society

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# 제24차 한국조직공학· 재생의학회 학술대회

*Innovative Regenerative Medicine for Translation to Human*

2024. **05. 02** (목) 오후 2시 ~ **05. 04** (토) 오후 12시  
제주, 신화월드

## Sessions

바이오패브리케이션, 생체재료·의료기기·약물전달, 줄기세포·세포치료, 조직공학·재생의학, 유전자치료·면역치료, 엑소좀, 오가노이드·장기칩, 수의재생  
이비인후과, 치의학, 성형외과·피부과, 정형외과, 심혈관, 신경, 산부인과  
한국-대만 국제세션, 정년교수 퇴직기념, (재)범부처재생의료기술개발사업단, 대한신경과학회 공동세션, 산업체, 신진연구자, 학생발표

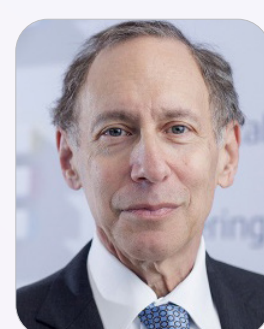
## Call for Abstracts

포스터 초록 접수 마감: 2024년 4월 12일(금)  
학생 구두발표 초록접수마감: 2024년 3월 29일(금)

## Registration

사전등록마감: 2024년 4월 22일(월)  
연수평점: 1~6점(교육 이수시간에 따라 상이함)

## Plenary Lecture



Robert S. Langer  
MIT



한동근  
차의과학대학교

한국조직공학·재생의학회 사무국 TEL : 070-7558-2608, FAX : 070-8258-2608, E-mail : kterms@gmail.com

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제주, 신화월드

Day1: 5월 2일(목)			
Time	Room A	Room B	Room C
14:00-14:10	Opening Ceremony		
14:10-15:25	<b>S01</b> Biofabrication	<b>S02</b> Young Investigator	<b>S03</b> Student Presentation I
15:25-15:45	Coffee break		
15:45-16:25	Plenary Lecture I		
16:25-17:40	<b>S04</b> Biomaterials & Drug Delivery	<b>S05</b> Industry Session	<b>S06</b> Student Presentation II
Day2 : 5월 3일(금)			
Time	Room A	Room B	Room C
09:00-10:15	<b>S07</b> Stem Cells	<b>S08</b> Otorhinolaryngology	<b>S09</b> Dentistry
10:15-10:30	Coffee break		
10:30-12:10	<b>S10</b> Honoring Faculty Milestones	<b>S11</b> Plastic Surgery & Dermatology	<b>S12</b> Korea-Taiwan International Session
12:10-12:30	KTERMS General Meeting		
12:30-13:00	Luncheon Session		
13:00-14:00	Poster Session		
14:00-14:40	Plenary Lecture II		
14:40-15:55	<b>S13</b> Tissue Engineering	<b>S14</b> Cardiovascular Therapy	<b>S15</b> Korean Fund for Regenerative Medicine
15:55-16:15	Coffee break		
16:15-17:30	<b>S16</b> Gene Therapy & Immunotherapy	<b>S17</b> Orthopedic Surgery	<b>S18</b> Korean Fund for Regenerative Medicine
Day3 : 5월 4일(토)			
Time	Room A	Room B	Room C
09:00-10:15	<b>S19</b> Exosome	<b>S20</b> Nerve	<b>S21</b> Obstetrics & Gynecology
10:15-11:30	<b>S22</b> Organoid & Organ Chip	<b>S23</b> Veterinary Regenerative Medicine	<b>S24</b> Korean Neurological Association Joint Session
11:30-12:00	Award Ceremony & Closing Remark		



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## Day1: 5월 2일(목)

