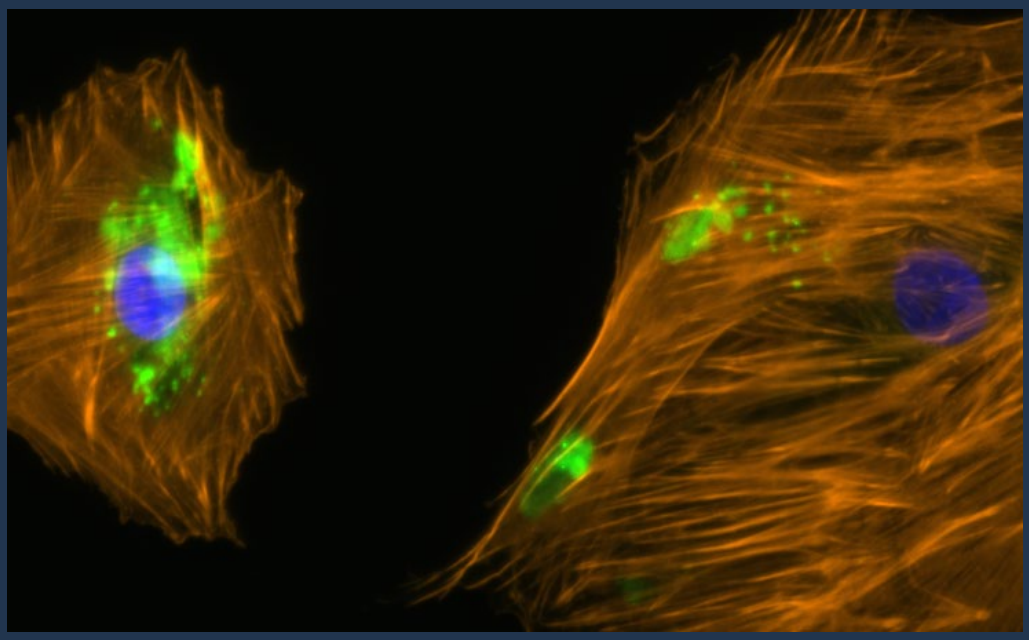
13th Symposium on Biologic Scaffolds for Regenerative Medicine

Napa, CA
May 1-3, 2025



Letter from the Symposium Chair

May 1, 2025

Welcome to the 13th Symposium on Biologic Scaffolds for Regenerative Medicine at the Silverado Resort and Spa!

The scientific program has been designed to include presentations of relevance and interest to basic scientists, clinicians, and industry alike. We have a superb line-up of speakers that will stimulate and challenge all of us interested in naturally occurring biologic materials. The venue and format encourage open dialogue, especially dialogue that relates basic science concepts to clinical outcomes. The mixture of individuals and specialties at this meeting is quite unique and I strongly encourage you to actively participate and make the most of the next couple of days. You will have the opportunity to interact with cross-disciplinary basic scientists, clinicians/surgeons at the vanguard of therapy with “biologics”, and industry leaders that develop, manufacture and deliver such products to the research and clinical communities.

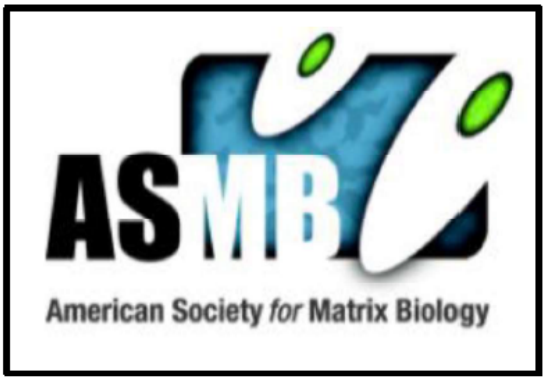
Enjoy the science, the venue and the wine.

