

Oral

Session **Oral 1** Bone/Cartilage

Time 15:30-17:00

Location Room 1

Chair Jos Malda, Daiki Murata, TBD

Day 1 Nov. 10 (Sun)

Presentation No	Presenter	Title
001-1 (keynote)	Jos Malda	Biofabrication for cartilage and bone
001-2	Toshihiro Nonaka	Xenograft of bio-three-dimensionally printed scaffold-free cartilage constructs derived from human induced pluripotent stem cell-derived mesenchymal stem cells to regenerate extensive articular cartilage defects in an immunodeficient pig model
001-3	Giovanni Gonnella	The Porosity and Stiffness of Articular Cartilage Extracellular Matrix Derived Scaffolds Modulates Chondrogenesis of Mesenchymal Stromal Cells
001-4	Elisa Batoni	3D-printed Osteoporotic and Physiological bone scaffolds for In Vitro Bone Models
001-5	shufang zhang	Biofabricated osteochondral tissues at nano- and micro-scale precision promoted functional osteochondral regeneration
001-6	Riccardo Gottardi	In vivo Validation of a Continuous Gradient Porous Scaffold for Osteochondral Defect Repair in a Rabbit Model
001-7	Panagiotis Daskalakis	3D BIOPRINTED HIGH-VISCOSITY MULTI-FUNCTIONAL CELLULOSE ACETATE-HYDROXYAPATITE SCAFFOLDS FOR BONE TISSUE ENGINEERING
001-8	Matteo Moretti	Development of a vascularized bone-on-a-chip device with a physiologically relevant 3D printed bone-like structure

Session **Oral 2** Brain/Neuron

Time 15:30-17:00

Location Room 3

Chair Menglin Chen, Masahiro Kino-oka, TBD

Day 1 Nov. 10 (Sun)

Presentation No	Presenter	Title
002-1 (keynote)	Menglin Chen	Exploring Electrohydrodynamics based Functional Nanofibers for Wireless Neuromodulation
002-2	Tomoki Asaba	Fabrication of Neurovascular Organoids in Microdevices
002-3	Emily Han	Peptide-conjugated lipid nanoparticles for targeted mRNA delivery to the brain
002-4	Sabra Rostami	Mechanically-defined substitutes for Matrigel: Manipulating yield stress of encapsulating biomaterials to tune the development and maturation of midbrain organoids
002-5	Alexandre Xavier Mendes	Integrating graphene oxide-hydrogels and electrical stimulation: advancing controlled neurotrophic factor encapsulation for enhanced nerve tissue regeneration



Presentation No	Presenter	Title
002-6	Anthony Jon Aki Baker	Using Digital Image Correlation to Validate Cerebral Organ-On-A-Chip Designs for Investigation of Blunt Impact Parameters in Traumatic Brain Injury Events
002-7	Bjarke Nørrehvedde Jensen	Microfilamented Hydrogels for Guided Neuronal Growth
002-8	Carmen Villmann	3D fiber reinforced hyaluronic acid-based brain biomimetic ECM composite to study brain disease mechanisms

Session Oral 3 Tissue Engineering Models for Disease Modeling and Regenerative Medicine

Day 1 Nov. 10 (Sun)

Time 15:30-17:00

Location Room 4

Chair Subha Narayan Rath, David Dean, TBD

Presentation No	Presenter	Title
003-1 (keynote)	Subha Narayan Rath	Accelerating Vascular Graft Development: Adipose-derived stem cells and PODS [®] (Polyhedrin Delivery System with tissue-specific growth factors) -Enhanced 3D Bioprinting for Functional Blood Vessels
003-2	Essa Al-jehani	A 3D Human Microtissue Model of Duchenne Muscular Dystrophy
003-3	Dong Gyu Hwang	Bioprinting-assisted Tissue Assembly for Reproducing Complex Myocardial Fiber Structure and Pathophysiological Conditions
003-4	Gerardo Cedillo-Servin	Nonlinear microfiber architectures modulate hiPSC cardiomyocyte organization and subtype-specific marker expression in engineered cardiac mini-tissues
003-5	Robine Janssen	Development of an in vitro immunocompatible intestine-on-a-chip model to study allergic sensitization
003-6	Withdraw	
003-7	Ana Valeria Gonzalez Abrego	Incorporating complex anatomical features to hepatic tissue models through PμSLA
003-8	Mst Zobaida Akter	Fabrication of Hypoxic Cardiac Tissue In Vitro Model with 3D Bioprinting Technology to Study Ischemia Induced Myocardial Infarction

