

Twelfth Symposium on Biologic Scaffolds for Regenerative Medicine

Day 1: May 18, 2023 (Thursday)

3:00 – 8:00 pm	Registration	Silverado Foyer
5:00 – 6:00 pm	Keynote: Robert Mecham, PhD <i>Washington University, St. Louis</i>	The Extracellular Matrix in Tissue Engineering: Rebuild It or Reuse It?
6:00 – 8:00 pm	Wine and Cheese Reception	Silverado East & Fairway Deck
6:00 – 8:00 pm	Exhibits Open	Silverado East

Day 2: May 19, 2023 (Friday)

7:00 – 8:00 am	Breakfast	Fairway Deck
Welcome		
8:00 – 8:05 am	Stephen F. Badylak, DVM, PhD, MD <i>University of Pittsburgh</i>	Silverado West
Session I:	The ECM: Immune System Interface <i>Session Chair: Marley Dewey, PhD, University of Pittsburgh</i>	
Plenary Session:		
8:05 – 8:40 am	Featured Presentation: Alberto Mantovani, MD, <i>Humanitas University, Italy</i>	Macrophage Plasticity and the Orchestration of Tissue Repair
8:40 – 9:05 am	Benjamin G. Keselowsky, PhD <i>University of Florida</i>	Tissue-Anchored and Circulating Indoleamine 2,3-Dioxygenase for Immunometabolic Suppression of Inflammation
9:05 – 9:30 am	Matthew Wolf, PhD <i>National Cancer Institute, NIH</i>	Inducing Antigen Specific Tumor Regression with a Biologic Scaffold Assisted Therapeutic Cancer Vaccine
9:30 – 9:55 am	George Hussey, PhD <i>University of Pittsburgh</i>	The Extracellular Matrix Bound Nanovesicle
9:55 – 10:15 am	Milos Marinkovic, PhD <i>University of Texas Health Science Center at San Antonio</i>	Depletion of Cyr61/CCN1 from the Bone Marrow Stromal Niche is a Potential Mechanism Contributing to the Dysregulation of MSCs in Aging Skeletal Tissue
10:15 – 10:35 am	Break	Silverado East
Session II:	Composition and Biologic Activity of the ECM <i>Session Chair: Kevin E. Healy, PhD, University of California, Berkeley</i>	
10:35 – 10:55 am	Maxwell McCabe, PhD <i>University of Colorado</i>	A Mass Spectrometry-based Atlas of Extracellular Matrix Proteins Across 25 Mouse Organs

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10:55 – 11:15 am	Michel Modo, PhD <i>University of Pittsburgh</i>	Establishing the Mechanistic Role of Matrix Metalloproteinase (MMP) in ECM Hydrogel Degradation
11:15 – 11:35 am	Kirsi Rilla, PhD <i>University of Eastern Finland</i>	Hyaluronan and Its Role in EV Biology
11:35 – 12:00 pm	John P Fischer, MD, MPH, FACS <i>University of Pennsylvania</i>	Re-imagining Hernia Repair with Bioabsorbable Materials
12:00 – 1:15pm	Lunch	Fairway Deck
12:30 – 1:15pm	Exhibits Open	Silverado East
Session III:	Basic Science meets Clinical Applications <i>Session Chair: Robert G. Matheny, MD, CorMatrix Cardiovascular</i>	
1:15 – 1:35 pm	Karen Christman, PhD <i>University of California San Diego</i>	Infusible Extracellular Matrix for Treating Inflamed Tissues
1:35 – 1:55 pm	Vishnu Vasanthan, MD <i>University of Calgary, Canada</i>	Pericardial Delivery of Micronized Matrix Biomaterial Enhances Post-infarct Cardiac Repair
1:55 – 2:10 pm	William Fodor, PhD <i>Biostage, Inc.</i>	Esophageal Regeneration Following Surgical Implantation of a Tissue Engineered Esophageal Implant: Understanding the Regeneration Time Course and Translation to the Clinic
2:10 – 2:30 pm	Vince Anto, MD <i>University of Pittsburgh Medical Center</i>	Extracellular Matrix Adjuncts in a Rat Model of a High-Risk Colorectal Anastomosis
2:30 – 2:55 pm	Peter Jones, PhD <i>University of Nevada</i>	MBV for FSHD: Effect of Matrix-Bound Nanovesicles on a Dystrophic Environment
2:55 – 3:15 pm	Break	Silverado East
Session IV:	ECM Formulations, Sourcing and Concepts <i>Session Chair: George Hussey, PhD, University of Pittsburgh</i>	
3:15 – 3:35 pm	Dennis Orgill, MD, PhD <i>Brigham and Women's Hospital/Harvard University</i>	Xenogenic Induction of Adipose Tissue and Maintenance Through Pre- and Post-Conditioning Using External Volume Expansion
3:35 – 4:00 pm	Joana Calderia, PhD <i>i3S, Universidade do Porto, Portugal</i>	Fetal-inspired Scaffolds for Intervertebral Disc Regeneration
4:00 – 4:25 pm	Joshua Jones, PhD <i>University of Nottingham, UK</i>	Engineered Neural Tissue from Decellularized Biomaterials for Peripheral Nerve Repair

