

Detailed Program for Each Session

Concurrent Session 1

October 16 (Mon) 14:15 – 15:55

CS1-A	Session Topic	Biofabrication I (#S06)
	Date	October 16 (Mon)
	Time	14:15-15:55
	Room	Grand Hall A & B
	Co-Chair(s)	Daniel Nieto (Maastricht University, Netherlands) Juan Antonio Marchal Corrales (University of Granada, Spain)
CS1-A-01	14:15-14:38 (keynote)	Advanced light-based bioprinting technologies for tissue engineering Daniel Nieto (Maastricht University, Netherlands)
CS1-A-02	14:38-14:50 (invited speaker)	Advanced bioinks for cardiac regeneration Carmine Gentile (University of Technology Sydney, Australia)
CS1-A-03	14:50-15:02 (invited speaker)	Spray-based biopen for skin printing and regeneration Juan Antonio Marchal Corrales (University of Granada, Spain)
CS1-A-04	15:02-15:14 (invited speaker)	Decellularized extracellular matrix based models for breast cancer research: organoid culture and pharmacological screening Julia Lopez (Biosanitary Research Institute of Granada (ibs.GRANADA), Spain)
CS1-A-05	15:14-15:19	Design of new forms of electrospun nanofiber materials for tissue regeneration (#225) Jingwei Xie (University of Nebraska Medical Center, United States)
CS1-A-06	15:19-15:24	Construction of decidual tissue using endometrial cell sheets and maintenance of the tissue using a perfusion bioreactor (#578) Kenshin Wakabayashi (Waseda University, Japan)

Detailed Program for Each Session

Concurrent Session 1

October 16 (Mon) 14:15 – 15:55

CS1-B	Session Topic	Enhancing meniscus and tendon repair: Cells and Implants (#S23)
	Date	October 16 (Mon)
	Time	14:15-15:55
	Room	CKK Auditorium
	Co-Chair(s)	Joana Silva-Correia (University of Minho, Portugal) Yangzi Jiang (The Chinese University of Hong Kong, Hong Kong)

CS1-B-01	14:15-14:38 (keynote)	Natural-Based biomaterials and bioinks for biofabrication of patient-specific meniscus implants Joaquim Miguel Oliveira (University of Minho, Portugal)
CS1-B-02	14:38-14:50 (invited speaker)	Pulsed electromagnetic field enhances healing of a meniscal tear and mitigates posttraumatic osteoarthritis in a rat model Yucong Li (The Chinese University of Hong Kong, Hong Kong)
CS1-B-03	14:50-15:02 (invited speaker)	Slow walk mimetic tensile loading maintains human meniscus tissue resident progenitor cells homeostasis Yangzi Jiang (The Chinese University of Hong Kong, Hong Kong)
CS1-B-04	15:02-15:07	Towards large-to-massive tendon defect repair: Development of a tendon extracellular matrix-enriched, mechanically robust scaffold (#367) Shuting Huang (The Chinese University Of Hong Kong, Hong Kong SAR)
CS1-B-05	15:07-15:12	Autocrine COL-RECM of meniscus fibrochondrocytes promotes tissue regeneration of meniscus implants (#569) Dong Jiang (Peking University Third Hospital, China)
CS1-B-06	15:12-15:17	Discovery of muscle-tendon Progenitor Subpopulation in Human Myotendinous Junction at single-cell Resolution (#692) Ruojin Yan (Zhejiang University, China)
CS1-B-07	15:17-15:22	Growth factors and topography direct multi-tissue regeneration of muscle-tendon units for rotator cuff repair (#708) Ke Li (CUHK, Hong Kong SAR)
CS1-B-08	15:22-15:27	Biomimetic soft-to-hard interface with gradient nanostructure for bone-tendon regeneration (#761) ZI YIN (Zhejiang University, China)
CS1-B-09	15:27-15:32	Type H vessels mediated by PDGF-BB enhances the Tendon-bone healing through modulation of the coupling between angiogenesis and osteogenesis (#767) Jianting Li (Sun Yat-sen University, China)

Detailed Program for Each Session

Concurrent Session 1

October 16 (Mon) 14:15 – 15:55

CS1-C	Session Topic	Architecting 3D functional structures to enhance organ regeneration (#S03)
	Date	October 16 (Mon)
	Time	14:15-15:55
	Room	Hall 04+05
	Co-Chair(s)	Qi Gu (Institute of Zoology, Chinese Academy of Sciences, China) Yin Xiao (Griffith University, Australia)

CS1-C-01	14:15-14:38 (keynote)	Biomimetic microvascular structures through print-and-fuse MEW of poly(oxazolines) Jürgen Groll (University of Würzburg, Germany)
CS1-C-02	14:38-15:01 (keynote)	Bioprinting of patient-specific bone particles for bone tissue engineering Yin Xiao (Griffith University, Australia)
CS1-C-03	15:01-15:13 (invited speaker)	Biofabrication with biomimetic microgels and microcarriers Qi Gu (Institute of Zoology, Chinese Academy of Sciences, China)
CS1-C-04	15:13-15:25 (invited speaker)	Scaling cell production towards whole organ bioprinting Mark A. Skylar-Scott (Stanford University, USA)
CS1-C-05	15:25-15:37 (invited speaker)	Heterogeneous microenvironmental stiffness regulates pro-metastatic functions of breast cancer cells Chun Liu (Sun Yat-sen University, China)
CS1-C-06	15:37-15:42	Construction of liver sinusoid like tissue using hiPSC-derived liver sinusoidal endothelial cells (#286) Shiori Tamura (Tokyo Institute of Technology, Japan)

Detailed Program for Each Session

Concurrent Session 1

October 16 (Mon) 14:15 – 15:55

CS1-D	Session Topic	Biomimetic scaffolds for tissue repair (#507)
	Date	October 16 (Mon)
	Time	14:15-15:55
	Room	Hall 06+07
	Co-Chair(s)	Dai Fei Elmer Ker (The Chinese University of Hong Kong, Hong Kong) Evelyn Yim (University of Waterloo, Canada)
CS1-D-01	14:15-14:38 (keynote)	Biologically-inspired materials for regenerative medicine Sing Yian Chew (Nanyang Technological University, Singapore)
CS1-D-02	14:38-14:50 (invited speaker)	Nanoscale 3D printing of bioinorganic materials for tissue engineering applications Iman Roohani (University of Sydney, Australia)
CS1-D-03	14:50-15:02 (invited speaker)	Advancements in the application of tissue-derived extracellular matrix-based biomaterials for tendon regeneration Michelle Dan Wang (The Chinese University of Hong Kong, Hong Kong)
CS1-D-04	15:02-15:14 (invited speaker)	Solutions for corneal blindness using functionalised PEG-based hydrogel films Greg Dusting (University of Melbourne, Australia)
CS1-D-05	15:14-15:19	Tough-hydrogel-based tendon-mimetic niche for enhancing stem cell-mediated tendon regeneration (#365) Wanqi ZHANG (The Chinese University Of Hong Kong, Hong Kong SAR)
CS1-D-06	15:19-15:24	Biomimetic inorganic-organic hybrid nanoparticles from amorphous calcium phosphate clusters for biomedical applications (#663) Xing Zhang (Institute Of Metal Research, Chinese Academy Of Sciences, China)
CS1-D-07	15:24-15:29	Oxygenating materials for tissue regeneration and stem cell fate commitment (#821) Shabir Hassan (Khalifa University, India)

Detailed Program for Each Session

Concurrent Session 2

October 16 (Mon) 16:25 – 18:00

CS2-A	Session Topic	Biofabrication II (#505)
	Date	October 16 (Mon)
	Time	16:25-18:00
	Room	Grand Hall A & B
	Co-Chair(s)	João F. Mano (University of Aveiro, Portugal) Jui-Yang Lai (Chang Gung University, Taiwan)
CS2-A-01	16:25-16:48 (keynote)	Smart design of cell microenvironment for biofabrication Michiya Matsusaki (Osaka University, Japan)
CS2-A-02	16:48-16:53	Multipotent mesenchymal stromal cells display functional heterogeneity in their sensitivity to cAMP-Dependent hormones (#100) Pyotr Tyurin-Kuzmin (M.V. Lomonosov Moscow State University, Russian Federation)
CS2-A-03	16:53-16:58	Trachea reconstruction by mimicking spatially heterogeneous niche with immune cascade reaction (#201) Hai Tang (Shanghai Pulmonary Hospital affiliated to Tongji University, China)
CS2-A-04	16:58-17:03	Targeting lncRNA H19 by magnetic metal-organic frameworks to ameliorate abnormal subchondral bone remodeling and cartilage degradation in osteoarthritis (#230) Rongliang Wang (The Chinese University of Hong Kong, Hong Kong SAR)
CS2-A-05	17:03-17:08	Multifrequency control of faraday wave bioassembly for constructing multiscale hPSC-derived neuronal networks (#341) Pu Chen (Wuhan University, China)
CS2-A-06	17:08-17:13	Rapid vascular inosculation via neural tissue-engineered prevascularization in vivo enhances peripheral neuroregeneration (#398) Chengbin Xue (Affiliated Hospital Of Nantong University, China)
CS2-A-07	17:13-17:18	Injectable gel with nucleus pulposus-matched viscoelastic property prevents intervertebral disc degeneration (#450) Xiao Lin (Soochow University, China)
CS2-A-08	17:18-17:23	Constructing an ACL reconstruction graft containing a sleeve-shaped bone tunnel filler with chondrogenic inducibility for the enhancement of reconstructed graft-to-bone integration: An application study of novel linking-peptide to tether exosomes on a collagen scaffold (#568) Can Chen (Xiangya Hospital, Central South University, China)
CS2-A-09	17:23-17:28	Self-assembling of anisotropic nanoclay gels for drug delivery (#655) Jon Dawson (University of Southampton, United Kingdom)
CS2-A-10	17:28-17:33	Fabricating a counter-gradient of multiple soluble factors by Multiphoton Microfabrication and Micropatterning (MMM) technology for reconstituting a complex soluble cell niche in vitro (#671) Xinna Wang (The University of Hong Kong, Hong Kong SAR)
CS2-A-11	17:33-17:38	Scaffold with high curvature pores promotes segmental bone defect repair by regulating skeletal stem cells (#738) Yang Liu (Southern University of Science and Technology, China)

Detailed Program for Each Session

Concurrent Session 2

October 16 (Mon) 16:25 – 18:00

CS2-B	Session Topic	Biomaterial and cell strategies in vascular and bone tissue engineering (#535)
	Date	October 16 (Mon)
	Time	16:25-18:00
	Room	CCK Auditorium
	Co-Chair(s)	Waruna Dissanayaka (The University of Hong Kong, Hong Kong) Wei Ji (Wuhan University, China)
CS2-B-01	16:25-16:48 (keynote)	Surface modification for the interplay between angiogenesis and osteogenesis Yin Xiao (Griffith University, Australia)
CS2-B-02	16:48-17:00 (invited speaker)	Periosteum-derived stem cells repair jaw bone defect via endochondral ossification Wei Ji (Wuhan University, China)
CS2-B-03	17:00-17:12 (invited speaker)	Dental stem cells in enhancing vascularization during tissue regeneration Waruna Dissanayaka (The University of Hong Kong, Hong Kong)
CS2-B-04	17:12-17:24 (invited speaker)	From commensals to invaders: Exploring periodontal host-microbe interactions using vascularized gingival models Sriram Gopu (National University of Singapore, Singapore)
CS2-B-05	17:24-17:29	Conditional knockout of Smad7 in osteoclast precursors enhances osteoclast differentiation and leads to bone loss (#97) Sien Lin (CUHK, China)
CS2-B-06	17:29-17:34	Engineered endothelium model enables recapitulation of vascular function and foam cell development (#300) Avelino Da Costa (Korea Institute of Science And Technology, South Korea)
CS2-B-07	17:34-17:39	Interactions between the location of endothelial cells and the process of bone vascularization (#466) yunju Kang (Korea National University of Transportation, South Korea)
CS2-B-08	17:39-17:44	3D-printed NIR-responsive shape memory polyurethane/magnesium scaffolds with tight-contact for robust bone regeneration (#621) Wei Zhang (Shenzhen Institute Of Advanced Technology, Chinese Academy Of Sciences, China)

