

Sunday, November 9, 2025					
Time	HALL A (COLUMBUS)	NICOLET HALL	MICHELANGELO HALL	HALL D (LA SALLE)	HALL E (CADILLAC)
1:00 PM - 4:00 PM		1:00 PM - 3:00 PM TERMIS-AM Council Meeting	Pre-Conference Workshop: Artificial Intelligence (AI) in Biofabrication, Tissue Engineering, and Regenerative Medicine: From Experimental Design and Advanced Analyses Towards Enabling Therapeutic Applications (*registration required)	Pre-Conference Workshop: Innovation and Navigating FDA Regulatory Pathways in Tissue Engineering (*registration required)	Pre-Conference Workshop: What Now? Commercial Translation and Entrepreneurship in Regenerative Medicine (*registration required)
4:00 PM - 4:15 PM	Transition break				
4:15 PM - 4:45 PM	TERMIS General Assembly				
4:45 PM - 5:00 PM	Transition break				
5:00 PM - 5:15 PM	TERMIS-AM Chair Welcome				
5:15 PM - 5:30 PM	Welcome From the TERMIS-AM 2025 Conference Co-Chairs				
5:30 PM - 6:30 PM	Opening Plenary Symposium Biomanufacturing: Moving Your Ideas from an Academic Lab Towards the Clinic, <i>Dean Kamen</i> Building the Industrial Base for Human Cell and Tissue Manufacturing, <i>Tom Bollenbach</i>				
6:30 PM - 8:30 PM	Welcome Reception & Poster Session 1 & Exhibitor Viewing (Location: Exhibition Area - Level 3)				

Monday, November 10, 2025

Time	HALL A (COLUMBUS)	HALL B (CABOT)	HALL C (CARTIER)	HALL D (LA SALLE)	HALL E (CADILLAC)
7:00 AM - 8:00 AM					TWIGS Chairs Meeting (Location: Michelangelo Room)
Scientific Concurrent Sessions 1					
8:00 AM - 9:30 AM	<p style="text-align: center;">Session 1: Advanced Biofabrication Strategies for Cancer and Disease Modeling</p> <p style="text-align: center; font-size: small;">Session Chairs: Rui L Reis, Luiz Bertassoni</p>	<p style="text-align: center;">Session 2: Biomimetic In Vitro Model Systems for Cardiovascular Engineering</p> <p style="text-align: center; font-size: small;">Session Chairs: Chris Bashur, Clotilde Castaldo, Shumaim Barooj</p>	<p style="text-align: center;">Session 3: Innovation in Craniofacial Tissue Engineering: Biomaterials Revolutionizing Regenerative Dentistry and Medicine</p> <p style="text-align: center; font-size: small;">Session Chair: Juan Taboas, Niloufar Abedi</p>	<p style="text-align: center;">Session 4: Osteoarthritis and Post-Traumatic Osteoarthritis: From Inflammation and Degeneration to Regenerative Therapies and Disease Diagnosis</p> <p style="text-align: center; font-size: small;">Session Chairs: Melanie Hart, Bernd Rolauffs, Amy Xie</p>	<p style="text-align: center;">Session 5: Rapid Fire I</p> <p style="text-align: center; font-size: small;">Session Chair: Evelyn Yim</p>
8:00 AM - 8:30 AM	<p>Keynote Lecture: Precision Biofabrication of Complex Tumor Microenvironments with High Resolution and Spatial Organization, Luiz Bertassoni</p>	<p>OP-5 Reconstructing Native Soluble Cues to Enhance Endothelial Cell Maturation In Bioengineered Whole Lung Vascular Model, Yifan Yuan, US</p> <p>OP-6 A Perfusable Leaf Model to Investigate Endothelialization of Engineered Constructs, Chris Bashur, US</p>	<p>Keynote Lecture: Regenerative Dentistry is here!Pamela C. Yelick</p>	<p>Keynote Lecture: Single-Cell Morphological Profiling for Predicting Function as Diagnostics in Osteoarthritis (OA) and Post-Traumatic Osteoarthritis (PTOA), Bernd Rolauffs</p>	<p>RF-01 Matrix Mechanics And HA Composition Regulate NK Cell Infiltration In Engineered Hydrogels, Suzanne Lightsey</p> <p>RF-02 Chaotic Printing Of Microvasculature For Bone Tissue Engineering: Micro-channelled Hydrogel Sheets, David Dean</p> <p>RF-03 Design And Optimization Of A Cost-effective Normothermic Ex Vivo Kidney Perfusion System: A Novel Approach Eliminating Rbcs And External Oxygen Supply, Chun Tat Lui</p> <p>RF-04 Melt Electrowriting And Fused Deposition Modeling 5-axis Printing Of Personalized Corneal Scaffolds, Javier Vazquez-Armendariz</p> <p>RF-05 Development Of A Sensor Integrated Bladder Bioreactor System For Reconstructive Procedures, Brendyn Miller</p> <p>RF-06 A Biomimetic Bone-like Organoid Platform As A Model For Skeletal Tissue Engineering, Genevieve Romanowicz</p>
8:30 AM - 8:45 AM	<p>OP-1 3D Biofabricated Multilayered Skin Models Recapturing Autoimmune Pathogenesis, Fanben Meng, US</p>	<p>OP-7 Nicotine and Extracellular Matrix Interactions on Endothelial-to-Mesenchymal Transition, Ngan Huang, US</p>	<p>OP-11 Decellularization of Full-Thickness Facial Grafts Produces Preserved 3D Composite Biological Scaffolds With Patent Vascular Network, Antonio Menini, Italy</p>	<p>OP-15 An Inflammatory Joint-on-a-Chip for Cartilage and Synovial Disease Modelling of Osteoarthritis, Brendan Lobo, Canada</p>	<p>RF-07 Repairing Volumetric Muscle Loss With Tissue-engineered Skeletal Muscle Units In The Ovine Peroneus Tertius Muscle Model, Elleen Su</p> <p>RF-08 Erythroid Progenitor Activation Modulates Oxygen Tension And Enhances Bone Regeneration Following Fracture, Annamario Lang</p> <p>RF-09 Understanding Mechanical Dysregulation Of Tendon Development To Inform Regeneration Strategies, Catherine Kuo</p>