Best Regards,

Stephen F. Badylak, DVM, PhD, MD
Symposium Chairperson

Thirteenth Symposium on Biologic Scaffolds for Regenerative Medicine

Endorsed by:



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Thirteenth Symposium on Biologic Scaffolds for Regenerative Medicine

Day 1: May 1, 2025 (Thursday)

1:00 – 8:30 PM	Registration	Silverado East Foyer
5:30 – 6:30 PM	**Keynote:** Laura E. Niklason, PhD, MD *CEO, Humacyte*	Going the Distance: FDA Approval in Regenerative Medicine
6:30 – 8:30 PM	**Reception**	**Fairway Deck**

Day 2: May 2, 2021 (Friday)

7:00 – 8:00 am	**Breakfast**	**Fairway Deck**
Welcome		
8:00 – 8:05 AM	Stephen F. Badylak, DVM, PhD, MD *University of Pittsburgh*	Silverado East
Plenary Session: 8:05 – 8:40 AM	Robert Mecham, PhD *Washington University, St. Louis, MO*	The Extracellular Matrix: The Good, the Bad, and the Surprises
Session I:	***The Extracellular Matrix: Structure – Function Relationships*** *Session Chair: Kevin Healy, University of California Berkeley*	
8:40 – 9:00 AM	Maxwell McCabe, PhD *University of Colorado*	Comparative Atlas of Extracellular Matrix Protein Composition Across 20 Tissues from *Mus Musculus* and the Regenerative Spiny Mouse *Acomys Cahirinus*
9:00 – 9:25 AM	Gavin Arteel, PhD *University of Pittsburgh*	Hepatic-Specific CAPN4 Modulation as a Novel Therapeutic Approach for Metabolic Associated Steatotic Hepatitis
9:25 – 9:50 am	Paolo De Coppi, MD, PhD, FMedSci *University College London*	From Bench to Body: The Role of ECM in Regenerative Medicine
9:50 – 10:10 am	George Hussey, PhD *University of Pittsburgh*	Matrix Bound Nanovesicles: From Basic Research to Therapeutic Applications
10:10 – 10:35 am	**Break**	**Fairway Deck**
Session II:	***Next Generation Bioscaffolds: Clinical Applications*** *Session Chair: George Hussey, PhD; University of Pittsburgh*	
10:35 – 10:55 am	J. Scott Roth, MD, FACS *University of Kentucky*	Requisite Repair for Abdominal Wall Defects: Science and Surgery for Reconstruction
10:55 – 11:15 am	David Medich, MD *University of Pittsburgh*	Anastomotic Leaks in Colon and Rectal Surgery