Detailed Program for Each Session

Concurrent Session 2

October 16 (Mon) 16:25 – 18:00

CS2-C	Session Topic	Constructing intricate 3D structures to enable organ regeneration (#S04)
	Date	October 16 (Mon)
	Time	16:25-18:00
	Room	Hall 04+05
	Co-Chair(s)	Qi Gu (Institute of Zoology, Chinese Academy of Sciences, China) Tim Woodfield (University of Otago, New Zealand)

CS2-C-01	16:25-16:48 (keynote)	Bioprinting of in vitro 3D cell models Wei Sun (TsingHua University, China)
CS2-C-02	16:48-17:11 (keynote)	Microgel and spheroid fusion models for biofabrication of intricate cell-instructive microenvironments Tim Woodfield (University of Otago, New Zealand)
CS2-C-03	17:11-17:23 (invited speaker)	Novel movable typing for personalized vein-chips in large scale: recapitulate patient-specific Virchow's triad and its contribution to cerebral venous sinus thrombosis Arnold Lining Ju (The University of Sydney, Australia)
CS2-C-04	17:23-17:35 (invited speaker)	The manufacture and application of Joint-on-a-Chip via 3D bioprinting Chunyi Wen (The Hong Kong Polytechnic University, Hong Kong)
CS2-C-05	17:35-17:40	The engineered brain-like constructs fabrication and its application for research models in neuroscience (#656) Yu Song (Tsinghua University, China)

Detailed Program for Each Session

Concurrent Session 2

October 16 (Mon) 16:25 – 18:00

CS2-D	Session Topic	Biomaterials and new methods for promoting bone repair and regeneration (#S28)
	Date	October 16 (Mon)
	Time	16:25-18:00
	Room	Hall 06+07
	Co-Chair(s)	Gang Li (The Chinese University of Hong Kong, Hong Kong) Min Wang (The University of Hong Kong, Hong Kong)

CS2-D-01	16:25-16:48 (keynote)	Composites and hybrids for tissue engineering Min Wang (The University of Hong Kong, Hong Kong)
CS2-D-02	16:48-17:00 (invited speaker)	Novel management of larger bone defect: combination of biomaterials and distraction osteogenesis technique Gang Li (The Chinese University of Hong Kong, Hong Kong)
CS2-D-03	17:00-17:12 (invited speaker)	Minimally invasive treatment for osteonecrosis of the femoral head with angioconductive bioceramic rod (ABR) Xiao Lu (Shanghai Bio-lu Biomaterials Co., Ltd., China)
CS2-D-04	17:12-17:17	Immediately implantable polysaccharide based in situ hydrogels for new bone formation in vitro and in vivo (#219) Sangjin Lee (The University Of Hong Kong, Hong Kong SAR)
CS2-D-05	17:17-17:22	A self-growing osteoinductive polymeric framework facilitates endogenous osteogenesis by continuously capturing calcium ions (#299) Gonggong Lu (Sichuan University, China)
CS2-D-06	17:22-17:27	3D printed pore size graded biphasic calcium phosphate scaffolds for bone tissue regeneration (#358) Yue WANG (The University Of Hong Kong, Hong Kong SAR)
CS2-D-07	17:27-17:32	Biomimetic marine sponge-derived inorganic particle-enhanced injectable hydrogels for bone tissue engineering promote bone reconstruction (#457) Sumi Choi (Dong-A University, South Korea)
CS2-D-08	17:32-17:37	In vivo study of biodegradable pure magnesium membrane-guided bone regeneration (#469) Jingxin Yang (Beijing Union University, China)
CS2-D-09	17:37-17:42	An injectable and biodegradable high-strength iron-bearing brushite cement for bone repair and vertebral augmentation applications (#645) Song Chen (Soochow University, China)
CS2-D-10	17:42-17:47	An injectable microporous scaffold assembled from bone-mimicking building blocks for bone regeneration (#709) Tao Song (Sichuan University, China)

Detailed Program for Each Session

Concurrent Session 3

October 17 (Tue) 10:35 – 12:00

CS3-A	Session Topic	3D disease models and novel therapies (#509)
	Date	October 17 (Tue)
	Time	10:35-12:00
	Room	Grand Hall A
	Co-Chair(s)	Rui L Reis (University of Minho, Portugal) Subhas Kundu (University of Minho, Portugal)
CS3-A-01	10:35-10:58 (keynote)	3D tissue-engineered cancer models for the next generation of predictive clinical tools Rui L Reis (University of Minho, Portugal)
CS3-A-02	10:58-11:21 (keynote)	Biofabrication of advanced tumor models with nanoscale resolution and single-cell spatial precision. Luiz Bertassoni (Oregon Health & Science University, USA)
CS3-A-03	11:21-11:26	Optogenetic controlled tissue-targeting adeno-associated virus combination for osteoarthritis gene therapy and prevention (#427) Wenxue TONG (the Chinese University of Hong Kong, Hong Kong SAR)
CS3-A-04	11:26-11:31	Cell sheet-based in vitro human liver model recapitulates hepatocellular ballooning (#459) Botao Gao (Institute Of Biological And Medical Engineering,Guangdong Academy Of Sciences, China)
CS3-A-05	11:31-11:36	Targeted transplantation of engineered mitochondrial compound promotes functional recovery after spinal cord injury by enhancing macrophage phagocytosis (#560) Chengjun Li (Xiangya Hospital, China)
CS3-A-06	11:36-11:41	Spheroid on-demand printing and drug screening of endothelialized hepatocellular carcinoma model at different stages (#575) Tiankun Liu (Tsinghua University, China)
CS3-A-07	11:41-11:46	3D cancer models: Challenges and opportunities for rare tumors (#717) Serena Danti (University Of Pisa, Italy)

Detailed Program for Each Session

Concurrent Session 3

October 17 (Tue) 10:35 – 12:00

CS3-B	Session Topic	Early-stage osteoarthritis management (#S20)
	Date	October 17 (Tue)
	Time	10:35-12:00
	Room	Grand Hall B
	Co-Chair(s)	Ali Mobasher (University of Oulu, Finland) Tazio Maleitcke (Charité – Universitätsmedizin Berlin, Germany)
CS3-B-01	10:35-10:53 (keynote)	Cell-based therapies for musculoskeletal conditions Tobias Winkler (Charité – Universitätsmedizin Berlin, Germany)
CS3-B-02	10:53-11:11 (keynote)	Advances in OA biomarkers - from research to regulators Ali Mobasher (University of Oulu, Finland)
CS3-B-03	11:11-11:23 (invited speaker)	PROTO: cell- and training-based interventions for OA Tazio Maleitcke (Charité – Universitätsmedizin Berlin, Germany)
CS3-B-04	11:23-11:35 (invited speaker)	OA gene therapy Christopher Evans (Mayo Clinic, USA)
CS3-B-05	11:35-11:47 (invited speaker)	Early detection and treatment of OA - how radiology is catching up Florian Fleckenstein (Charité – Universitätsmedizin Berlin, Germany)
CS3-B-06	11:47-11:52	Targeting IL-6/MMP13 axis of infrapatellar fat pad to ameliorate osteoarthritis in mice (#215) Bingyang Dai (the Chinese University of Hong Kong, Hong Kong SAR)

Detailed Program for Each Session

Concurrent Session 3

October 17 (Tue) 10:35 – 12:00

CS3-C	Session Topic	SYIS career development (#S44)
	Date	October 17 (Tue)
	Time	10:35-12:00
	Room	CKK Auditorium
	Co-Chair(s)	Zhong Alan Li (The Chinese University of Hong Kong, Hong Kong) Duanqing Pei (Westlake University, China)
CS3-C-01	10:35-10:58 (keynote)	TO BE or NOT TO BE, TO CHAT or NOT TO CHAT Rocky S. Tuan (The Chinese University of Hong Kong, Hong Kong)
CS3-C-02	10:58-11:10 (invited speaker)	Challenge and opportunity Guoping Chen (National Institute for Materials Science, Japan)
CS3-C-03	11:10-11:22 (invited speaker)	Decision of my career and research direction Akon Higuchi (National Central University, Taiwan)
CS3-C-04	11:22-11:34 (invited speaker)	Collaboration and career development in TERMIS Yin Xiao (Griffith University, Australia)

Detailed Program for Each Session

Concurrent Session 3

October 17 (Tue) 10:35 – 12:00

CS3-D	Session Topic	Publication in international journals relevant for tissues engineering and regenerative medicine (#S18)
	Date	October 17 (Tue)
	Time	10:35-12:00
	Room	Hall 04+05
	Co-Chair(s)	Ling Qin (The Chinese University of Hong Kong, Hong Kong)
CS3-D-01	10:35-10:58 (keynote)	Introduction to journal of orthopaedic translation Ling Qin (The Chinese University of Hong Kong, Hong Kong)
CS3-D-02	10:58-11:10 (invited speaker)	Introduction to journal of tissue engineering and regenerative medicine Catherine K Kuo (University of Maryland, USA)
CS3-D-03	11:10-11:22 (invited speaker)	Introduction to bioactive materials Yufeng Zheng (Peking University, China)
CS3-D-04	11:22-11:34 (invited speaker)	Introduction to regenerative biomaterials Jiandong Ding (Fudan University, China)
CS3-D-05	11:34-11:46 (invited speaker)	Introduction to engineering Nan Zhang (Chinese Academy of Engineering, China)
CS3-D-06	11:46-11:58 (invited speaker)	Introduction to stem cell research & therapy Timothy O'Brien (University of Galway, Ireland)
CS3-D-07	11:58-12:10 (invited speaker)	Introduction to biofabrication Wei Sun (Tsinghua University, China) Antigoni Messaritaki (IOP Publishing, UK)

Detailed Program for Each Session

Concurrent Session 3

October 17 (Tue) 10:35 – 12:00

CS3-E	Session Topic	Cartilage tissue engineering (#513)
	Date	October 17 (Tue)
	Time	10:35-12:00
	Room	Hall 06+07
	Co-Chair(s)	Hang Lin (University of Pittsburgh, USA) Jie Shen (Washington University, USA)
CS3-E-01	10:35-10:58 (keynote)	Cell condensation strategies for cartilage tissue engineering Eben Alsberg (University of Illinois at Chicago, USA)
CS3-E-02	10:58-11:10 (invited speaker)	Extracellular matrix-derived hydrogel : A versatile and biocompatible bio-ink platform for cartilage tissue engineering Supansa Yodmuang (Chulalongkorn University, Thailand)
CS3-E-03	11:10-11:22 (invited speaker)	Clinical application and follow-up of Autologous Chondrocyte Implantation (ACI) Weimin Zhu (Shenzhen Second People's Hospital, China)
CS3-E-04	11:22-11:27	Chondrocyte-mimicking microspheres decorated with chondrocyte-derived exosome and membrane for cartilage regeneration (#121) Hyesung Kim (Dankook University, South Korea)
CS3-E-05	11:27-11:32	A granular macroporous injectable hydrogel for promoting articular cartilage regeneration (#136) Haiyan Li (RMIT University, Australia)
CS3-E-06	11:32-11:37	Spatial lipid atlas of human cartilage reveals disease-specific lipid metabolic signatures for cartilage regeneration (#646) Yiyang Yan (Zhejiang University, China)
CS3-E-07	11:37-11:42	The circUbqln1 interacts with 14-3-3ζ to inhibit collagen synthesis and promote osteoarthritis by regulating proline metabolism (#698) Fengjin GUO (Chongqing Medical University, China)