8:45 AM - 9:00 AM	<p>OP-2 Three-Dimensional In Vitro Models of Cell-Cell Interactions in the Microenvironment of Early- and Late-Stage High-Grade Serous Ovarian Carcinoma, Kathleen Burkhard, US</p>	<p>OP-8 Mature Cardiac Cell Manufacturing for Cardiotoxicity Screening, Carlos Barreto Gamarra, US</p>	<p>OP-12 T-Cells Drive Sexual Dimorphism in Experimental Periodontitis, Victoria Maglaras, US</p>	<p>OP-16 Characterization of Unreported Mass of Collagen Crosslinks Allows for Direct Detection of Lysyl Oxidase Derived Crosslinks in Serum, Ben Sexton, US</p>	<p>RF-10 Oxygen-dependent Regulation of Tendon Extracellular Matrix, Stephanie Steltzer</p> <p>RF-11 Extracellular Matrix Hydrogel Reduces Fibrosis In A Canine Model Of Volumetric Muscle Loss, Shanae Butler</p> <p>RF-12 An Automated High Throughput 3D Engineered Heart Tissue Platform For Disease Modeling and Drug Discovery, Daniel Sauter</p> <p>RF-13 Light-Based 3D Printing of Oxygen-generating Nanocomposite Scaffolds Accelerates Bone Regeneration, Anastasia B Timoshenko</p>
9:00 AM - 9:15 AM	<p>OP-3 Biofabrication of Intestinal Barrier Matrix With Crypts/Villi Topography Using Sacrificial and Bioactive Hydrogels, Chien-Chi Lin, US</p>	<p>OP-9 Replicating the Cell Population of the Developing Human Heart for Cardiac Grafts, Dominic Rüttsche, US</p>	<p>OP-13 Endodontic Therapy of Immature Permanent Teeth With a Photocrosslinkable Hydrogel Versus Revascularization, Juan Taboas, US</p>	<p>OP-17 Matrix-Bound Nanovesicles From Human Joint Tissues: Identifying Potential Biomarkers for Chronic Degenerative Joint Diseases, Catalina Pineda Molina, US</p>	<p>RF-14 Impact Of Biomufacturing Process On Functional Outcomes Following Implantation Of A Human Tissue Engineered Muscle Repair (TEMR) Construct In A Tibialis Anterior (TA) Volumetric Muscle Loss (VML) Model in Athymic Rats, Kira Bourret</p> <p>RF-15 Investigation Into The Specific Inflammatory Contributors Of Bioprosthetic Heart Valve Mineralization In A Subdermal Immunodeficient Mouse Model, Chima Ofoegbu</p>
9:15 AM - 9:30 AM	<p>OP-4 Characterizing 3D PEG-Based Lung Tumor Model Using RNA Sequencing, Suzanne Lightsey, US</p>	<p>OP-10 3D Bioprinted Microporous Collagen Scaffolds for Studying Physiological Platelet Activation and Clotting Factor Binding, Antonio Pereira Tavares, US</p>	<p>OP-14 Interconnected Porous Architecture for Guided Bone Growth in Dental Implants, Rana Dabaja, US</p>	<p>OP-18 Single-Cell Profiling Reveals Cytokine-Specific Modulation of Early Injury Responses in a Post-Traumatic Osteoarthritis Cartilage Model, Johannes Tenholt, Germany</p>	<p>RF-16 Detailed Study Of The Etiology Of Graft Stenosis In Tissue Engineered Vascular Graft In A Porcine Model, Yuta Tsuchida</p> <p>RF-17 Clickable PEGNB Microgels Support Bioprinting And Microvascular Assembly Towards Hierarchical Vascular Applications, Irene Zhang</p> <p>RF-18 4D Bioprinting of Magnet-integrated Tissue Construct to Mimic Hierarchical Architecture of Left Ventricle, Hwanyong Choi</p>
9:30 AM - 10:00 AM	Coffee Break				

10:00 AM - 12:00 PM	Plenary Speaker & Award Session 1 Engineering Immune Tolerance for Transplantation, <i>Xunrong Luo</i> 2025 Jensen Tissue Engineering Award <i>Rocky S. Tuan</i>				
12:00 PM - 1:30 PM	Lunch Break on Your Own & Empowering Next Leaders in TERM Luncheon (Greco Room) *registration required				
1:30 PM - 3:00 PM	Session 6: Designing Hydrogel Biomaterials for Ocular Tissue Engineering Session Chairs: Evelyn Yim, Muhammad Rizwan, Sophia Lu	Session 7: Engineering and Regeneration of Airway, Digestive, or Urogenital Systems Session Chairs: Riccardo Gottardi, Harsha Ramaraju	Session 8: The Next Frontiers: Emerging Applications of Biomaterials Session Chairs: Marley Dewey, Aidan Gilchrist, Rana Ibrahim	Session 9: Advances in Skin Tissue Engineering Session Chairs: Erbil Abaci, Helena Zomer, Thanusha AV	Session 10: Revitalizing Tissues: Harnessing Extracellular Vesicles & Mitochondria Session Chairs: Golnaz Karoubi
1:30 PM - 2:00 PM	1:30 PM - 1:50 PM Keynote Lecture: Development of Self-Healing Hydrogels for Choroidal Endothelial Cell Replacement, <i>Budd Tucker</i>	OP-21 Drug-Eluting Hyaluronic Acid Microgels Reduce Upper Airway Fibrosis in a Rat Model of Vocal Fold Scarring, <i>Riccardo Gottardi, US</i> OP-22 Mapping Disease-Specific Pulmonary Fibroblast Niches by Spatial Proteomics, <i>Jason Guo, US</i>	Keynote Lecture: Biomaterials for NASA's Missions, <i>Lynn Rothschild</i>	Keynote Lecture: Capturing Cellular Dynamics During Wound Repair in Live Mice, <i>Sangbum Park</i>	OP-35 Transport of Mature MicroRNA Into Mesenchymal Stem Cell Extracellular Vesicles, <i>Niloufar Abedi, US</i> OP-36 Placental Mesenchymal Stem Cell-Derived Extracellular Vesicles Alleviate Liver Fibrosis by Inactivating Hepatic Stellate Cells, <i>Weixin Zhao, US</i>
2:00 PM - 2:15 PM	1:50 PM - 2:10 PM Keynote Lecture: Modular Hydrogels to Improve Ocular Cell Growth, Transplantation and Tissue Repair, <i>Muhammad Rizwan</i>	OP-23 Engineered Immunological Niches for Early Diagnosis of Lupus Nephritis, <i>Shivanie Kodikalla, Mahesh Kumar, US</i>	OP-27 Sacrificial Micropores Improve Diffusion Through an Immune-Isolating Capsule Containing a Human Ovarian Graft for Endocrine Function Without Compromising Immune Protection, <i>Delaney Sinko, US</i>	OP-31 A Skin-on-a-Chip Model With a Continuous Tissue Geometry Captures the Mechanosignaling in Skin Fibrosis, <i>Alberto Pappalardo, US</i>	OP-37 Micropuncture Enhances Endothelial Cell Release of Pro-Angiogenic Exosomes, <i>Jazzmyn Dawes, US</i>