Thirteenth Symposium on Biologic Scaffolds for Regenerative Medicine

11:15 – 11:35 am	Vincent Antonelli, MD *University of Pittsburgh*	The Development of a Decellularized Retrievable Internal Wound Healing Device
11:35 – 11:55 am	William Fodor, PhD *Harvard Apparatus Regenerative Technology, Inc.*	The Development of a Decellularized Retrievable Internal Wound Healing Device
11:55 – 12:05 pm	Remarks by Dr. Badylak & Symposium Sponsors	
12:05 – 1:15 PM	**Lunch**	**Fairway Deck**
Session III:	***Naturally Occurring Bioscaffolds in "Hard to Heal" Wounds*** *Session Chair: Gavin Arteel, PhD; University of Pittsburgh*	
1:15 – 1:35 pm	Joseph A Molnar, MD, PhD, FACS, *Wake Health*	A History of Skin Substitutes
1:35 – 1:55 pm	Andrew Rader, DPM *Indiana Foor & Ankle, Jasper, In*	Transforming Wound Healing: Decellularized Matrices and Their Role in Minimizing Scar Tissue Formation
1:55 – 2:15 pm	Jimmie Lang *MiMedX Group, Inc.*	Bovine Extracellular Matrix Particulate Modulates Fibroblast Cellular Activities Supportive of Wound Management
2:15 – 2:35 pm	Yulia Sapir-Lekhovitser, PhD *Fesarius Therapeutics*	Understanding the Kinetics of Rapidly Vascularizing Composite Collagen Dermal Templates
2:35 – 2:50 pm	Gustavo Henrique Almeida *University of Sao Paulo*	Acellular Porcine Placental Membranes as a Promising Biomaterial for Tissue Engineering Applications
2:50 – 3:05 pm	Michael Hiles, PhD *Cook Biotech Inc.*	Anti-fibrotic Properties of a Decellularized Extracellular Matrix Scaffold from Porcine Small Intestinal Submucosa are Evident in Human Normal and Keloid Fibroblasts
3:05 – 3:25 pm	**Break**	**Fairway Deck**
Session IV:	***Bone and Cartilage Repair with ECM*** *Session Chair: John Harper, PhD, MiMedx Group, Inc.*	
3:25 – 3:45 pm	Josephine Luk, PhD *Smith & Nephew Plc.*	Marine Coral Exoskeleton as a Tissue Engineering Scaffold for Cartilage Repair
3:45 – 4:05 pm	Anna Gosiewska, PhD *Cellularity Inc.*	Novel Decellularized Human Placental Extracellular Matrix (ECM) Mineral Composite for Bone Applications
4:05 – 4:25 pm	Derek Dashti, MS, PhD, MBA *Pinnacle Transplant Technologies LLC*	The Biomechanical Composition and Osteoinductive Potential of Evoke Demineralized Bone Matrix (DBM) Putty
4:25 – 4:45 pm	Michael Floren, PhD *AlloSource Innovation Center*	Towards a Physeal Allograft for Pediatric Growth Plate Repair: From Benchtop to Preclinical Feasibility in Domestic Swine
4:45 – 4:50 pm	Stephen F. Badylak, DVM, PhD, MD *University of Pittsburgh*	Closing Remarks
5:00 – 7:00 PM	**Poster Session & Wine Reception**	**Fairway Deck**

Thirteenth Symposium on Biologic Scaffolds for Regenerative Medicine

Day 3: May 3, 2025 (Saturday)

7:00 – 8:00 AM	**Breakfast**	**Fairway Deck**
Welcome 8:00 – 8:05 am	Stephen F. Badylak, DVM, PhD, MD *University of Pittsburgh*	Silverado East
Plenary Session: 8:05 – 8:40 am	*Alberto Mantovani, MD* *Humanitas University*	Macrophage plasticity and the orchestration of tissue repair: old and new molecular players
Session V:	**Matrix Building Blocks for Normal vs. Neoplastic Tissue** *Session Chair: Vincent Antonelli, MD; University of Pittsburgh*	
8:40 – 9:10 am	Catalina Pineda Molina, PhD *University of Pittsburgh*	Exploring Matrix-Bound Nanovesicles from Joint Tissues: Emerging Diagnostic and Therapeutic Applications
9:10 – 9:30 am	Matthew Wolf, PhD Stadtman Investigator *National Institute of Health*	Biologic Mesh Implantation Following Tumor Resection: Characterizing Mesh-Tumor Interactions and Feasibility for Perioperative Immunotherapy Delivery
9:30 – 9:50 am	Jason Spector, MD *Weill Cornell Medicine*	A Novel Injectable Composite Collagen Hydrogel for Long-Lasting Tissue Regeneration
9:50 – 10:05 am	Dalia Di Francesco *Laval University, Québec*	Bioactive Matrix Bound Nanovesicles from Decellularized Bovine Pericardium for Tissue Regeneration
10:05 – 10:25 am	**Break**	**Fairway Deck**
Session VI:	***ECM Bioscaffolds for the Heart, Airway, and Nerves*** *Session Chair: Catalina Pineda Molina, PhD; University of Pittsburgh*	
10:25 – 10:45 am	Riccardo Gottardi *University of Pennsylvania*	A Decellularized Cartilage Biomaterials Approach to Pediatric Airway Reconstruction
10:45 – 11:05 am	Marissa Behun, PhD *University of Pittsburgh*	Acellular Porcine Sciatic Nerve-Derived Hydrogel Improves Functional Outcomes Following Direct Muscle Neurotization in a Rat Model
11:05 – 11:25 am	Robert Matheny, MD *CorMatrix Cardiovascular*	Regenerative Heart Valve; Update on the Development and Pivotal Trial for the Corvivo ECM Tricuspid Valve
11:25 – 11:45 am	John Konhilas, PhD *University of Arizona*	Clinical Experience of Human Placental Materials for Post-Operative Atrial Fibrillation Following Coronary Artery Bypass Surgery