Detailed Program for Each Session

Concurrent Session 4

October 17 (Tue) 13:45 – 15:00

CS4-A	Session Topic	Cardiovascular repair and immunomodulation (#S14)
	Date	October 17 (Tue)
	Time	13:45-15:00
	Room	Grand Hall A
	Co-Chair(s)	Joy Wolfram (The University of Queensland, Australia)

CS4-A-01	13:45-14:08 (keynote)	Innovating extracellular vesicles for cardiac repair David Greening (Baker Heart and Diabetes Institute, Australia)
CS4-A-02	14:08-14:20 (invited speaker)	Next-generation extracellular vesicle therapeutics for cardiovascular disease Joy Wolfram (The University of Queensland, Australia)
CS4-A-03	14:20-14:25	4D printed and electrospun hierarchical synthetic grafts for vasculature repair and regeneration (#395) Jizhuo CHEN (The University of Hong Kong, Hong Kong SAR)
CS4-A-04	14:25-14:30	Electrical stimulation promotes the vascularization and functionalization of an engineered biomimetic human cardiac tissue (#728) Bingchuan Lu (Tsinghua University, China)

Detailed Program for Each Session

Concurrent Session 4

October 17 (Tue) 13:45 – 15:00

CS4-B	Session Topic	New methods to promote diabetic wound healing (#S15)
	Date	October 17 (Tue)
	Time	13:45-15:00
	Room	Grand Hall B
	Co-Chair(s)	Qian Xu (Wenzhou Medical University, China) Gang Li (The Chinese University of Hong Kong, Hong Kong)
CS4-B-01	13:45-14:08 (keynote)	Tibial cortex transverse transport surgery for promoting diabetic wound healing and its mechanisms Gang Li (The Chinese University of Hong Kong, Hong Kong)
CS4-B-02	14:08-14:20 (invited speaker)	Injectable hyperbranched poly(β-amino ester) hydrogels with on-demand degradation profile to match wound healing process Qian Xu (Wenzhou Medical University, China)
CS4-B-03	14:20-14:32 (invited speaker)	PEG-based hybrid injectable hydrogel systems as stem cell delivery niche for the repair of diabetic wound healing Wenxin Wang(^Qian Xu) (Anhui University of Science and Technology, China)
CS4-B-04	14:32-14:37	Magnesium-containing dressings promote deep wound healing via activating fascia mobilization and neurovascular interaction (#233) Shunxiang XU (The Chinese University Of Hong Kong, Hong Kong SAR)
CS4-B-05	14:37-14:42	Cell-derived ECM hydrogel led to enhanced wound healing through the interactions with macrophages (#389) Cininta Savitri (Kist, South Korea)
CS4-B-06	14:42-14:47	Engineered hierarchical microdevices enable pre-programmed controlled release for postsurgical and unresectable cancer treatment (#654) Hongli Mao (Nanjing Tech University, China)

Detailed Program for Each Session

Concurrent Session 4

October 17 (Tue) 13:45 – 15:00

CS4-C	Session Topic	Artificial tissues and organs (Organ-on-a-chip) for disease models and regenerative medicine (#S16)
	Date	October 17 (Tue)
	Time	13:45-15:00
	Room	CKK Auditorium
	Co-Chair(s)	Naichen Cheng (National Taiwan University Hospital, Taiwan) Zhong Alan Li (The Chinese University of Hong Kong, Hong Kong)

CS4-C-01	13:45-14:08 (keynote)	Dynamic multicellular co-culture systems for the study of disease models and tissue regeneration Yin Xiao (Griffith University, Australia)
CS4-C-02	14:08-14:20 (invited speaker)	Continuous stem cell production with enhanced regenerative capacity in a pH-driven manner Naichen Cheng (National Taiwan University Hospital, Taiwan)
CS4-C-03	14:20-14:32 (invited speaker)	3D vessel-supported tumor model on chip for therapeutic evaluation Yaling Liu (Lehigh University, USA)
CS4-C-04	14:32-14:44 (invited speaker)	Leveraging 3D printing for next-generation organ-on-chip fabrication Louis Ong (Queensland University of Technology, Australia)
CS4-C-05	14:44-14:49	Study of paraquat-induced pulmonary fibrosis using biomimetic micro-lung chips (#324) Jingjing Xia (Tsinghua University, China)
CS4-C-06	14:49-14:54	Evaluating the impact of air pollution on voice and upper airway health using an iPSC-derived vocal fold mucosa organ-on-a-chip (#342) Nicole Li-Jessen (McGill University, Canada)

Detailed Program for Each Session

Concurrent Session 4

October 17 (Tue) 13:45 – 15:00

CS4-D	Session Topic	Progress in cell therapies for chronic non-communicable diseases (#547)
	Date	October 17 (Tue)
	Time	13:45-15:00
	Room	Hall 04+05
	Co-Chair(s)	Timothy O'Brien (University of Galway, Ireland) Sanbing Shen (University of Galway, Ireland)
CS4-D-01	13:45-14:08 (keynote)	Immune modulating cell therapies for kidney disease: Current progress and future potential Matt Griffin (University of Galway, Ireland)
CS4-D-02	14:08-14:20 (invited speaker)	MSCs as a therapy for diabetic complications: GMP cell manufacturing considerations Timothy O'Brien (University of Galway, Ireland)
CS4-D-03	14:20-14:32 (invited speaker)	iPS models for investigation of neurodegenerative disease Jun Ma (Hebei Medical University, China)
CS4-D-04	14:32-14:37	Spatial and temporal single cell multi-omic atlas of endometrial injury and regeneration (#311) Bingbing Wu (Zhejiang University, China)
CS4-D-05	14:37-14:42	Ultrathin WOx nanoribbons with high M2 macrophage induction and antibacterial abilities promote the repair of diabetic bone defects (#454) Jiechen Wang (Tongji Medical College Of Hust, China)
CS4-D-06	14:42-14:47	Single-cell and spatial analysis reveal the interaction of CXCL5+ macrophages and POSTN+ fibroblasts in tendinopathy (#720) Xiao Chen (Zhejiang University, China)

Detailed Program for Each Session

Concurrent Session 4

October 17 (Tue) 13:45 – 15:00

CS4-E	Session Topic	Biomaterials for musculoskeletal tissue engineering (#S17)
	Date	October 17 (Tue)
	Time	13:45-15:00
	Room	Hall 06+07
	Co-Chair(s)	Liming Bian (South China University of Technology, China) Michiya Matsusaki (Osaka University, Japan)

CS4-E-01	13:45-14:08 (keynote)	Biomaterials derived from human proteins for bone tissue engineering João F. Mano (University of Aveiro, Portugal)
CS4-E-02	14:08-14:31 (keynote)	Microenvironmental regulation for bone regeneration Bin Li (Soochow University, China)
CS4-E-03	14:31-14:43 (invited speaker)	Uncovering more specific activities in glycan biomaterials for tissue repair Chunming Wang (University of Macau, Macau)
CS4-E-04	14:43-14:55 (invited speaker)	Hybrid scaffolds uncover distinct roles of extracellular matrix-based cardiac fibroblast activation Jennifer Lauren Young (National University of Singapore, Singapore)
CS4-E-05	14:55-15:00	Injectable remote magnetic nanofiber/hydrogel multiscale scaffold for functional anisotropic skeletal muscle regeneration (#111) Ling Wang (Southern Medical University, China)
CS4-E-06	15:00-15:05	Multi-functional tannic acid-magnesium nanoparticles for osteoimmunomodulation and vascularization of bone defects (#251) Hyewoo Jeong (Hanyang University, South Korea)

Detailed Program for Each Session

Concurrent Session 5

October 17 (Tue) 15:20 – 16:35

CS5-A	Session Topic	Polymers and hydrogels for tissue engineering (#519)
	Date	October 17 (Tue)
	Time	15:20-16:35
	Room	Grand Hall A
	Co-Chair(s)	Yuhe Yang (The Hong Kong Polytechnic University, Hong Kong) Catherine Le Visage (Nantes Université, France)
CS5-A-01	15:20-15:43 (keynote)	Photocrosslinkable polymers for tissue engineering Xin Zhao (The Hong Kong Polytechnic University, Hong Kong)
CS5-A-02	15:43-16:06 (keynote)	Functionalization of hydrogel scaffold for tissue engineering applications Evelyn Yim (University of Waterloo, Canada)
CS5-A-03	16:06-16:18 (invited speaker)	Injectable, self-contained, subaqueously crosslinking laminous adhesives for biophysical-chemical modulation of osteochondral microenvironment Yuhe Yang (The Hong Kong Polytechnic University, Hong Kong)
CS5-A-04	16:18-16:23	Multifunctional hydrogel modulates the immune microenvironment to improve allogeneic spinal cord tissue survival for complete spinal cord injury repair (#139) He Shen (Chinese Academy Of Sciences, China)
CS5-A-05	16:23-16:28	Non-woven hydrogel scaffold loaded with quercetin for airway epithelial injury repair (#775) Lei Wang (Tongji University, China)

Detailed Program for Each Session

Concurrent Session 5

October 17 (Tue) 15:20 – 16:35

CS5-B	Session Topic	Human pluripotent and multipotent stem cells (#S10)
	Date	October 17 (Tue)
	Time	15:20-16:35
	Room	Grand Hall B
	Co-Chair(s)	Akon Higuchi (National Central University, Taiwan) Guoping Chen (National Institute for Materials Science, Japan)
CS5-B-01	15:20-15:43 (keynote)	Efficient differentiation of human pluripotent stem cells into cardiomyocytes on cell sorting thermoresponsive surface Akon Higuchi (National Central University, Taiwan)
CS5-B-02	15:43-15:55 (invited speaker)	Fabrication of functional human myocardial tissues Tatsuya Shimizu (Tokyo Women's Medical University, Japan)
CS5-B-03	15:55-16:07 (invited speaker)	Generation of universal hiPSCs and their differentiation into cardiomyocytes Tzu-Cheng Sung (Eye Hospital of Wenzhou Medical University, China)
CS5-B-04	16:07-16:19 (invited speaker)	The long-term stability of lyophilized lipid nanoparticles entrapped with mRNA and their effects for cardiomyocyte differentiation from hiPSCs Ting Wang (Wenzhou Medical University, China)
CS5-B-05	16:19-16:31 (invited speaker)	Generation of hypertrophic resistant chondrosphere by chemical cocktail from human iPSC for joint regeneration Changqing Zhang (Shanghai Jiaotong University, China)
CS5-B-06	16:31-16:36	Stem cell encapsulated adhesive protein-based complex coacervate for stem cell transplantation for cartilage reconstruction (#256) Seong-woo Maeng (POSTECH, South Korea)