2:15 PM - 2:30 PM	2:10 PM - 2:30 PM Keynote Lecture: Multifunctional Bandage Lens and Bioadhesive with Proteoglycan 4 (PRG4) for the Treatment of Corneal Wounds, <i>Tannin Schmidt</i>	RF-47 Coaxial PHB-SF Electrospun Scaffolds With Optimized Mechanical And Biological Properties For Pelvic Floor Reconstruction, <i>Rebecca Thomson, US</i>	OP-28 An In Vitro Hydrogel-Based Model to Study Dormancy-Associated Drug Resistance in Metastatic Breast Cancer Spheroids, <i>Shreyas Rao, US</i>	OP-32 Engineering 3D iPSC-Derived Skin Tissues for RDEB Disease Modeling Using an Optimized Skin Organoid Differentiation Method, <i>Laura Garriga-Cerda, US</i>	OP-38 Analytical Comparison of MSC-EV Quality Attributes Across Tissue Sources and Production Platforms, <i>Elie Zakhem, US</i>
2:30 PM - 2:45 PM	OP-19 Survival and Integration of Human iPSC Derived Choroidal Endothelial Cells in a Rodent Model of Age-Related Macular Degeneration, <i>Narendra Pandala, US</i>	OP-25 Whole Mouse Kidney Decellularization and Vascular Recellularization Using Human Stem Cells, <i>Anupama Bhadwal, Canada</i>	OP-29 Investigating Coral Cell-Biomaterial Interactions to Drive Coral Reef Repair, <i>Renata Dos Reis Marques, US</i>	OP-33 Cutaneous Squamous Cell Carcinoma in Patients With Epidermolysis Bullosa: A Novel Approach to Wound Closure Using a Decellularized Bovine Pericardium Scaffold, <i>Yevhenia Fedorets, Ukraine</i>	OP-39 Mitochondrial Transplantation to Attenuate Endothelial Dysfunction in Diabetes Mellitus, <i>Natalia Matiuto, US</i>
2:45 PM - 3:00 PM	OP-20 Multi-Step 3D Printed Platform for Systematically Studying the Role of Retinal Axon Guidance Cues, <i>Jacob Schimelman, US</i>	OP-26 Development of an In Vitro Lung Organ Tissue-Equivalent Platform Incorporating Primary Human Cells for the Assessment of Radiation Exposure and Radioprotectant Efficacy, <i>Dariya Lizanets, US</i>	OP-30 Hydrogel-Supported Patient-Derived Tumor Explants for Drug Development, <i>Eliza Li Shan Fong, Singapore</i>	OP-34 Efficient Methods For Engineering Autologous, Full-thickness Skin Grafts, <i>Vaughan Feisst, New Zealand</i>	OP-40 Comparative Effects of Hypoxic vs. Normoxic Mesenchymal Stem Cell-Derived Extracellular Vesicles on Muscle Regeneration Following Volumetric Muscle Loss (VML), <i>Avantika Jain, US</i>
3:00 PM - 3:05 PM	Transition Break				

Scientific Concurrent Sessions 3					
3:05 PM - 4:35 PM	Session 11: Business Plan Competition <i>Chair: Paul Dalton</i>	Session 12: Engineering Transplantation Tolerance: A Key to Next-Generation Regenerative Medicine <i>Session Chairs: Maria Coronel, Jessica Weaver, Derek Hwang</i>	Session 13: Key Variables Influencing VML Injury and Repair: Sex, Age, and Anatomical Location <i>Session Chairs: Sarah Greising, Jacob Quint, Eileen Su</i>	Session 14: Cardiac & Vascular Tissue Engineering <i>Session Chairs: Ying Wang, Feng Zhao, Tracey Moyston</i>	Session 15: Tissue Engineering Models of the Nervous System <i>Session Chairs: Nisha Iyer, Jessica Butts, Manini Bhatt</i>
3:05 PM - 3:35 PM	3:05 - 3:15 Pitch #1: Laetech, Brian Webb 3:15 - 3:25	Keynote Lecture: Tolerogenic Trophoblast Cell Therapy Limits Bystander Xenograft Rejection, Jessica Weaver	Keynote Lecture: Sex, Drugs, and VML: Determinants of Muscle Bioenergetics and Redox Physiology, Jarrod Call	Keynote Lecture: Harnessing Neutrophils for Vascular Graft Success: From Inflammation to Regeneration, Gary Bowlin	Keynote Lecture: Designing Microphysiological Systems to Evaluate Neural Interfaces and Interactions, Christina M Tringides
3:35 PM - 3:50 PM	Pitch #2: Linton Life Sciences, Julio Aleman 3:25 - 3:35	OP-41 Microfabricated Systems for In Situ Engineering Tolerogenic Dermal Microenvironments, Robert Oakes, US	OP-45 Assessing Potential of Hyaluronic Acid-Based Hydrogels to Treat VML Injuries in Rat Lateral Gastrocnemius, George Christ, US	OP-49 Functional Heterogeneity of Endothelial Cells in Self-Assembled Engineered Vasculature, Bruno De Medeiros Esmeraldo, US	OP-53 A Three-Dimensional iPSC-Derived Midbrain Neuron Culture for Modeling Opioid Addiction, Ze Zhong Wang, US
3:50 PM - 4:05 PM	Pitch #3: Mitoway, Bin Jiang 3:35 - 3:45	OP-42 Engineered Immunological Niche Reveals Immune Signature Driving Islet Allograft Acceptance, Jyotirmoy Roy, US	OP-46 The Role of Ovarian Hormones in Metabolic and Functional Recovery Following Volumetric Muscle Loss, Angela Bruzina, US	OP-50 Microfabricated Anisotropic Cardiac Microbundles For The Modular Assembly of Cardiac Tissue Grafts, Maggie Jewett, US	OP-54 Mesoscale Neuromuscular Model for Mapping and Modulating Independent Motor Units, Angel Bu, US
4:05 PM - 4:20 PM	Pitch #4: NovaGyn, Rebecca Thomson 3:45 - 3:55	OP-43 FasL-Microparticles for Long-Term Immune Protection of Neural Stem Cell Transplants in Spinal Cord Injury, Brooke Smiley, US	OP-47 Improving Regeneration of Traumatic Muscle Injuries Through a Primed Muscle Graft, Jacob Quint, US	OP-51 In Vitro Construction of Human Blood Vessels From Vascular Decellularized Extracellular Matrix Endothelialized With Human Adipose-Derived Mesenchymal Stromal Cells, Sara Febbraio, Italy	OP-55 Determining the Role of Notch Signaling in Atoh1 Hindbrain Lineage Cell Fate Decisions, Madison McLaren, US
