Ninth Symposium on Biologic Scaffolds for Regenerative Medicine

***** Final Program *****

Day 1: April 28, 2016 (Thursday)

6:00 – 8:00 pm	Registration	Silverado East Foyer
	Reception	Fairway Deck

Day 2: April 29, 2016 (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
Keynote Address		
8:05 – 8:40 am	Robert M. Nerem, PhD *Georgia Institute of Technology*	Regenerative Medicine: Harnessing the Intrinsic Power of the Human Body
Session I:	**Biologic Scaffold for Cardiac Reconstruction** **Chair:** Karen L. Christman, PhD, FAHA (*University of California, San Diego)*	
8:40 – 9:15 am	Frederick J. Schoen, MD, PhD *Brigham and Women's Hospital and Harvard Medical School*	Role of Matrix and Cell Dynamics in Heart Valve Health and Disease
9:15 – 9:45 am	Robert Matheny, MD, FACS *CorMatrix Cardiovascular, Inc.*	Development of a SIS Regenerative Heart Valve; From Benchtop to Clinical Trial
9:45 – 10:05 am	Dan T. Simionescu, PhD *Clemson University*	Development of Chemically Stabilized Acellular Cardiac Valve Scaffolds and in Vivo Testing in a Sheep Right Ventricular Outflow Tract Model
10:05 – 10:25 am	Lauren D. Black III, PhD *Tufts University*	Acellular Cardiac Extracellular Matrix-Silk Patches for Cardiac Repair Post-Myocardial Infarction
10:25 – 10:45 am	Break	Fairway Deck
Session II:	**Biologic Scaffolds for Plastic and Reconstructive Surgery** **Chair:** George Hussey, PhD (*University of Pittsburgh)*	
10:45 – 11:05 am	Robert G. Martindale, MD, PhD *Oregon Health & Science University*	Metabolic End Products of Absorbable Bioscaffolds in Soft Tissue Repair; Are They Helping or Hurting Us?
11:05 – 11:25 am	Olof Holmquist, MD Queen Silvias Childrens Hospital	Use of Biodesign® after Chest Wall Resection in Children: Our Experience in Two Cases
11:25 – 11:45 am	D. Adam Young, PhD *ACell, Inc.*	The Use of Urinary Bladder Matrix for Body Wall Repair in Multiple Preclinical Models
11:45 – 12:05 pm	Nicholas C. Pashos, BS *Tulane University School of Medicine*	Characterization of a Biologically Derived Graft for Nipple-Areolar Complex Reconstruction
12:05 – 12:25 pm	Kristen Jones, MD *University of Minnesota*	Neuroprotective Potential of Biologic Scaffolds in Acute Stroke and Human Translational Feasibility: A Neurosurgeon's Perspective

12:25 – 1:45 pm	Lunch	Fairway Deck
Session III:	**Mechanisms by Which ECM Scaffolds Influence Cell Behavior and the Associated Clinical Implications** **Chair:** Arnold I. Caplan, PhD (*Case Western Reserve University)*	
1:45 – 2:05 pm	Karen L. Christman, PhD, FAHA *University of California, San Diego*	Mechanisms of Action of a Myocardial Matrix Hydrogel for Treating Myocardial Infarction
2:05 – 2:25 pm	Inkyung Kang, PhD *Benaroya Research Institute at Virginia Mason*	A Role for Versican in Engineered Tissues: Modulating Elasticity and Inflammation
2:25 – 2:45 pm	David M. Adelman, MD, PhD, FACS *The University of Texas MD Anderson Cancer Center*	Defining the Device to Tissue Transition in Fetal Bovine Acellular Dermal Matrix
2:45 – 3:05 pm	George S. Hussey, PhD *University of Pittsburgh*	A Novel Bioactive Component of Biologic Scaffolds: Implications for Tissue Repair and Regeneration
3:05 – 3:25 pm	Break	Fairway Deck
Session IV:	**Some Basic Concepts of ECM and ECM Bioscaffolds** **Chair:** Laura E Niklason, MD, PhD (*Yale University*)	
3:25 – 3:45 pm	Robert Mecham, PhD *Washington University School of Medicine*	Extracellular Matrix Organization and Function
3:45 – 4:05 pm	Cyrus Ghajar, PhD *Fred Hutchinson Cancer Research Center*	Where the Wild Things Are: Perivascular Regulation of Disseminated Tumor Cell Dormancy and Chemoresistance.
4:05 – 4:25 pm	Matthew T. Wolf, PhD *Johns Hopkins University*	Urinary Bladder Extracellular Matrix Inhibits Tumor Formation
4:25 – 4:45 pm	Arnold I. Caplan, PhD *Case Western Reserve University*	MSCs: How They Work and Why (Some Surprises)
4:45 – 5:05 pm	Nikhil Gheewala, PhD *ACell, Inc.*	Developing a Standard Approach to Evaluating the Decellularization of Biomaterial ECMs
5:05 pm	Adjourn	
6:00 – 7:30 pm	Poster Session & Wine Reception	Fairway Deck