Detailed Program for Each Session

Concurrent Session 5

October 17 (Tue) 15:20 – 16:35

CS5-C	Session Topic	Osteochondral tissue repair and regeneration: Bench to Clinics (#S24)
	Date	October 17 (Tue)
	Time	15:20-16:35
	Room	CCK Auditorium
	Co-Chair(s)	Chaozong Liu (University College London, United Kingdom) Gang Li (The Chinese University of Hong Kong, Hong Kong)
CS5-C-01	15:20-15:43 (keynote)	The role of osteochondral interface in cartilage repair Minghao Zheng (The University of Western Australia, Australia)
CS5-C-02	15:43-15:55 (invited speaker)	Is subchondral bone remodelling a results or a contributor to OA progression? Chaozong Liu (University College London, United Kingdom)
CS5-C-03	15:55-16:07 (invited speaker)	De-differentiated MSCs and joint distraction strategy for cartilage repair Gang Li (The Chinese University of Hong Kong, Hong Kong)
CS5-C-04	16:07-16:12	Repair of osteochondral defects with 3D printed TGF-β1 binding Peptide/GelMA composite biphasic hydrogel scaffolds (#272) Jun Chen (Huashan Hospital, Fudan University, Shanghai, China)
CS5-C-05	16:12-16:17	Stem cell-recruiting injectable microgels for repairing osteoarthritis (#471) Yiting Lei (The First Affiliated Hospital Of Chongqing Medical University, China)
CS5-C-06	16:17-16:22	Injectable, self-contained, subaqueously crosslinking laminous adhesives for biophysical-chemical modulation of osteochondral microenvironment (#570) YUHE YANG (The Hong Kong Polytechnic University, Hong Kong SAR)
CS5-C-07	16:22-16:27	Anti-inflammatory strategies promote repair of osteochondral defect in osteoarthritis (#624) Xinlun Wang (Shenzhen Institute Of Advanced Technology, Chinese Academy Of Sciences, China)

Detailed Program for Each Session

Concurrent Session 5

October 17 (Tue) 15:20 – 16:35

CS5-D	Session Topic	Cutting edge of cell manufacturing technology (#526)
	Date	October 17 (Tue)
	Time	15:20-16:35
	Room	Hall 04+05
	Co-Chair(s)	Masahiro Kino-oka (Osaka University, Japan) Chaiyong Koaykul (Chulalongkorn University, Thailand)

CS5-D-01	15:20-15:43 (keynote)	Development of culture strategies to improve differentiation stabilization of induced pluripotent stem cells Mee-Hae Kim (Osaka University, Japan)
CS5-D-02	15:43-15:55 (invited speaker)	Cell selection techniques of allogeneic mesenchymal stem/stromal cells manufacturing for clinical applications Chaiyong Koaykul (Chulalongkorn University, Thailand)
CS5-D-03	15:55-16:07 (invited speaker)	Impact of automation system in culture of retinal pigmented epithelial cells derived from human iPSCs on the quality stability Masahiro Kino-oka (Osaka University, Japan)
CS5-D-04	16:07-16:12	Elimination of senescent BMSCs promotes bone formation and regeneration in the elderly (#162) Li Liao (West China Hospital of Stomatology, Sichuan University, China)
CS5-D-05	16:12-16:17	Assessing biomaterial-induced stem cell lineage fate by machine learning-based artificial intelligence (#232) Yingying Zhou (Peking University School And Hospital Of Stomatology, China)
CS5-D-06	16:17-16:22	Morphological analysis of senescent cells for label-free monitoring in mesenchymal stem cells (#531) KENJIRO TANAKA (Nagoya University, Japan)
CS5-D-07	16:22-16:27	A nanoworm-based gene delivery vehicle for stromal cell-based therapy (#609) Yu Xiao (The Chinese University of Hong Kong, Hong Kong SAR)
CS5-D-08	16:27-16:32	Intrinsic differences between human mesenchymal stromal cells and iPSC-derived multipotent cells in generating cartilage tissue (#647) Shiqi Xiang (Central South University, China)

Detailed Program for Each Session

Concurrent Session 5

October 17 (Tue) 15:20 – 16:35

CS5-E	Session Topic	Additive manufacturing in tissue engineering (#522)
	Date	October 17 (Tue)
	Time	15:20-16:35
	Room	Hall 06+07
	Co-Chair(s)	Joaquim Miguel Oliveira (University of Minho, Portugal) Min Wang (The University of Hong Kong, Hong Kong)
CS5-E-01	15:20-15:43 (keynote)	3D/4D printing in tissue engineering Min Wang (The University of Hong Kong, Hong Kong)
CS5-E-02	15:43-15:55 (invited speaker)	The role of biomaterials in the biodesign and biofabrication of in vitro 3D models Joaquim Miguel Oliveira (University of Minho, Portugal)
CS5-E-03	15:55-16:07 (invited speaker)	Fast construction of vascularized colorectal organoid model for drug screening via 3D printing Leping Yan (Sun Yat-sen University, China)
CS5-E-04	16:07-16:12	Graphene oxide-modified conductive hydrogels for 3D bioprinting for neural tissue engineering (#468) Jiahui Lai (The University of Hong Kong, Hong Kong SAR)
CS5-E-05	16:12-16:17	DLP fabricating of precision hierarchical porous composite scaffold for bone tissue engineering application (#522) Ping Song (Sichuan University, China)
CS5-E-06	16:17-16:22	Evolution from bioinert to bioresorbable: In vivo comparative study of additively manufactured metallic bone scaffolds (#551) Donghui Zhu (Stony Brook University, United States)
CS5-E-07	16:22-16:27	Multiscale design of 3D hydrogel bioink with ROS scavenging and retina tissue regeneration (#625) Jiashing Yu (National Taiwan University, Taiwan)

Detailed Program for Each Session

Concurrent Session 6

October 17 (Tue) 16:50 – 18:05

CS6-A	Session Topic	Manufacturing and clinical translation of MSCs and EVs for regenerative medicine (#S21)
	Date	October 17 (Tue)
	Time	16:50-18:05
	Room	Grand Hall A
	Co-Chair(s)	Andreas Traweger (Paracelsus Medical University, Austria) Yohei Hayashi (RIKEN BioResource Research Center, Japan)

CS6-A-01	16:50-17:13 (keynote)	Manufacturing and clinical translation of Naïve, MSC-derived sEVs for regenerative medicine Andreas Traweger (Paracelsus Medical University, Austria)
CS6-A-02	17:13-17:36 (keynote)	Applying principles of tissue engineering to the treatment of early-stage Osteonecrosis of the Femoral Head (ONFH): Preclinical translational studies Stuart B Goodman (Stanford University, USA)
CS6-A-03	17:36-17:48 (invited speaker)	Directing iPS cell differentiation using CRISPR activation and biomaterial Raymond Wong (The University of Melbourne, Australia)
CS6-A-04	17:48-18:00 (invited speaker)	Development of next-generation reprogramming technologies for regenerative medicine Yohei Hayashi (RIKEN BioResource Research Center, Japan)
CS6-A-05	18:00-18:05	HUVEC-Derived exosomes containing miR-503-5p for osteoporosis therapy (#93) Zhiwen Luo (Huashan Hospital, Fudan University, China)
CS6-A-06	18:05-18:10	Systemic administration of high mobility group box 1 fragment improves cardiac functions by activating a tissue healing pathway of bone-marrow mesenchymal stem cell in a porcine ischemic cardiomyopathy model (#240) Yoshito Ito (Osaka University Graduate School Of Medicine, Japan)

Detailed Program for Each Session

Concurrent Session 6

October 17 (Tue) 16:50 – 18:05

CS6-B	Session Topic	Oral biomaterials and tissue regeneration (#525)
	Date	October 17 (Tue)
	Time	16:50-18:05
	Room	Grand Hall B
	Co-Chair(s)	Xuliang Deng (Peking University School and Hospital of Stomatology, China) Yan Wei (Peking University School and Hospital of Stomatology, China)
CS6-B-01	16:50-17:13 (keynote)	Ultrathin WOx nanoribbons with high M2 macrophage induction and antibacterial abilities promote the repair of diabetic bone defects Lili Chen (Huazhong University of Science and Technology, China)
CS6-B-02	17:13-17:25 (invited speaker)	The ionic-transportation mechanism of dentin hypersensitivity Yan Wei (Peking University, China)
CS6-B-03	17:25-17:37 (invited speaker)	Electroactive biomaterials regulating bone regeneration Xuehui Zhang (Peking University, China)
CS6-B-04	17:37-17:42	Study on biodegradable metals for the biomedical application in dentistry (#417) Yufeng Zheng (Peking University, China)
CS6-B-05	17:42-17:47	MiR-181b inhibitor enhanced the reparatory effect of E11 via ECM remodeling in dental pulp (#474) Tianqian Hui (Peking University, China)

Detailed Program for Each Session

Concurrent Session 6

October 17 (Tue) 16:50 – 18:05

CS6-C	Session Topic	Exosomes and nanoparticles for tissue engineering and regeneration (#S01)
	Date	October 17 (Tue)
	Time	16:50-18:05
	Room	CKK Auditorium
	Co-Chair(s)	Chia-ching Josh Wu (National Cheng Kung University, Taiwan) Jiao Jiao Li (University of Technology Sydney, Australia)
CS6-C-01	16:50-17:13 (keynote)	Translating MSC exosomes into therapeutics for musculoskeletal disorders Wei Seong Toh (National University of Singapore, Singapore)
CS6-C-02	17:13-17:25 (invited speaker)	Characterization of inflammatory exosome by deep learning Chia-ching Josh Wu (National Cheng Kung University, Taiwan)
CS6-C-03	17:25-17:30	Effect of secretome loaded carrageenan-gelatin hydrogel on functionalization of airway epithelium in vitro model (#220) Yogeswaran Lokanathan (National University Of Malaysia, Malaysia)
CS6-C-04	17:30-17:35	Stem cell-derived exosomes regulate endogenous neural stem cells and delivery drug to promote nerve regeneration (#262) Yanyan Chen (Suzhou Institute Of Nano-tech And Nano-bionics, Chinese Academy Of Sciences, China)
CS6-C-05	17:35-17:40	Exosomes derived from CD271+CD56+ bone marrow mesenchymal stem cell subpopulation identified by single-cell RNA sequencing promote axon regeneration after spinal cord injury (#555) Yi Sun (Xiangya Hospital Central South University, China)
CS6-C-06	17:40-17:45	Exosomal miR-34a-5p derived from EGFR-positive neural stem cells promoted neurite regrowth and functional recovery after spinal cord injury by targeting HDAC6 (#558) Chengjun Li (Xiangya Hospital, China)
CS6-C-07	17:45-17:50	Targeted delivery of RGD-CD146+CD271+ human umbilical cord mesenchymal stem cell-derived exosomes promotes blood spinal cord barrier repair after spinal cord injury (#559) Yi Sun (Xiangya Hospital Central South University, China)

Detailed Program for Each Session

Concurrent Session 6

October 17 (Tue) 16:50 – 18:05

CS6-D	Session Topic	Cutting-edge technologies to enable stable stem cell culture (#S27)
	Date	October 17 (Tue)
	Time	16:50-18:05
	Room	Hall 04+05
	Co-Chair(s)	Ryuji Kato (Nagoya University, Japan) Hon Fai Chan (The Chinese University of Hong Kong, Hong Kong)