4:20 PM - 4:35 PM	Pitch #5: Organora, Rosaria Santoro 3:55 - 4:20 Passion, Progress, and Perseverance: An Entrepreneurial Journey in Tissue Therapeutics, Adam Jakus 4:20 - 4:35 Business Plan Winner Announcements!	OP-44 Human Stem Cell-Derived Beta Cell Macroencapsulation Prevents Immune Rejection by Direct Antigen Recognition in a Humanized Mouse Model, Jinal Mehta, US	OP-48 Apolipoprotein E3 Improves Motor Endplate Formation in Skeletal Muscle, Michael McClure, US	OP-52 Cardiac Extracellular-Derived Matrine for Cardiac Regeneration Following Myocardial Infarction, Yan-Ru Lal, US	OP-56 Contactless Acoustic Patterning for Neural Tube and Vessel Development, Weiping Li, US
4:35 PM - 5:05 PM	Coffee Break				
Scientific Concurrent Sessions 4					
5:05 PM - 6:35 PM	Session 16: Advancing Women's Health: Integrating Sex-Based Biology and Convergent Tissue Engineering <i>Session Chair: Joyce Wong, Ariella Shikanov</i>	Session 17: Pathways to Innovation: Perspectives, Challenges, and Breakthroughs in Tissue Engineering and Regenerative Medicine <i>Session Chair: Karina Nakayama, Helen Lu</i>	Session 18: Biomaging and Sensing for Cell Tracking, Scaffold Validation, and Organ Preservation <i>Session Chair: Mhignayani Kotecha</i>	Session 19: Harnessing Responsive Biomaterials for Next-Generation Therapeutics <i>Session Chair: Brendon Baker, Claudia Loebel</i>	Session 20: Rapid Fire II <i>Session Chair: George S Hussey</i>
5:05 PM - 5:35 PM	Keynote Lecture: Sex-Specific Mechanobiology and the Impact on Biomaterial Development, Josephine Allen	Keynote Lecture: Making Space for Fat: Innovation Through Inclusion in Tissue Engineering, Evangelia Bellas	Keynote Lecture: Coloring the Future of Cell Tracking, Bryan Smith	Keynote Lecture: Mechano-Regulated Therapeutic Delivery for Joint Injury and Repair, Robert Mauck	RF-19 Ecm-inspired immunomodulatory II-37 for Improving Outcomes of Implanted Mesh in Aged Individuals, Bryan Brown RF-20 Enhancing the Migration and Differentiation of Mesenchymal Stromal Cells in Composite Collagen Hydrogels Using Focused Ultrasound, Somnath Maji RF-21 A Bioengineered Dermal-inspired Intervenor Extracellular Matrix Wound Patch Recapitulating Natively for Promoting Diabetic Wound Healing, Feng Zhao RF-22 Self-expanding Sponges with Antimicrobial and Hemostatic Functionality, Pritha Sarkar RF-23 Defining the Role of Matrix-bound Nanovesicles in Modulating Epithelial and Mesenchymal Cells in the Tumor Microenvironment Remodeling, Daniela Romero RF-24 Alleviation of Oxidative Stress in Fibroblasts by Platinum Nanoparticle-immobilised Polycaprolactone-collagen Nanofibres, Matangi P R RF-25 From Plants to Healing: Incorporating Aloe Vera-derived Nanoparticles into Soy Protein Biomaterials for Enhanced Wound Healing, Nader Rezaeezadeh RF-26 Modular Fibrous Architecture Designed to Promote Integrin-ECM Crosstalk Enhances the Vasculature of Synthetic Nanoporous Hydrogels, Yiming Zhao RF-27 Role of Estrogen Signaling in Skin Aging and Repair, Helena Zomer RF-28 Engineering Tolerogenic Cell Therapies with Placental Mimicry for Type 1 Diabetes, Shivani Hiremath RF-29 Modeling Immune-ECM Crosstalk and Therapeutic Response in an Aged Breast Cancer Model, Lauren Hawthorne RF-30 Antigen-conjugated Scaffolds for Enrichment of Disease-specific T-cells, Sydney Wheeler RF-31 Dump-scavenging Scaffolds for Immunomodulation in an In Vitro Model of Osteoarthritis, Brianna Pryzwansky RF-32 Creating a Living Intestinal Organoid Biobank: A Model System for Mechanistic Testing in GI-symptomatic Children with Autism, Yosani Fernandez-Figueroa RF-33 Improving the Efficiency of Red Blood Cell Manufacturing, Shannon Waten RF-34 Targeting Pk-regulatory Mechanisms in Nucleus Pulposus Cells to Overcome the Acidic Barrier for Disc Regeneration, Typhaine Hamidouche RF-35 Morphometric Profiling of Mesenchymal Stem Cells as a Predictive Tool for Regenerative Medicine, Emilie Berlu Ozmen RF-36 Customized Hyaluronan-based Hydrogel as a Carrier Material for Retinal Pigment Epithelium (RPE) Cell Transplantation, Laura Ya-Outinen
5:35 PM - 5:50 PM	OP-57 Characterization of Sex-Based Differences in Integrin-Mediated Endothelialization on Bioactive PEGDA Hydrogels, Aashee Budhwani, US	Keynote Lecture: Autonomous RUNX2 Suppression in Engineered Cartilage, Rhima Coleman	OP-61 Engineering Photon Upconverting Oxygen Nanosensors for Noninvasive In Vivo Monitoring of Implanted Cell Therapies, John-Paul Pham, US	OP-65 Genetically Programmed Superparamagnetic Soft Robots for Microsurgery, Wenwen Huang, China	
5:50 PM - 6:05 PM	OP-58 Sex Differences Between Two Major Macrophage Cell Lines in 2D and 3D Cultures Reveal Divergent Functional Responses to 17 β -Estradiol (e2), Alison M Veintimilla, US		OP-62 AI-Assisted Metabolic Optical Biomarkers for Tracking Hematopoietic Stem/Progenitor Cells, Keyue Shen, US	OP-66 A CRISPR-Engineered Isogenic 3D Bioprinted Outer Blood-Retinal Barrier Model to Investigate the Role of CFH in AMD, Andrea Barabino, US	
6:05 PM - 6:20 PM	OP-59 Bioengineered Ovarian Constructs to Prevent Osteoporosis in Rat Model of Ovarian Hormone Loss, Vivek Prakash, US	Keynote Lecture: Human Stem Cell-Based Articular Tissue Engineering: From Joint Regeneration to Joint-on-a-Chip (miniJoint), Rocky Tuan	OP-63 Development of Hardware and Protocols for Ex-Vivo Rat Liver Oxygen Imaging, Mhignayani Kotecha, US	OP-67 Engineered Silk Elastin-Like Protein Nanoparticles With Calcium Phosphate Coating Enable Safe and Effective Antitumor Chemotherapy, Kaiyue Zhang, China	