Time	Room A	Room B	Room C
14:00-14:10	Opening Ceremony		
14:10-15:25	<b>S01. Biofabrication</b> 오거나이저: 장진아(POSTECH) 좌장: 서영권(동국대), 장진아(POSTECH)	<b>S02. Young Investigator</b> 오거나이저: 신진연구자위원회 좌장: 방석호(성균관대), 김한영(가톨릭대)	<b>S03. Student Presentation I</b> 오거나이저: 진윤희(연세의대), 신미경(성균관대) 좌장: 신미경(성균관대), 이준민(POSTECH)
	14:10-14:35 Polymeric Biomaterials for Next-Generation Soft Electronics 서정묵(연세대)	14:10-14:25 Bioelectrochemical Interfaces: Bridging Digital and Biological Systems 박지민(KAIST)	14:10-14:20 Speaker:
	14:35-15:00 Photo-induced Cross-linking of Unmodified Proteins for the Development of Peptide Immobilized Bioinks: Towards 3D Bioprinted Skeletal Muscle 최영진(한국재료연구원)	14:25-14:40 Ultrasound Imaging with Magnetic Nanomaterials to Detect the Change of Organoid and Tissue Stiffness 민성진(성균관대)	14:20-14:30 Speaker:
	15:00-15:25 Multiscale Biomedical Engineering Approaches for Subfertility Treatment: Microfluidics and Tissue Regeneration 안중호(차의대)	14:40-14:55 Radiation Energy-converting Nanoparticles for Cancer Therapy 강미경(고려대)	14:30-14:40 Speaker:
		14:55-15:10 Tissue-like Electronic Materials for Bioelectronics 강지형(KAIST)	14:40-14:50 Speaker:
		15:10-15:25 3D Printed Auxetic Scaffold for the Treatment of Myocardial Infarction 박현지(아주대)	14:50-15:00 Speaker:
			15:00-15:10 Speaker:
			15:10-15:20 Speaker:
15:25-15:45	Coffee break		
15:45-16:25	Plenary Lecture I 오거나이저: 조승우 학술위원장 좌장: 임근일(동국의대)		
	Functional Biomaterials for Tissue Regeneration and Biomedical Devices Speaker: 한동근(차의과대)		
16:25-17:40	<b>S04. Biomaterials &amp; Drug Delivery</b> 오거나이저: 박경민(인천대) 좌장: 박귀덕(KIST), 박경민(인천대)	<b>S05. Industry Session</b> 오거나이저: 이재영(тол렌) 좌장: 최병현(인하대), 이재영(тол렌)	<b>S06. Student Presentation II</b> 오거나이저: 진윤희(연세의대), 신미경(성균관대) 좌장: 진윤희(연세의대), 정현도(가톨릭대)
	16:25-16:50 Adhesive Hydrogel Biointerfaces for Sutureless Bioelectronics and Peripheral Nerve Repair 신미경(성균관대)	16:25-16:50 Enabling Genome Medicine with Polymeric Nanoparticle 김석중(젠에딧)	16:25-16:35 Speaker:
	16:50-17:15 Development of RNA-based Therapeutics/Vaccines 이규리(경상국립대)	16:50-17:15 Development of Lipid Nanoparticle Formulation for Gene and Cell Therapy 이혁진(서지넥스)	16:35-16:45 Speaker:
	17:15-17:40 Revitalizing Respiratory Function through Nanotherapeutics for ARDS Treatment 이원화(성균관대)	17:15-17:40 Umbilical Cord Blood-derived Stem Cell Pipelines & Platforms: Opportunities for Collaboration 이승진(메디포스트)	16:45-16:55 Speaker:
			16:55-17:05 Speaker:
			17:05-17:15 Speaker:
			17:15-17:25 Speaker:
			17:25-17:35 Speaker:



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## Day2 : 5월 3일(금)