CS6-D-01	16:50-17:13 (keynote)	Multiphoton microfabrication and micropatterning technology for stem cell niche engineering Barbara P. Chan (The Chinese University of Hong Kong, Hong Kong)
CS6-D-02	17:13-17:36 (keynote)	Application of glycotchnology to tissue engineering and regenerative medicine Hiroaki Tateno (National Institute of Advanced Industrial Science and Technology, Japan)
CS6-D-03	17:36-17:59 (keynote)	Biocompatible flexible electronics for sensing and therapy Xingyu Jiang (Southern University of Science and Technology, China)

Detailed Program for Each Session

Concurrent Session 6

October 17 (Tue) 16:50 – 18:05

CS6-E	Session Topic	Potential of organ-on-a-chip in drug development (#S08)
	Date	October 17 (Tue)
	Time	16:50-18:05
	Room	Hall 06+07
	Co-Chair(s)	Hang Lin (University of Pittsburgh, USA) Michelle Dan Wang (The Chinese University of Hong Kong, Hong Kong)
CS6-E-01	16:50-17:13 (keynote)	Human tendon-on-a-chip for modeling vascular inflammatory fibrosis Hani Awad (University of Rochester, USA)
CS6-E-02	17:13-17:25 (invited speaker)	Potential of microphysiological system in simulating osteoarthritis and associated neuron firing Hang Lin (University of Pittsburgh, USA)
CS6-E-03	17:25-17:37 (invited speaker)	Creating an organ-on-chip system for modeling and monitoring of inflammatory reactions in lung Zaozao Chen (Southeast University, China)
CS6-E-04	17:37-17:42	Investigating the effects of a cytokine storm in a micro-physiological system of the microvasculature. (#127) Wing Tung Christy Wong (The Chinese University Of Hong Kong, Hong Kong SAR)
CS6-E-05	17:42-17:47	Microfluidic organ-on-a-chips System to Investigate Outer blood-retina Barrier Using iPSC Derived RPE and Endothelial Cells (#276) Tea Soon Park (National Institutes of Health, United States)
CS6-E-06	17:47-17:52	Multiscaled anisotropic heart-on-a-chip for drug-induced cardiotoxicity evaluation (#393) Si Tian LIU (Southern Medical University, China)

Detailed Program for Each Session

Concurrent Session 7

October 18 (Wed) 10:15 – 12:00

CS7-A	Session Topic	Strategy to promote musculoskeletal tissue regeneration (#529)
	Date	October 18 (Wed)
	Time	10:15-12:00
	Room	Grand Hall A
	Co-Chair(s)	Gang Li (The Chinese University of Hong Kong, Hong Kong) Tunku Kamarul Zaman (University of Malaya, Malaysia)
CS7-A-01	10:15-10:38 (keynote)	“All for One” strategy to promote musculoskeletal tissue regeneration Hongwei Ouyang (Zhejiang University, China)
CS7-A-02	10:38-10:50 (invited speaker)	Reactive oxygen species (ROS)-regulating hydrogels for tissue repair Fengxuan Han (Suzhou University School of Medicine, China)
CS7-A-03	10:50-11:02 (invited speaker)	Mesenchymal stem cell secretome as multifunctional therapy in diabetic skin healing Bin Wang (Great bay area institute of precision medicine, China)
CS7-A-04	11:02-11:14 (invited speaker)	Cartilage repair by mesenchymal stem cells Tunku Kamarul Zaman (University of Malaya, Malaysia)
CS7-A-05	11:14-11:26 (invited speaker)	Shed the "wild" light on advancing biomedical research--application of wild mice for preclinical study Xiang Gao (GemPharmatech Co., Ltd., China)
CS7-A-06	11:26-11:31	Bone transport over an osteoinductive intramedullary implant fabricated by a hybrid tissue engineering construct (HyTEC) technique: evidence from small to large animal (#119) Sien Lin (The Chinese University of Hong Kong, Hong Kong SAR)
CS7-A-07	11:31-11:36	Animal study of patch bridging reconstruction of rotator cuff tears (#275) Jun Chen (Huashan Hospital, Fudan University, Shanghai, China)
CS7-A-08	11:36-11:41	Pilot clinical trial investigating the effectiveness of bioinductive scaffold augmentation during the repair of acute Achilles tendon ruptures with pre-existing tendinopathy (#590) Samuel Ling (CUHK, Hong Kong SAR)
CS7-A-09	11:41-11:46	A randomised controlled trial to investigate early results of pulsed electromagnetic field therapy in Achilles Tendinopathy (#612) Violet Man-Chi Ko (The Chinese University Of Hong Kong, Hong Kong SAR)

Detailed Program for Each Session

Concurrent Session 7

October 18 (Wed) 10:15 – 12:00

CS7-B	Session Topic	Biofabrication platforms for musculoskeletal regenerative medicine and disease modelling (#530)
	Date	October 18 (Wed)
	Time	10:15-12:00
	Room	Grand Hall B
	Co-Chair(s)	Xuebin Yang (University of Leeds, United Kingdom) Tim Woodfield (University of Otago Christchurch, NewZealand)

CS7-B-01	10:15-10:38 (keynote)	Biofabrication platforms for musculoskeletal regenerative medicine and disease modelling Tim Woodfield (University of Otago Christchurch, NewZealand)
CS7-B-02	10:38-11:01 (keynote)	3D printed scaffolds for bone tissue engineering in vitro and in vivo Xuebin Yang (University of Leeds, United Kingdom)
CS7-B-03	11:01-11:13 (invited speaker)	Engineering the next generation of electro-active scaffolds for bone tissue engineering Weiguang Wang (University of Manchester, United Kingdom)
CS7-B-04	11:13-11:25 (invited speaker)	Targeting the hypoxic microenvironment to enhance articular cartilage regeneration Chao Wan (The Chinese University of Hong Kong, Hong Kong)
CS7-B-05	11:25-11:30	Filamented Light (FLight) biofabrication of centimeter-scale muscle tissue constructs using Pax7-nGFP primary myoblasts (#106) Hao Liu (ETH Zurich, Switzerland)
CS7-B-06	11:30-11:35	A fluorescent turn-on collagen hybridizing peptide probe for dynamic monitoring of collagen damage (#268) Xiaojing Li (The Fifth Affiliated Hospital, Sun Yat-sen University, China)
CS7-B-07	11:35-11:40	Application of a 3D-printed hybrid fixation system to primary TKA in osteoporosis patients: A multi-center, randomized-controlled Trial (#703) Xiaobo Zhu (The First Affiliated Hospital Of Zhejiang University, China)
CS7-B-08	11:40-11:45	Primary repair for femoral-side anterior cruciate ligament tears: A preclinical murine model (#746) Xueying Zhang (Shanghai Sixth People's Hospital Affiliated to Shanghai Jiao Tong University School of Medicine, China)
CS7-B-09	11:45-11:50	Magnesium facilitates the consolidation of distraction osteogenesis: A innovative strategy for enhancing the repair of large segmental bone defect (#772) Ye Li (The Hong Kong Polytechnic University, Hong Kong SAR)

Detailed Program for Each Session

Concurrent Session 7

October 18 (Wed) 10:15 – 12:00

CS7-C	Session Topic	Mechanotransduction at the nanoscale and nanomaterial for cell engineering (#S31)
	Date	October 18 (Wed)
	Time	10:15-12:00
	Room	CKK Auditorium
	Co-Chair(s)	Evelyn Yim (University of Waterloo, Canada) Iman Roohani (The University of Sydney, Australia)
CS7-C-01	10:15-10:38 (keynote)	Dissecting integrin-mediated mechanotransduction at the nanoscale Pakorn (Tony) Kanchanawong (National University of Singapore, Singapore)
CS7-C-02	10:38-10:50 (invited speaker)	MXene nanomaterials to prevent rejection of transplanted stem cells and organs Sanjiv Dhingra (University Of Manitoba, Canada)
CS7-C-03	10:50-11:02 (invited speaker)	Nanosurfacing of biomaterials for enhanced biological performance Guocheng Wang (Shenzhen Institute of Advanced Technology, China)
CS7-C-04	11:02-11:14 (invited speaker)	Genetically engineered exosomes for cardiac regeneration and repair Prasanna Krishnamurthy (University of Alabama, USA)
CS7-C-05	11:14-11:19	A scalable and accessible method to achieve rapid, spontaneous, and biomimetic alignment of smooth muscle cells and endothelial cells in tissue engineered vascular grafts (#199) Daniel Heath (University of Melbourne, Australia)
CS7-C-06	11:19-11:24	Electrical charge on ferroelectric nanocomposite membranes enhances SHED neural differentiation (#214) Boon Chin Heng (School and Hospital of Stomatology, Peking University, China)
CS7-C-07	11:24-11:29	Development of freeze-dried lipid nanoparticles entrapped mRNA for long term storage under mild condition (#545) Tao Yu (Wenzhou Medical University, China)
CS7-C-08	11:29-11:34	Utilizing single-walled carbon nanotubes for the topical delivery of tyrosinase: A novel approach to mitigate photo-induced skin damage (#587) Junghyeon Ko (Seoul National University, South Korea)
CS7-C-09	11:34-11:39	Dynamic nanobiomaterials for regulating stem cell fates (#682) Siu Hong WONG (The Hong Kong Polytechnic University, Hong Kong SAR)
CS7-C-10	11:39-11:43	Mechanically conditioned multilayered angle-ply collagen scaffolds promote annulus fibrosus regeneration (#701) Weidong Zhang (Affiliated Hospital of Nantong University, China)

Detailed Program for Each Session

Concurrent Session 7

October 18 (Wed) 10:15 – 12:00

CS7-D	Session Topic	Biomimetic processing of functional materials for tissue regeneration (#532)
	Date	October 18 (Wed)
	Time	10:15-12:00
	Room	Hall 04+05
	Co-Chair(s)	Chang Du (South China University of Technology, China) Mh Busra Fauzi (National University of Malaysia, Malaysia)

CS7-D-01	10:15-10:38 (keynote)	Biomimetic calcium phosphate bone substitute as a carrier for bone growth factor and anti-cancer drug Maria Yuelian Liu (University of Amsterdam, Netherlands)
CS7-D-02	10:38-11:01 (keynote)	Biomimetic strategies towards seamless neural electrode tissue interface for neural prosthesis and tissue regeneration Xinyan Tracy Cui (University of Pittsburgh, USA)
CS7-D-03	11:01-11:13 (invited speaker)	Biomimetic composites with hierarchical structure for tissue regeneration Chang Du (South China University of Technology, China)
CS7-D-04	11:13-11:25 (invited speaker)	Rapid treatment of diabetic mice wound using Ovine Collagen Type-I (OTC-I) biomatrix integrated with plasma polymerised antibacterial coating Mh Busra Fauzi (National University of Malaysia, Malaysia)
CS7-D-05	11:25-11:37 (invited speaker)	Keratin based hydrogels for tissue engineering: Development and functionalities Ng Kee Woei (Nanyang Technological University, Singapore)
CS7-D-06	11:37-11:42	Injectable photocurable Janus hydrogel for postoperative anti-adhesions after minimally invasive surgery (#112) Yaobin Wu (Southern Medical University, China)