6:20 PM - 6:35 PM	OP-60 Development and Host Response Evaluation of a Polyurethane-Based Microfiber Mesh for Breast Reconstruction in a Rat Model, Laura Modica de Mohac, Italy		OP-64 Multicolor Computed Tomography of 3D Printed Radiopaque Biomaterial Implants, Erik Shapiro, US	OP-68 Programmed Sequential Release of Growth Factors Using Janus Acoustically Responsive Scaffolds for Vascular Regeneration, Haijun Xiao, US	
6:35 PM - 8:00 PM	Poster Session 2 & Exhibitor Viewing / Reception (Location: Exhibition Area - Level 3)				
8:00 PM - 9:00 PM	SYSIS Networking Event (Location: Exhibition Area - Level 3)				

Tuesday, November 11, 2025

Time	HALL A (COLUMBUS)	HALL B (CABOT)	HALL C (CARTIER)	HALL D (LA SALLE)	HALL E (CADILLAC)
	Scientific Concurrent Sessions 5				
8:00 AM - 9:30 AM	<p>Session 21: Emerging Biofabrication Technologies</p> <p>Session Chair: <i>Feng Guo</i></p>	<p>Session 22: Engineering Strategies to Aid in Diagnosis and Treatment of Ophthalmic Disease</p> <p>Session Chair: <i>Budd A Tucker, Ruchi Sharma</i></p>	<p>Session 23: Role of Biomaterials, Biomolecules and Processes in Musculoskeletal Tissue Regeneration</p> <p>Session Chairs: <i>Karina Nakayama, Cevat Eriskan, Kayla Podlewski</i></p>	<p>Session 24: Special Topic: The Importance of Advocacy in Biomedical Engineering Research</p> <p>Session Chair: <i>Dawn Beraud</i></p>	<p>Session 25: Dynamic Extracellular Matrices to Control Cell Signaling</p> <p>Session Chair: <i>Ritu Raman, Golnaz Karoubi, Diya Singhal</i></p>
8:00 AM - 8:30 AM	<p>Keynote Lecture: Neural organoids on chip towards learning and memory modeling, <i>Lena Smirnova</i></p>	<p>8:00 AM - 8:25 AM</p> <p>Keynote Lecture: Engineering Next Generation Microphysiologic Systems for the Study and Treatment of Diabetic Retinopathy, <i>Maribel Vasquez</i></p>	<p>Keynote Lecture: Engineering the Regenerative Niche for Multi-Tissue Musculoskeletal Repair, <i>Nick Willett</i></p>	<p>Keynote Speaker: A Collective Call to Action: The Importance of Advocacy and Avenues for Engagement in Biomedical Engineering, <i>Dawn Beraud</i></p>	<p>OP-81 Epithelial Cell Nascent Matrix Deposition Contributes to Lung Injury, <i>Donia Ahmed, US</i></p>
		<p>8:25 AM - 8:50 AM</p> <p>Keynote Lecture: Evaluating and Engineering a Self-Amplifying RNA System for Gene Therapy, <i>Michael Farkas</i></p>			<p>OP-82 Programmable Vascular Patterning via Actuating Extracellular Matrices, <i>Jessica Shah, US</i></p>
8:30 AM - 8:45 AM	<p>OP-69 Matrix-Free Fabrication of Reproducible and Functional Human Intestinal Organoids with Control of Polarity, <i>Madeline Eiken, US</i></p>	<p>8:50 AM - 9:00 AM</p> <p>RF-39 Sustained Release Of Insulin-like Growth Factor 1 For The Treatment Of Retinal Degenerative Diseases, <i>Sophia Lu, US</i></p>	<p>OP-77 Enhancing Effective Fracture Healing in Ageing Bone: Bioengineered Extracellular Vesicles as Osteochondrogenesis Activators for Targeted Therapy, <i>Kelvin Yeung, Hong Kong</i></p>	<p>Keynote Speaker: Science for Everyone: Building Bridges Between the Lab and the Public, <i>Elizabeth Cosgriff-Hernandez</i></p>	<p>OP-83 Cyclic Stretch Preconditioning Improves Re-Epithelialization in Bioengineered Lung Scaffolds for Transplantation via Integrin-Mediated Mechano-Transduction, <i>Golnaz Karoubi, Canada</i></p>
8:45 AM - 9:00 AM	<p>OP-70 A Multiscale Bioprinting Platform for the Fabrication of Hierarchically Aligned Cardiac Tissues, <i>Donghwan Kim, Korea</i></p>	<p>9:00 AM - 9:10 AM</p> <p>OP-74 Non-Destructive Assessment of Retinal Organoid Maturity for Consistent Photoreceptor Replacement Therapies, <i>Nicholas Stone, US</i></p>	<p>OP-78 Mechanical Compression and Shear Induce Distinct Macrophage Polarisation and Subsequent Mesenchymal Stromal Cell Differentiation, <i>Martin Stoddart, Switzerland</i></p>	<p>Keynote Speaker: Building Relationships: Interfacing With Elected Officials From Local to National, <i>Joyce Y. Wong</i></p>	<p>OP-84 Probing Fibroblast Mechanobiology in Pelvic Organ Prolapse: An In Vitro Stiffness-Driven Model, <i>Temitope Obisesan, US</i></p>
9:00 AM - 9:15 AM	<p>OP-71 Embedded Bioprinting of Airway and Alveolar Stem Cells Enables Guided Morphogenesis of Complex 3D Lung Tissues, <i>Barbie Varghese, US</i></p>	<p>9:10 AM - 9:20 AM</p> <p>OP-75 In Vitro Quality Screening of Human Corneal Stromal Stem Cells for Cell-Based Therapy of Corneal Scarring, <i>Gary Yam, US</i></p>	<p>OP-79 Synthetic Helical Peptides on Nanofibers 3D Scaffold to Activate Cell-Surface Receptors and Synergistically Enhance Critical-Sized Bone Defect Regeneration, <i>Tongqing Zhou, US</i></p>	<p>Keynote Speaker: Campus Perspectives on Biomedical Engineering Advocacy, <i>Brendan A. Harley</i></p>	<p>Keynote Lecture: MAP Hydrogels Modulate Collagen Assembly and Fibrotic Responses, <i>Tatiana Segura</i></p>
9:15 AM - 9:30 AM	<p>OP-72 Matrix Mechanics Modulates the Permeability and Contractility of Endothelium Within Engineered Microvessels, <i>Margaret Stanley, US</i></p>	<p>9:20 AM - 9:30 AM</p> <p>OP-76 Role of Substrate Biomechanical Properties in Epigenetic Modulation and Phenotypic Stability of Corneal Endothelial Cells, <i>Saad Asim, US</i></p>	<p>OP-80 Advanced Bioprinting of Hydrogels With Controlled Mineral Gradients for Osteochondral Interface, <i>Cevat Eriskan, Kazakhstan</i></p>	<p>Panel Discussion</p>	
9:30 AM - 10:00 AM	Coffee Break				
10:00 AM - 12:00 PM	<p>Plenary Speaker & Award Session 2</p> <p>Using Organoids to Interrogate Human Development and Cellular Heterogeneity, <i>Jason Spence</i></p> <p>2025 TERMIS-AM Lifetime Achievement Award <i>Nicholas Peppas</i></p>				