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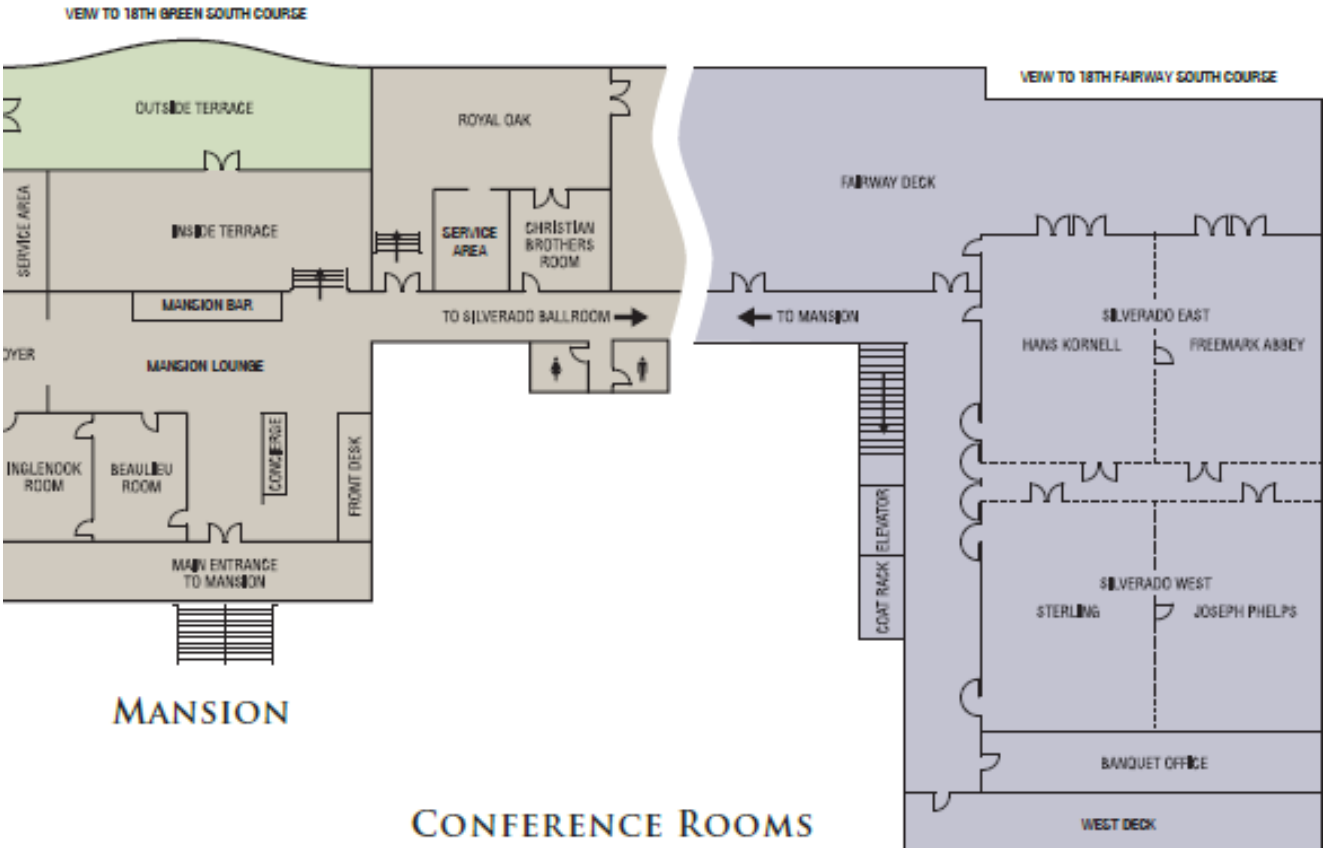
11:45 – 1:00 pm	**Lunch**	**Fairway Deck**
Session VII:	***Factors Contributing to "Constructive Tissue Remodeling"*** *Session Chair: Robert Matheny, MD; Corvivo Cardiovascular*	
1:00 – 1:20pm	Michael Hiles, PhD *N-Able Consulting LLC*	An Atemporal Model of Wound Healing Provides a Figure of Merit for Tissue Repair Using Extracellular Matrix
1:20 – 1:40 pm	Adam Young, PhD *Aroa Biosurgery Limited*	From Concept to Clinical Translation: A Commercialization Case Study of Ovine Forestomach Matrix
1:40 – 2:00 pm	Elizabeth Cosgriff-Hernandez, PhD *The University of Texas at Austin*	Harnessing Suspension for the Creation of Decellularized Tissue Scaffolds
2:00 – 2:20 pm	Kavita Parekh *University of California Berkeley*	Hyaluronic Acid-based Cryogel Scaffolds Promote Muscle Regeneration
2:20 – 2:40 pm	**Break**	**Fairway Deck**
Session VIII:	***Bioscaffold-Mediated Muscle Regeneration*** *Session Chair: Stephen F. Badylak, DVM, PhD, M; University of Pittsburgh*	
2:40 – 3:00 pm	Karen Christman, PhD *University of California*	Injectable Extracellular Matrix Hydrogels for Women's Health
3:00 – 3:20 pm	Sydney Shriver *University of Virginia*	Evaluation of Hyaluronic Acid-Based Hydrogels for Treatment of Extremity Volumetric Muscle Loss Injuries
3:20 – 3:40 pm	Morgan Pfaff *University of California Berkeley*	Viscoelastic HyA Hydrogel Promotes Recovery of Muscle Quality and Vascularization in a Murine Model of Delayed Rotator Cuff Repair
3:40 – 3:45 pm	Stephen F. Badylak, DVM, PhD, MD *University of Pittsburgh*	Closing Remarks