Detailed Program for Each Session

Concurrent Session 7

October 18 (Wed) 10:15 – 12:00

CS7-E	Session Topic	Repair and regeneration of eye tissues (#533)
	Date	October 18 (Wed)
	Time	10:15-12:00
	Room	Hall 06+07
	Co-Chair(s)	Shengli Mi (Tsinghua University, China) Tea Soon Park (National Eye Institute, NIH Institutes, USA)
CS7-E-01	10:15-10:38 (keynote)	3D-Bioprinted vascularized eye tissue provides a patient-specific model to test therapies for inherited and age related macular degenerations Ruchi Sharma (National Eye Institute, NIH Institutes, USA)
CS7-E-02	10:38-10:50 (invited speaker)	Biomimetic 3D ECM hydrogel co culture model for investigations of TrabecularMeshwork-Schlemm's canal cell interactions Samuel Herberg (SUNY Upstate Medical University, USA)
CS7-E-03	10:50-11:02 (invited speaker)	Tissue engineering in corneal endothelium Yun Feng (Peking University, China)
CS7-E-04	11:02-11:14 (invited speaker)	Degradable suture-free tissue scaffold implantation to reinforce the posterior sclera: a potential novel treatment for pathological myopia Ningxin Dou (Shenzhen eye hospital, China)
CS7-E-05	11:14-11:19	A sustainable corneal tissue engineering platform at the interface of artificial intelligence and slaughterhouse waste (#179) Peter Corridon (Khalifa University, United Arab Emirates)
CS7-E-06	11:19-11:24	Differentiation of RPE cells from human pluripotent stem cells in Xeno-free conditions (#249) Zeyu Tian (Wenzhou Medical University, China)
CS7-E-07	11:24-11:29	Viscoll collagen membrane for regeneration of cornea: A comprehensive in vivo study (#440) Egor Osidak (Imtek Ltd., Russian Federation)
CS7-E-08	11:29-11:34	Immunological aspect of xeno-RPE sheet transplantation in a non-human primate rejection model (#441) Zengping Liu (National University of Singapore, Singapore)
CS7-E-09	11:34-11:39	Effects of the differentiation state of cultivated corneal stromal keratocytes on corneal opacity resolution (#458) Andri Riau (Singapore Eye Research Institute, Singapore)
CS7-E-10	11:39-11:44	Human pluripotent stem cell culture and differentiation into retinal pigment epithelium on Poly(vinyl alcohol-co-itaconic acid) hydrogels grafted with several designed peptides (#546) Jun Liu (Wenzhou Medical University, China)

Detailed Program for Each Session

Concurrent Session 8

October 18 (Wed) 13:45 – 15:00

CS8-A	Session Topic	Trends in cancer modeling and treatments (#548)
	Date	October 18 (Wed)
	Time	13:45-15:00
	Room	Grand Hall A
	Co-Chair(s)	Rui L Reis (University of Minho, Portugal) Subhas Kundu (University of Minho, Portugal)

CS8-A-01	13:45-14:08 (keynote)	Oral nanomotors for the robust treatment of colorectal cancer Bo Xiao (Southwest University, China)
CS8-A-02	14:08-14:13	Supramolecular nitric oxide depot for hypoxic tumor vessel normalization and radiosensitization (#308) Jie Gao (Nankai University, China)
CS8-A-03	14:13-14:18	Denatured collagen-targeted PET radiotracer for early detection of pancreatic cancer (#335) Yinghua Liu (Sun Yat-sen University, China)

Detailed Program for Each Session

Concurrent Session 8

October 18 (Wed) 13:45 – 15:00

CS8-B	Session Topic	Stem cell, extracellular vesicles, and secretome in regenerative medicine (#502)
	Date	October 18 (Wed)
	Time	13:45-15:00
	Room	Grand Hall B
	Co-Chair(s)	Jiao Jiao Li (University of Technology Sydney, Australia) Haiyan Li (RMIT University, Australia)
CS8-B-01	13:45-14:08 (keynote)	Harnessing tissue-derived extracellular vesicles for osteoarthritis theranostics Chunyi Wen (The Hong Kong Polytechnic University, Hong Kong)
CS8-B-02	14:08-14:20 (invited speaker)	Regulating the behaviour of MSC-EVs with different strategies for regenerative therapy Haiyan Li (RMIT University, Australia)
CS8-B-03	14:20-14:32 (invited speaker)	Harnessing extracellular vesicle functionality by modulating the stem cell culture environment Jiao Jiao Li (University of Technology Sydney, Australia)
CS8-B-04	14:32-14:44 (invited speaker)	Improving ex vivo cartilage kinematic models Martin Stoddart (AO Research Institute Davos (ARI), Switzerland)
CS8-B-05	14:44-14:49	Increased extracellular vesicles release of transplanted neural stem cell via HIF-1α/Rab17 pathway enhances neurofunctional recovery of spinal cord injury (#556) Chengjun Li (Xiangya Hospital, China)
CS8-B-06	14:49-14:54	Targeting and selecting high cytokine-secreting cells for regenerative medicine (#787) Guozhen Liu (The Chinese University of Hong Kong, Shenzhen, China)

Detailed Program for Each Session

Concurrent Session 8

October 18 (Wed) 13:45 – 15:00

CS8-C	Session Topic	Extracellular matrix materials for tissue engineering: From Research to Product (#S36)
	Date	October 18 (Wed)
	Time	13:45-15:00
	Room	CKK Auditorium
	Co-Chair(s)	Huiqi Xie (Sichuan University, China)
CS8-C-01	13:45-14:08 (keynote)	Clinical-oriented extracellular matrix materials for tissue engineering: from translational research to product Huiqi Xie (Sichuan University, China)
CS8-C-02	14:08-14:20 (invited speaker)	Silk biomaterial solutions for joint tissue engineering Juan Guan (Beihang University, China)
CS8-C-03	14:20-14:32 (invited speaker)	Pathological microenvironment-modulating biomaterials for tissue regeneration Wei Tang (Shenzhen Institutes of Advanced Technology, China)
CS8-C-04	14:32-14:44 (invited speaker)	A mechanical-assisted post-bioprinting strategy for challenging bone defects repair Changshun Ruan (Shenzhen Institutes of Advanced Technology, China)
CS8-C-05	14:44-14:56 (invited speaker)	Sound-based assembly of three-dimensional cellularized and acellularized constructs Mauro Alini (AO Research Institute Davos, Switzerland)

Detailed Program for Each Session

Concurrent Session 8

October 18 (Wed) 13:45 – 15:00

CS8-D	Session Topic	Biomechanics and mechanobiology in regenerative medicine (#541)
	Date	October 18 (Wed)
	Time	13:45-15:00
	Room	Hall 04+05
	Co-Chair(s)	Chao Liu (Southern University of Science and Technology, China) Lizhen Wang (Beihang University, China)
CS8-D-01	13:45-14:08 (keynote)	Innovative design of intelligent implant materials and device Lizhen Wang (Beihang University, China)
CS8-D-02	14:08-14:31 (keynote)	Mechanobiological regulation of angiogenesis-osteogenesis coupling for the enhancement of bone regeneration Chao Liu (Southern University of Science and Technology, China)
CS8-D-03	14:31-14:43 (invited speaker)	Engineering collagen scaffold with improved biomechanics for corneal regeneration Qiongyu Guo (Southern University of Science and Technology, China)
CS8-D-04	14:43-14:55 (invited speaker)	Functions of mechanosensing proteins in health and disease Mingxi Yao (Southern University of Science and Technology, China)
CS8-D-05	14:55-15:00	Biomaterial topography regulates stem cell fate through controlling force mediated chromatin accessibility (#318) Wenyan Zhou (Zhejiang University, China)

Detailed Program for Each Session

Concurrent Session 8

October 18 (Wed) 13:45 – 15:00

CS8-E	Session Topic	GMP-Compatible bioprocesses for cell therapy manufacturing (#538)
	Date	October 18 (Wed)
	Time	13:45-15:00
	Room	Hall 06+07
	Co-Chair(s)	Simon Cool (University of Queensland, Australia) Wayne Yuk-wai Lee (The Chinese University of Hong Kong, Hong Kong)
CS8-E-01	13:45-14:08 (keynote)	Local regulation on advanced therapy products Kevin Chi-hang Lam (The Government of the Hong Kong Special Administrative Region, Hong Kong)
CS8-E-02	14:08-14:20 (invited speaker)	Bioprocessing solutions using glycosaminoglycans for scaling mesenchymal stromal cells Simon Cool (University of Queensland, Australia)
CS8-E-03	14:20-14:32 (invited speaker)	Lessons learned from ATP GMP manufacturing, a perspective from a basic researcher Wayne Yuk-wai Lee (The Chinese University of Hong Kong, Hong Kong)
CS8-E-04	14:32-14:37	A plasma-based, rapid, stable, and reagent-free method to create bioinstructive surfaces inside porous scaffolds (#284) Anyu Zhang (University Of Sydney, Australia)
CS8-E-05	14:37-14:42	Label-free single cell impedance analysis of iPSC-derived spinal cord progenitor cells for rapid profiling of safety and efficacy phenotypes (#547) Jerome Tan (NTU, Singapore)
CS8-E-06	14:42-14:47	Human iPSC cell-derived astrocytes and oligodendrocytes for JC polyomavirus infection and replication (#707) YOH-ICHI TAGAWA (Tokyo Institute of Technology, Japan)
CS8-E-07	14:47-14:52	Industrialization of progenitor cellular therapies in modern musculoskeletal plastic surgery (#786) Lee Laurent-applegate (Lausanne University Hospital, Switzerland)

Detailed Program for Each Session

Concurrent Session 9

October 18 (Wed) 15:20 – 16:35

CS9-A	Session Topic	Smart biomaterials and smart delivery of growth factors for tissue regeneration (#S39)
	Date	October 18 (Wed)
	Time	15:20-16:35
	Room	Grand Hall A
	Co-Chair(s)	Sien Lin (The Chinese University of Hong Kong, Hong Kong) Yin Xiao (Griffith University, Australia)

CS9-A-01	15:20-15:43 (keynote)	Manipulation of hematoma for growth factor release in bone regeneration Yin Xiao (Griffith University, Australia)
CS9-A-02	15:43-15:55 (invited speaker)	Smart regeneration of maxillofacial bone tissue using rapidly guided bone regeneration (rGBR) YoungBum Park (Yonsei University, South Korea)
CS9-A-03	15:55-16:07 (invited speaker)	Osteochondral repair using platelet-rich fibrin in rabbits Masahiro Maruyama (Yamagata University, Japan)
CS9-A-04	16:07-16:19 (invited speaker)	Enhancing bone formation with a novel concept of guided bone regeneration Jae-han Park (Yonsei University, South Korea)
CS9-A-05	16:19-16:24	Cell-adaptable hydrogel promotes peripheral nerve repair by supporting endogenous cell infiltration and regulating macrophage polarization (#666) Kunyu Zhang (South China University Of Technology, China)

Detailed Program for Each Session

Concurrent Session 9

October 18 (Wed) 15:20 – 16:35

CS9-B	Session Topic	Modular tissue engineering, bottom up and injectable strategies, on the way to translation (#540)
	Date	October 18 (Wed)
	Time	15:20-16:35
	Room	Grand Hall B
	Co-Chair(s)	Aleksandr Ovsianikov (TU Wien, Austria) Chew Sing Yian (Nanyang Technological University, Singapore)