12:00 PM - 1:30 PM	<p>Lunch Break on Your Own & SYIS Student Meet Mentor Lunch (Greco Room) *registration required</p>				

Scientific Concurrent Sessions 6					
1:30 PM - 3:00 PM	Session 26: Engineered Microenvironmental Cues for Musculoskeletal Regeneration <i>Session Chairs: Annemarie Lang, Genevieve Romanowicz, Emine Berfu Ozmen</i>	Session 27: Rapid Fire III <i>Chair: Peter Ma</i>	Session 28: Immunomodulatory Engineering Platforms <i>Session Chairs: Brian Kwee, Robert Smitty Oakes, Tracey Moyston</i>	Session 29: Mechanobiological Microenvironments and Stimuli for Cell Programming/Reprogramming <i>Session Chair: Chia-Ching (Josh) Wu, Allen Liu, Sungmin Nam, Zhiyue Zhu</i>	Session 30: Careers in the Regen Med Industry <i>Session Chair: Jan Stegemann</i>
1:30 PM - 2:00 PM	Keynote Lecture: Biomaterial-Guided Tendon Regeneration, Brendon M. Baker	RF-37 Topographical Immunoregulation to Enhance Osteogenesis Under Diabetic Conditions in In-vivo, Min Guk Kim RF-38 Advancements in Surface Modification and Bioactive Coatings For Organ-on-Chip Technologies, Carolina Centeno-Cerdas RF-39/1 Efficient Engineering of Nonliving Mesenchymal Stem Cells for Innovative Cellular Therapies, Tiep Nguyen RF-40 Matrix-bound Nanovesicles: A Novel Paradigm for Cartilage Preservation in Osteoarthritis Through Tissue Engineering Insights, Jiayang Rong	Keynote Lecture: Local antigen specific B-cell recruitment improves regenerative healing in diabetic wounds, Tatiana Segura	Keynote Lecture: Understanding & Re-Writing Cellular & Molecular Programs Within Skeletal Muscle, Carlos Andres Aguilar	<p>Panelists: Susan Drapeau, Madeline Eiken, Luai Huteihel, Daniel Sauter</p> <p>This session is targeted at trainees at all levels who are interested in working in the regenerative medicine industry. A panel of industry professionals will discuss their roles and how trainees can prepare themselves for these positions. The purpose is for the audience to understand the professional roles that are available for scientists and engineers in the regen med space, including as they progress through their careers.</p>
2:00 PM - 2:15 PM	OP-85 Identification of MRTF as a Key Regulator of Tendon Mechanobiology During Embryonic Development, Emily King, US	RF-41 Improving Mechanical Properties and Printability of Collagen Hydrogels through Uva-riboflavin Crosslinking and Silk Fibroin Incorporation, Vipul Kishore RF-42 Machine Learning-based Early Prediction of Type 1 Diabetes from Immunological Niche Gene Signatures, Yifeng Jiang RF-43 Liver Extracellular Matrix Exposure Induces Dormancy Signatures in Colorectal Cancer Spheroids, Lucia Nash	OP-89 Integrating Immune Adjuvants Within Extracellular Matrix (ECM) Scaffolds to Modulate Host Response in Volumetric Muscle Loss Repair, Weizhen Li, US	OP-93 iPSC-Derived Tissues on Chips for Modeling Human Development and Disease, Estelle Park, US	
2:15 PM - 2:30 PM	OP-86 Microfiber-Reinforced Hydrogel Constructs Promote High-Precision Cellular Alignment, Mechanical Stability and Myogenic Differentiation, Adam Rauff, US	RF-44 Engineering a Novel Synergistic Nanoscaffold Incorporating Green Tea and Acacia Catechu Extracts for Accelerated Healing of Diabetic Foot Ulcers, Vivek Radhakrishnan RF-45 Deciphering Avascular Tissue Regeneration in The Human Knee Meniscus via In Vitro Models, John Bradford RF-46 Antibacterial and Immunomodulatory Colloidal Scaffolds for the Treatment of Burns: Recombinant Human Proteoglycan (prg4) and Minocycline in Gelatin Methacryloyl (gelma) Foam, Tannin Schmidt RF-47/1 Role of Fibrin in the Microphysiological System of Neuroinflammation at the Blood-brain-interface, Bumsoo Han	OP-90 Glycan-Functionalized Biomaterial Reveals Early Immune Signatures of Type 1 Diabetes via Single-Cell Metabolic Profiling Using Flow Cytometry, Kayle Riley, US	OP-94 Smart Microfluidic Biochip With Real-Time Feedback for Enhancing Stem Cell Potential via Spheroid Compression, Chia-Ching (Josh) Wu, Taiwan	
2:30 PM - 2:45 PM	OP-87 Osmotic Niche Changes Tune Extracellular Matrix Viscoelasticity and Trigger Bone Regenerative Processes, Matthias Kollert, Germany	RF-48 Reconstructing the Uterine Microenvironment Using a Tunable 3D Hydrogel Platform for Investigation of Early Embryonic Morphogenesis in Pigs, Angle Pannler RF-49 Fibrous Hydrogels Facilitate Matrix Remodelling in the Culture of Human Ovarian Stromal Cells, Taylor Schissel RF-50 Non-Destructively Assessing Microcarrier Occupancy Using Average Acoustic Pulse Dispersion Length, Jean Welter	OP-91 Amphiregulin Releasing Alginate Hydrogels for Treating Ischemic Muscle Injuries, Brennagh Shields, US	OP-95 Effects of Space Environment on Mesenchymal Stem Cells Immunosuppressive Potency, Leonel Velez Roman, US	
2:45 PM - 3:00 PM	OP-88 Mechanostat-on-a-Chip: Investigating Mechanotransduction by Utilizing Microphysiological Systems and Organoids, Frank Schulze, Germany	RF-51 Multi-material 3D Bioprinting of Human Stem Cells to Engineer Complex Human Corneal Structures with Stroma and Epithelium, Paula Pulstola RF-52 Optimizing Ring Frequency in Esophageal Grafts: Finite Element Analysis for Enhanced Structural Support and Stability, Federica Cosentino RF-53 Integration of an Innovative, Non-invasive, Long-lived, Robust Optical O2 Sensor into an Automated Manufacturing System, Mike Jacobs RF-54 Integration of Oxygen Sensors Within 3D Biomimetic Scaffolds for Tissue Regeneration, Jean Welter	OP-92 Biomaterial Platforms for Monitoring and Treating Immune Dysfunction, Aaron Morris, US	OP-96 Transcriptional Landscape of Direct Reprogramming Toward Hematopoietic Stem Cells, Jillian Cwycyshyn, US	