Session Oral 4 Pancreatic Tissue Models and Therapeutic Applications

Day 2 Nov. 11 (Mon)

Time 9:00-10:30

Location Room 3

Chair Shoen Kume, Wojciech Swieskowski, TBD

Presentation No	Presenter	Title
004-1(keynote)	Yoshimasa Saito	Current status of pancreatic organoid for cancer research

Presentation No	Presenter	Title
004-2	Myungji Kim	Embedded 3D Bioprinting of Stem Cell-Derived Pancreatic Islets with Peri-Vasculature in a Bespoke Islet-specific Niche
004-3	Jihwan Kim	Biohybrid 3D printing of Plug-in Vertical Electrode for the Integration with Engineered Pancreatic Tissue to Enhance Function and Promote Maturation
004-4	Sophie Dani	Co-cultures of functional Islets of Langerhans and oxygen producing microalgae as alternative concept for post-implantation oxygen supply within bioprinted constructs
004-5	Min Kyeong Kim	A highly efficient macroencapsulation patch for the subcutaneous transplantation of pancreatic islets
004-6	Ezgi Bakirci	FRESH 3D Bioprinting of Insulin-Secreting Engineered Tissue Constructs
004-7	Gokula Nathan K	Functional rehabilitation of isolated primary islets housed in immunoisolation devices for transplantations in a miniaturized bioreactor system
004-8	Gianluca Ciardelli	Modeling the stromal and pancreatic cancer cells crosstalk in vitro through advanced fabrication technologies

Session Oral 5 Advanced Biofabrication Technologies and Models for Organ-Specific Applications

Day 2 Nov. 11 (Mon)

Time 9:00-10:30

Location Room 4

Chair Carlos Mota, Y. Shrike Zhan, TBD

Presentation No	Presenter	Title
005-1 (keynote)	Carlos Mota	Advanced 3D Bioprinted Models for the investigation of Kidney Fibrosis
005-2	Rodrigo Rezende Alvarenga	From fruit landfill to bioprinting as a circular economy
005-3	Elena M De-Juan-Pardo	Combining Advanced Design Strategies and Biofabrication Technologies for Cardiovascular Applications
005-4	Liliang Ouyang	Engineering Bio-interfaces Down to the Building Blocks of 3D Bioprinting
005-5	Aleksander Czekanski	In-situ Bioprinting
005-6	Abbas Shafiee	Vascularized Human Skin Organoids: A Leap Towards Advanced Skin Models
005-7	Nils Lindner	Neuromorphic sensor and data processing enable time-series forecasting and fluid-dynamic modeling in 3D-bioprinting
005-8	Yukiko Nagaishi	Bio-3D printed scaffold-free human vascular models aimed for clinical application



Session **Oral 6** Complex 3D Tissue Models

Day 2 Nov. 11 (Mon)

Time 11:00-12:30

Location Room 4

Chair Nobuhiko Kojima, Wei Sun, TBD

Presentation No	Presenter	Title
006-1 (keynote)	Nobuhiko Kojima	Advancements in Multicellular Spheroid Models: The Next Steps of 3D Culture Systems
006-2 (keynote)	Wei Sun	TBD
006-3	Rani Boons	Integrating living cells and soft materials for fabricating living 3D bioluminescent sensors
006-4	Keisuke Nakamura	Programmable 4D printing of multi-material and temperature-responsive granular hydrogels
006-5	Max von Witzleben	Shape-morphing fiber composite structures consisting of 3D plotted hydrogels and melt electrowritten PCL meshes for blood vessel tissue engineering
006-6	Zahra Kafrashian	Multimaterial core-cladding hydrogel waveguides with plasmonic segments
006-7	Annabelle Neuhäusler	Collagen microfiber laden-bioinks provide cell instructive cues for versatile 3D-bioprinting applications

Session **Oral 7** Advanced Bioprinting Techniques for Complex Tissue Engineering

Day 2 Nov. 11 (Mon)

