

## Monday Oct 23

### *Plenary Welcome Session: Perspectives on the Future of Regenerative Medicine*

9:00 - 9:20 am	Christopher J. Molloy, Rutgers University - Welcome	
9:20 - 10:00 am	Dean Kamen, Advanced Regenerative Manufacturing Institute - "Manufacturing the Future of Biofabrication"	
10:00 - 10:30 am	Glenn Gormley, Daiichi Sankyo Co. - "A PHARMA Perspective on the Opportunities and Challenges of Regenerative Medicine"	
10:30 - 11:00 am	Break	
11:00 - 11:30 am	Joachim Kohn, NJ Center for Biomaterials - "Bioactive Materials for the Treatment of Major Injuries: Opportunities and Challenges"	
11:30 am - 12:00 pm	Richard McFarland, Advanced Regenerative Manufacturing Institute - "The Quest for Coordinated Federal Policy and Practice for Tissue Engineering and Regenerative Medicine: The Multi-decade Odyssey of MATES"	
12:00 - 12:05 pm	ARMI Membership Information	
12:05 - 1:30 pm	Exhibitions and Lunch	
	<i>Session 1A - The Science of Tissue Regeneration</i>	<i>Session 1B - Continuous Manufacturing of Pharmaceutical Dosage Forms</i>
1:30 - 2:00 pm	Anthony J. Windebank, Mayo Clinic - "Tissue Engineering To Restore Function In The Nervous System"	Allan S. Myerson, Massachusetts Institute of Technology - "Continuous Manufacturing of Active Pharmaceutical Ingredients: Current Status, Future Prospects"
2:00 - 2:15 pm	Yunzhi Peter Yang, Stanford University - "What Have we Learned From Bone? Bio-inspired Approaches for Accelerated Bone Regeneration"	Fernando Muzzio, Rutgers University - "Continuous Drug Product Manufacturing - Report from the Front Line"
2:15 - 2:35 pm	Hilton Kaplan, Rutgers University - "Tissue Engineering Applications for Autologous Human Neurovascular Bundles Engineered from Xenogeneic Ones"	Mark Brower, Merck - "Current State of Integrated Continuous Manufacturing for the Production of Therapeutic Proteins"
2:35 - 2:50 pm	Sherif Soliman, Biostage, Inc. - "Esophageal Regeneration with a Cell-seeded Tissue Engineered Scaffold"	Q&A Session
2:50 - 3:30 pm	Exhibitions and Break	
	<i>Session 2A - Additive Manufacturing Technologies (3D Printing)</i>	<i>Session 2B - Challenges and Solutions for Cell and Tissue Manufacturing</i>
3:30 - 3:55 pm	Paul Dalton, University of Wurzburg - "Electrowriting: Bridging the Divide between 3D Printing and Electrospinning"	Gregory Christopherson, LifeCell - "The Science Behind LifeCell: A Clinical Leader in Regenerative Medicine"
3:55 - 4:20 pm	Ibrahim Ozbolat, Penn State - "3D Bioprinting of Living Tissues"	Alla Danikovitch, Osiris - "Advancement in Cell and Tissue Preservation for Commercial Success"
4:20 - 4:45 pm	Michael Francis, Embody - "Biofabrication of Collagen-Based Biomaterials for Regenerative Medical Device Applications"	Kevin Healy, University of Berkley - "Bioinspired Polymer Networks for Stem Cell Expansion and Tissue Manufacturing"
4:45 - 5:00 pm	Murat Guvendiren, New Jersey Institute of Technology, "Additive Manufacturing in Medicine: Emerging Opportunities and Challenges"	Aron Rosenberg - Histogenics "Biomanufacturing from an Autologous Tissue Engineering Perspective"
5:00 - 6:30 pm	Social Reception	

## Tuesday Oct 24

	<i>Session 3A- Future of Biologics Delivery</i>	<i>Session 3B - Regulatory Science and Policy-Regenerative Medicine Products</i>
9:00 - 9:25 am	Mark Saltzman, Yale Univeristy - "Polymer Nanoparticles for Intracellular and Targeted Delivery of Drugs and Biologics"	Carolyn Yong, FDA - "Regulatory Considerations for Cell-Based Regenerative Medicine Product Development"
9:25 - 9:50 am	Warren Ruder, University of Pittsburgh - "Biomaterials Approaches to in situ Manufacturing of Biologics"	Michael Drues, Vascular Sciences - "Conducting Effective FDA Pre-Sub Meetings: Tell, Don't Ask... Lead, Don't Follow!"
9:50 - 10:15 am	Biju Parekkadan – Rutgers University, "Cell Therapy Meets Drug Delivery"	Panel Session
10:15 - 11:30 am	<b>Exhibition and Poster Display</b>	
	<i>Session 4A - Innovative Biomaterials and their Application in Regenerative Medicine</i>	<i>Session 4B - Biomaterials for the Control of Stem Cell Functions and Differentiation</i>
11:30 - 11:55 am	Ali Khademhosseini, Harvard University- "Micro and Nanoengineered Hydrogels for Regenerative Engineering and Biomanufacturing"	Jason Wertheim, Northwestern University – “Bioengineering Materials to Tip the Balance Toward Maturation and Function of Stem Cell-Derived Tissues”
11:55 am - 12:10 pm	Lawrence Bonassar, Cornell University - "Collagen-Based Bioinks for Cartilage Printing"	Jo-Anna Reems, University of Utah - "HCT/Ps from the Bench-to-the-Bedside: Overcoming the 'Valley of Death'"
12:10 - 12:25 pm	Mirosława El Fray, Univeristy of Poland - "Electrospun Coiled Fibers from Elastomeric Copolymer Mimicking Heart Muscle Structure"	Yong Mao, Rutgers University - "Cell Type–Specific Extracellular Matrix Guided the Differentiation of Human Mesenchymal Stem Cells in 3D Polymeric Scaffolds"
12:25 - 1:30 pm	<b>Lunch</b>	
	<i>Closing Session: Major Breakthroughs and Challenges</i>	
1:30 - 2:00 pm	Joseph Freeman, Rutgers University - "Functional Scaffolding for Bone Tissue Engineering"	
2:00 - 2:30 pm	Jan Jensen, Trailbio - "Mapping and Controlling Fate Spaces: How to Achieve Process Understanding When Directing Cellular Differentiation"	
2:30 - 3:00 pm	Alex Soto, University of Pittsburgh - "Biofabrication of Autologous Human Hepatocytes: The Engine for Whole Organs"	
3:00 - 3:30 pm	Tom Bollenbach, Advanced Regenerative Manufacturing Institute – “BioFabUSA: A Collective Vision for the Future of Engineered Tissue Manufacturing”	
3:30 - 3:40 pm	Closing Remarks by Joachim Kohn	