<p>3:00 PM - 4:45 PM</p>	<p>2025 TERMIS-AM Awards</p> <p>Senior Scientist Award Introduced by Shelly Sakiyama-Elbert <i>Joyce Y. Wong</i></p> <p>Commercialization/Innovation Award Introduced by Molly Shoichet <i>Jeff Karp</i></p> <p>Young Investigator Award Introduced by Molly Shoichet</p> <p>Awardee Presentation: Determining Sex Differences in Cardiovascular Diseases Using Engineered Tissues, <i>Brian Aguado</i></p> <p>Outstanding Postdoc Award Introduced by Molly Shoichet <i>Gopal Agarwal</i></p> <p>WFIRM Young Investigator Travel Awards Introduced by Sean Murphy</p>	
<p>4:45 PM - 5:15 PM</p>	<p>TWIGs Organizational Meetings</p>	
<p>5:15 PM - 6:45 PM</p>	<p>Poster Session 3 & Exhibitor Viewing / Reception (Location: Exhibition Area - Level 3)</p>	
<p>6:45 PM - 7:00 PM</p>	<p>Transition break</p>	
<p>7:00 PM - 9:00 PM</p>	<p>7:00 PM - 9:00 PM Evening Special Event - Conference Reception 8:15 PM - 8:30 PM SYIS Career Development and Scientific Excellence Award Presentation (Location: Level 4)</p>	

Wednesday, November 12, 2025

Time	HALL A (COLUMBUS)	HALL B (CABOT)	HALL C (CARTIER)	HALL D (LA SALLE)	HALL E (CADILLAC)
	Scientific Concurrent Sessions 7				
8:00 AM - 9:30 AM	<p>Session 31: Integrated Multicellular Living Systems for Biological Machinery Assembly and Regenerative Therapies</p> <p>Session Chair: <i>Sungmin Nam</i></p>	<p>Session 32: Trends in Disease Modeling and Treatments Using Biomaterials and Microfluidics</p> <p>Session Chairs: <i>Luiz Bertassoni, Rui L Reis</i></p>	<p>Session 33: General Session on Stem Cells & Cell Therapies & Developmental Biology and Cell Signaling</p> <p>Session Chair: <i>Golnaz Karoubi, Jinal Mehta</i></p>	<p>Session 34: Cell Manufacturing for Regenerative Medicine</p> <p>Session Chair: <i>Camilo A Mora Navarro, Leonel Vélez</i></p>	<p>Session 35: Biofabrication of Heterogeneous Scaffolds for Regenerative Medicine</p> <p>Session Chairs: <i>Liqun Ning, Vahid Serpooshan, Shivesh Anand</i></p>
8:00 AM - 8:30 AM	<p>8:00 AM - 8:20 AM</p> <p>Keynote Lecture: Role of Fibrin in the Microphysiological System of Neuroinflammation at the Blood-Brain-Interface, <i>Bumsoo Han</i></p>	<p>Keynote Lecture: New Tools to Design Complex 3D Cancer Models Using Microfluidics and Living Optical Fibers, <i>Rui L Reis</i></p>	<p>OP-103 Hpsc-Derived Functional Salivary Gland Organoids, <i>Laura Sherwood, US</i></p> <p>OP-104 Fluid Assisted Transformation of Fallopian Tube Secretory Epithelial Cells, <i>Raneem Ahmad, US</i></p>	<p>Keynote Lecture: Bench-to-Orbit Scalable MSC Manufacturing on Engineered Biointerfaces, <i>Maribella Domenech</i></p>	<p>Keynote Lecture: Truly Omnidirectional 3D Printing, <i>Mark Skylar-Scott</i></p>
8:30 AM - 8:45 AM	<p>8:20 AM - 8:40 AM</p> <p>Keynote Lecture: Cell Contractile Force-Mediated Morphodynamic Tissue Engineering via 4D Printed Hydrogel Scaffolds, <i>Eben Alsberg</i></p>	<p>OP-99 3D Pancreatic Niche for Tracking T Cell Recruitment and Killing of Antigen-Specific Islets, <i>Cherie Stabler, US</i></p>	<p>OP-105 Engineering Materials to Interrogate the Role of the Microenvironment on Cardiac Reprogramming, <i>Atticus McCoy, US</i></p>	<p>OP-109 Impact of Microgravity on Mesenchymal Stem Cell Growth and Stemness, <i>Carolina Rivera-Crespo, US</i></p>	<p>OP-113 Multimodal Shape Morphing in 4D Biofabricated Hydrogels via Biaxial Crosslinking Gradients, <i>Aixiang Ding, US</i></p>
8:45 AM - 9:00 AM	<p>8:40 AM - 9:00 AM</p> <p>Keynote Lecture: Tissue-Interfacing Biomedical Devices for Tissue Regeneration and Rehabilitation, <i>Sungmin Nam</i></p>	<p>OP-100 Modeling Dynamic Myeloid-Fibroblast Crosstalk in Pancreatic Cancer Within a Microfluidic Platform, <i>Mariana Viso, US</i></p>	<p>OP-106 Targeting Unique Mechanical Vulnerabilities in Peristalsis-Associated Malignant Progression in KRAS G12C Mutant Colorectal Cancers, <i>Astha Lamichhane, US</i></p>	<p>OP-111 Batch Manufacturing of Hepatocyte-Laden Polyelectrolyte Microcapsules With Tunable Internal Environments Using an Optimized Electrospray Technique, <i>Rafael Ramos, US</i></p>	<p>OP-114 Development of a Hydrogel-Based Scaffold With a Schwann Cell Density Gradient for Peripheral Nerve Regeneration, <i>Kylie Schmitz, US</i></p>
9:00 AM - 9:15 AM	<p>OP-97 Bioprinting-Assisted Tissue Assembly of Hierarchically Vasculature Liver Grafts, <i>Daekeun Kim, Korea</i></p>	<p>OP-101 Engineered Injectable Scaffolds as Synthetic Niches for Minimally Invasive Surveillance of Metastatic Breast Cancer Progression, <i>Kathryn Kang, US</i></p>	<p>OP-107 Extracellular Matrix Hydrogel Promotes the Long-Term Growth and Function of Transplantable Human Thyroid Organoids Derived From Induced Pluripotent Stem Cells, <i>Paula Marin-Munoz, US</i></p>	<p>OP-112 3D Bioprinting Strategies for Engineering Cornea: A Clinician's Perspective, <i>Vineet Joshi, India</i></p>	<p>OP-115 Printing Mechanics Into Biology: Voxel-Resolved Encoding of Spatiotemporal Stiffness Directs Cell Fate and Migration, <i>Maryam Tilton, US</i></p>