Time 16:00-17:30

Location Room 2

Chair Axel Guenther, Elena Juan Pardo, TBD

Presentation No	Presenter	Title
007-1 (keynote)	Axel Guenther	MULTI-NOZZLE MICROFLUIDIC PRINTHEAD ENABLES RAPID, COFORMAL DELIVERY OF BIPHASIC JAMMED BIOINK TO INCLINED AND PHYSIOLOGICALLY CURVED SURFACES UNDER NORMAL AND REDUCED GRAVITY
007-2	Aliaa Sherif Karam	3D Bioprinting of Articular Cartilage Progenitor Cells within a Physically Constraining Support Bath to Direct Neotissue Organization
007-3	Withdraw	
007-4	Van Phu Le	A UNIQUE BIOPRINTING APPROACH FOR CONE-SHAPED MYOTENDINOUS JUNCTION CONSTRUCTS IN TENDON-MUSCLE-TENDON SCAFFOLDS
007-5	Jakub Janiak	Continuous and Layerless 3D Printing of Microfilamented Grafts for Tissue Engineering
007-6	Donghwan Kim	Multiscale Conformal 3D Bioprinting Technique for Recapitulating Macro-to-Microscopic Tissue Construct
007-7	Donatella Di Lisa	Engineered consortia of Chlorella-Saccharomyces for wastewater treatment
007-8	Chaofan He	Multi-material Projection-based 3D Bioprinting

Session Oral 8 Internal Organ**Time** 16:00-17:30**Location** Room 4**Chair** Carmelo De Maria, Monica Laronda, TBD**Day 2 Nov. 11 (Mon)**

Presentation No	Presenter	Title
008-1 (keynote)	Carmelo De Maria	4D printing self-deploying bio-based structure for the non-invasive treatment of intestinal ulcers
008-2	Yasuhiro Ikegami	Development of 3D fibrous scaffold with growth factor immobilization for liver tissue engineering
008-3	Laura Modica de Mohac	Development and Evaluation of a Stent-less Esophageal Graft for Treatment of Esophageal Strictures
008-4	Costanza Daddi	MICRO-B: A Versatile Bioreactor For The Gut Microbiota-Human Crosstalk Investigation
008-5	Marta Garcia Valverde	Thermoforming for Small Feature Replication in Melt Electrowritten Membranes to Model Kidney Proximal Tubule
008-6	Withdraw	
008-7	Chiara Vitale-Brovarone	Multifunctional piezoelectric patch for the regeneration of infarcted heart using coaxial electrospinning and nanocarriers
008-8	Seon-Jin Kim	Development of Modular Tissue Assembly Strategy for Volumetric Liver Module with Portal Triad Network

Session Oral 9 Biomaterials and Fabrication Strategies for Next-Generation Biofabrication**Time** 9:00-10:30**Location** Room 4**Chair** Sarah Heilshorn, Manabu Itoh, TBD**Day 3 Nov. 12 (Tue)**

Presentation No	Presenter	Title
009-1 (keynote)	Sarah Christine Heilshorn	Designer biomaterials to enable new diffusion-based biofabrication strategies
009-2	Xinrui Fu	Digestion degree is a key factor to regulate the printability of pure tendon decellularized extracellular matrix bio-ink in extrusion-based 3D cell printing.
009-3	Jirawat Iamsamang	Hexagonal micropore scaffolds for in situ engineering of blood vessels: an in vitro evaluation
009-4	Kaushik Sunder	Bioink from Waste: Methacrylated Fish Skin Collagen for Neural Stem Cell Bioprinting
009-5	Withdraw	
009-6	Chisato Handa	Photo fabrication and photo degradation of hydrogels of o-nitrobenzyl acrylate-modified gelatin



Presentation No	Presenter	Title
009-7	Itedale Namro	Bioprinting Cell Suspensions into Fibrillar-Granular Composites: Precision Control and Versatile Applications
009-8	Eugenia Spessot	Harnessing ultrashort peptide self-assembly to enhance printability of silk fibroin-based biomaterial inks for precision medicine

Session **Oral 10** Clinical Application

Day 3 Nov. 12 (Tue)

Time 15:10-16:40

Location Room 4

Chair Daiki Murata, Hemant Singh, TBD

Presentation No	Presenter	Title
010-1 (keynote)	Daiki Murata	Post-bio-3D-printing process to fabricate scaffold-free artificial ligaments for clinical application
010-2	Hemant Singh	Decellularized Extracellular Matrix Based Injectable Hydrogel System for Treating Deep Infectious Wounds
010-3	Hanan Jamal Mohamed	Pre-Vascularization and Implantation Strategies for Enhanced Limb Salvage, Tissue Graft Integration, and Vascularization
010-4	Daniel Rybak	3D printed multifunctional hydrogel composite with on demand drug release and antibacterial properties for wound healing
010-5	Alicja Kosik-Kozioł	Core-Shell Nanofibrous Skin Patch for Sustainable Atopic Dermatitis Treatment: Comprehensive Evaluation Integrating In Vitro, In Vivo, and Ex Vivo Studies
010-6	Anwasha Ghosh Ghosh	Bioprinting of a multi-material full-layer cornea stromal construct - mimicking the native microstructure using silk fibroin and decellularized matrix-based hydrogel
010-7	Shabir Hassan	Healing wounds that are seen, heard, or felt
010-8	Falguni Pati	Translational Applications of 3D Bioprinting with Corneal ECM Hydrogel in Partial Keratoplasty