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4:25 – 4:50 pm	Roche de Guzman, PhD <i>Hofstra University, Hempstead, NY</i>	Mitigation of Fibrosis Response Using Biologic SIS-ECM Envelopes with Implantable Electronic Devices
4:50 – 4:55 pm	Stephen F. Badylak, DVM, PhD, MD <i>University of Pittsburgh</i>	Closing Remarks
5:00 – 7:00 pm	Poster Session and Wine Reception	Silverado East & Fairway Deck
5:00 – 7:00 pm	Exhibits Open	Silverado East
Day 3: May 20, 2023 (Saturday)		
7:00 – 8:00 am	Breakfast	Fairway Deck
Welcome		
8:00 – 8:05 am	Stephen F. Badylak, DVM, PhD, MD <i>University of Pittsburgh</i>	Silverado West
Plenary Session:		
8:05 – 8:40 am	Keynote Address: Harald C. Ott, MD <i>Harvard Medical School</i>	Engineered Organ Therapeutics - How Close Are We in 2023?
Session V: General and Reconstructive Surgical Applications of Naturally Occurring Bioscaffolds <i>Session Chair: John A. DeFord, PhD (retired) former BD Exec Vice President and CTO</i>		
8:40 – 9:05 am	Robert Rehnke, MD <i>The Center for Surgical Excellence, Tampa, FL</i>	Total Breast Reconstruction with Autologous Fat Grafting and P4HB Absorbable Mesh - an Eight Year Experience: Lessons Learned and Theories on the Self-organizing Regenerative Superficial Fascia.
9:05 – 9:30 am	Kevin E. Healy, PhD <i>University of California, Berkeley</i>	4D Hyaluronic Acid-Based Hydrogels for Cell Transplantation and Tissue Regeneration
9:30 – 9:55 am	Gaetan Roudier <i>University of Bordeaux, France</i>	Development of a Vascular Graft Woven from Extracellular Matrix Yarn and First Use as an Arteriovenous Shunt in Sheep
9:55 – 10:20 am	Stephen Badylak, DVM, PhD, MD <i>University of Pittsburgh</i>	The Effects of ECM Hydrogel on the Wound Microenvironment
10:20 – 10:45 am	Break	Silverado East
Session VI: ECM: Structure/Function <i>Session Chair: John Harper, PhD, Sr. VP R&D, Chief Technology Officer, Mimedx Group, Inc.</i>		
10:45 – 11:10 am	Kirk Hansen, PhD <i>University of Colorado Anschutz Medical Campus</i>	Extracellular Matrix Remodeling in <i>Acomys Cahirinus</i> Skin Regeneration
11:10 – 11:35 am	Carlos Sonnenschein, MD <i>Tufts University</i>	Cancer is a Developmental Disease

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11:35 – 11:55 am	Gavin Arteel, PhD <i>University of Pittsburgh</i>	Therapeutic Matrix-Bound Nanovesicles (MBV) Protect Against Experiment Alcohol-associated Liver Disease in Mice
11:55 – 12:15 pm	Sarah Moreno <i>MiMedx Group, Inc</i>	Human Placental Extracellular Matrix Particulate Supports Fibroblast Cellular Activities: Therapeutic Potential for Wound Applications
12:15 – 1:15pm	Lunch	Fairway Deck
12:45 – 1:15pm	Exhibits Open	Silverado East
Session VII:	Effects of Manufacturing upon ECM Bioactivity <i>Session Chair: Kirk Hansen, PhD, University of Colorado Anschutz Medical Campus</i>	
1:15 – 1:40 pm	Kara Spiller, PhD <i>Drexel University</i>	Controlled Release of Immunomodulatory Factors for Regenerative Medicine
1:40 – 2:00 pm	Michael Hiles, PhD <i>Cook Biotech, Inc</i>	The Case for Inflammation B?
2:00 – 2:25 pm	Lisa White, PhD <i>University of Nottingham, UK</i>	Supercritical Carbon Dioxide Decellularization – Hope vs Hype?
2:25 – 2:50 pm	Jin Han, PhD <i>Johns Hopkins University</i>	Age-associated Senescent-T Cell Signaling Promotes Type 3 Immunity that Inhibits Regenerative Response
2:50 – 3:10 pm	Break	Silverado East
Session VIII:	Next Generation ECM Products <i>Session Chair: Matthew T Wolf, PhD, Center for Cancer Research, NIH</i>	
3:10 – 3:35 pm	Roseanne Frederick, PhD <i>Smith & Nephew, Inc</i>	Clostridium Collagenase Impact on Zone of Stasis Stabilization and Transition to Healthy Tissue in Burns
3:35 – 3:55 pm	Michael Buckenmeyer, PhD <i>National Cancer Institute</i>	Self-assembling Extracellular Matrix Tumor Spheroids: A 3D in Vitro Model of Dynamic Reciprocity
3:55 – 4:15 pm	Jason Spector, MD, FACS <i>Weill Cornell Medicine and co-founder and Chief Medical Officer of Fesarius Therapeutics.</i>	Dermisphere™: Harnessing Microstructural Cues in a Collagen Hydrogel to Optimize Vascular Invasion
4:15 – 4:40 pm	Hector Capella Monsonis, PhD <i>University of Pittsburgh</i>	Immunomodulatory Effect of Matrix Bound Nanovesicles (MBV) upon Myeloid Precursor Cells
4:40 – 4:50 pm	Stephen F. Badylak, DVM, PhD, MD <i>University of Pittsburgh</i>	Closing Remarks