Poster Session

1	Sandi Dempsey Aroa Biosurgery	A novel chemotactic factor derived from the extracellular matrix protein decorin recruits mesenchymal stromal cells in vitro and in vivo
2	Moon Suk Kim Ajour University Korea	Enhanced Regenerative Therapies Using Crosslinked Porcine Small Intestine Submucosa Scaffolds with SP Peptide for Full-Thickness Wound Healing
3	D. Adam Young, PhD Aroa Biosurgery	A Large, Real-World, Prospective, Single-Arm Study Evaluating Outcomes Following Complex Lower Extremity Reconstruction with Ovine Forestomach Matrix Graft
4	Prabaha Sikder, PhD Cleveland State	Bioprinting of Bioactive Electroactive Constructs for Treating Skeletal Muscle Injuries
5	Anna Gosiewska Celularity	Decellularized Placental Biomaterials for Management and Protection of Tendon Injuries
6	Daniela Romero, PhD University of Pittsburgh	ECM Degradation Products Influence Esophageal Adenocarcinoma (EAC) Phenotype via PI3K-Akt and BMP4 Pathways
7	Daniela Romero, PhD University of Pittsburgh	Defining the Role of Matrix-Bound Nanovesicles in Modulating Epithelial and Mesenchymal Cells in the Tumor Microenvironment (TME) Remodeling
8	Vicky Martin, PhD FetTech, LLC	Characterization of the ECM-Based Multi-Tissue Platform Technology
9	Hector Capella-Mondonis, PhD Viscus Biologic, LLC	Porcine Cartilage as Inflammation Modular in a Monioodoacetate-induced athntis model
10	Catalina Pineda Molinda, PhD University of Pittsburgh	Characterization and Bioactivity of Human Joint Tissue-derived Matrix Bound Nanovesicles: Identification of Potential Biomarkers for Osteoarthritis
11	Catalina Pineda Molinda, PhD University of Pittsburgh	Matrix Bound Nanovesicle-Induced Mitigation of Periprosthetic Osteolysis: Novel Mechanisms of Action
12	Vincent Antonelli, MD University of Pittsburgh	Intraluminal Extracellular Matrix Therapy for Anastomic Leak: A Novel Solution to a Persistent Challenge.