9:15 AM - 9:30 AM	<p>OP-98 Precisely Controlled Spheroid Encapsulation for Modulating 3D Microgel Viscoelasticity and Regulating Tissue Construct Functionality, <i>Sangmin Lee, US</i></p>	<p>OP-102 Modelling Pulmonary Hypertension with 3D-printed Vascular Scaffolds: A Platform for Mechanobiology and Personalized Therapy, <i>Naghme Abbasi, US</i></p>	<p>OP-108 Optimizing an In Vitro Platform to Assess Patient Feasibility in Autologous Cartilage Repair: A Tissue Engineering Perspective, <i>Amy Xie, Australia</i></p>	<p>OP-110 A 2.5D Culture Platform Enhances the Maturity of Human Ipsc-derived Skeletal Muscle Cultures and Promotes Long-term Contractility, <i>Tamara Rossy, US</i></p>	<p>OP-116 Bioprinting for Spatial Control of Cell Deposition in Engineered Tissues, <i>India Dykes, US</i></p>
9:30 AM - 10:00 AM	Coffee Break				
10:00 AM - 11:00 AM	<p>Plenary Speaker Session 3</p> <p>Translation: From Idea to Commercial Product, <i>Laura Niklason</i></p>				
11:00 AM - 11:15 AM	<p>Closing Ceremony</p>				
11:15 AM - 11:30 AM	Transition Break				

Scientific Concurrent Sessions 8					
11:30 AM - 1:00 PM	Session 36: General Session on Bioreactors & Organs-on-Chips <i>Session Chair: Julio Cesar Aleman Hernandez</i>	Session 37: Engineering Reproductive Tissues <i>Session Chair: Jessica D. Weaver, Maria Coronel, Matangi PR</i>	Session 38: Strategies for Regeneration of the Nervous System <i>Session Chair: Nisha Iyer, Jessica Butts</i>	Session 39: Mentorship Session: Navigating the Pre-Tenure Journey	Session 40: Accelerating Breakthroughs by Leveraging Microgravity <i>Session Chairs: Pinar Mesci, Davide Marotta</i>
11:30 AM - 12:00 PM	OP-117 MicroHeart: A Highly Accurate Heart-on-a-Chip Platform Based on a Novel Light Bioprinted Cardiac Microtissue, Aadi Bhensdadia, US OP-118 Investigation of Fontan-Associated Thrombosis and Fibrotic Remodeling in a Bioengineered Model of a Liver Sinusoid, Isabel Joyce, US	Keynote Lecture: Biomimetic Scaffolds for Modeling Female Reproductive Tissues, Michelle Oyen	Keynote Lecture: Glia Engineering for CNS Wound Repair, Timothy O'Shea	Panelists: Laura De Laporte , Chair of Macromolecular Materials for Medicine at RWTH Aachen University Tatiana Segura , Professor, BME Duke University Catherine Kuo , Professor, BioE University of Maryland Lisa Larkin , Professor, Molecular and Integrative Physiology University of Michigan Shelly Sakiyama-Elbert , Professor and Vice Dean of Research and Graduate Education, School of Medicine, University of Washington David Kohn , Professor, BME University of Michigan This session is geared towards assistant professors and late-stage postdoctoral fellows. It will host a panel of established professors who will answer audience questions on key topics in navigating the pre-tenure phase of academia. After a broad discussion, panelists and others will break into groups for more small group discussions.	Keynote Lecture: Biomanufacturing Beyond Earth: Disruption, Innovation, and the New Industrial Revolution, Pinar Mesci, Davide Morotta
12:00 PM - 12:15 PM	OP-119 In Vivo Validation of Manufactured Stem Cell-Derived Pancreatic Islets Using a Scaled, Automated, and Closed Approach, Tessa DesRochers, US	OP-123 Tissue Engineered In Vitro Human Myometrium: A New Approach to Quantify Myometrial Contractility, Shreya Raghavan, US	OP-127 Engineering a Stem Cell Spheroid-Derived 3D Decellularized Matrix With Post-Decellularization Growth Factor Customization as a Bioactive Material for Brain Repair, Chieh-Cheng Huang, Taiwan		OP-131 Cellular Behaviors of Biomanufactured Vascularized Liver Tissue Constructs in Microgravity, Timothy Dobroski, US
12:15 PM - 12:30 PM	OP-120 Cellular Interactions Govern Tissue Patterning in Tooth Root Organoids, Fatima Syed, US	OP-124 Microporous Annealed Particle Hydrogel Promotes Revascularization of Transplanted Human Ovarian Tissue and Restoration of Ovarian Endocrine Function, Despina Pavlidis, US	OP-128 Evaluation of in Situ Assembled Granular Hydrogel Scaffolds for Neural Progenitor Cells Delivery in a Severe Spinal Cord Injury Model, YuChi Huang, US		OP-132 Surface Tension Enables Induced Pluripotent Stem Cell Culture in Commercially Available Hardware During Spaceflight, Maedeh Mozneb, US
12:30 PM - 12:45 PM	OP-121 Airway Organ Tissue Equivalent Platform for Modeling Chlorine Gas Toxicology and Medical Countermeasure Efficacy, Sean Murphy, US	OP-125 Macrophage Polarization: Impact on Matrix Remodeling and Downstream Healing Outcomes, Marrisa Theriault, US	OP-129 Prevention of Nerve Growth and Evoked Pain With a Nerve Cap Graft Device, Bryan Brown, US		OP-133 Beyond Microgravity: Considering Other Mechanical Features of Organoids and Tissue Models in Space, Meenal Datta, US
12:45 PM - 1:00 PM	OP-122 Macrophages Alter Metabolism of Engineered Cardiac Tissue in Infarct Conditions, Frank Ketchum, US	OP-126 Engineering ECM Sequestering Fibrous Hydrogels to Promote Ovarian Folliculogenesis and Investigate Follicle-ECM Interactions, Emily Thomas, US	OP-130 Injectable Hydrogel Derived From Decellularized Human Peripheral Nerve Attenuates Neuroinflammation in a Rodent Spinal Cord Injury Model, Gopal Agarwal, US		OP-134 Predicting Chemotherapy Response in Space Using Tumor Organoids in Simulated Microgravity, Nadeem Wajih, US
1:00 PM - 2:00 PM	SYIS Career Panel Discussion				

Legend:

Plenary Sessions	SYIS Activities	Society Meetings
Scientific Concurrent Sessions	Workshops	Social Events