CS9-B-01	15:20-15:43 (keynote)	Development of injectable microgels for cell encapsulation and joint regeneration Catherine Le Visage (Nantes Université, France)
CS9-B-02	15:43-15:55 (invited speaker)	Biofabrication of hybrid micro-structures for bottom-up tissue engineering João F. Mano (University of Aveiro, Portugal)
CS9-B-03	15:55-16:07 (invited speaker)	Scaffolded spheroids – a new strategy in tissue engineering enabled by high-resolution 3D printing Aleksandr Ovsianikov (TU Wien, Austria)
CS9-B-04	16:07-16:12	A generalizable design strategy of cell-laden microgel-based biphasic bioink with hyperelasticity and heterogeneous microenvironment for biomedical applications (#187) Yongcong Fang (Tsinghua University, China)
CS9-B-05	16:12-16:17	Design and validation of performance-oriented injectable chitosan thermosensitive hydrogels for endoscopic submucosal dissection (#254) Panxianzhi Ni (Sichuan University, China)
CS9-B-06	16:17-16:22	Research and development of a novel biodegradable Mg interference screw for ACL reconstruction (#721) Ying Luo (Sun Yat-sen University, China)

Detailed Program for Each Session

Concurrent Session 9

October 18 (Wed) 15:20 – 16:35

CS9-C	Session Topic	Silk biomaterials for sustainable biomedical applications (#S37)
	Date	October 18 (Wed)
	Time	15:20-16:35
	Room	CKK Auditorium
	Co-Chair(s)	Rui L Reis (University of Minho, Portugal) Bo Xiao (Southwest University, China)

CS9-C-01	15:20-15:43 (keynote)	Natural silk biomaterials for sustainable biomedical engineering Subhas Kundu (University of Minho, Portugal)
CS9-C-02	15:43-15:55 (invited speaker)	Silk microneedle platforms for transdermal drug delivery Shenzhou Lu (Soochow University, China)
CS9-C-03	15:55-16:07 (invited speaker)	Introducing Thai silk fibroin as a high-grade biomaterial for healthcare applications: ISO 13485 (Medical Devices) Sorada Kanokpanont (Chulalongkorn University, Thailand)
CS9-C-04	16:07-16:19 (invited speaker)	Silk-based cartilage enhanced by dynamic mechanical stimulations Yaopeng Zhang (Donghua University, China)
CS9-C-05	16:19-16:24	Recombinant spider silk for cardiovascular applications: biodegradable, drug eluting, and endothelial cell-specific materials (#195) Daniel Heath (University of Melbourne, Australia)
CS9-C-06	16:24-16:29	An interference screw made using a silk fibroin-based bulk material with high content of hydroxyapatite for anterior cruciate ligament reconstruction in a rabbit model (#197) Wenbo Chen (Huashan Hospital Of Fudan University, China)

Detailed Program for Each Session

Concurrent Session 9

October 18 (Wed) 15:20 – 16:35

CS9-D	Session Topic	Construction of complex organoids (#S42)
	Date	October 18 (Wed)
	Time	15:20-16:35
	Room	Hall 04+05
	Co-Chair(s)	Yuxiao Lai (Shenzhen Institutes of Advanced Technology, China) Zhuo Xiong (Tsinghua University, China)

CS9-D-01	15:20-15:43 (keynote)	Organ-on-a-chip Zhongze Gu (Southeast University, China)
CS9-D-02	15:43-15:55 (invited speaker)	The function and mechanism of inorganic nanosheets in regulating stem cell fate and repairing neural injury Rongrong Zhu (Tongji University, China)
CS9-D-03	15:55-16:07 (invited speaker)	Expanding embedded 3D bioprinting capability for engineering complex organs with freeform vascular networks Zhuo Xiong (Tsinghua University, China)
CS9-D-04	16:07-16:12	Global transcriptome profiling of mechanoresponsive 3D bioprinted bone organoids (#156) Amit Singh (ETH Zurich, Switzerland)
CS9-D-05	16:12-16:17	Fabrication of 3D vascularized fat tissue using co-culture spheroid-laden 3D PCL scaffold with GelMA hydrogel (#255) Sangmin Lee (Hanyang University, South Korea)
CS9-D-06	16:17-16:22	Near-field acoustic bioassembly of human cortical microtissues from hiPSC-derived neural progenitors and neurons (#352) Jibo Wang (Wuhan University TaiKang Medical School, China)
CS9-D-07	16:22-16:27	Functionalization, 3D bio-printing and use of stem cell-laden bio-based photo-clickable hydrogels for spinal cord injury treatment (#373) Vaibavi Srirangam Ramanujam (Nanyang Technological University/cnrs@create, Singapore)
CS9-D-08	16:27-16:32	Coadministration of hyaluronic acid-modified liposomes with hydrogel microneedles enhances the efficacy of Fisetin against skin aging (#498) Fan Yang (The First Affiliated Hospital Of Sun Yat-sen University, China)

Detailed Program for Each Session

Concurrent Session 9

October 18 (Wed) 15:20 – 16:35

CS9-E	Session Topic	Collagen-based biomaterials for tissue regeneration (#543)
	Date	October 18 (Wed)
	Time	15:20-16:35
	Room	Hall 06+07
	Co-Chair(s)	Hai Lin (Sichuan University, China) Jiajing Zhou (Sichuan University, China)
CS9-E-01	15:20-15:43 (keynote)	Design and application of collagen-based biomaterials for tissue regeneration Hai Lin (Sichuan University, China)
CS9-E-02	15:43-15:55 (invited speaker)	The prospects of recombinant humanized collagen application in gynecology Lina Hu (Video present) (Chongqing Medical University, China)
CS9-E-03	15:55-16:07 (invited speaker)	Dynamic regulation of MSC chondrogenesis in collagen microenvironment Yun Xiao (Sichuan University, China)
CS9-E-04	16:07-16:12	Nano black phosphorus/graphene oxide functionalized collagen scaffold with enhanced photo-thermal and biomimetic mineralization for in situ infectious bone repair (#152) Xiangru Chen (Wuhan Third Hospital (tongren Hospital Of Wuhan University), China)
CS9-E-05	16:12-16:17	The chemistry and biology of collagen hybridization (#206) Yang Li (The Fifth Affiliated Hospital, Sun Yat-sen University, China)
CS9-E-06	16:17-16:22	Gelatin microporous annealed particle scaffolds for human spinal cord progenitor cell delivery (#502) Christy Kwokdinata (Nanyang Technological University, Singapore)
CS9-E-07	16:22-16:27	Multi-material bio-printing of biomimetic interfaces using silk-based bio-inks for nasal osteochondral tissue engineering. (#586) Xuan Hao (ernest) Tan (National University Of Singapore, Singapore)
CS9-E-08	16:27-16:32	Recombinant human collagen ameliorates structural damage and dysfunction of skeletal muscle after hindlimb ischemia (#595) Danyang Huang (Sichuan University, China)

Detailed Program for Each Session

Concurrent Session 10

October 18 (Wed) 16:50 – 17:50

CS10-A	Session Topic	Inspired functional hydrogel: emerging trend and prospects (#S34)
	Date	October 18 (Wed)
	Time	16:50-17:50
	Room	Grand Hall A
	Co-Chair(s)	Mh Busra Fauzi (National University of Malaysia, Malaysia) Wan Safwani Wan Kamarul Zaman (University of Malaya, Malaysia)

CS10-A-01	16:50-17:10 (keynote)	Potential immediate injectable polymeric hydrogel for future use in chronic wound applications Mh Busra Fauzi (National University of Malaysia, Malaysia)
CS10-A-02	17:10-17:30 (keynote)	Bio-Inspired functional hydrogels: Emerging trends and prospects Antonella Motta (University of Trento, Italy)
CS10-A-03	17:30-17:40 (invited speaker)	Biowaste in tissue engineering – The potential of human hair-derived carbon and its feasibility in hydrogel-based scaffold construct Wan Safwani Wan Kamarul Zaman (University of Malaya, Malaysia)
CS10-A-04	17:40-17:50 (invited speaker)	Harnessing the immunomodulatory potential of hydrogels for tissue regeneration Yanghee Kim (University of Southampton, United Kingdom)

Detailed Program for Each Session

Concurrent Session 10

October 18 (Wed) 16:50 – 17:50

CS10-B	Session Topic	Emerging technologies: bioelectronics, biosensing, and artificial intelligence-aided bioimaging (#S45)
	Date	October 18 (Wed)
	Time	16:50-17:50
	Room	Grand Hall B
	Co-Chair(s)	Dai Fei Elmer Ker (The Chinese University of Hong Kong, Hong Kong) Vitor Correlo (University of Minho, Portugal)

CS10-B-01	16:50-17:13 (keynote)	Biomaterials for fabrication of the functional bioelectronics Vamsi K. Yadavalli (Virginia Commonwealth University, USA)
CS10-B-02	17:13-17:25 (invited speaker)	Nature-derived Biomaterials for biosensors Vitor Correlo (University of Minho, Portugal)
CS10-B-03	17:25-17:37 (invited speaker)	Label-free cell detection and analysis Ryoma Bise (Kyushu University, Japan)
CS10-B-04	17:37-17:49 (invited speaker)	Evaluation of microplastics toxicity using a genome-edited macrophage Masaya Yamamoto (Tohoku University, Japan)

Detailed Program for Each Session

Concurrent Session 10

October 18 (Wed) 16:50 – 17:50

CS10-C	Session Topic	Biomaterial-based metabolic regulation for regenerative engineering (#S46)
	Date	October 18 (Wed)
	Time	16:50-17:50
	Room	CKK Auditorium
	Co-Chair(s)	Jian Yang (Westlake University, China) Shengmin Zhang (Huazhong University of Science and Technology, China)

CS10-C-01	16:50-17:13 (keynote)	Metabonegenic orthopedic biomaterials design and applications Jian Yang (Westlake University, China)
CS10-C-02	17:13-17:25 (invited speaker)	Central nervous system (CNS)-skeletal axis mediated bone regeneration can be achieved by multiple cations therapy in bone tissue microenvironment Kelvin Yeung (The University of Hong Kong, Hong Kong)
CS10-C-03	17:25-17:37 (invited speaker)	Intervertebral disc regeneration: Materials and mechanics Bin Li (Soochow University, China)
CS10-C-04	17:37-17:49 (invited speaker)	Bioenergetic-active hydrogel enhances cartilage regeneration by modulating cellular metabolic state Yingying Du (Huazhong University of Science and Technology, China)

Detailed Program for Each Session

Concurrent Session 10

October 18 (Wed) 16:50 – 17:50

CS10-D	Session Topic	Bio-printings for cell modeling and tissue engineering (#S52)
	Date	October 18 (Wed)
	Time	16:50-17:50
	Room	Hall 04+05
	Co-Chair(s)	Wei Sun (Tsinghua University, China) Yasuyuki Sakai (Tokyo University, Japan)

CS10-D-01	16:50-17:13 (keynote)	Oxygen supply-based design and fabrication of MPS and 3D tissues Yasuyuki Sakai (Tokyo University, Japan)
CS10-D-02	17:13-17:25 (invited speaker)	Development and translation of the DASEA (Digitalized, Automated, Scalable, Enclosed, Activated) bio-manufacturing platform for stem cells/exosomes - From laboratory research to clinical application Zhiyong Zhang (The Third Affiliated Hospital Of Guangzhou Medical University, China)
CS10-D-03	17:25-17:37 (invited speaker)	Advances in biofabrication for tumor precision medicine Yuan Pang (Tsinghua University, China)
CS10-D-04	17:37-17:42	Bioprinting of a hepatic tissue model using human-induced pluripotent stem cell-derived hepatocytes for drug-induced hepatotoxicity evaluation (#224) Jianyu He (Tsinghua University, China)