Just a reminder no photography is allowed throughout the program, this includes the posters.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SERVICE AREA
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TO SILVERADO BALLROOM
MANSION LOUNGE
INGLENOOK ROOM
BEAULIEU ROOM
CONCIERGE
FRONT DESK
MAIN ENTRANCE TO MANSION
VIEW TO 18TH FAIRWAY SOUTH COURSE
FAIRWAY DECK
TO MANSION
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HANS KORNELL
FREEMARK ABBEY
COAT RACK
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STERLING
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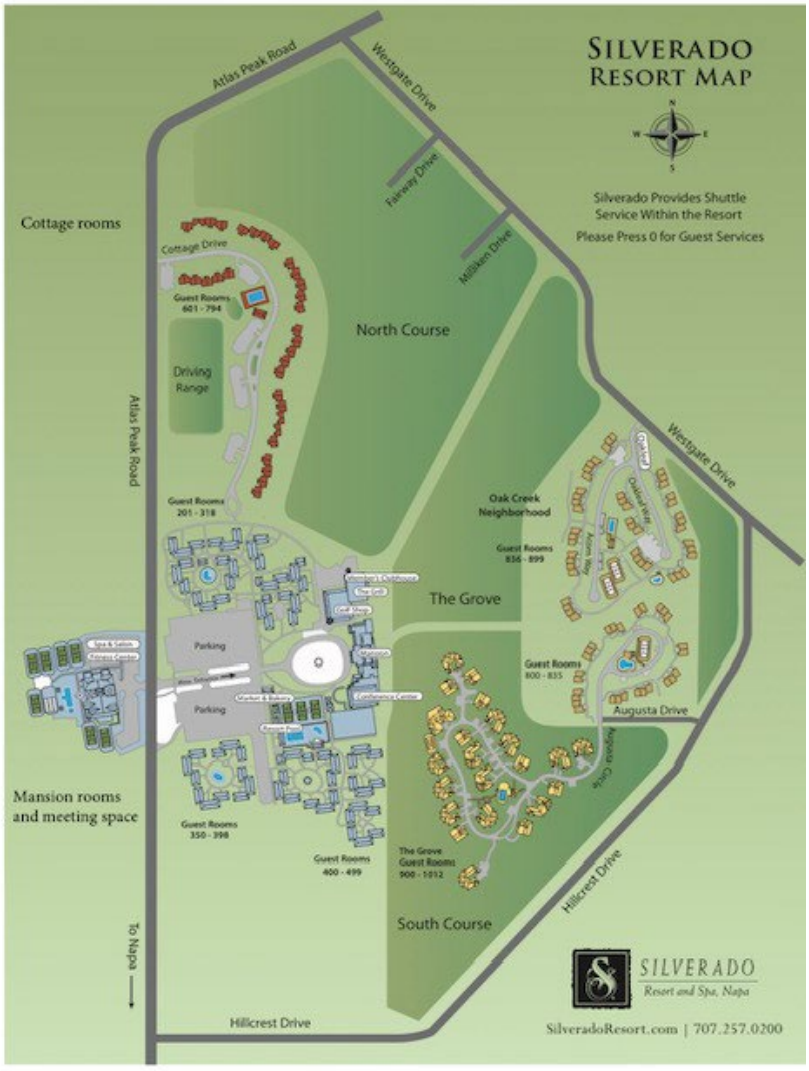
CONFERENCE ROOMS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Thank you for attending!