Day 3: April 30, 2016 (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
Keynote Address		
8:05 – 8:40 am	Laura E Niklason, MD, PhD *Yale University*	The Agony and the Ecstasy of Getting into the Clinic
Session V:	**Cell:Matrix Interactions and Clinical Relevance** **Chair:** Robert Mecham, PhD (*Washington University School of Medicine)*	
8:40 – 9:05 am	Nadia Rosenthal, PhD, FMedSci, FAAHMS *The Jackson Laboratory, Bar Harbor* *Imperial College London, UK*	Immune Control of Cardiac Repair

9:05 – 9:30 am	Jeffrey M. Davidson, PhD *Vanderbilt University Medical Center*	Multiscale Properties of ECM Scaffolds
9:30 – 9:55 am	C. James Kirkpatrick MD, PhD, DSc, FRCPath *Johannes Gutenberg University, Germany & University of Gothenburg, Sweden*	Developing in Vitro & in Vivo Models to Study Tissue Reactions to Biologic Scaffolds
9:55 – 10:30 am	Break	Fairway Deck
Session VI:	**Role of the Macrophage in Bioscaffold Induced Tissue Reconstruction** **Chair:** Charles D. Mills, PhD (*BioMedical Consultants)*	
10:30 – 10:50 am	Charles D. Mills, PhD *BioMedical Consultants*	Macrophages. The Chicken and the Egg in Immune Responses to Injury or Biologic Scaffolds
10:50 – 11:10 am	Kaitlyn Sadtler, BS *Johns Hopkins University*	Th2 T Cells are Required for Extracellular Matrix-Mediated Functional Muscle Regeneration
11:10 – 11:30 am	Hui Li, PhD *Life Cell Corporation-Acelity*	Macrophage Phenotype Profile Regulated by Tissue Matrices for Screening of Biomaterials
11:30 – 11:50 am	Samuel T. LoPresti, BS *University of Pittsburgh*	Effect of Source Animal Age upon Macrophage Response to ECM Scaffolds
11:50 – 12:10 pm	Wendy F. Liu, PhD *University of California, Irvine*	Regulation of Macrophage Function by Engineered Biopolymer Scaffolds
12:10 – 1:20 pm	Lunch	Fairway Deck
Session VII:	**Biologic Scaffolds for CNS, Whole Organ, Skin, and Cartilage Reconstruction** **Chair:** Bryan N. Brown, PhD (*University of Pittsburgh)*	
1:20 – 1:40 pm	Jenna Dziki, BS *University of Pittsburgh*	Biologic Scaffold Treatment for Volumetric Muscle Loss: Results of a Thirteen Patient Cohort Study
1:40 – 2:00 pm	Hilton Kaplan, MBBCh, FCSSA, PhD *Rutgers University*	Decellularized Allogeneic Neurovascular Bundles for Reinnervation and Revascularization in Soft and Hard Tissue Reconstruction, the Rehabilitation of Massive Scarring, and Engineered Tissues
2:00 – 2:20 pm	Jeff Ross, PhD *Miromatrix Medical Inc.*	Engineering a Clinically Relevant Transplantable Liver with Sustained In-Vivo Perfusion
2:20 – 2:40 pm	Karthikeyan Narayanan, PhD *Institute of Bioengineering and Nanotechnology, Singapore*	Decellularized Organs: Whole Organ Construction with Stem Cells
2:40 – 3:00 pm	Ian L. Valerio, MD, MS, MBA *Ohio State University Wexner Medical Center*	Application of Bioartificial Dermal Regeneration Templates for Skin Restoration in Combat Casualty Injuries
3:00 – 3:20 pm	Byoung-Hyun Min, MD, PhD *Ajou University Hospital*	Biomembrane from Porcine Cartilage Extracellular Matrix Contributes Enhancement of Efficacy of Microfracture for Cartilage Repair- Clinical Results Followed up 1 Year Postoperatively
3:20 – 3:45 pm	Break	Fairway Deck
Session VIII:	**ECM Structure-Function Relationships and Clinical Implications of the Immune Response** **Chair:** C. James Kirkpatrick MD, PhD, DSc, FRCPath (*Johannes Gutenberg University, Germany & University of Gothenburg, Sweden)*	

3:45 – 4:05 pm	Kenneth Burhop, PhD *Integra LifeSciences*	Collagen Matrix: Structure & Function - Translating to New Opportunities in Regenerative Medicine
4:05 – 4:25 pm	Inna Kornienko, MS *Moscow Institute of Physics and Technology*	Low-Immunogenic Matrix Suitable for Transplantation
4:25 – 4:50 pm	Bryan N. Brown, PhD *University of Pittsburgh*	A Macrophage Centric Approach to the Evaluation of ECM Scaffolds for Tissue Reconstruction
4:50 – 5:00 pm	Stephen F. Badylak, DVM, PhD, MD *University of Pittsburgh*	Closing Remarks & Adjourn