

# 6th Annual Regenerative Medicine Essentials: *From the Fundamentals to the Future*

## Course Agenda

### Pre-Course Workshops: Monday, June 10th (concurrent)

9:00am – 12:15pm	Workshop #1: Regenerative Medicine Enabling Technologies: Organoid/Body-on-a-Chip Engineering	Aleks Skardal, PhD & Sean Murphy, PhD WFIRM
	Workshop #2: From Concept to Clinic: Introduction to Translation in Regenerative Medicine	Julie Allickson, PhD WFIRM
	Workshop #3: 3D Bioprinting Basics for Regenerative Medicine	John Jackson, PhD, Sang Jin Lee, PhD, and James Yoo, MD, PhD WFIRM

### Day 1: Monday, June 10th

11:45am – 1:15pm	Arrival and Registration	
1:15pm – 1:30pm	Welcome and Opening Remarks	Joan Schanck, MPA WFIRM
<b>Session 1: Pluripotent Stem Cells and their Progenitors</b>		
1:30pm – 2:15pm	<i>Introduction and Background: Current Concepts and Changing Trends</i>	Anthony Atala, MD WFIRM
2:15pm – 3:00pm	<i>Normal and Neoplastic Stem Cells</i>	Irv Weissman, MD Stanford University
3:00pm – 3:15pm	Refresh and Energize Break with Exhibitors	
3:15pm – 4:00pm	<i>Stem Cells, Basic Biology, Therapeutic and Vehicles for Gene Delivery</i>	Graca Almeida-Porada, MD, PhD WFIRM
4:00pm – 4:20pm	Panel and Attendees Discussion & Brief Closing Remarks	Chair: Dr. Almeida-Porada
4:20pm – 6:00pm	California Fresh Opening Reception (Heavy Hors D'oeuvres and Beer/Wine)	

### Day 2: Tuesday, June 11th

7:45am – 8:30am	Networking and Continental Breakfast	
<b>Session 2: Biomaterials</b>		
8:30am – 9:10am	<i>Essential Biomaterials Science</i>	David Williams, PhD, DSc WFIRM
9:10am – 9:50am	<i>Engineering and Applications of Biomaterials in 3D Printing</i>	John Fisher, PhD University of Maryland/CECT
9:50am – 10:10am	Refresh and Energize Break with Exhibitors	
10:10am – 10:50am	<i>Engineering Porous Scaffolds for Regenerative Medicine</i>	Brendan Harley, DSc University of Illinois
10:50am – 11:30am	<i>Engineering Naturally Derived Hydrogels for Biofabrication Applications</i>	Aleks Skardal, PhD WFIRM
11:30am – 11:50am	Panel and Attendees Discussion	Chair: Dr. Williams
11:50am – 1:15pm	Lunch Break and Exhibits	
11:50am – 1:15pm	Student-Mentor Luncheon Session I: Career Perspectives in Academia and the "Gray" Zone	James Poteracki and Kelsey Willson, WFIRM Pre-doctoral Fellows
<b>Session 3: Enabling Technologies</b>		
1:15pm – 1:55pm	<i>Bioprinting: Enabling Technology for Tissue Engineering &amp; Regenerative Medicine</i>	John Jackson, PhD WFIRM

1:55pm – 2:35pm	<i>Functional Imaging for Regenerative Medicine</i>	Frank Marini, PhD WFIRM
2:35pm – 2:55pm	Refresh and Energize Break with Exhibitors	
2:55pm – 3:35pm	<i>Nano Approaches in Regenerative Medicine</i>	Thomas Webster, PhD Northeastern University
3:35pm – 4:15pm	<i>Genome Editing for Research and Therapeutic Applications</i>	Kiran Musunuru, MD, PhD, MPH, FAHA University of Pennsylvania
4:15pm – 4:40pm	Panel and Attendees Discussion	Chair: Dr. Jackson
4:40pm – 6:00pm	Refresh and Energize Break with Exhibitors	

### Day 3: Wednesday, June 12th

8:00am – 8:45am	Networking and Continental Breakfast	
<b>Session 4: Cell Therapies</b>		
8:45am – 9:25am	<i>Applications of Perinatal Stem Cells and Tissues</i>	Sean Murphy, PhD WFIRM
9:25am – 10:05am	<i>Stem Cell Therapies for Human Heart Disease and Aging</i>	Joshua Hare, MD, FACC, FAHA University of Miami
10:05am – 10:25am	Refresh and Energize Break with Exhibitors	
10:25am – 11:05am	<i>The Microcirculation: Center of the Cardiovascular Repair Universe</i>	Douglas Losordo, MD, FACC, FAHA Caladrius Biosciences
11:00am – 1:00pm	Regenerative Medicine Foundation Board Meeting	Bernie Siegel, JD + RMF Board
11:05am – 11:30am	Panel and Attendees Discussion	Chair: Dr. Murphy
11:30am – 1:00pm	Lunch Break and Exhibits	
12:45pm – 12:55pm	Biological Industries Presentation with Discussion	Deborah Dorcemus, PhD Biological Industries
		
11:30am – 12:45pm	Student-Mentor Luncheon Session II: Career Perspectives in Industry	Andrea Mazzocchi, Adam Jorgensen and Bradford Kuhlman, WFIRM Pre-doctoral Fellows