Time	Room A	Room B	Room C
09:00~10:15	<b>S07. Stem Cells</b> 오거나이저: 양기석(안천대) 좌장: 황창모(울산대), 양기석(안천대) 09:00~09:25 Advanced Cell Therapies through Genome Editing 임동현(성신여대) 09:25~09:50 Human Spinal Cord Organoids Model Systems for Human Biology and Medicine 이주연(KIST) 09:50~10:15 Synthetic Biology Driven Engineering of Small Molecule Gated T Cell for Next Generation Immune Cell Therapy 이혜선(KAIST)	<b>S08. Otorhinolaryngology</b> 오거나이저: 박해상(한림의대) 좌장: 권성근(서울의대), 박해상(한림의대) 09:00~09:25 Development of Space Biology Platform Based on Satellite 박찬흠(한림의대) 09:25~09:50 The Journey from Bedside to Bench: Clinician's Perspectives 김한수(이화대의대) 09:50~10:15 Stem Cell Spheroid: from Basic Research to Mass Production and Preclinical Application 권성근(서울의대)	<b>S09. Dentistry</b> 오거나이저: 박준범(가톨릭대의대) 좌장: 윤정호(전북대치대), 변준호(경상의대) 09:00~09:25 Immunogenicity and Antigenicity of Allogeneic Demineralized Dentin Matrix as Osteoinductive Material 구정귀(서울대치대) 09:25~09:50 Symbiotically Integrating Biomaterials for Oral-Gut Axis: Symbiomer 최성환(연세대치대) 09:50~10:15 Conceptual Advancement in Dental Hard Tissue Regeneration Based on Small Molecule Compounds 김도연(연세대치대)
10:15~10:30	Coffee Break		
10:30~12:10	<b>S10. Honoring Faculty Milestones</b> 오거나이저: 신미경(성균관대) 좌장: 김문석(아주대), 구승엽(서울의대) 10:30~10:50 Science, Colleagues, and Memory 조인호(이화여대, 범부처재생의료기술개발사업단) 10:50~11:05 Angiogenesis and Tissue regeneration 박윤신(충북대) 11:05~11:20 Translational and Clinical Development of Tonsil-derived Mesenchymal Stem Cells 정성철(이화대의대) 12:20~12:40 From Materials To Life 임정욱(경북의대) 11:40~11:55 Tooth and Bone Regeneration 박익균(경북대치대) 11:55~12:10 Beyond the Paper: Celebrating a Legacy of Mentorship and Collaboration with Professor Lim 오지원(연세의대)	<b>S11. Plastic Surgery &amp; Dermatology</b> 오거나이저: 박지웅(서울의대) 좌장: 박지웅(서울의대), 윤정기(중앙대) 10:30~10:55 Development of Anti-Aging Therapeutics Using Extracellular Vesicles 백우열(연세대) 10:55~11:20 3D ASC Spheroids Enhance Adipogenesis and Angiogenesis in Fat Graft 김일국(영남대) 11:20~11:45 Adipose-Derived Exosomes as a Preventative Strategy Against Nodule Formation in Hyaluronic Acid Filler Applications: A Comprehensive In Vivo Analysis 정운혁(계명대)	<b>S12. Korea-Taiwan International Session</b> 오거나이저: 국제협력위원회 좌장: 황석연(서울대), 신홍수(안양대) 10:30~11:00 Smart CRISPR for Tissue Regeneration Andy Yu Chen Hu (National Tsing Hua University) 11:00~11:30 Infrapatellar Fat Pads-derived Stem Cells is a Favorable Cell Source for Articular Cartilage Tissue Engineering: A Study Based on 3D Organized Self-assembled Biomimetic Scaffold Chen-Chie Wang (Hualien Tzu-Chi University) 11:30~11:50 3D printed Versatile Assemblable Scaffold for Tailored Microgel Carrier in Regenerative Medicine 이승훈(동국대) 11:50~12:10 Development of Diagnostic based on CRISPR technology 송자연(성균관대)