Session Oral 11 New Material**Time** 9:00-10:30**Location** Room 4**Chair** Bahattin Koc, Jinah Jang, TBD**Day 4 Nov. 13 (Wed)**

Presentation No	Presenter	Title
011-1 (keynote)	Bahattin Koc	Melt Electro Writing Ti3C2Tx MXene/PCL Composite Scaffolds for Bone Tissue Engineering
011-2	Javier Vazquez-Armendariz	5-axis Melt Electrowriting: An Approach for the Out-of-the-Plane Fabrication of Personalized Scaffolds
011-3	Debabrata Palai	3D bioprinting of porous tissue constructs using liquid-liquid phase separated bioink
011-4	Petra Juliane Kluger	Gellan Gum Hydrogels: A Versatile Framework for biofabricated Adipose Tissue
011-5	Hossein Ravanbakhsh	Biofabrication of self-expandable scaffolds as an alternative to metallic implants
011-6	Carmine Gentile	Silk fibroin increases the elasticity of alginate-gelatin hydrogels and regulates cardiac cell contractile function in cardiac bioinks
011-7	Rory Gibney	Polydopamine mediated functionalization of melt electrowritten scaffolds with soluble and insoluble type II collagen to enhance chondrogenesis
011-8	Johannes Braig	Multi-architectural scaffold design unlocking clinically relevant cardiac patch attachment

Session Oral 12 Tissue Models and Organ-on-Chip**Time** 14:00-15:30**Location** Room 2**Chair** Thomas Boland, Keitaro Matsumoto, TBD**Day 4 Nov. 13 (Wed)**

Presentation No	Presenter	Title
012-1 (keynote)	Thomas Boland	Inkjet bioprinted triple negative breast cancer models are more aggressive and are more drug resistant than conventional models
012-2	Johanna Vetter	Modular Organ-on-a-chip platform with integrated biosynthetic vessel networks fabricated using a multiscale 3D-printing approach
012-3	Gianluca Ciardelli	Strategies to improve cardiac cell maturation: the ALTERNATIVE 3D model
012-4	Francesco Bisconti	3D cell culture of human fibroblast-like synoviocytes by encapsulation in a chitosan-based hydrogel
012-5	Mioto Nishino	In vitro intestinal model composed of bacterium encapsulated beads, epithelium cell layer, and seesaw stage



Presentation No	Presenter	Title
012-6	Megumi Fukuda	Investigation of extracellular vesicles-mediated cellular interactions in a co-culture-based in vitro pre-vascularization model
012-7	Hanne Criel	Enhancing 3D Liver Models: Impact of Decellularized Extracellular Matrix on Hydrogel Properties and Hepatocyte Response
012-8	Viola Sgarminato	Tomographic volumetric bioprinting for 3D in vitro modeling of the exocrine pancreatic unit

Session **Oral 13** Meniscus/Tendon

Day 4 Nov. 13 (Wed)

Time 14:00-15:30

Location Room 3

Chair Kotaro Higa, Gabriella Lindberg, TBD

Presentation No	Presenter	Title
013-1 (keynote)	Kotaro Higa	Transplantation of scaffold-free constructs of adipose tissue-derived mesenchymal stem cells produced by a bio-3D printer to enhance tendon-bone healing in anterior cruciate ligament reconstruction
013-2	Aylin Kara Özenler	Collagen type II deposition follows shape; towards arcade-shaped collagen type II deposition
013-3	Gabriela Kronemberger	The biofabrication of zonally defined meniscus grafts using fibrocartilage microtissues integrated within melt electrowritten scaffolds
013-4	Shohei Kashimoto	Regeneration of the patellar tendon using scaffold-free 3D constructs consisted of adipose tissue-derived mesenchymal stem cells in rabbits
013-5	Jae-Seong Lee	Biofabrication of Meniscus Model for Representing Biomechanical Properties and Biological Properties Using 3D printing Technology
013-6	Masoud Shirzad	Bioinspired Design, Optimization, and 3D Printing of Tendon-to-Bone Tissue Interface
013-7	Cancan Du	Ultrasound-Controlled Release of GFs from Cerasomes combined with Implantation of PCL Scaffolds Seeded with BMSCs for Biomimetic Tendon-to-Bone Interface Engineering
013-8	Kirk C McGilvray	Bridging Tendon to Bone: Using Finite Element Analysis to Optimize Melt Electro Written (MEW) Printed Scaffolds