### Session 5: Tissue Engineered Products & Technologies (TEMPs)

1:00pm – 1:40pm	<i>Considerations for Developing Tissue Engineered &amp; Regenerative Medicine Products</i>	James Yoo, MD, PhD WFIRM
1:40pm – 2:20pm	<i>Engineering Functional Complex Tissues</i>	Laura Niklason, PhD Yale University
2:20pm – 2:40pm	Refresh and Energize Break with Exhibitors	
2:40pm – 3:20pm	TBD	Jennifer Elisseeff, PhD Johns Hopkins
3:20pm – 3:35pm	Panel and Attendees Discussion	Chair: Dr. Yoo
3:35pm – 4:00pm	Refresh and Energize Break with Exhibitors	
4:30pm – 5:15pm	WFIRM "Into the Lab" Tours (Shuttle Service to WFIRM from Course Venue begins 3:45pm)	<i>Tours begin at 4:30pm</i>
5:00pm – 6:30pm	Social Networking with Refreshments (Light Hors D'oeuvres and Beer/Wine)	

### Day 4: Thursday, June 13th

7:45am – 8:25am	Networking and Continental Breakfast	
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## Session 6: Regulatory, Process Development & Biofabrication/Manufacturing

8:25am – 9:05am	<i>Translational Research from Proof-of-Concept to Clinical Trials</i>	Julie Allickson, PhD WFIRM
9:05am – 9:45am	<i>Manufacturing Challenges</i>	Joshua Hunsberger, PhD Regenerative Medicine Manufacturing Society
9:45am – 10:25am	TBD	Prajakta Varadkar, PhD FDA
10:25am – 10:45am	Refresh and Energize Break with Exhibitors	
10:45am – 11:25am	<i>GE Healthcare: Cell and Gene Therapy Strategy</i>	Gary Pigeau, PhD GE Healthcare
11:25am – 11:40am	Panel and Attendees Discussion	Chair: Dr. Allickson
11:40am – 1:10pm	Lunch Break and Exhibits	
12:55pm – 1:05pm	Vitacyte Presentation with Discussion 	Andrew Breite, PhD Vitacyte

## Session 7: Clinical Trials & Bioethics

1:10pm – 1:40pm	<i>RegenMed: The New Disruptor in the World of Clinical Trials</i>	Jennifer Byrne Javara
1:40pm – 2:20pm	<i>Accelerating Regenerative Medicine to the Clinics through the CIRM Partnership Model</i>	Abla Creasy, PhD California Institute of Regenerative Medicine (CIRM)
2:20pm – 2:40pm	Refresh and Energize Break with Exhibitors	
2:40pm – 3:10pm	<i>Research Ethics for Regenerative Medicine: Both Fundamental and Creative</i>	Nancy M. P. King, JD Wake Forest School of Medicine
3:10pm – 3:40pm	Panel and Attendees Discussion	Chair: Nancy King
3:40pm – 4:00pm	Refresh and Energize Break with Exhibitors	

## Session 8: Regenerative Rehabilitation

4:00pm – 4:35pm	<i>Initial Overview of Regenerative Rehab</i>	George Christ, PhD University of Virginia
4:35pm – 5:10pm	<i>Harnessing Nuclear Envelope Mechanobiology of Stem Cells for Regenerative Therapies</i>	Gunes Uzer, PhD Boise State University
5:10pm – 5:45pm	<i>Skeletal Muscle Tissue Engineering and Regenerative Rehabilitation</i>	Ngan Huang, PhD, FAHA Stanford Cardiovascular Institute
5:45pm – 6:00pm	Panel and Attendees Discussion	
6:00pm – 7:15pm	Sonny's BBQ and Social Networking	

## Day 5: Friday, June 14th

8:00am – 8:45am	Networking and Continental Breakfast	
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## Session 9: Commercialization

8:45am – 9:30am	<i>IP 101: Securing IP for Regenerative Medicine</i>	Julie Watson, JD WFIRM
9:30am – 9:50am	Coffee Break	
9:50am – 10:30am	<i>Toward Commercialization: Considerations for Product and Process Development</i>	Aletta Schnitzler, PhD MilliporeSigma

10:30am – 11:10am	<i>Commercial Planning of a Biotechnology Product - The Industry, Company, People and Product</i>	Tim Bertram, PhD InRegen/Twin City Bio
11:10am – 11:30am	<i>Panel and Attendees Discussion</i>	Moderator: Bernie Siegel, JD Regenerative Medicine Foundation
11:30am – 11:45am	Wrap-Up and Concluding Remarks	Joan Schanck, MPA WFIRM

**Post-Course Workshop: Friday, June 14th (concurrent)**

1:15pm – 4:30pm	Workshop #1: Regenerative Medicine Enabling Technologies: Organoid/Body-on-a-Chip Engineering	Aleks Skardal, PhD & Sean Murphy, PhD WFIRM
	Workshop #3: 3D Bioprinting Basics for Regenerative Medicine	John Jackson, PhD, Sang Jin Lee, PhD, and James Yoo, MD, PhD, WFIRM with the Center for Engineering Complex Tissues (CECT)