12:10~12:30	KTERMS General Meeting		
12:30~13:00	Luncheon Session		
13:00~14:00	Poster Session		
14:00~14:40	<b>Plenary Lecture II</b> 오거나이저 : 조승우(연세대), 황석연(서울대)   좌장: 임정욱(경북의대) Title : Speaker: Robert S. Langer (MIT)		
14:40~15:55	<b>S13. Tissue Engineering</b> 오거나이저: 정영미(KIST) 좌장: 이수홍(동국대), 정영미(KIST) 14:40~15:05 Coacervate as a Versatile Drug Delivery Supplement for Tissue Engineering 정지홍(서울의대) 15:05~15:30 Advancing Cell Therapy through Tissue Engineering Technology 정지현(성균관대의대) 15:30~15:55 Scalable Single Nucleus RNA-seq of FFPE Clinical Samples by Fixative Exchange (FX)-seq 손창호(연세대)	<b>S14. Cardiovascular Therapy</b> 오거나이저: 박훈준(가톨릭대의대) 좌장: 박윤신(충북대), 강선웅(안전성평가연구소) 14:40~15:00 Application of Human Cardiomyocytes and Machine Learning for Enhanced Cardiotoxicity Prediction 문성환(중앙대) 15:00~15:20 Therapeutic Potential of 3D Cardiac Spheroids Derived from Human Pluripotent Stem Cells for Cardiac Regeneration 박훈준(가톨릭대의대) 15:20~15:40 Bioresorbable Temporary Cardiac Pacemakers 최연식(연세대) 15:40~15:55 Prevention of Ischemic Heart Disease by Oral Administration of Engineered Probiotics 반기원(웅공시립대)	<b>S15. Korean Fund for Regenerative Medicine</b> 오거나이저: 이정승(성균관대) 좌장: 최윤혁 R&D 기획관리본부장 14:40~15:05 Bioprinting-assisted Tissue Assembly for Structural and Functional Modulation of Engineered Heart Tissue 장진아(POSTECH) 15:05~15:30 Cell-assembling Technologies for Regenerative Medicine 김상현(KIST) 15:30~15:55 Customized Treatment for Patients with Chronic Kidney Disease Using AI and 3D Bioprinting Technologies 류지나(로kit헬스케어)
15:55~16:15	Coffee Break		
16:15~17:30	<b>S16. Gene Therapy &amp; Immunotherapy</b> 오거나이저: 주진명(UNIST) 좌장: 오세행(단국대), 박우람(성균관대) 16:15~16:40 Modulation of Nitric Oxide for Immunocancer Therapy 김원종(POSTECH) 16:40~17:05 Exploring the Impact of Spatial Distribution of CpG Ligands on DNA Origami for Cancer Vaccine 류주희(KIST) 17:05~17:30 Harnessing Nanoparticles for Induction of Immune Tolerance in Autoimmune Diseases 김재윤(성균관대)	<b>S17. Orthopedic Surgery</b> 오거나이저: 한혁수(서울의대) 좌장: 임근일(동국의대), 양희석(단국대) 16:15~16:40 Cell Therapeutics for Rotator Cuff Disease 조현철(서울의대) 16:40~17:05 Cell Therapy for Osteonecrosis of The Femoral Head 백승훈(경북의대) 17:05~17:30 Costal Chondrocyte Derived Pellet-type Autologous Chondrocyte Implantation: an Overview 박재영(차의과대)	<b>S18. Korean Fund for Regenerative Medicine</b> 오거나이저: 이정승(성균관대) 좌장: 조순로 R&D 운영본부장 16:15~16:40 Regulatory Science Support Based Efficient Development Strategic Consideration of Advanced Therapeutic Medicinal Products 김종원(규제과학지원단장/오송첨단의료산업진흥재단) 16:40~17:05 Considerations for the Efficacy and Safety Evaluation of Advanced Therapy Medicinal Products for the Salivary Gland Disease 전상호(고려대학교) 17:05~17:30 Pancreatic Islet Cells Transplantation with Immunoisolation 황석연(서울대학교)