Detailed Program for Each Session

Concurrent Session 10

October 18 (Wed) 16:50 – 17:50

CS10-E	Session Topic	Combined therapies for wound repair (#553)
	Date	October 18 (Wed)
	Time	16:50-17:50
	Room	Hall 06+07
	Co-Chair(s)	Xiaogang Liu (The First Affiliated Hospital of Sun Yat Sen University, China) Farzaneh Moghtader (SET Medikal and NanoBMT, Turkey)

CS10-E-01	16:50-17:13 (keynote)	Design of stem cell aggregates carrying growth factors for tissue regeneration Yasuhiko Tabata (Kyoto University, Japan)
CS10-E-02	17:13-17:25 (invited speaker)	Bacteriophage therapy: Phages vs antibiotics Farzaneh Moghtader (SET Medikal and NanoBMT, Turkey)
CS10-E-03	17:25-17:37	Microparticles of solidified stem cell secretome (MIPSOS) for the treatment of normal and diabetic skin wounds (#154) Anna Maria Blocki (The Chinese University Of Hong Kong, Hong Kong SAR)
CS10-E-04	17:37-17:42	Intelligent microneedle patch with prolonged local release of hydrogen and magnesium ions for diabetic wound healing (#207) Pei Wang (Shanghai Ninth People's Hospital, China)
CS10-E-05	17:42-17:47	Three-Dimensional printed double-layer artificial skin with antibacterial, angiogenic potential and anti-scar contracture For skin regeneration and wound healing (#292) Shuying Chen (The First Affiliated Hospital, Sun Yat-sen University, China)

Detailed Program for Each Session

Concurrent Session 11

October 19 (Thu) 10:15 – 12:00

CS11-A	Session Topic	TERMIS-AP awards section (#S49)
	Date	October 19 (Thu)
	Time	10:15-12:00
	Room	Grand Hall A
	Co-Chair(s)	Jen-Ming Yang (Innovation of Life & Technology Co. Ltd., Taiwan) Jin Ho Lee (Hannam University, South Korea)
CS11-A-01	10:15-10:35 (invited speaker)	The Distinguished Member award presentation -- topic related to "Vision of the Past, Present and Future of TERM or TERMIS-AP". Jen-Ming Yang (Innovation of Life & Technology Co. Ltd., Taiwan)
CS11-A-02	10:35-10:55 (invited speaker)	The Distinguished Member award presentation -- topic related to "Vision of the Past, Present and Future of TERM or TERMIS-AP". Akon Higuchi (Wenzhou Medical University, China)
CS11-A-03	10:55-11:25 (invited speaker)	The Outstanding Scientist award presentation & The Distinguished Member award presentation - topic related to "Vision of the Past, Present and Future of TERM or TERMIS-AP". Guoping Chen (National Institute for Materials Science, Japan)
CS11-A-04	11:25-11:45 (invited speaker)	The Young Investigator award presentation Zengping Liu (National University of Singapore, Singapore)
CS11-A-05	11:45-11:50 (invited speaker)	The Young Investigator award presentation Mark Allenby (Not come) (The university of Queensland, Australia)

Detailed Program for Each Session

Concurrent Session 11

October 19 (Thu) 10:15 – 12:00

CS11-B	Session Topic	Tissue engineering for health and sustainability (#S12)
	Date	October 19 (Thu)
	Time	10:15-12:00
	Room	Grand Hall B
	Co-Chair(s)	Deepak Choudhury (Bioprocessing Technology Institute, Singapore) Tatsuya Shimizu (Tokyo Women's Medical University, Japan)

CS11-B-01	10:15-10:38 (keynote)	Engineering in vitro cellular and tissue models for future food Hanry Yu (National University of Singapore, Singapore)
CS11-B-02	10:38-10:50 (invited speaker)	Expansion and maturation of bovine muscle cells for production of tissue-engineered meat Hironobu Takahashi (Tokyo Women's Medical University, Japan)
CS11-B-03	10:50-11:02 (invited speaker)	Edible microcarriers Yanan Du (TsingHua University, China)
CS11-B-04	11:02-11:14 (invited speaker)	Minimally invasive devices for biomedical applications Xi Xie (Sun Yat-sen University, China)
CS11-B-05	11:14-11:19	A mechanically reinforced super bone glue makes a leap in hard tissue strong adhesion and augmented bone regeneration (#378) Hongyong Zhao (Stomatological Hospital Of Chongqing Medical University, China)
CS11-B-06	11:19-11:24	Cultivation of chicken muscle-derived cells using cyanobacteria extract for the sustainable food production (#404) Yuta Okamoto (Waseda University, Japan)
CS11-B-07	11:24-11:29	Transformation of arginine into zero-dimensional nanomaterial endows the material with antibacterial and osteoinductive activity (#577) Jiaying Li (Orthopedic Institute, Department of Orthopaedic Surgery, The First Affiliated Hospital, Suzhou Medical College, Soochow, China)
CS11-B-08	11:29-11:34	Novel supramolecular self-assembled nanocarrier systems for drug and gene delivery (#640) Jun Li (National University of Singapore, Singapore)
CS11-B-09	11:34-11:39	Activation of CGRP receptor-mediated signaling promotes tendon-bone healing through modulation of osteogenesis and re-innervation (#776) Xibang Zhao (Sun Yat-sen University, China)

Detailed Program for Each Session

Concurrent Session 11

October 19 (Thu) 10:15 – 12:00

CS11-C	Session Topic	Protein-based biomaterials for tissue engineering and drug delivery (#555)
	Date	October 19 (Thu)
	Time	10:15-12:00
	Room	CKK Auditorium
	Co-Chair(s)	Jiang Xia (The Chinese University of Hong Kong, Hong Kong) Yujiang Fan (Sichuan University, China)

CS11-C-01	10:15-10:38 (keynote)	Collagen-based biomaterials for tissue regenerative applications Yujiang Fan (Sichuan University, China)
CS11-C-02	10:38-11:01 (keynote)	Proximal tibia osteotomy with absorbable spacer combined with fibular osteotomy versus high tibial osteotomy for medial compartmental knee osteoarthritis Wei Chen (Third Hospital of Hebei Medical University, China)
CS11-C-03	11:01-11:13 (invited speaker)	Engineering exosomes for targeted drug delivery and cartilage and bone regeneration Jiang Xia (The Chinese University of Hong Kong, Hong Kong)
CS11-C-04	11:13-11:25 (invited speaker)	Biomaterials with structural hierarchy and controlled 3D nanotopography guide endogenous bone regeneration Shixuan Chen (University of Chinese Academy of Sciences, China)
CS11-C-05	11:25-11:37 (invited speaker)	Recombinant human collagen materials: Industrial production, clinical trials, and the market Haihang Li (Jiangsu Trautec Medical Technology Co., Ltd, China)
CS11-C-06	11:37-11:49 (invited speaker)	Nanoparticle engineered mesenchymal stem cells for cartilage regeneration in osteoarthritis Changhai Ding (Southern Medical University, China)
CS11-C-07	11:49-11:54	GDNF-loaded polydopamine nanoparticles-based anisotropic scaffolds promote spinal cord repair by modulating inhibitory microenvironment (#534) Jinjin Ma (Soochow University, China)

Detailed Program for Each Session

Concurrent Session 11

October 19 (Thu) 10:15 – 12:00

CS11-D	Session Topic	Biofabrication for cell modeling and tissue engineering (#S54)
	Date	October 19 (Thu)
	Time	10:15-12:00
	Room	Hall 04+05
	Co-Chair(s)	Wei Sun (Tsinghua University, China) Yasuyuki Sakai (Tokyo University, Japan)

CS11-D-01	10:15-10:38 (keynote)	Exploring cell movement in bioprinting: Bridging the gap between engineered and natural organs Qi Gu (Institute of Zoology, Chinese Academy of Sciences, China)
CS11-D-02	10:38-11:01 (keynote)	Expanded potential stem cells: A new tool for basic and translational research Pengtao Liu (The University of Hong Kong, Hong Kong)
CS11-D-03	11:01-11:13 (invited speaker)	3D-bioprinting liver and in vivo applications Pengyu Huang (Chinese Academy of Medical Science & Peking Union Medical College, China)
CS11-D-04	11:13-11:25 (invited speaker)	A unique method to form spheroids with various cells and materials Kojima Nobuhiko (Yokohama City University, Japan)
CS11-D-05	11:25-11:30	3D-printed scaffold with halloysite nanotubes laden as a sequential drug delivery system regulates vascularized bone tissue healing (#237) Jingyuan Ji (Tsinghua University, China)
CS11-D-06	11:30-11:35	Plasma-engineered solid-hydrogel hybrid structures for the fabrication of nerve guide conduits (#293) Bingyan Liu (University of Sydney, Australia)
CS11-D-07	11:35-11:40	3D Printed Gelatin/PLLA-TMC core-shell scaffolds with sustained doxorubicin and estradiol releases for tumor obliteration and uterine tissue regeneration (#384) Shangsi Chen (The University of Hong Kong, Hong Kong SAR)
CS11-D-08	11:40-11:45	Anisotropic tissue manufacturing by vertical extrusion Cryo(bio)printing (#406) Zeyu Luo (Sichuan University, China)
CS11-D-09	11:45-11:50	Atlas of in situ stem cells recruited by 3D printing tissue engineering graft for skull defect full regeneration (#481) Xianzhu Zhang (Zhejiang University, China)
CS11-D-10	11:50-11:55	Rapid biofabrication of cell-free, anisotropic collagen tissues (#636) Alessandra Grillo (University College London, United Kingdom)

Detailed Program for Each Session

Concurrent Session 11

October 19 (Thu) 10:15 – 12:00

CS11-E	Session Topic	Biodegradable metals (#S11)
	Date	October 19 (Thu)
	Time	10:15-12:00
	Room	Hall 06+07
	Co-Chair(s)	Yufeng Zheng (Peking University, China) Donghui Zhu (University of Stony Brook, USA)
CS11-E-01	10:15-10:38 (keynote)	Zn-based biodegradable metals for orthopedic applications Xinhua Qu (Shanghai Jiaotong University, China)
CS11-E-02	10:38-10:50 (invited speaker)	Bioactive magnesium incorporated scaffold for challenging bone defect repair Yuxiao Lai (Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences, China)
CS11-E-03	10:50-11:02 (invited speaker)	Leveraging magnesium degradation for enhanced tissue regeneration Jia Pei (Shanghai Jiaotong University, China)
CS11-E-04	11:02-11:14 (invited speaker)	Bone adaptation around magnesium-based implants Regine Willumeit-Römer (Helmholtz-Zentrum Hereon GmbH, Germany)
CS11-E-05	11:14-11:19	Metabolic reprogramming for attenuating inflammatory bone loss: The potential of magnesium-based biomaterials (#540) Hong Wei SHAO (The Chinese University of Hong Kong, Hong Kong SAR)
CS11-E-06	11:19-11:24	Mg-containing implant modulates the characteristics of distinct mesenchymal progenitors to inhibit fracture callus fibrosis in long-term bisphosphonate-pretreated rats (#680) Liang Chang (Chinese University of Hong Kong, Hong Kong SAR)
CS11-E-07	11:24-11:29	Biodegradable zinc metal for orthopedic applications (#716) Bo Jia (Renji Hospital, Shanghai Jiao Tong University School of Medicine, China)