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## Day3 : 5월 4일(토)

Time	Room A	Room B	Room C
09:00~10:15	<b>S19. Exosome</b> <b>오거나이저: 조용우</b> (한양대/엑소시스템텍) <b>좌장: 조용우</b> (한양대/엑소시스템텍), <b>박우람</b> (성균관대)	<b>S20. Nerve</b> <b>오거나이저: 박영석</b> (충북의대) <b>좌장: 현상환</b> (충북대수의대), <b>박영석</b> (충북의대)	<b>S21. Obstetrics &amp; Gynecology</b> <b>오거나이저: 김윤영</b> (서울대병원) <b>좌장: 구승엽</b> (서울의대), <b>김성우</b> (서울의대)
	09:00~09:25 Exosome-mediated CRISPR/Cas-based Epigenome Editing in Alzheimer's Disease <b>조동규</b> (성균관대)	09:00~09:25 The Role of Astrocytes and Collagen in Non-Human Primate Photothrombosis-Induced Stroke Model: Functional Recovery from Neurological Damage Utilizing H2O2 Scavenger <b>유승준</b> (을지의대)	09:00~09:25 Ovary Engineering Using Stem Cells <b>김윤영</b> (서울대병원)
	09:25~09:50 Exosome Surface Glycan Targeting Lectin Nanoparticles for the Theragnosis of Tumor <b>최종훈</b> (중앙대)	09:25~09:50 Development of Cultured Food Utilizing Muscle Regeneration Technology for Preventing Sarcopenia <b>최정석</b> (충북대)	09:25~09:50 The Clinical Unmet need for Tissue Engineering and Regenerative Medicine in Female Reproduction <b>김용진</b> (고려의대)
	09:50~10:15 Microbial Nano Vesicles (MNV) for Treatment of Inflammatory Diseases. <b>최기영</b> (강릉원주대)	09:50~10:15 Enhanced Intervertebral Disc Repair and Regeneration using a Nanohybrid Peptide Hydrogel <b>한인보</b> (차의과대)	09:50~10:15 Development of Endometrial Tissue Assembly for Lego-like Customizable Tissue Regeneration <b>홍인선</b> (가천대학교)
10:15~11:30	<b>S22. Organoid &amp; Organ Chip</b> <b>오거나이저: 황용성</b> (순천향대) <b>좌장: 황용성</b> (순천향대), <b>이진우</b> (가천대)	<b>S23. Veterinary Regenerative Medicine</b> <b>오거나이저: 이정익</b> (건국대) <b>좌장: 이정익</b> (건국대), <b>박상혁</b> (부경대)	<b>S24. Korean Neurological Association Joint Session</b> <b>오거나이저: 김치경</b> (고려의대) <b>좌장: 김치경</b> (고려의대), <b>안중호</b> (차의과대)
	10:15~10:40 Patient-derived Microphysiological Systems to Reconstruct Tumor Microenvironments <b>고지훈</b> (가천대)	10:15~10:40 Translational Medicine and Companion Animal Clinical Study <b>구민</b> (VET STEM SOLUTION)	10:15~10:40 CADASIL: A Genetic Cause of Stroke <b>최재철</b> (제주대의대)
	10:40~11:05 Development of Organoid Chip for Liquid Biopsy Diagnostic Markers <b>송영준</b> (인천대)	10:40~11:05 Safety and Efficacy of i.v Administration of Allo- mesenchymal Stem Cells in Companion Animal Patients <b>김의진</b> (메디펫 동물병원, 건국대학교 부속 동물병원 동물 줄기세포 치료 센터장)	10:40~11:05 Vascular Gemotry and Stroke: What we Know and Need <b>김범준</b> (울산의대)
11:05~11:30	11:05~11:30 Understanding the Forces that Control Cell Fate and Disease Progression Using Patient-derived Organoids <b>황용성</b> (순천향대)	11:05~11:30 The Current Status and Future of Pet Stem Cell Therapy in Korea <b>이혜정</b> (농림축산검역본부 수의연구사)	11:05~11:30 Tissue Engineering in a Neurovascular Unit <b>김치경</b> (고려의대)
11:30~12:00	Award Ceremony & Closing Remark		